



# Administrative Package Cover Page

**This file contains the following documents:**

1. Summary of application (in plain language)
    - English
    - Alternative Language (Spanish)
  2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
    - English
    - Alternative Language (Spanish)
  3. Application materials
- 



# Portada de Paquete Administrativo

**Este archivo contiene los siguientes documentos:**

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
  - Inglés
  - Idioma alternativo (español)
2. Primer aviso (NORI, por sus siglas en inglés)
  - Inglés
  - Idioma alternativo (español)
3. Solicitud original

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



## NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN A BENEFICIAL LAND USE PERMIT RENEWAL

**PERMIT NO. WQ0004450000**

**APPLICATION.** K-3 Resources, L.P., 9458 Farm-to-Market Road 362, Pattison, Texas 77423, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew beneficial land use Permit No. WQ0004450000 to authorize the land application of wastewater treatment plant Class B biosolids and water treatment plant residuals for beneficial use on approximately 164.2 acres. The beneficial land use site is located approximately 1.4 miles west of the intersection of Farm-to-Market Road 529 and Farm-to-Market Road 362, near the city of Brookshire, in Waller County, Texas 77423. TCEQ received this application on May 13, 2024. The permit application will be available for viewing and copying at Waller County Courthouse, Joe Kuciemba Annex, 425 Farm-to-Market Road 1488, Hempstead, in Waller County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.98432,29.918021&level=18>

**ALTERNATIVE LANGUAGE NOTICE.** Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

**ADDITIONAL NOTICE.** TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

**PUBLIC COMMENT / PUBLIC MEETING.** You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public



interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

**OPPORTUNITY FOR A CONTESTED CASE HEARING.** After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing. A person who may be affected by the application may request a hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

**TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST:** your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are germane to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit without providing an opportunity for a contested case hearing if certain criteria are met.**

**MAILING LIST.** If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

**INFORMATION AVAILABLE ONLINE.** For details about the status of the application, visit the

Commissioners' Integrated Database at [www.tceq.texas.gov/goto/cid](http://www.tceq.texas.gov/goto/cid). Search the database using the permit number for this application, which is provided at the top of this notice.

**AGENCY CONTACTS AND INFORMATION.** All public comments and requests must be submitted either electronically at <http://www14.tceq.texas.gov/epic/eComment/>, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at [www.tceq.texas.gov/goto/pep](http://www.tceq.texas.gov/goto/pep). Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from K-3 Resources, L.P. at the address stated above or by calling Mr. Andy Drennan at 281-375-5778.

Issuance Date: July 30, 2024

# Comisión de Calidad Ambiental del Estado de Texas



## AVISO DE RECIBIMIENTO DE LA SOLICITUD E INTENCIÓN DE OBTENER UN PERMISO DE USO BENÉFICO DEL SUELO RENOVACIÓN

**PERMISO N.º WQ0004450000**

**SOLICITUD.** K-3 Resources, L.P., 9458 Farm to Market Road 362, Pattison, Texas 77423, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) para renovar permiso de uso benéfico del suelo N.º WQ0004450000 para autorizar la solicitud de tierra de planta de tratamiento de aguas residuales clase B biosólidos, residuos de plantas de tratamiento de aguas para uso benéfico en aproximadamente 164.2 acres. El sitio de uso benéfico del suelo se encuentra 1.4 millas al oeste de la intersección de Farm-to-Market Road 529 y Farm-to-Market Road 362, cerca de la ciudad de Brookshire, en Waller Condado, Texas 77423. La TCEQ recibió esta solicitud el 13 de mayo de 2024. La solicitud de permiso estará disponible para ver y copiar en Palacio de Justicia del Condado de Waller, Anexo Joe Kuciemba, 425 Farm-to-Market Road 1488, Hempstead, en el condado de Waller, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>.

Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no como parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.98432,29.918021&level=18>

**AVISO DE IDIOMA ALTERNATIVO.** Aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/sludge-applications>

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo una revisión técnica de la solicitud. Una vez completada la revisión técnica de la solicitud, el Director Ejecutivo puede preparar un bosquejo del permiso y emitirá una decisión preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar se publicarán y enviarán por correo a aquellos que están en la lista de correo de todo el condado y a aquellos que están en la lista de correo para esta solicitud. Ese aviso contendrá la fecha límite para enviar comentarios públicos.**

**COMENTARIO PÚBLICO / REUNIÓN PÚBLICA.** Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ convocará una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión

pública no es una audiencia de caso impugnado.

**OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO.** Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **A menos que la solicitud se remita directamente para una audiencia de caso impugnado, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los que hayan presentado comentarios públicos y a las personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y para solicitar una audiencia de caso impugnado. Una persona que pueda verse afectada por la solicitud puede solicitar una audiencia.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD:** su nombre, dirección, número de teléfono; nombre del solicitante y número de permiso propuesto; la ubicación y distancia de su propiedad/actividades en relación con la instalación propuesta; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho controvertidas que presente durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/amos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad propuesta; proporcionar la información discutida anteriormente con respecto a la ubicación y distancia del miembro afectado de la instalación o actividad; explicar cómo y por qué el miembro se vería afectado; y explicar cómo los intereses que el grupo busca proteger están relacionados con el propósito del grupo.

Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

La Comisión sólo podrá conceder una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya presentado en sus observaciones oportunas que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios. La TCEQ puede actuar sobre una solicitud para renovar un permiso sin brindar la oportunidad de una audiencia de caso impugnado si se cumplen ciertos criterios.**

**LISTA DE CORREO.** Si envían comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por

correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y/o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

**INFORMACIÓN DISPONIBLE EN LÍNEA.** Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en [www.tceq.texas.gov/goto/cid](http://www.tceq.texas.gov/goto/cid). Busque en la base de datos utilizando el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

**CONTACTOS E INFORMACIÓN DE LA AGENCIA.** Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a <http://www14.tceq.texas.gov/epic/eComment/>, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, se convertirá en parte del registro público de la agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en [www.tceq.texas.gov/goto/pep](http://www.tceq.texas.gov/goto/pep). Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener más información de K-3 Resources, L.P. en la dirección indicada anteriormente o llamando a Andy Drennan al 281-375-5778.

Fecha de emisión: 30 de julio de 2024



Andy Drennan  
K-3 Resources, LP  
9458 FM 362  
Brookshire, TX 77423  
Email: andy@k3bmi.com  
Office: (281) 375-5778

2/16/24

Land Application Team MC150  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

**Re: Renewal**

Water Quality Division,

K-3 Resources LP CN603843426 is applying for a new permit for a previously permitted land application site for Class B Municipal Biosolids and Water Treatment Residuals on approximately 164.2 acres of 236.9 acres total. The site is located 1.4 miles West of the intersection of Farm-to-Market Road 362 and Farm-to-Market Road 529, on the north side of Farm-to-Market Road 529, in Brookshire, Texas Waller County, Texas 77423. This letter contains the application for beneficial use of sewage sludge completed with requested attachments.

To clarify, the purpose of this application is to renew Permit No. WQ0004450000 associated with RN102911898. The site will be 3 reporting fields with boundaries described in further detail in this application.

I will be the primary administrative and technical contact for the application, and the primary contact for the operational processes of this permit. Feel free to contact me at any time.

Sincerely,

A handwritten signature in blue ink, appearing to be 'A. Drennan', is written over the name 'Andy Drennan'.

Andy Drennan

## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



### APPLICATION FOR A PERMIT FOR BENEFICIAL LAND USE OF BIOSOLIDS

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

#### SECTION 1. TYPE OF APPLICATION

- ☐ New (original, site not permitted)
- ☐ New (previously permitted but allowed to expire or canceled)
- ☐ Major Amendment (including renewals with changes to substantive provisions of the permit)
- ☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)
- ☒ Renewal
- ☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

No amendments.

For existing permits:

What is the permit number? WQ000445000

#### SECTION 2. APPLICATION FEE

The application fee varies from \$1,000 to \$5,000 based on the quantity of biosolids to be applied annually. See instructions to determine the appropriate fee.

**Provide your payment information below, for verification of payment**

Check/Money Order Number:



Check/Money Order Amount: 2000

Name Printed on Check: K-3 Resources LP

### SECTION 3. APPLICANT INFORMATION

- A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

K-3 Resources LP

- B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 603843426

- C. What is the contact information for this applicant?

Contact Name: Andy Drennan

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3bmi.com

### SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

- A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

- B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN

- C. What is the contact information for this applicant?

Contact Name:

Mailing Address:

City, State, and Zip Code:

Phone Number: \_ Fax Number:

E-mail Address:

### SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

A. Prefix (Mr., Ms., Miss): Mr.

Application Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3bmi.com

B. Prefix (Mr., Ms., Miss): N/A

Application Contact First and Last Name: N/A

Title: N/A Credentials: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

## SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

A. Prefix (Mr., Ms., Miss): Mr.

Permit Contact First and Last Name: Andy Drennan

Title: COO/ VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3BMI.com

B. Prefix (Mr., Ms., Miss): Mr.

Permit Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: andy@k3bmi.com

## **SECTION 7. BILLING CONTACT INFORMATION**

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

Prefix (Mr., Ms., Miss): Mr.

Billing Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

## **SECTION 8. REPORTING CONTACT INFORMATION**

This is the person that TCEQ will contact if additional information is needed about the annual biosolids land application reports.

Prefix (Mr., Ms., Miss): Mr.

Reporting Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

## **SECTION 9. NOTICE INFORMATION**

### **A. Individual responsible for publishing the notices in the newspaper**

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Company Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

**B. Method for receiving the notice package for the Notice of Receipt and Intent**

☒ E-mail: compliance@k3bmi.com

☐ Fax Number:

☐ Regular Mail:

Mailing Address:

City, State, and Zip Code:

**C. Contact person to be listed in the notice**

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Company Name: K-3 Resource, LP

Phone Number: 281-375-5778

**D. Public viewing location**

If the facility is located in more than one county, a public viewing location for each county must be provided.

Public Building Name: Waller County Courthouse

Physical Address of Building: 425 FM 1488, Suite 112

City: Hempstead County: Waller

Phone Number: 979-826-7711

**E. Bilingual Notice Requirement**

**For new, major amendment, and renewal applications.** This information can be obtained by contacting the bilingual/ESL coordinator at the nearest elementary or middle school.

1. Is a bilingual education program required by the Texas Education Code at the nearest elementary or middle school to the facility or proposed facility?

Yes ☒

No ☐

(If **No**, alternative language notice publication is not required; skip to Section 10. Regulated Entity (Site) Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?  
Yes ☒ No ☐
3. Do the students at these schools attend a bilingual education program at another location?  
Yes ☐ No ☒
4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?  
Yes ☐ No ☒
5. If the answer is yes to 1, 2, 3, or 4, public notice in an alternative language is required. Which language is required by the bilingual program? Spanish

#### F. Public Involvement Plan

Complete the Public Involvement Plan (PIP) Form (TCEQ-20960) for each application for a **new permit** or **major amendment to a permit** and include as an attachment.

Attachment Number: N/A Exempt- Not new permit and no major amendments

### SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: Carl Miller Farms 710084

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 102911898

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?

☒ Yes ☐ No

If YES, skip to D. If NO, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

N/A

D. County where the site is located: Waller

E. Latitude: N 29 55' 02" Longitude: W 95 59' 07"

F. Landowner Information:

Attach an additional sheet if more than one landowner.

Prefix (Mr., Ms., Miss): See attached

First and Last Name:

Organization Name:

Mailing Address:

City, State, and Zip Code:

Phone Number:

**G. County Judge**

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Carbett "Trey" Duhon III

Mailing Address: 425 FM 1488 Suite 112

City, State, and Zip Code: Hempstead, TX 77445

Phone Number: 979-826-7700

Name of County: Waller

**SECTION 11. LAND APPLICATION INFORMATION**

**A.** Provide the anticipated date (MM/DD/YY) of the first application of biosolids after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. 2/1/2025

**B.** The application area is:

- ☐ within the city limit of:
- ☐ within the extraterritorial jurisdiction of:
- ☒ outside the extraterritorial jurisdiction of: Brookshire

**C. Types of Waste**

Identify the types of waste that will be land applied at this site.

- ☒ Wastewater Treatment Plant Class B Biosolids
- ☒ Water Treatment Plant Residuals
- ☐ Domestic Septage

**D. Sources of Biosolids or Residuals**

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

## A. Sources of Biosolids or Residuals

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
HC 26	WQ0011406001	Harris County
HC WCID 92	WQ0010908001	Harris County
Allens Creek - Sealy WWTP	WQ0010276001	Austin County
Rosenberg #1A WWTP	WQ0010607003	Fort Bend County
Treschwig Central D1 WWTF	WQ0011141001	Harris County
FB 30	WQ0012068001	Fort Bend County
Pecan Grove WWTF	WQ0011655001	Fort Bend County
Tomball South	WQ0010616002	Harris County
Waller WWTP	WQ0010310001	Waller County
HC 200	WQ0012294001	Harris County
WHC 7	WQ0012140001	Harris County



Facility Name	Permit Number	Location

**E. Property Acreage**

Total acreage of the entire property, including the application area and buffer zones: 236.9

**F. Application Area Acreage**

Total acreage where the biosolids may be applied, excluding the buffer zones: 164.2

**SECTION 12. MISCELLANEOUS INFORMATION**

**A.** Did any person who was formerly employed by the TCEQ represent your company and get paid for service regarding this application?

Yes ☐ No ☒

If yes, provide the name(s) of the former TCEQ employee(s):

**B.** Is the site located on Indian Lands?

Yes ☐ No ☒

**C.** Is any permanent school fund land affected by this application?

Yes ☐ No ☒

**If yes**, provide the location, foreseeable impacts, and effects this application has on the land(s).

**D.** Delinquent Fees and Penalties:

Do you owe fees to the TCEQ? Yes ☐ No ☒

Do you owe any penalties to the TCEQ? Yes ☐ No ☒

If you answered yes to either of the above questions, provide the amount owed, the type of fee or penalty, and an identifying number.

**SECTION 13. AFFECTED LANDOWNER INFORMATION**

**A.** Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.

### Legend

- Property Boundary
- Buffers
- Application Area
- Field Boundary
- 1/4 mi area

Scale:

0 0.15 0.3mi

29°56'13"N 96°00'46"W

Source- Waller CAD

K-3 Resources LP  
W00004450000 Carl Miller Farms  
*Landowner Map*



WQ0004450000 Carl Miller Farms 710084  
¼ Mi Living Landowners Mailing List:

- 1 Stone Keith & Stacy D  
36076 FM 529 RD Brookshire, TX 77423
- 2 White Wanda Miller  
10720 Bonner Rd Brookshire, TX 77423
- 3 Accurate Inc.  
PO BOX 1296 Taylor, TX 76574-6574
- 4 Garcia Manuel  
4914 Westerdale Dr. Fulshear, TX 77441
- 5 Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln. Katy, TX 77494
- 6 MRO Ventures LP  
4603 Joyce Blvd. Houston, TX 77084
- 7 Miller W A  
34861 FM 529 Brookshire, TX 77423

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln.  
Katy, TX 77494

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln.  
Katy, TX 77494

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln.  
Katy, TX 77494

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln.  
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MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

Attachment Number: 2

- B. Landowner list.** Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: 3

- C. Landowner list media.** Indicate the format of the landowners list.

- ☐ Read/Writeable CD  
☒ 4 sets of mailing labels

- D. Landowner data source.** Provide the source of the landowners' names and mailing addresses. Waller CAD

## **SECTION 14. INSURANCE INFORMATION**

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

### **A. Commercial Liability Insurance**

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: 4

### **B. Environmental Impairment Insurance**

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: 5

## **SECTION 15. MAPS AND ATTACHMENTS**

### **A. TCEQ Core Data Form**

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: 6

### **B. TCEQ Public Involvement Plan Form**

Complete and submit a TCEQ Public Involvement Plan Form (TCEQ-20960) for new and major amendment applications.

Attachment Number: 7 Exempt- Not new and no major amendments

### **C. General Highway (County) Map**

Submit an ORIGINAL General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: 8

# CERTIFICATE OF INSURANCE FOR COMMERCIAL LIABILITY

*Name and address of insurer (herein called the "Insurer"):*

Highpoint Insurance Group, LLC

Nautilus Insurance Company

Lloyds of London/Pantheon Specialty

4300 FM 2351 Road

7233 East Butherus Drive

2 India Street

Friendswood, TX 77546

Scottsdale, AZ 85260

London EC3N2PX, UK

*Name, physical addresses and mailing address of Insured (herein called the "Insured"):*

K-3 Resources, LP

9458 FM 362

Brookshire, TX 77423

## Additional Insured:

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

## Facilities Covered:

(1) #WQ0004450000, Carl Miller Farms 710084: 1.4 miles west of the intersection of FM 529 and FM 362

- Facility address: 34719 FM 529 Road, Brookshire, Texas 77423
- Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

**Nautilus Per Occurrence Limit:** \$3,000,000 **Annual Aggregate Limit:** \$3,000,000

**Policy Number:** SSP-2025469-16 **Effective Date:** 02/26/2024

**Lloyds Per Occurrence Limit:** \$3,000,000 **Annual Aggregate Limit:** \$3,000,000

**Policy Number:** B1881S240420 **Effective Date:** 02/26/2024

The Insurer hereby certifies that it has issued to the Insured a Commercial Liability and Excess Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Commercial Liability and Excess Liability Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Commercial Liability and Excess Liability Insurance) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

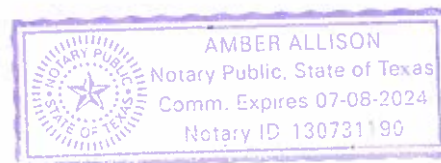
**Authorized Signature of Insurer:**



**Name and Title of Person Signing:**

M. Brandon Smyrl, President

**Signature of Witness or Notary:**



Signed this 22nd day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.



# CERTIFICATE OF INSURANCE FOR ENVIRONMENTAL IMPAIRMENT

*Name and address of insurer (herein called the "Insurer"):*

Highpoint Insurance Group, LLC  
4300 FM 2351 Road  
Friendswood, TX 77546

Nautilus Insurance Company  
7233 East Butherus Drive  
Scottsdale, AZ 85260

*Name, physical addresses and mailing address of Insured (herein called the "Insured"):*

K-3 Resources, LP  
9458 FM 362  
Brookshire, TX 77423

## **Additional Insured:**

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

## **Facilities Covered:**

- (1) #WQ0004450000, Carl Miller Farms 710084: 1.4 miles west of the intersection of FM 529 and FM 362.
- Facility Address: 34719 FM 529 Road, Brookshire, Texas 77423
  - Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

<b>Per Occurrence Limit:</b>	<b>\$3,000,000</b>	<b>Annual Aggregate Limit:</b>	<b>\$3,000,000</b>
<b>Policy Number:</b>	<b>SSP-2025469-16</b>	<b>Effective Date:</b>	<b>02/26/2024</b>

The Insurer hereby certifies that it has issued to the Insured an Environmental Impairment Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Environmental Impairment Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

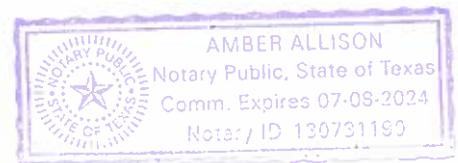
**Authorized Signature of Insurer:**



**Name and Title of Person Signing:**

M. Brandon Smyrl, President

**Signature of Witness or Notary:**



**Signed this 22<sup>nd</sup> day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.**





TCEQ Use Only

# TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)	
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)	
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	3. Regulated Entity Reference Number (if issued)
CN 603843426	RN 102911898

Follow this link to search  
for CN or RN numbers in  
Central Registry\*\*

## SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	9/29/2023	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership			
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
<b>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</b>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
K-3 Resources, LP			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0800593713	17603210539	76-0321053	N/A
11. Type of Customer:	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input checked="" type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator			
<input type="checkbox"/> Occupational Licensee <input checked="" type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:			
15. Mailing Address:			
9458 FM 362			
City	Brookshire	State	TX
ZIP	77423	ZIP + 4	
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		Compliance@k3bmi.com	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	
( 281 ) 375-5778		( ) -	

## SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information	
<b>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).</b>	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Carl Miller Farms 710084	

23. Street Address of the Regulated Entity: (No PO Boxes)							
	City	Brookshire	State	TX	ZIP	77423	ZIP + 4
24. County	Waller						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	1.4 miles West of the intersection of FM529 and FM 362 on the North side of FM 529						
26. Nearest City	Brookshire				State	TX	Nearest ZIP Code
							77423
27. Latitude (N) In Decimal:	29.918021			28. Longitude (W) In Decimal:	-95.984322		
Degrees	Minutes	Seconds		Degrees	Minutes	Seconds	
29	55	02		95	59	07	
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		
139	212		111940		112111		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
Hay and Forageproduction; cattle production							
34. Mailing Address:	34719 FM 529						
	City	Brookshire	State	TX	ZIP	77423	ZIP + 4
35. E-Mail Address:		compliance@k3bmi					
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)			
( 281 ) 375-5778				( ) -			

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

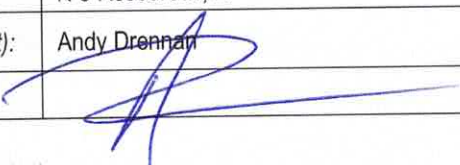
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input checked="" type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

#### SECTION IV: Preparer Information

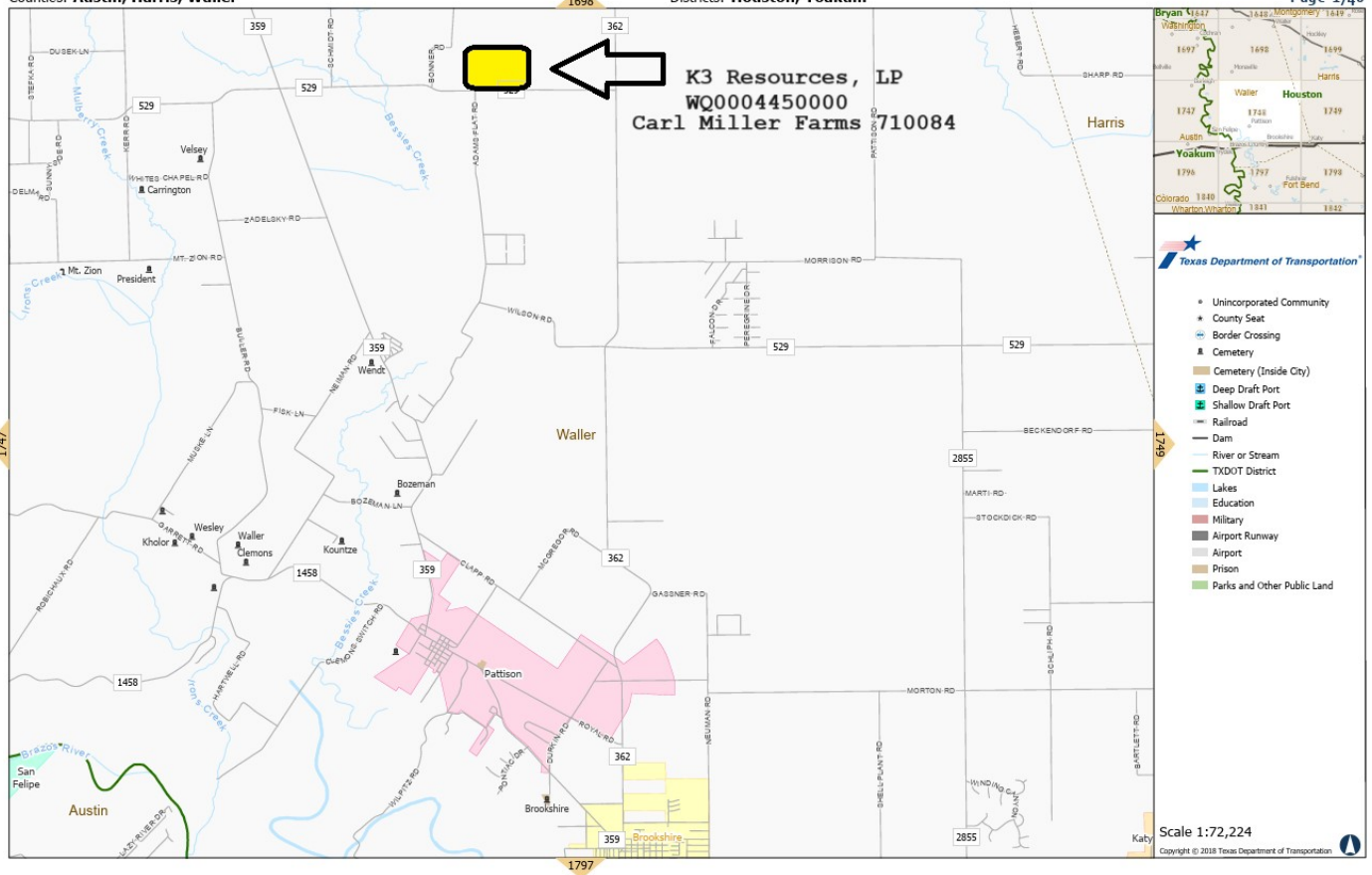
40. Name:	Andy Drennan	41. Title:	COO
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 281 ) 375-5778		( ) -	compliance@k3bmi.com

#### SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	K-3 Resources, LP	Job Title:	Owner
Name (In Print):	Andy Drennan	Phone:	( 281 ) 375- 5778
Signature:		Date:	5-8-2024





**D. United States Geological Survey (USGS) Topographic Map**

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: 9

**E. USDA-NRCS Soil Map**

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: 10

**F. Federal Emergency Management Agency (FEMA) Map**

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and the appropriate legend.

Attachment Number: 11

**G. Nutrient Management Plan**

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: 12

**H. TCEQ Transporters Registration Approval Documents**

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: 13

**I. Soil Analysis**

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: 14

**H. Biosolids or Residuals Analyses**

Attach a laboratory analysis for each source.

Attachment Number: 15

**I. Metal and Nutrient Concentrations (Table 1)**

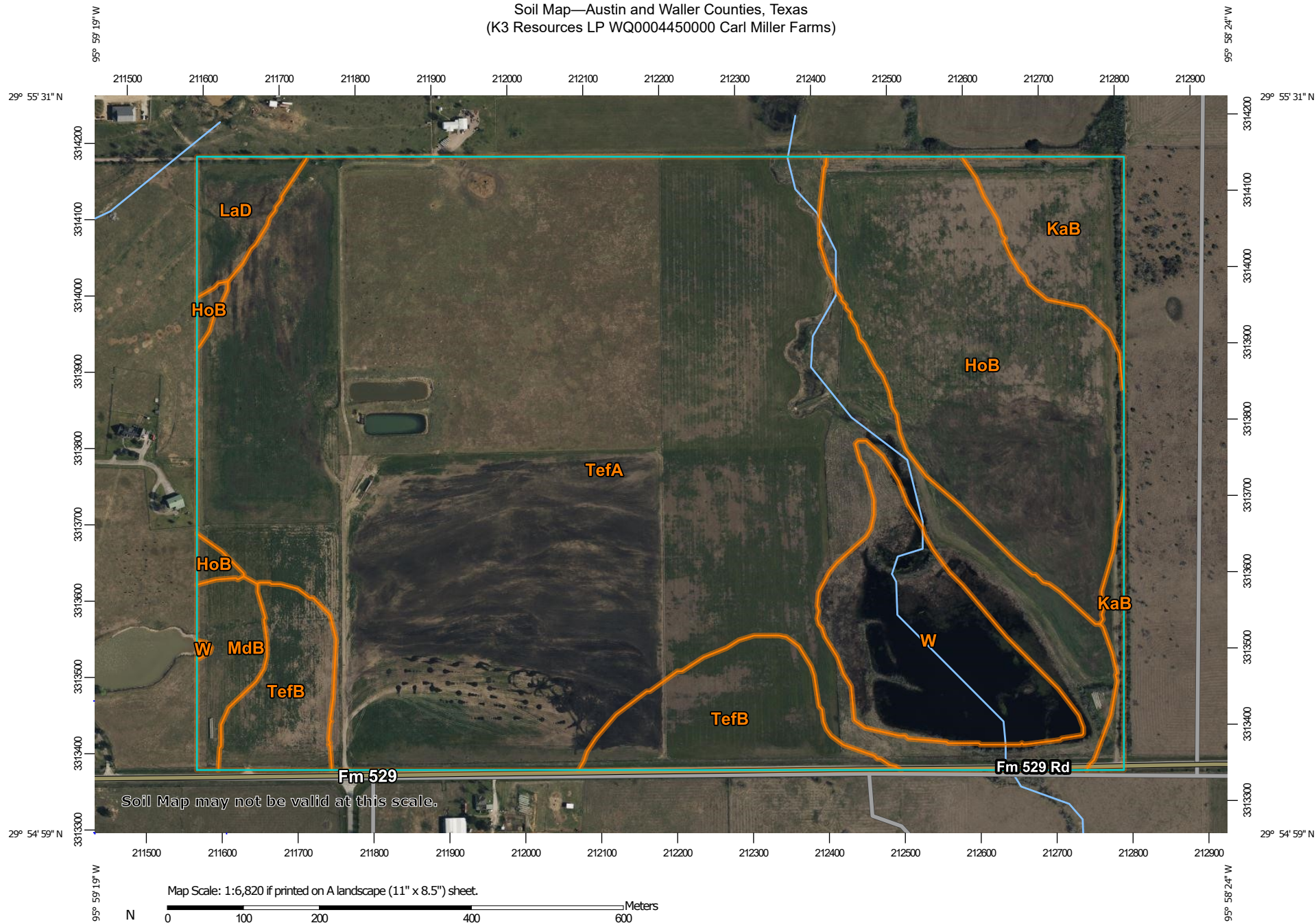
Use the laboratory analyses to complete Table 1 for each source.

**J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)**



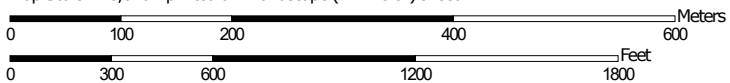


Soil Map—Austin and Waller Counties, Texas  
(K3 Resources LP WQ0004450000 Carl Miller Farms)



Soil Map may not be valid at this scale.

Map Scale: 1:6,820 if printed on A landscape (11" x 8.5") sheet.



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/12/2024  
Page 1 of 3

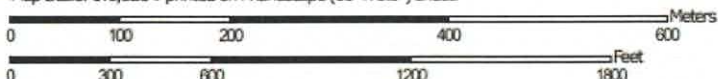


Soil Map—Austin and Waller Counties, Texas  
(K3 Resources LP WQ0004450000 Carl Miller Farms)



Soil Map may not be valid at this scale.

Map Scale: 1:6,820 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84



Natural Resources  
Conservation Service


Web Soil Survey  
National Cooperative Soil Survey

2/12/2024  
Page 1 of 3



## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Austin and Waller Counties, Texas

Survey Area Data: Version 21, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—Mar 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HoB	Hockley loamy fine sand, 1 to 3 percent slopes	35.9	14.7%
KaB	Katy fine sandy loam, 1 to 3 percent slopes	9.9	4.1%
LaD	Lake Charles clay, 3 to 8 percent slopes	4.0	1.6%
MdB	Midfield loam, 0 to 2 percent slopes	4.0	1.6%
TefA	Telf fine sandy loam, 0 to 1 percent slopes	156.2	64.2%
TefB	Telf fine sandy loam, 1 to 3 percent slopes	17.2	7.0%
W	Water	16.3	6.7%
<b>Totals for Area of Interest</b>		<b>243.4</b>	<b>100.0%</b>

## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly localized drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Special Flood Hazard Areas (SFHAs) contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only to lowland or O-17 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Significant Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Significant Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Texas State Plane South central zone (FIPS ZONE 4204). The horizontal datum was NAD83, GRS1980 referenced. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1955 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NCEM, NWSIS  
National Geodetic Survey  
SSAC-3 #2022  
1315 East-West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 715-3242, or visit its website at <http://www.ngs.noaa.gov/>.

Base map information shown on this FIRM was provided in digital format by Waller County and Houston-Galveston Area Council (H-GAC). This dataset was digitized at a scale of at least 1:24,000 from 1:40,000 aerial photography dated 2002 and 2004.

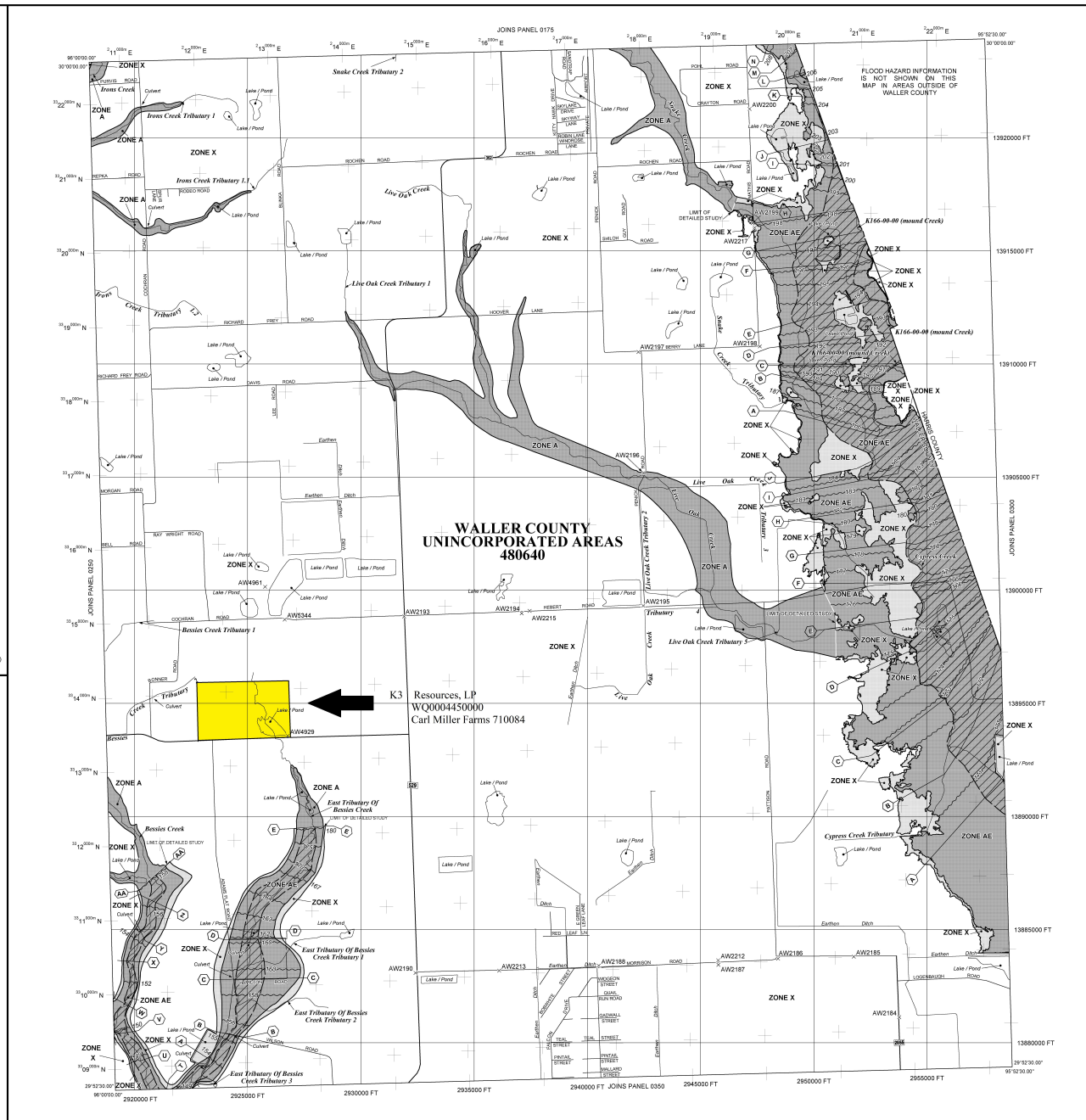
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contain authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov/>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP1, 1-877-336-2675, or visit the FEMA website at <http://www.fema.gov/>.



# Waste Utilization and Nutrient Management Plan

## **Carl Miller Farms 710084**

1.4 Mi W of X FM529 & FM362

Brookshire, TX

979-826-2127

## **TCEQ Permit Number:**

WQ0004450000

## **Owner**

Multiple- Wanda White, Millers

35600 FM 529

Brookshire, TX 77423

979-826-2127

## **Operator**

K-3 Resources, LP

9458 FM 362

Brookshire, TX 77423

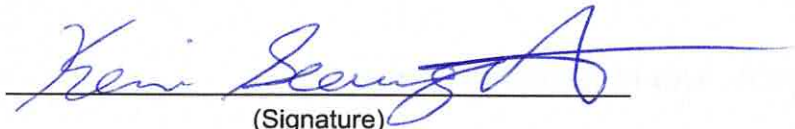
281-375-5778

## **Type of Organic Nutrient Management Plan:**

**Biosolids**

located in Waller County

## **Prepared By:**



(Signature)

Kevin Seawright

Consultant

Certificate Number = TX202311

Expiration Date = January 31, 2025

Erthra Consulting, LLC

3880 FM 3318 Rd

Pattison, TX 77423

832-504-2757

This plan is based on:

590 Organic Nutrient Management Plan V 5.0

5/1/24 11:38 AM

# Waste Utilization and Nutrient Management Plan

## EXECUTIVE SUMMARY:

Permit #:

WQ0004450000

**This Nutrient Management Plan has fields that meet NUPs requirements.**

Based on a the 2023 soil samples from permit WQ000445000 the following are allowed to be applied for the Coastal Bermuda grass with with cool season grazing at 1AU/acre (1000 lbs average) and having 14,100 lbs of dry matter total of hay production:

Field 1- 3.2 Tons/acre

Field 2 - 3.2 Tons/Acre

Field 3 - 3.2 Tons/ Acre

The above amounts are the total Tons/ Acre that can be applied for the 2024 growing season.

These totals are based on the 2023 soil samples and the P index and crop removal of P.

## LOCATION AND PURPOSE OF THE PLAN

Located in :            Waller            County

See plan map for location. The purpose of this plan is to outline the details of land application of biosolids on this land. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Nutrient Management Standard (590) and Waste Utilization Standard (633). When the appropriate land treatment practices needed to reduce runoff are fully implemented and maintained in each field the plan will provide the more comprehensive benefits of minimizing the affects of the land application of biosolids on the air, soil, water, and animal resources in and around the application area. Annual maximum application rates are determined using **Table 2 & 2a** depending on the current soil test P level and P index result for each field receiving biosolids.

**Table 3** provides an estimate of the nutrients removed in the harvested portion of the crop at the planned yield goal for hay, grain, and fiber crops. The values used for grazed crops are the estimated amount of nutrients taken up in the above ground portion of the plants.



# Waste Utilization and Nutrient Management Plan

SIGNATURE PAGE

WQ0004450000

Plan Prepared by:

Kevin Seawright

Date: 5/1/2024

Plan Approved by:

Kevin Seawright

Date: 5/8/24

Producer Signature:

[Signature]

Date: 5-8-2024

The producer's signature indicates that this plan has been discussed with him/her.

If this plan is not signed by the producer, indicate how the plan was provided to the producer.

# Waste Utilization and Nutrient Management Plan

## BIOSOLIDS STORAGE

Permit #:

WQ0004450000

Biosolids may be temporarily stockpiled and covered with durable plastic or other suitable tarp material. Stockpiled biosolids must be sited on suitable soil, geology, and topography to prevent contamination of waterways. Runoff from stockpiled biosolids must be retained on-site by use of berms or other adequate structures where there is potential transport of biosolids into waterways.

## COLLECTING SOIL SAMPLES FOR ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

Collect a composite sample for each field (or area of similar soils and management not more than about 40 acres) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface. Thoroughly mix each set of core samples, and select about a pint of the mixture as the sample for analysis. Label each sample for the field that it represents. Request that the samples be analyzed for nitrate nitrogen, available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity, and pH. Also note on the samples that they are from a biosolids application area.

## SOIL ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

A base line soil analysis will be completed for all areas to be used for biosolids application. The area will be tested every year that biosolids are applied to monitor P build up. If soil test values rise to a higher category, i.e., Low to Medium, contact the local Soil and Water Conservation District or USDA/NRCS office to revise the Waste Utilization Plan and to assist in development of a plan to reduce P in the field(s).

## RECORD KEEPING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the record keeping requirements of your permit. If application area is not regulated by TCEQ:

Detailed records should be maintained for all applications of biosolids for a period of at least 5 years. Records should include date, time, location, and amount of application; they could also include weather conditions, estimated wind speed and direction, etc. Keep all soil and biosolids analyses for the same period.

## OPERATION AND MAINTENANCE

Application equipment should be maintained in good working order, and it should be calibrated at least once a year, so that the desired rate and amount of biosolids will be applied. Any changes in this system must be discussed with Texas Commission on Environmental Quality (TCEQ) prior to their initiation on permitted sites. If your site is not permitted by TCEQ, contact your local NRCS office for updates and assistance.



# Waste Utilization and Nutrient Management Plan

## FILTER STRIPS, ETC

Permit #:

WQ0004450000

Acres of biosolids exclusion zones are noted in **Table 8**. Location of buffers and other exclusion zones are found on the application area map.

Filter Strips will meet the Texas USDA/NRCS standard (393). A minimum 100 foot wide grassed and/or wooded buffer providing at least 70% ground cover will be maintained between the application area and all water courses, ponds, lakes, wetlands, etc.

Riparian Forested Buffers (if used) will meet the Texas USDA/NRCS Standard (391). When planned, a minimum 50 foot wide wooded buffer will be maintained between the application area and the edge of streams, creeks, rivers, etc. to protect water quality, decrease water temperatures, improve aquatic organism habitat, reduce sediment and nutrient loading and reduce bank erosion. Select harvesting within this zone may be done in accordance with guidelines of the Texas Forest Service. If the wooded buffer is only 50 feet wide, there still must be a minimum 100 feet between biosolids application area and stream bank. Another vegetated buffer will be established or maintained to account for the remaining distance. Biosolids will not be applied within 100 feet of any waterway, stream, creek, pond, lake, or wetlands.

The minimum application distance from private or public wells will be 150 feet and 500 feet respectively. Private wells that are located within a field where biosolids are applied and are part of a center pivot irrigation system are exempt from the set-back requirement. The minimum suggested application distance from schools, institutions, and densely populated residential, business, or similar development is 1000 feet.

*Biosolids will not be applied to any buffer areas or any frequently flooded areas, as designated by county soil survey.*

## PLANNED METHOD OF APPLICATION

Biosolids may be surface applied uniformly, injected, or incorporated below the surface of the soil within the root zone of the planned crop. To reduce soil compaction, applications should only be made when soil conditions are favorable. Biosolids should not be spread if heavy rains are forecast to occur within 1 day of a proposed application date.

## ODOR MANAGEMENT

The following steps should be taken when spreading biosolids to reduce problems associated with odor.

1. Avoid spreading biosolids when wind will blow odors toward populated areas.
2. Avoid spreading biosolids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
3. Avoid spreading biosolids near heavily traveled highways.
4. Make biosolids applications in the morning when the air is warming, rather than in the late afternoon.

## BIOSOLIDS TESTING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling and testing requirements of your permit. For applications not permitted by TCEQ, the biosolids need to be analyzed for percent moisture, total nitrogen, total phosphorus, and total potassium.



# Waste Utilization and Nutrient Management Plan

## ESTIMATED NUTRIENT AVAILABILITY

Permit #:

WQ0004450000

Refer to **Table 4** for field specific maximum biosolids application rates. Values in **Table 4** are based on the data in **Table 1**. Application will be based on biosolids analysis. Applying biosolids at **MAXIMUM** rates shown in **Table 4** will result in a more rapid build-up of phosphorus than if applied at lower rates. Phosphorus will build up more rapidly on pastureland than on hayland or cropland, since a much small amount of nutrients are actually removed from the farm by grazing animals. Biosolids may be applied to the same acreage every year, but if the soil test P level exceeds the critical level, or the Texas P Index result changes the rates of application will have to be reduced in accordance with Texas NRCS Nutrient Management Standard (590). This plan is valid only if the annual application of biosolids to the crops listed in **Table 4** does not exceed the per acre rates by more than 10%. If the yield of a crop does not meet the expected goal, the application rate should be adjusted accordingly the following year.

Recommended annual application amounts that are smaller than can physically be applied due to limitation of the application equipment should be doubled and applied to the field every other year. No other P fertilizer may be used the second year, but supplemental N and K<sub>2</sub>O should be applied, if needed. If the P index critical P level is exceeded, it is recommended that no additional biosolids be applied to those fields until the level is reduced. Biosolids applications should be made at appropriate times to meet crop needs, but may be applied at any time as long as soils are not saturated, snow covered, or frozen, and the annual maximum is not exceeded.

## SUPPLEMENTAL NUTRIENTS TO MEET YIELD GOAL

**Table 5** shows the estimated amount of nutrients that are applied in pounds per acre for each field where biosolids are applied using per acre amounts shown in **Table 4**. Supplemental nitrogen (N) and potassium (K<sub>2</sub>O) will be applied to achieve the yield goals noted in **Table 5**, when recommended based on soil analysis and the annual biosolids application does not meet the requirements as detailed in **Table 5**.

Deep soil sampling is recommended on application areas where loamy to clayey soils are present and biosolids have been applied previously. If this deep testing reveals accumulated nitrate N in the root zone, it should be deducted from any supplemental N to be applied to meet the planned yield goal. Sampling in 6 inch increments to a depth of 3 feet is sufficient for most crops.

## ADJUSTMENTS TO APPLY LESS THAN THE MAXIMUM RATES

In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in **Table 6** can be reduced down to the level that does not exceed the amount of solids available. **Table 7** indicates the amount of nutrients provided and, if needed, the supplemental nutrients which must be applied when the application is based on these reduced rates. The amount of supplemental nutrients in **Table 7** are based on the actual amount of waste available rather than the maximum rate that "could" be applied.

The second line from the bottom of **Table 6** on the right has a box that will be "YES" or "NO". When the reduced rates uses all solids to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No", either more acreage is needed on which to apply the solids or the solids will need to be transported off-site.

# PI Index by Field

Printed on: 5/1/24 11:39 AM  
 Client Name: Carl Miller Farms 710084  
 Planner: Kevin Seawright

This plan is based on: Nutrient Management Plan V 5.0  
 Permit #: WQ0004450000  
 Date: 5/1/2024  
 Location: Waller  
 Rainfall: >25.0 inches

LMU or Fields	Crop	Slope	Runoff Curve	Soil Test P Level	Inorganic P <sub>2</sub> O <sub>5</sub> Appl Rate	Organic P <sub>2</sub> O <sub>5</sub> Appl Rate	Inorganic Method & Timing	Organic Method & Timing	Proximity of Appl to Named Stream	Runoff Class	Soil Erosion	Total Index Points	P Runoff Potential	Soil Test Date:
1	Common graze 1 AU/1 ac, RG mod Graze	1-3%	61-L	2	0	6	0	4	0	1	6	19	Medium	12/21/23
2	Common graze 1 AU/1 ac, RG mod Graze	0-1%	74-L	1	0	6	0	4	0	1	6	18	Medium	12/21/23
3	Common graze 1 AU/1 ac, RG mod Graze	0-1%	74-L	1	0	6	0	4	0	1	6	18	Medium	12/21/23

# Waste Utilization and Nutrient Management Plan

**Table 1 - Est. Amount of Waste Allowed for Land Application**

Permit #: **WQ0004450000**

Biosolids Type	Est. Max DRY tons applied annually
<b>Other</b>	<b>708.2</b>

Contact your agronomic consultant, TCEQ or local USDA Natural Resources Conservation Service office, if the application quantities change by more than 10 percent so your plan can be revised.

## Estimated Nutrient Availability Solids

	pounds / yr	pounds / ton	
** N	<b>3,644</b>	<b>5.1</b>	**
P2O5	<b>41,025</b>	<b>57.9</b>	
K2O	<b>5,874</b>	<b>8.3</b>	

**\*\* Effluent Values Based on Analysis**

**\*\* Solids Values Based on Analysis**

## Explanation of Other Biosolids Type:

Class B- aerobically digested meeting Pathogen and Vector requirements

**Default values were used on all fields for plant removal of nutrients and yield levels.**



# Waste Utilization and Nutrient Management Plan

**TABLE 2. A Nutrient Management Plan (NMP) is required where Soil Test P Level <sup>1/</sup> is:**

- less than 200 ppm statewide or
- or < 350 ppm in arid areas <sup>2/</sup> with a named stream > one mile.

P – Index Rating	Maximum TMDL Annual P Application Rate <sup>5/</sup>	Maximum Annual P Application	Maximum Biennial Application Rate
Very Low, Low	Annual Nitrogen (N) Requirement	Annual Nitrogen (N) Requirement	2.0 Times Annual N Requirement
Medium	2.0 Times Annual Crop P Requirement <sup>3/</sup>	2.0 Times Annual Crop P Requirement <sup>3/</sup>	2.0 Times Annual N Requirement
High <sup>5</sup>	1.5 Times Annual Crop P Requirement <sup>3/</sup>	1.5 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement
Very High <sup>5</sup>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement

**TABLE 2a. A Nutrient Utilization Plan (NUP) is required by TCEQ where Soil Test P Level <sup>1/</sup> is:**

- equal to or greater than 200 ppm in non-arid areas <sup>2/</sup> or
- equal to or greater than 350 ppm in arid areas <sup>2/</sup> with a named stream greater than one mile or
- equal to or greater than 200 ppm in arid areas <sup>2/</sup> with a named stream less than one mile.

P – Index Rating	Maximum TMDL Annual P Application Rate <sup>5/</sup>	Maximum Annual P Application	Maximum Biennial Application Rate
Very Low, Low	1.0 Times Annual Crop P Removal <sup>4/</sup>	Annual N Crop Removal	2.0 Times Annual N Removal
Medium	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
High <sup>5</sup>	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.0 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
Very High <sup>5</sup>	0.5 Times Annual Crop P Removal <sup>4/</sup>	0.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal

## Footnotes Applicable to both Tables

- 1/ Soil test P will be Mehlich III by inductively coupled plasma (ICP).
- 2/ Non-arid areas, counties receiving => 25 inches annual rainfall, will use the 200 ppm P level while arid areas, counties receiving < 25 inches of annual rainfall, will use the 350 ppm P level. See map in TX Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, for county designations.
- 3/ Not to exceed the annual nitrogen requirement rate.
- 4/ Not to exceed the annual nitrogen removal rate.
- 5/ When soil test phosphorus levels are ≥ 500 ppm, with a P-Index rating of “High” or “Very High”, there will be no additional application of phosphorus to a CMU or field.

# Waste Utilization and Nutrient Management Plan

**Table 3 - Crop Removal Rates (For Information Only)**

Permit #: **WQ0004450000**

LMU or Field No.	Acres	Crop and P Index Level	TCEQ Plan Type	Actual Crop Analysis or Default	Total Est. N Removal lbs/Ac/Yr	Total Est. P <sub>2</sub> O <sub>5</sub> Removal lbs/Ac/Yr	Total Est. K <sub>2</sub> O Removal lbs/Ac/Yr
1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239
2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239
3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239

**NOTE:** When crops are used for grazing, only a portion of the nutrients used by the crop are removed from the field in the live weight gain of the livestock, the remainder is returned to the land in manure and urine. The book "Southern Forages" estimates the N, P, & K removed in 100 pounds live weight gain as follows: **2.5 lbs N, 0.68 lbs P, 0.15 lbs K**

# Waste Utilization and Nutrient Management Plan

**Table 4 - Maximum Solids Application per Field**

Permit #:

WQ0004450000

Est. Solids Produced Annually (wet tons)	LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P Level (ppm)	Max Annual P2O5 lbs/acre	Annual/Biennial	Maximum Solids Allowable Tons/Acre	Maximum Allowable Application Per field (Tons)
0	1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	250	A	4.3	160
	2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	250	A	4.3	237
	3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	250	A	4.3	311

## WQ0004450000

Plan is based on: 590 Organic Nutrient Management Plan V 5.0



# Waste Utilization and Nutrient Management Plan

**Table 6 - Planned Solids Application Rates**

Permit #: **WQ0004450000**

LMU or Field No.	Double crop	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Max Rate tons/ac	% of Maximum to apply	Planned Solids tons/ac	Planned Solids per field (tons)
1		37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	A	4.3	75	3.2	120.1
2		55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	A	4.3	75	3.2	178.0
3		72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	A	4.3	75	3.2	233.0
</									



## Permit #: WQ0004450000

Nutrients Applied at Planned Rates			
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac
1	17	188	27
2	17	188	27
3	17	188	27

[illegible]

## Waste Utilization and Nutrient Management Plan

### Table 8 - Non Application Areas by Field

Permit #:

WQ0004450000

**FS** = 393-Filter Strip; **FB** = 386-Field Border, **RFB** = 391-Riparian Forest Buffer; **OLEA** = Other Land Excluded Ar

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
1	0.0	0.0			
2	0.0	0.0			
3	0.0	0.0			

**See Application Map for location of buffers**

**Total 590-633 application acres: 164.1**

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
Totals	0.0	0.0	0.0	0.0	0.0

<b>Totals</b>	0.0	0.0	0.0	0.0	0.0
---------------	-----	-----	-----	-----	-----

**Total 590-633 Field Acres: ERROR**

### Table 8 - Non Application Areas by Field

**FS = 393-Filter Strip; FB = 386-Field Border, RFB = 391-Riparian Forest Buffer; OLEA = Other Land Excluded Area**

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded

**Total 590-633 Field Acres: ERROR**

# Waste Utilization and Nutrient Management Data Entries

## General Data

Date : 5/1/2024  
Farmer Name : Carl Miller Farms 710084  
County in which the Land is located : Waller  
Type of Waste Plan : Biosolids  
Is this plan in a TMDL watershed for nutrients?  
Yes or No : No  
Is any field PERMITTED by TCEQ?  
Yes or No : Yes  
Permit # : WQ0004450000

All other entries on General Page appear on the Cover Page

## Biosolids Information

Plan Year :	2024	Explain Other: Class B- aerobically digested meeting Pathogen and Vector requirements
Biosolid Type :	Other	
Analysis Date:	5/15/2023	
Nitrogen % From Biosolids Analysis:	0.40	
Phosphorus % From Biosolids Analysis:	1.58	
Potassium % From Biosolids Analysis:	0.43	
Moisture % From Biosolids Analysis:	20.00	
Does this site generate biosolids?	No	
If B11 = "Yes", How many dry tons/year?		

This plan is based on: rganic Nutrient Management Plan V 5.0

Printed on: 5/1/24 11:40 AM

Permit #: WQ0004450000

Printed on: 5/1/24 11:41 AM

Plan is based on: 590 Organic Nutrient Management Plan

**FS = 393-Filter Strip, FB = 386-Field Border, RFB = 391-Riparian Forest Buffer, OLEA = Other Land Exclusion Areas or non-application areas (i.e. headquarters, freq. flooded areas, wooded areas, water bodies, etc)**

**NOTE: Field Border (FB) is expressed in ACRES on this spreadsheet, but as LINEAR FEET on the CPO.**

[illegible]



Plan is based on: 590 Organic Nutrient Management Plan V 5.0

Permit #: WQ0004450000

[illegible]

## Solids Application Rate Entries

Solids - Set the Planned Application Rates				Permit #:		WQ	
708		Maximum dry tons that may be applied.		Will the planned rates use the Maximum a			
				Dry Tons to be used on-site at plann			
LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Crop P <sub>2</sub> O <sub>5</sub> Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply
1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	125	Annual	4.3	75.0
2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	125	Annual	4.3	75.0
3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	125	Annual	4.3	75.0

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Interim Executive Director*



## Texas Commission on Environmental Quality

*Protecting Texas by Reducing and Preventing Pollution*

July 14, 2023

ANDY DRENNAN  
K-3 RESOURCES INC  
9458 FM 362 RD  
PATTISON, TX 77423-1706

**Re: Sludge Transportation Registration**  
**K3 RESOURCES EL CELOSO RANCH**  
**Registration Number: 22430**

CN603111196

RN111333043

Dear Andy Drennan:

The Section Manager of the Registration and Reporting Section has issued the enclosed registration in accordance with Title 30 of the Texas Administrative Code (30 TAC) Chapter 312 Subsection (§) 312.147 (b). This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Issuance of this authorization is not an acknowledgment that your operation is in full compliance with state and federal rules and regulations. Failure to comply with all rules and regulations may result in enforcement action and/or the revocation of your registration.

Your registration number is required to appear on all tanks and containers used for the collection and transportation of sewage sludge and similar waste. It should also be used on all correspondence regarding your sludge registration.

A copy of your sludge transporter registration, a copy of your application for registration and copies of all amendments to this registration must be available at all times and at all locations where business is being transacted under this registration, including all motorized vehicles operated under this registration.

If you have any questions or comments, please contact the Sludge Transporter Registration Program at (512) 239-6413.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon W. Frazier".

Shannon W. Frazier, Manager  
Registration & Reporting Section

Enclosures

CC: TCEQ Region 12, HOUSTON





Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

*K Keel*

Print Date: July 14, 2023

For the Commission

**Company:** K-3 RESOURCES INC

**Registered Since:** June 25, 2002

**Regulated Entity:** K3 RESOURCES EL CELOSO RANCH

**Expiration Date:** August 31, 2024

**Status:** ACTIVE

**Organization Type:** PARTNERSHIP

**County:** WALLER

**TCEQ Region:** 12

**Transport Waste into Texas:** NO

**Transport Waste out of Texas:** NO

**Physical Address:**

9458 FM 362 RD  
PATTISON, TX 77423-1706

**Contact Information**

**Contact:** ANDY DRENNAN

**Phone:** 281-375-5778

**Fax:**

**E-Mail:** COMPLIANCE@K3BMI.COM

**Mailing Address:**

9458 FM 362 RD  
PATTISON, TX 77423-1706

**Sticker Numbers Issued and Listed below will expire on August 31, 2024:**

05351	05352	05353	05354	05355	05356	05357	05359	05360
05361	05362	05363	05364	05365	05366	05367	05368	05369
05370	05371	05372	05374	05375	05376	05378	05379	05380
05381	05382	05383	05384	05385	05386	05387	05388	05389
05390	05391	05392	05393	05394	05395	05396	05397	05398
05399	05400	05401	05402	06299	06300	06301	06302	06303
06304	06305	01935	01936	01937	01938	01939	01940	01941

**This is your registration** which reflects the information submitted on your application to the Register or Renew as a Transporter of Municipal Sludge(s) and Similar Wastes. Requirements for transportation are provided in accordance with 30 TAC Chapter 312. Issuance of this registration is not acknowledgement by the TCEQ that your operation is in full compliance with the rules and regulations of the TCEQ. Changes or additions referred to this notice require written notification to the TCEQ. Please keep a copy of this registration in every vehicle transporting sludge and all locations where business is being transacted under this registration.

**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

*K. Keel*

Print Date: July 14, 2023

For the Commission

**Disposal Facility Information**

<b>Facility ID</b>	<b>Waste Type</b>	<b>Facility Name</b>	<b>Program</b>
2234D	DS; GS; PP; WW	LIQUID ENVIRONMENTAL SOLUTIONS	SLUDGETR
2270	WT; WW	FORT BEND REGIONAL LANDFILL	MSWDISP
720056	WT; WW	K-3 RESOURCES	SLUDGETR
WQ0004445000	WT; WW	CARL MILLER FARMS	SLUDGE
WQ0004448000	WT; WW	CARL MILLER FARMS 4	SLUDGE
WQ0004450000	WT; WW	CARL MILLER FARMS	SLUDGETR
WQ0004454000	WT; WW	JEFFRIES RANCH	SLUDGE
WQ0004518000	DS; WT; WW	EL CELOSO RANCH	SLUDGE
WQ0004538000	DS; WT; WW	WALLER LIME STABILIZATION FACILITY	SLUDGE
WQ0005222000	WT; WW	ORTEGA RANCH	SLUDGETR
WQ0005248000	WT; WW	CARL MILLER FARMS SOUTH	SLUDGETR
WQ0010137033	DS; PP	STEVEN M CLOUSE WATER RECYCLING CENTER	WWPERMIT
WQ0010543011	DS; PP; WT; WW	WALNUT CREEK WWTP	WWPERMIT

**Waste Types**DS - Septic Tank Waste  
GS - Grease Trap WasteGT - Grit Trap Waste  
PP - Chemical Toilet WasteWT - Water Treatment Residuals  
WW - Sewage Sludge/Biosolids



**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

*K. Keel*

Print Date: July 14, 2023

For the Commission

**Vehicle Information**

<u>License Plate</u>	<u>Year</u>	<u>Vehicle Make</u>	<u>Sticker Issued</u>	<u>Vehicle Capacity</u>
KBP0146	2012	KENWORTH-T800	07/20/2012	30 CY
R091387	2013	KENWORTH-T800 DC	02/18/2013	7000 GAL
R091378	2012	KENWORTH-T800 DC	06/30/2016	7000 GAL
R181153	2015	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251143	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251144	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R091412	2013	KENWORTH-T800 DC	08/10/2018	7000 GAL
R337867	2018	KENWORTH-T800 DC	08/10/2018	7000 GAL
LPP7627	2018	KENWORTH-T800	08/10/2018	30 CY
R374785	2019	KENWORTH-T800 DC	08/10/2018	7000 GAL
R439393	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439394	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439395	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439396	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439397	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439398	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R411512	2019	389 PETERBILT	10/29/2019	7000 GAL
R091413	2013	KENWORTH-T800 DC	10/29/2019	7000 GAL
R091433	2015	KENWORTH-T800 DC	10/29/2019	7000 GAL
R379075	2019	KENWORTH-T880 DC	10/29/2019	7000 GAL
R438741	2019	567 PETERBILT	06/11/2020	7000 GAL
R453415	2020	KENWORTH T-880	06/11/2020	7000 GAL
R411923	2018	KENWORTH T800 DC	03/03/2021	7000 GAL
R419006	2019	389 PETERBILT	06/23/2021	7000 GAL
R091400	2013	KENWORTH-T800 DC	09/01/2021	7000 GAL
R091423	2014	KENWORTH T800 DC	09/01/2021	7000 GAL
R091432	2015	KENWORTH T800 DC	09/01/2021	7000 GAL
R337866	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R361379	2018	KENWORTH T880 DC	09/01/2021	7000 GAL
R374784	2019	KENWORTH-T880 DC	09/01/2021	7000 GAL
R391671	2018	KENWORTH-T800 DC	09/01/2021	7000 GAL
R411922	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R411513	2019	389 PETERBILT	09/01/2021	7000 GAL
R419007	2019	389 PETERBILT	09/27/2021	7000 GAL
R136782	2015	KENWORTH T880	09/27/2021	7000 GAL
BK10489	2005	INTERNATIONAL	06/16/2022	2100 GAL
MVW2388	2019	PETERBILT 348	06/16/2022	2100 GAL
R091422	2014	KENWORTH T800 DC	06/16/2022	7000 GAL
R356898	2018	KENWORTH-T800	06/16/2022	7000 GAL



Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

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Print Date: July 14, 2023

For the Commission

R562815	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562816	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562817	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562818	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R574005	2022	KENWORTH T-880	06/16/2022	7000 GAL
R574006	2022	KENWORTH T-880	06/16/2022	7000 GAL
R582315	2022	KENWORTH W 900	06/16/2022	7000 GAL
R582316	2022	KENWORTH W 900	06/16/2022	7000 GAL
R594541	2022	KENWORTH W 900	06/16/2022	7000 GAL
R604431	2019	KENWORTH T-880	06/16/2022	2100 GAL
RCP1653	2020	KENWORTH T-880	06/16/2022	30 CY
RCP1654	2021	KENWORTH T880	06/16/2022	30 CY
RCP1655	2021	KENWORTH T880	06/16/2022	30 CY
PPP7885	2016	KENWORTH	02/24/2023	7000 GAL
R356897	2018	KENWORTH	02/24/2023	7000 GAL
R379076	2019	KENWORTH	02/24/2023	7000 GAL
R391670	2018	KENWORTH	02/24/2023	7000 GAL
2452J70	2024	PETERBUILT	07/13/2023	7000 GAL
2452J71	2024	PETERBUILT	07/13/2023	7000 GAL
2604R22	2024	PETERBUILT	07/13/2023	7000 GAL
2604T37	2024	PETERBUILT	07/13/2023	7000 GAL
2604U32	2023	PETERBUILT	07/13/2023	7000 GAL
R379077	2019	KENWORTH	07/13/2023	7000 GAL
R361380	2018	KENWORTH	07/13/2023	7000 GAL

\*UOM - Units of Measure



Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

*K. Keel*

Print Date: July 14, 2023

---

For the Commission





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

10 April 2024

K-3 BMI  
Renee Tom  
P.O. Box 2236  
Alvin, TX 77511

### **K-3BMI**

Enclosed are the results of analyses for samples received by the laboratory on 21-Dec-23 15:00. 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 11

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

Sincerely,

A handwritten signature in blue ink that reads 'Laura Bonjonia'.

Laura Bonjonia For Sherry Walker  
Customer Service Representativ



Certificate No: T104704265-22-20



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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
4450 Field 1 0"-6"	23L2469-01	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 1 6"-24"	23L2469-02	Solids	19-Dec-23 12:22	21-Dec-23 15:00
4450 Field 2 0"-6"	23L2469-03	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 2 6"-24"	23L2469-04	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 3 0"-6"	23L2469-05	Solids	19-Dec-23 11:49	21-Dec-23 15:00
4450 Field 3 6"-24"	23L2469-06	Solids	19-Dec-23 11:49	21-Dec-23 15:00

Envirodyne Laboratories, Inc.

A handwritten signature in blue ink that reads 'Laura Bonjonia'.

*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.*

Laura Bonjonia For Sherry Walker, Customer Service Representativ

Page 2 of 11



## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 1  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-01 and -02  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.35	6.51	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	221.37	226.60	Calc	0.01
TKN-N * (mg/kg)	175.25	158.20	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	46.12	68.38	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	46.12	48.84	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	48.85	51.73	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	124.52	112.34	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	248.11	300.00	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	978.78	1,420.00	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	255.83	609.00	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	184.47	195.37	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	219	253	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00219	0.00253	Calc	
ARSENIC * (mg/kg)	2.03	0.66	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	1.16	0.52	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	13.84	11.04	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	57.37	14.55	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	12.51	6.93	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.214	0.089	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	1.03	0.50	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	2.88	1.61	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	2.88	1.20	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	164.00	27.55	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	89.60	86.50	SM 2540 B	



## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 2  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-03 and -04  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.45	6.28	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	195.21	159.90	Calc	0.01
TKN-N * (mg/kg)	143.15	109.30	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	52.06	50.60	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	67.07	54.65	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	71.04	57.88	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	25.03	10.12	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	404.94	614.50	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	1,409.52	1,785.19	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	585.73	1,058.57	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	200.20	202.40	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	345	259	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00345	0.00259	Calc	
ARSENIC * (mg/kg)	6.87	5.04	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	0.97	0.64	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	28.53	15.99	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	2.89	6.72	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	14.42	26.41	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.0165	0.01	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	0.56	<0.25	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	11.41	6.60	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	<0.25	<0.25	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	32.33	36.53	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	88.40	87.60	SM 2540 B	





## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 3  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-05 and -06  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.12	6.37	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	229.95	173.56	Calc	0.01
TKN-N * (mg/kg)	180.04	129.08	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	49.91	44.48	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	53.48	50.58	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	56.64	53.53	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	46.30	43.61	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	442.69	480.99	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	2,209.45	2,318.16	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	637.61	825.75	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	178.25	174.43	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	126	114	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00126	0.00114	Calc	
ARSENIC * (mg/kg)	0.53	2.31	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	1.02	0.87	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	16.67	19.27	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	52.23	31.92	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	13.73	15.52	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.179	0.061	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	0.57	<0.25	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	3.91	5.19	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	0.94	<0.25	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	95.37	67.68	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	85.00	88.20	SM 2540 B	





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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

### Wet Chemistry - Quality Control

### Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L6186 - Inorganics</b>										
<b>Duplicate (B3L6186-DUP1)</b>		<b>Source: 23L1494-05</b>		<b>Prepared &amp; Analyzed: 28-Dec-23</b>						
Total Solids	1.17	0.01	%		1.18			0.851	20	
Volatile Solids	0.910	0.01	"		0.920			1.09	20	
<b>Batch B3L6187 - Inorganics</b>										
<b>Duplicate (B3L6187-DUP1)</b>		<b>Source: 23L2110-08</b>		<b>Prepared &amp; Analyzed: 28-Dec-23</b>						
Total Solids	1.70	0.01	%		1.75			2.90	20	
Volatile Solids	1.28	0.01	"		1.32			3.08	20	
<b>Batch B4A3526 - Inorganics</b>										
<b>Blank (B4A3526-BLK1)</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>								
Conductivity at 25 C	<30	30	umho/cm							
<b>Duplicate (B4A3526-DUP1)</b>		<b>Source: 23L2339-07</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>						
Conductivity at 25 C	106	30	umho/cm		106			0.00	20	
<b>Reference (B4A3526-SRM1)</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>								
Conductivity at 25 C	182		umho/cm	180		101	90-110			
<b>Batch B4B5494 - Inorganics</b>										
<b>Blank (B4B5494-BLK1)</b>		<b>Prepared &amp; Analyzed: 28-Feb-24</b>								
Phosphorus, Total	<0.10	0.10	mg/L							

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sherry Walker, Customer Service Representativ

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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4B5494 - Inorganics</b>										
<b>LCS (B4B5494-BS1)</b>				Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	0.990		mg/L	1.00		99.0	80-120			
<b>Matrix Spike (B4B5494-MS1)</b>				Source: 23L2341-01 Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	1.11	0.10	mg/L	1.00	0.100	101	80-120			
<b>Matrix Spike Dup (B4B5494-MSD1)</b>				Source: 23L2341-01 Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	1.09	0.10	mg/L	1.00	0.100	99.0	80-120	1.82	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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Laura Bonjonia For Sherry Walker, Customer Service Representative

Page 10 of 11



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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

#### Notes and Definitions

P Sample preserved at bench  
H Hold time exceeded  
<a < 100  
< < 0.25  
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

Envirodyne Laboratories, Inc.

A handwritten signature in blue ink that reads 'Laura Bonjonia'.

Laura Bonjonia For Sherry Walker, Customer Service Representativ

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ENVIRODYNE  
LABORATORIES INC

Envirodyne Laboratories, Inc.  
11011 Brooklet Dr, Ste. 230  
Houston, Texas 77099-3543

Phone (281) 568-7880 - Fax (281) 568-8004

Analysis Request and Chain of Custody Record

Name: K-3 BMI

Address: 9458 FM 362

City: Brookshire

Contact: ~~Brookshire~~ Garrett Sinks

Project No. 4450

State: TX

Zip: 77423

Client/Project

Field Sample No. /

Identification

Field 1 0'-6"  
Field 1 0'-24"  
Field 2 0'-6"  
Field 2 0'-24"  
Field 3 0'-6"  
Field 3 0'-24"

Date & Time  
12/19/23 11:17am  
12/19/23 12:22pm  
12/19/23 11:17pm  
12/19/23 11:17pm  
12/19/23 11:49am  
12/19/23 11:49am

Sample Container (Size/Mat'l)

2 gallon Bag

Sample Type (Liquid, Sludge, etc.)

Soil

Preservative

N/A

ANALYSIS REQUESTED

- See Attached Email -  
Lead App  
1-20 ALH

pH  
D.O.  
Temp.  
Analysis Time

Samplers: (Signature)

Garrett Sinks  
Ruben Froebel

Affiliation

Inter Lab

Remarks:

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: Garrett Sinks

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*Pollutants / Nutrients*

June 09, 2023

Municipal District Services, LLC.

Fort Bend County MUD 30

406 W Grand Pkwy S, Ste 260

Katy, TX 77494

RE: FBC 30 Digester

Enclosed are the results of analyses for samples received by the laboratory on 05/05/23 14:06, with Lab ID Number C3E0162. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Mark Bourgeois*

Mark Bourgeois

Special Projects Manager

ENTERED NOV 21 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☒ Metals  
☒ PCB ☒ F/S ☐ & Solid

RECEIVED  
NOV 20 2023  
BY: \_\_\_\_\_





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Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester a  
Client Matrix: Waste

Sample Date & Time: 05/05/2023 09:40

Collector: CSW

Sample Type: Grab

Print Date: 6/9/2023

#### Digester C3E0162-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b>Metals</b>								
Arsenic	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Cadmium	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Chromium	15.5	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Copper	194	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Lead	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Mercury Total	0.280	0.143	mg/Kg dry	A	B3E4445	05/30/2023 09:55	EPA SW 846-7471B	
Molybdenum	8.07	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Nickel	15.1	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Phosphorus, %	1.63	1.00	% dry	A	B3F0520	06/08/2023 11:22	EPA SW 846-6010, 3050	
Potassium, %	0.525	0.357	% dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Selenium	8.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Zinc	786	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	

#### Wet Lab

NH3N %	<2.86	2.86	% dry	A	B3E1800	05/11/2023 14:45	EPA 350.2	
Nitrate-N, %	1.07	0.000143	% dry	N	B3E4290	05/29/2023 14:37	SM 4500 NO3 D	
Percent Solid	1.4	0.1	%	A	B3E1603	05/10/2023 13:02	SM 2540G	
pH-Sludge	4.76		std unit	A	B3E0865	05/09/2023 09:25	EPA SW 846-9040	
TKN %	3.32	0.0714	% dry	N	B3E4288	05/31/2023 10:53	EPA 351.2	



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Fort Bend County MUD 30  
 406 W Grand Pkwy S, Ste 260  
 Katy TX, 77494

**EPA SW 846-9040 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0865 - No Prep</b> Prepared: 05/09/23 09:25										
<b>LCS (B3E0865-BS1)</b>					Analyzed: 5/9/2023 9:25:00AM					
pH-Sludge	6.86		std unit	6.86		100	0-200			
<b>Duplicate (B3E0865-DUP1)</b>					Source: C3D5827-01		Analyzed: 5/9/2023 9:25:00AM			
pH-Sludge	6.92		std unit		6.94			0.289	20	
<b>Batch B3E1603 - No Prep</b> Prepared: 05/10/23 13:02										
<b>Blank (B3E1603-BLK1)</b>					Analyzed: 5/10/2023 1:02:00PM					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1603-DUP1)</b>					Source: C3E2612-02		Analyzed: 5/10/2023 1:02:00PM			
Percent Solid	1.6	0.1	%		1.6			0.00	20	
<b>Batch B3E1800 - No Prep</b> Prepared: 05/11/23 14:45										
<b>Blank (B3E1800-BLK1)</b>					Analyzed: 5/11/2023 2:45:00PM					
NH3N %	ND	0.0400	% wet							
<b>LCS (B3E1800-BS1)</b>					Analyzed: 5/11/2023 2:45:00PM					
NH3N %	2.07		mg/L	2.00		104	80-120			
<b>Matrix Spike (B3E1800-MS1)</b>					Source: C3D5827-01		Analyzed: 5/11/2023 2:45:00PM			
NH3N %	1.08	3.08	% dry	0.385	0.652	111	80-120			
<b>Matrix Spike Dup (B3E1800-MSD1)</b>					Source: C3D5827-01		Analyzed: 5/11/2023 2:45:00PM			
NH3N %	1.09	3.08	% dry	0.385	0.652	115	80-120	1.49	20	
<b>Batch B3E4288 - SM 4500 Norg C</b> Prepared: 05/31/23 10:53										
<b>Blank (B3E4288-BLK1)</b>					Analyzed: 5/31/2023 10:53:00AM					
TKN %	ND	0.00100	% wet							
<b>LCS (B3E4288-BS1)</b>					Analyzed: 5/31/2023 10:53:00AM					
TKN %	9.72		mg/L	10.0		97.2	80-120			
<b>Matrix Spike (B3E4288-MS1)</b>					Source: C3D2550-01		Analyzed: 5/31/2023 10:53:00AM			
TKN %	7.175933	0.0833	% dry	2.08	5.156041	97.0	80-120			
<b>Matrix Spike Dup (B3E4288-MSD1)</b>					Source: C3D2550-01		Analyzed: 5/31/2023 10:53:00AM			
TKN %	6.788192	0.0833	% dry	2.08	5.156041	78.3	80-120	5.55	20	

Eastex Environmental Laboratory - Coldspring

The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
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Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

SM 4500 NO3 D - Quality Control  
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E4290 - No Prep</b> Prepared: 05/29/23 14:37										
<b>Blank (B3E4290-BLK1)</b>					Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3E4290-BS1)</b>					Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.051		mg/L	1.00		105	80-120			
<b>Matrix Spike (B3E4290-MS1)</b>					Source: C3D2550-01 Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.1359	0.000167	% dry	0.417	0.8553666	67.3	80-120			23
<b>Matrix Spike Dup (B3E4290-MSD1)</b>					Source: C3D2550-01 Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.108608	0.000167	% dry	0.417	0.8553666	60.8	80-120	2.43	20	
<b>Batch B3E4445 - SW 846-7471B</b> Prepared: 05/29/23 11:10										
<b>Blank (B3E4445-BLK1)</b>					Analyzed: 5/30/2023 9:32:46AM					
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3E4445-BS1)</b>					Analyzed: 5/30/2023 9:35:17AM					
Mercury, Total	0.0241	0.00200	mg/Kg wet	0.0250		96.4	80-120			
<b>Matrix Spike (B3E4445-MS1)</b>					Source: C3D2550-01 Analyzed: 5/30/2023 9:45:24AM					
Mercury, Total	1.98	0.167	mg/Kg dry	2.08	0.0658	91.6	75-125			
<b>Matrix Spike Dup (B3E4445-MSD1)</b>					Source: C3D2550-01 Analyzed: 5/30/2023 9:47:56AM					
Mercury, Total	2.06	0.167	mg/Kg dry	2.08	0.0658	95.6	75-125	4.13	20	
<b>Batch B3F0516 - SW846-3050</b> Prepared: 06/02/23 15:53										
<b>Blank (B3F0516-BLK1)</b>					Analyzed: 6/7/2023 2:40:27PM					
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3F0516-BS1)</b>					Analyzed: 6/7/2023 2:43:55PM					

Eastex Environmental Laboratory - Coldspring

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Fort Bend County MUD 30  
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**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3F0516 - SW846-3050**

**Prepared: 06/02/23 15:53**

**LCS (B3F0516-BS1)**

**Analyzed: 6/7/2023 2:43:55PM**

Molybdenum	2.45	0.100	mg/Kg wet	2.50		98.0	80-120			
Arsenic	2.29	0.100	mg/Kg wet	2.50		91.6	80-120			
Cadmium	2.4	0.100	mg/Kg wet	2.50		94.0	80-120			
Chromium	2.59	0.100	mg/Kg wet	2.50		104	80-120			
Copper	2.54	0.100	mg/Kg wet	2.50		102	80-120			
Lead	2.39	0.100	mg/Kg wet	2.50		95.6	80-120			
Nickel	2.43	0.100	mg/Kg wet	2.50		97.2	80-120			
Potassium, %	0.0278	0.00500	% wet	0.0250		111	80-120			
Selenium	2.19	0.100	mg/Kg wet	2.50		87.6	80-120			
Zinc	2.53	0.100	mg/Kg wet	2.50		101	80-120			

**Matrix Spike (B3F0516-MS1)**

**Source: C3D2550-01**

**Analyzed: 6/7/2023 2:54:07PM**

Molybdenum	215	8.33	mg/Kg dry	208	6.225	100	75-125			
Arsenic	196	8.33	mg/Kg dry	208	3.34	92.4	75-125			
Cadmium	210	8.33	mg/Kg dry	208	ND	98.8	75-125			
Chromium	225	8.33	mg/Kg dry	208	8.50	104	75-125			
Copper	418	8.33	mg/Kg dry	208	199	105	75-125			
Lead	202	8.33	mg/Kg dry	208	1.73	96.0	75-125			
Nickel	218	8.33	mg/Kg dry	208	8.92	101	75-125			
Potassium, %	2.60	0.417	% dry	2.08	0.504	101	75-125			
Selenium	197	8.33	mg/Kg dry	208	10.8	89.2	75-125			
Zinc	1041.667	8.33	mg/Kg dry	208	850	92.0	75-125			

**Matrix Spike Dup (B3F0516-MSD1)**

**Source: C3D2550-01**

**Analyzed: 6/7/2023 2:57:35PM**

Molybdenum	217.5	8.33	mg/Kg dry	208	6.225	101	75-125	1.16	20	
Arsenic	199	8.33	mg/Kg dry	208	3.34	94.0	75-125	1.69	20	
Cadmium	210	8.33	mg/Kg dry	208	ND	99.6	75-125	0.806	20	
Chromium	228	8.33	mg/Kg dry	208	8.50	105	75-125	1.10	20	
Copper	419	8.33	mg/Kg dry	208	199	106	75-125	0.398	20	
Lead	208	8.33	mg/Kg dry	208	1.73	98.8	75-125	2.85	20	
Nickel	215	8.33	mg/Kg dry	208	8.92	98.9	75-125	1.54	20	
Potassium, %	2.64	0.417	% dry	2.08	0.504	103	75-125	1.59	20	
Selenium	192	8.33	mg/Kg dry	208	10.8	87.2	75-125	2.14	20	
Zinc	1041.667	8.33	mg/Kg dry	208	850	92.0	75-125	0.00	20	

**Batch B3F0520 - SW846-3050**

**Prepared: 06/08/23 10:58**

**Blank (B3F0520-BLK1)**

**Analyzed: 6/8/2023 10:58:21AM**

Eastex Environmental Laboratory - Coldspring

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Fort Bend County MUD 30  
 406 W Grand Pkwy S, Ste 260  
 Katy TX, 77494

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F0520 - SW846-3050</b>		<b>Prepared: 06/08/23 10:58</b>								
<b>Blank (B3F0520-BLK1)</b>		<b>Analyzed: 6/8/2023 10:58:21AM</b>								
Phosphorus, %	ND	1.00	% wet							
<b>LCS (B3F0520-BS1)</b>		<b>Analyzed: 6/8/2023 11:01:50AM</b>								
Phosphorus, %	0.00246	1.00	% wet	0.00252		97.7	80-120			
<b>Matrix Spike (B3F0520-MS1)</b>		<b>Source: C3D2550-01</b>		<b>Analyzed: 6/8/2023 11:12:17AM</b>						
Phosphorus, %	2.07	1.00	% dry	0.420	1.71	86.9	75-125			
<b>Matrix Spike Dup (B3F0520-MSD1)</b>		<b>Source: C3D2550-01</b>		<b>Analyzed: 6/8/2023 11:15:45AM</b>						
Phosphorus, %	2.11	1.00	% dry	0.420	1.71	95.4	75-125	1.72	20	





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Fort Bend County MUD 30  
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Katy TX, 77494

#### Notes and Definitions

23	Spike recovery outside of acceptance limits due to matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 5/18/2023 3:11:28 PM

## JOB DESCRIPTION

For Bend County MUD30

## JOB NUMBER

860-49176-1

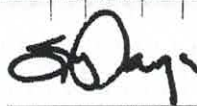
# Eurofins Houston

## 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



Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

Generated  
5/18/2023 3:11:28 PM



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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Job ID: 860-49176-1

Laboratory: Eurofins Houston

### Narrative

Job Narrative  
860-49176-1

### Receipt

The sample was received on 5/11/2023 7:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C

### PCBs

Method 8082A: sludge, weighed to 5 grams FBC 30 Digester a (860-49176-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Percent Solids: 1.6

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1221	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1232	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1242	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1248	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1254	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1260	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		35 - 140	05/16/23 13:01	05/17/23 13:55	1
DCB Decachlorobiphenyl (Surr)	113		37 - 142	05/16/23 13:01	05/17/23 13:55	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.4				%			05/16/23 17:06	1
Percent Solids (EPA Moisture)	1.6				%			05/16/23 17:06	1

Eurofins Houston



## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCB1
		(35-140)	(37-142)
860-49176-1	FBC 30 Digester a	78	113
LCS 860-103444/14-A	Lab Control Sample	87	103
LCSD 860-103444/15-A	Lab Control Sample Dup	87	107
MB 860-103444/1-A	Method Blank	82	96

### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-103444/1-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 103444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1221	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1232	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1242	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1248	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1254	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1260	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		35 - 140	05/16/23 13:01	05/17/23 10:33	1
DCB Decachlorobiphenyl (Surr)	96		37 - 142	05/16/23 13:01	05/17/23 10:33	1

Lab Sample ID: LCS 860-103444/14-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 103444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.131		mg/Kg		79	27 - 121
PCB-1260	0.167	0.143		mg/Kg		86	27 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	87		35 - 140
DCB Decachlorobiphenyl (Surr)	103		37 - 142

Lab Sample ID: LCSD 860-103444/15-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 103444

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
PCB-1016	0.167	0.132		mg/Kg		79	27 - 121	1	20
PCB-1260	0.167	0.145		mg/Kg		87	27 - 139	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	87		35 - 140
DCB Decachlorobiphenyl (Surr)	107		37 - 142

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-103533/1

Matrix: Solid

Analysis Batch: 103533

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.01				%			05/16/23 17:06	1
Percent Solids	100.0				%			05/16/23 17:06	1

Eurofins Houston

## QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-49011-B-1 DU  
Matrix: Solid  
Analysis Batch: 103533

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier			RPD	Limit
Percent Moisture	18.3		18.3		%		0	20
Percent Solids	81.7		81.7		%		0	20

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### GC Semi VOA

#### Prep Batch: 103444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	3550C	
MB 860-103444/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-103444/14-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-103444/15-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

#### Analysis Batch: 103519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	8082A	103444
MB 860-103444/1-A	Method Blank	Total/NA	Solid	8082A	103444
LCS 860-103444/14-A	Lab Control Sample	Total/NA	Solid	8082A	103444
LCSD 860-103444/15-A	Lab Control Sample Dup	Total/NA	Solid	8082A	103444

### General Chemistry

#### Analysis Batch: 103533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	Moisture	
MB 860-103533/1	Method Blank	Total/NA	Solid	Moisture	
860-49011-B-1 DU	Duplicate	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			103533	05/16/23 17:06	JM	EET HOU

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Percent Solids: 1.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.06 g	5 mL	103444	05/16/23 13:01	TH	EET HOU
Total/NA	Analysis	8082A		1			103519	05/17/23 13:55	WP	EET HOU

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-49176-1	FBC8r 8s ig sD 180	Solid	05/05/23 09:40	05/11/23 07:20

1

2

3

4

5

6

7

8

9

13





P O. Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email: eastexlab@eastex.net  
Tel. 936 653 3249

5/9/23  
MAD.



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone: 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone: 713-690-4444  
Fax 713-690-5646

**PO 051023J**

### PROJECT NAME

Fort Bend County MUD 30

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
1	5/5/23	9 40 am	FBC 30 Digester a	Grab	C3E0162-01	PCB 8082

### Special Instructions.

☐ See Attached

PCB/MG/KG %SOLIDS



860-49176 Chain of Custody

Temp. 4.9 IR ID: HOU-344  
C/F -0.2  
Corrected Temp: 4.7

Received Iced Y/N Temp \_\_\_\_\_

Released By

Date & Time

Received By

Date & Time

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-49176-1

Login Number: 49176

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	





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Tel: 936 653 3249



F/S

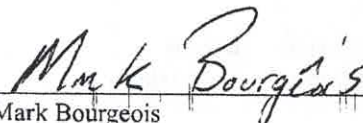
May 19, 2023

Municipal District Services, LLC.  
Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy, TX 77494

RE: **FBC 30 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 05/05/23 14:06, with Lab ID Number C3E0163. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
Mark Bourgeois  
Special Projects Manager



P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O<sub>2</sub>/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester b  
Client Matrix: Waste

Sample Date & Time: 05/05/2023 09:40  
Collector: CSW  
Sample Type: Grab  
Print Date: 5/19/2023

#### Digester C3E0163-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Microbiological Lab</u></b>								
Fecal Coliform IDEXX	61584	1000	mpn/gram	N	B3E1197	05/05/2023 14:25	Colilert 18	
Vector	<0.1	0.1	mg O <sub>2</sub> /hr/g	N	B3E2993	05/05/2023 16:00	TAC 312.83(b)(4)	
<b><u>Wet Lab</u></b>								
Percent Solid	1.4	0.1	%	A	B3E1598	05/10/2023 12:03	SM 2540G	
Volatile Percent Solid	80.8	0.1	%	A	B3E1593	05/11/2023 12:43	SM 2540G	





Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

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### Colilert 18 - Quality Control

#### Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E1197 - No Prep Micro</b> <b>Prepared: 05/05/23 14:25</b>										
<b>Blank (B3E1197-BLK1)</b>					<b>Analyzed: 5/5/2023 2:25:00PM</b>					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3E1197-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/5/2023 2:25:00PM</b>					
Fecal Coliform IDEXX	50400	1000	mpn/gram		61584			20.0	200	
<b>Batch B3E1593 - No Prep</b> <b>Prepared: 05/11/23 12:43</b>										
<b>Blank (B3E1593-BLK1)</b>					<b>Analyzed: 5/11/2023 12:43:00PM</b>					
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1593-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/11/2023 12:43:00PM</b>					
Volatile Percent Solid	80.8	0.1	%		80.8			0.00	10	
<b>Batch B3E1598 - No Prep</b> <b>Prepared: 05/10/23 12:03</b>										
<b>Blank (B3E1598-BLK1)</b>					<b>Analyzed: 5/10/2023 12:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1598-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/10/2023 12:03:00PM</b>					
Percent Solid	1.4	0.1	%		1.4			0.00	20	
<b>Batch B3E2993 - No Prep Micro</b> <b>Prepared: 05/05/23 16:00</b>										
<b>Blank (B3E2993-BLK1)</b>					<b>Analyzed: 5/5/2023 4:00:00PM</b>					
Vector	ND	0.1	mg O <sub>2</sub> /hr/g							
<b>Duplicate (B3E2993-DUP1)</b>					<b>Source: C3E1066-01      Analyzed: 5/5/2023 4:00:00PM</b>					
Vector	1.92	0.1	mg O <sub>2</sub> /hr/g		1.96			2.06	200	



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Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



**EASTEX ENVIRONMENTAL LABORATORY, INC.**  
P.O. Box 1089 • Coldspring, TX 77331 P.O. Box 631375 • Nacogdoches, TX 75963-1375  
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www.eastexlabs.com

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

REPORT TO:

INVOICE TO:

Company: MDS  
Address: on file

Company: same  
Address: same

Remarks:

Attn: on file

Attn: same

Phone#: on file

Phone#: same

Email: on file

INSTRUCTIONS:

P.O. #: on file

C or G: C=Composite G=Grab  
DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT=Other

Sample's Name (print): on file

Container Size: 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL  
6=125mL (4oz) 7=60mL (2 oz) 8=40mL Vial 9=Other

Sample's Signature: on file

Type: P=Plastic G=Glass T=Teflon S=Stainless  
Preservatives: C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z=Zn Acetate  
ST=Sodium Thiosulfate H=HCL O=Other

Project Name: FPC 30

Field Data

Containers

Work Order ID: 350103

Sample ID: 55030410

#

Size

Type

Pres

Temp

Time

Date

Date: 5/5/03

Time: 5:00

Temp: 7

Size: 16

Type: P

Pres: C

Temp: 13

Time: 6

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

Type: G

Pres: C

Temp: 13

Time: 4

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

Type: G

Pres: C

Temp: 13

Time: 4

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

Type: G

Pres: C

Temp: 13

Time: 4

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

Type: G

Pres: C

Temp: 13

Time: 4

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

Type: G

Pres: C

Temp: 13

Time: 4

Date: 5/5/03

Date: 5/5/03

Time: 5:00

Temp: 13

Size: 13

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Temp: 13

Time: 4

Date: 5/5/03







P.O. Box 1089 Coldspring Tx 77331

Website: eastexlabs.com

Email: eastexlab@eastex.net

Tel: 936 653 3249



TCLP  
only

May 16, 2023

Municipal District Services, LLC.

Fort Bend County MUD 30

406 W Grand Pkwy S, Ste 260

Katy, TX 77494

RE: FBC 30 Digester

Enclosed are the results of analyses for samples received by the laboratory on 04/28/23 13:36, with Lab ID Number C3D5824. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Mark Bourgeois*

Mark Bourgeois

Special Projects Manager

ENTERED NOV 21 2023

RECEIVED  
NOV 20 2023  
BY:

- ☒ Sludge Manager
- ☒ Master Spreadsheet
  - ☒ TCLP
  - ☐ Metals
  - ☐ PCB
  - ☐ F/S
  - ☐ & Solid



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Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester c  
Client Matrix: Waste

Sample Date & Time: 04/28/2023 09:35

Collector: PU

Sample Type: Grab

Print Date: 5/16/2023

#### Digester C3D5824-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Wet Lab</u></b>								
Percent Solid	1.2	0.1	%	A	B3E0200	05/02/2023 09:35	SM 2540G	



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Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

SM 2540G - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0200 - No Prep</b>										
<b>Prepared: 05/02/23 09:35</b>										
<b>Blank (B3E0200-BLK1)</b>										
<b>Analyzed: 5/2/2023 9:35:00AM</b>										
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E0200-DUP1)</b>										
<b>Source: C3D6675-01</b>										
<b>Analyzed: 5/2/2023 9:35:00AM</b>										
Percent Solid	1.6	0.1	%		1.6			0.00	20	



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Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 5/11/2023 5:50:09 PM

## JOB DESCRIPTION

For Bend County MUD 30

## JOB NUMBER

860-48518-1

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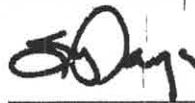
# Eurofins Houston

## 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



Generated  
5/11/2023 5:50:09 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

**Job ID: 860-48518-1**

**Laboratory: Eurofins Houston**

### Narrative

#### Job Narrative 860-48518-1

#### Receipt

The sample was received on 5/2/2023 10:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

#### GC/MS VOA

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

#### GC/MS Semi VOA

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-102484 and analytical batch 860-102521 recovered outside control limits for the following analyte: Pyridine.

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

#### Herbicides

Method 8151A\_MOD: Surrogate recovery for the following sample was outside the upper control limit: FBC 30 Digester c (860-48518-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

#### PCBs

Method 8082A: Liquid sludge sample. Extracted at 1 gram.FBC 30 Digester c (860-48518-1)

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

#### Pesticides

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

#### 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: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Berd County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			05/09/23 17:39	50
Carbon tetrachloride	ND		0.25		mg/L			05/09/23 17:39	50
Chlorobenzene	ND		0.050		mg/L			05/09/23 17:39	50
Chloroform	ND		0.050		mg/L			05/09/23 17:39	50
1,2-Dichloroethane	ND		0.050		mg/L			05/09/23 17:39	50
1,1-Dichloroethene	ND		0.050		mg/L			05/09/23 17:39	50
2-Butanone	ND		2.5		mg/L			05/09/23 17:39	50
Tetrachloroethene	ND		0.050		mg/L			05/09/23 17:39	50
Trichloroethene	ND		0.25		mg/L			05/09/23 17:39	50
Vinyl chloride	ND		0.10		mg/L			05/09/23 17:39	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		05/09/23 17:39	50
4-Bromofluorobenzene (Surr)	100		74 - 124		05/09/23 17:39	50
Dibromofluoromethane (Surr)	96		75 - 131		05/09/23 17:39	50
Toluene-d8 (Surr)	100		80 - 117		05/09/23 17:39	50

## Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4-Dinitrotoluene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2-Methylphenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachlorobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachlorobutadiene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachloroethane	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Nitrobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Pentachlorophenol	ND		0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5
Pyridine	ND	*1	0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5
3 & 4 Methylphenol	ND		0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	49		31 - 132	05/09/23 18:27	05/11/23 02:17	5
2-Fluorobiphenyl (Surr)	67		29 - 112	05/09/23 18:27	05/11/23 02:17	5
2-Fluorophenol (Surr)	55		21 - 114	05/09/23 18:27	05/11/23 02:17	5
Nitrobenzene-d5 (Surr)	70		26 - 110	05/09/23 18:27	05/11/23 02:17	5
p-Terphenyl-d14 (Surr)	72		20 - 141	05/09/23 18:27	05/11/23 02:17	5
Phenol-d5 (Surr)	40		16 - 117	05/09/23 18:27	05/11/23 02:17	5

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0025		mg/L		05/10/23 11:17	05/10/23 16:43	1
Endrin	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Heptachlor	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Heptachlor epoxide	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
gamma-BHC (Lindane)	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Methoxychlor	ND		0.00020		mg/L		05/10/23 11:17	05/10/23 16:43	1
Toxaphene	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 16:43	1

Eurofins Houston



# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

Date Collected: 04/28/23 10:15

Matrix: Solid

Date Received: 05/02/23 10:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	83		15 - 136	05/10/23 11:17	05/10/23 16:43	1
Tetrachloro-m-xylene	75		18 - 126	05/10/23 11:17	05/10/23 16:43	1

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 22:54	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	184	S1+	70 - 162	05/09/23 18:39	05/10/23 22:54	1

## Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Antimony	ND		0.10		mg/L		05/09/23 10:30	05/09/23 17:27	1
Barium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Cadmium	ND		0.025		mg/L		05/09/23 10:30	05/09/23 17:27	1
Chromium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Beryllium	ND		0.020		mg/L		05/09/23 10:30	05/09/23 17:27	1
Lead	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Selenium	ND		0.15		mg/L		05/09/23 10:30	05/09/23 17:27	1
Silver	ND		0.10		mg/L		05/09/23 10:30	05/09/23 17:27	1
Nickel	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:21	05/09/23 19:11	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.8				%			05/08/23 08:28	1
Percent Solids (EPA Moisture)	1.2				%			05/08/23 08:28	1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

Date Collected: 04/28/23 10:15

Matrix: Solid

Date Received: 05/02/23 10:15

Percent Solids: 1.2

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1221	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1232	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1242	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1248	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1254	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1260	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		35 - 140	05/06/23 08:22	05/09/23 01:25	1
DCB Decachlorobiphenyl (Surr)	91		37 - 142	05/06/23 08:22	05/09/23 01:25	1

Eurofins Houston



## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-117)
LCS 860-102314/3	Lab Control Sample	103	100	107	98
LCS 860-102315/1013	Lab Control Sample	96	100	100	102
LCSD 860-102314/4	Lab Control Sample Dup	106	101	109	98
LCSD 860-102315/14	Lab Control Sample Dup	99	98	103	100
MB 860-102314/10	Method Blank	101	105	102	106
MB 860-102315/19	Method Blank	99	101	92	101

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-117)
860-48518-A-1-D MS	Matrix Spike	104	103	110	99
860-48518-1	FBC 30 Digester b	95	100	96	100
LB 860-102319/1-A	Method Blank	102	105	100	105

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-102484/2-A	Lab Control Sample	76	68	43	73	82	30
LCSD 860-102484/3-A	Lab Control Sample Dup	70	59	39	61	76	28
MB 860-102484/1-A	Method Blank	70	74	43	80	81	28

#### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Eurofins Houston

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-48490-A-1-E MS	Matrix Spike	67	61	47	61	76	40
860-48518-1	FBC 30 Digester c	49	67	55	70	72	40
LB 860-102256/1-E	Method Blank	74	67	58	73	77	47

**Surrogate Legend**  
TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (15-136)	TCX1 (18-126)
LCS 860-102544/2-A	Lab Control Sample	80	80
LCSD 860-102544/3-A	Lab Control Sample Dup	90	89
MB 860-102544/1-A	Method Blank	92	91

**Surrogate Legend**  
DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (15-136)	TCX1 (18-126)
860-48518-1	FBC 30 Digester c	83	75
LB 860-102256/1-G	Method Blank	90	90

**Surrogate Legend**  
DCB = DCB Decachlorobiphenyl (Surr)  
TCX = Tetrachloro-m-xylene

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (35-140)	DCB1 (37-142)
860-48444-B-4-B MS	Matrix Spike	66	89
860-48444-B-4-C MSD	Matrix Spike Duplicate	63	90
860-48518-1	FBC 30 Digester c	57	91
LCS 860-102044/2-A	Lab Control Sample	64	76
LCSD 860-102044/3-A	Lab Control Sample Dup	69	80
MB 860-102044/1-A	Method Blank	65	76

**Surrogate Legend**

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Job ID: 860-48518-1

Project/Site: For Bend County MUD 30

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
LCS 860-102500/2-A	Lab Control Sample	125	
LCSD 860-102500/3-A	Lab Control Sample Dup	125	
MB 860-102500/1-A	Method Blank	101	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
860-48518-1	FBC 30 Digester c	184 S1+	
LB 860-102256/1-F	Method Blank	86	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-102314/10

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			05/09/23 10:52	1
Carbon tetrachloride	ND		0.0050		mg/L			05/09/23 10:52	1
Chlorobenzene	ND		0.0010		mg/L			05/09/23 10:52	1
Chloroform	ND		0.0010		mg/L			05/09/23 10:52	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/09/23 10:52	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/09/23 10:52	1
2-Butanone	ND		0.050		mg/L			05/09/23 10:52	1
Tetrachloroethene	ND		0.0010		mg/L			05/09/23 10:52	1
Trichloroethene	ND		0.0050		mg/L			05/09/23 10:52	1
Vinyl chloride	ND		0.0020		mg/L			05/09/23 10:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		63 - 144		05/09/23 10:52	1
4-Bromofluorobenzene (Surr)	105		74 - 124		05/09/23 10:52	1
Dibromofluoromethane (Surr)	102		75 - 131		05/09/23 10:52	1
Toluene-d8 (Surr)	106		80 - 117		05/09/23 10:52	1

Lab Sample ID: LCS 860-102314/3

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0455		mg/L		91	75 - 125
Carbon tetrachloride	0.0500	0.0495		mg/L		99	70 - 130
Chlorobenzene	0.0500	0.0443		mg/L		89	65 - 135
Chloroform	0.0500	0.0463		mg/L		93	70 - 121
1,2-Dichloroethane	0.0500	0.0452		mg/L		90	72 - 130
1,1-Dichloroethene	0.0500	0.0395		mg/L		79	50 - 150
2-Butanone	0.250	0.207		mg/L		83	60 - 140
Tetrachloroethene	0.0500	0.0448		mg/L		90	71 - 125
Trichloroethene	0.0500	0.0449		mg/L		90	75 - 135
Vinyl chloride	0.0500	0.0414		mg/L		83	60 - 140

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	107		75 - 131
Toluene-d8 (Surr)	98		80 - 117

Lab Sample ID: LCSD 860-102314/4

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0434		mg/L		87	75 - 125	5	25
Carbon tetrachloride	0.0500	0.0468		mg/L		94	70 - 130	6	25
Chlorobenzene	0.0500	0.0442		mg/L		88	65 - 135	0	25
Chloroform	0.0500	0.0440		mg/L		88	70 - 121	5	25

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-102314/4

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0431		mg/L		86	72 - 130	5	25
1,1-Dichloroethene	0.0500	0.0394		mg/L		79	50 - 150	0	25
2-Butanone	0.250	0.209		mg/L		84	60 - 140	1	25
Tetrachloroethene	0.0500	0.0420		mg/L		84	71 - 125	6	25
Trichloroethene	0.0500	0.0424		mg/L		85	75 - 135	6	25
Vinyl chloride	0.0500	0.0477		mg/L		95	60 - 140	14	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	109		75 - 131
Toluene-d8 (Surr)	98		80 - 117

Lab Sample ID: MB 860-102315/19

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			05/09/23 13:12	1
Carbon tetrachloride	ND		0.0050		mg/L			05/09/23 13:12	1
Chlorobenzene	ND		0.0010		mg/L			05/09/23 13:12	1
Chloroform	ND		0.0010		mg/L			05/09/23 13:12	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/09/23 13:12	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/09/23 13:12	1
2-Butanone	ND		0.050		mg/L			05/09/23 13:12	1
Tetrachloroethene	ND		0.0010		mg/L			05/09/23 13:12	1
Trichloroethene	ND		0.0050		mg/L			05/09/23 13:12	1
Vinyl chloride	ND		0.0020		mg/L			05/09/23 13:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144		05/09/23 13:12	1
4-Bromofluorobenzene (Surr)	101		74 - 124		05/09/23 13:12	1
Dibromofluoromethane (Surr)	92		75 - 131		05/09/23 13:12	1
Toluene-d8 (Surr)	101		80 - 117		05/09/23 13:12	1

Lab Sample ID: LCS 860-102315/1013

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0513		mg/L		103	75 - 125
Carbon tetrachloride	0.0500	0.0536		mg/L		107	70 - 130
Chlorobenzene	0.0500	0.0501		mg/L		100	65 - 135
Chloroform	0.0500	0.0519		mg/L		104	70 - 121
1,2-Dichloroethane	0.0500	0.0503		mg/L		101	72 - 130
1,1-Dichloroethene	0.0500	0.0515		mg/L		103	50 - 150
2-Butanone	0.250	0.261		mg/L		104	60 - 140
Tetrachloroethene	0.0500	0.0507		mg/L		101	71 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 860-102315/1013

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.0500	0.0538		mg/L		108	75 - 135
Vinyl chloride	0.0500	0.0486		mg/L		97	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	102		80 - 117

Lab Sample ID: LCSD 860-102315/14

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0519		mg/L		104	75 - 125	1	25
Carbon tetrachloride	0.0500	0.0533		mg/L		107	70 - 130	1	25
Chlorobenzene	0.0500	0.0506		mg/L		101	65 - 135	1	25
Chloroform	0.0500	0.0521		mg/L		104	70 - 121	0	25
1,2-Dichloroethane	0.0500	0.0515		mg/L		103	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0521		mg/L		104	50 - 150	1	25
2-Butanone	0.250	0.263		mg/L		105	60 - 140	1	25
Tetrachloroethene	0.0500	0.0509		mg/L		102	71 - 125	0	25
Trichloroethene	0.0500	0.0538		mg/L		108	75 - 135	0	25
Vinyl chloride	0.0500	0.0504		mg/L		101	60 - 140	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	103		75 - 131
Toluene-d8 (Surr)	100		80 - 117

Lab Sample ID: LB 860-102319/1-A

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050		mg/L			05/09/23 10:31	5
Carbon tetrachloride	ND		0.025		mg/L			05/09/23 10:31	5
Chlorobenzene	ND		0.0050		mg/L			05/09/23 10:31	5
Chloroform	ND		0.0050		mg/L			05/09/23 10:31	5
1,2-Dichloroethane	ND		0.0050		mg/L			05/09/23 10:31	5
1,1-Dichloroethene	ND		0.0050		mg/L			05/09/23 10:31	5
2-Butanone	ND		0.25		mg/L			05/09/23 10:31	5
Tetrachloroethene	ND		0.0050		mg/L			05/09/23 10:31	5
Trichloroethene	ND		0.025		mg/L			05/09/23 10:31	5
Vinyl chloride	ND		0.010		mg/L			05/09/23 10:31	5

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LB 860-102319/1-A

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: TCLP

Surrogate	LB LB	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		05/09/23 10:31	5
4-Bromofluorobenzene (Surr)	105		74 - 124		05/09/23 10:31	5
Dibromofluoromethane (Surr)	100		75 - 131		05/09/23 10:31	5
Toluene-d8 (Surr)	105		80 - 117		05/09/23 10:31	5

Lab Sample ID: 860-48516-A-1-D MS

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		2.50	2.13		mg/L		85	66 - 142
Carbon tetrachloride	ND		2.50	2.41		mg/L		96	62 - 125
Chlorobenzene	ND		2.50	2.07		mg/L		83	60 - 133
Chloroform	ND		2.50	2.18		mg/L		87	70 - 130
1,2-Dichloroethane	ND		2.50	2.10		mg/L		84	68 - 127
1,1-Dichloroethene	ND		2.50	1.92		mg/L		77	59 - 172
2-Butanone	ND		12.5	10.2		mg/L		81	60 - 140
Tetrachloroethene	ND		2.50	2.18		mg/L		87	71 - 125
Trichloroethene	ND		2.50	2.11		mg/L		84	62 - 137
Vinyl chloride	ND		2.50	1.99		mg/L		80	60 - 140

Surrogate	MS MS	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		63 - 144
4-Bromofluorobenzene (Surr)	103		74 - 124
Dibromofluoromethane (Surr)	110		75 - 131
Toluene-d8 (Surr)	99		80 - 117

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-102484/1-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102484

Analyte	MB MB	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2-Methylphenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachlorobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachlorobutadiene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachloroethane	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Nitrobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Pentachlorophenol	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1
Pyridine	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1
3 & 4 Methylphenol	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-102484/1-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102484

Surrogate	MB MB %Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	70		31 - 132	05/09/23 18:27	05/10/23 13:32	1
2-Fluorobiphenyl (Surr)	74		29 - 112	05/09/23 18:27	05/10/23 13:32	1
2-Fluorophenol (Surr)	43		21 - 114	05/09/23 18:27	05/10/23 13:32	1
Nitrobenzene-d5 (Surr)	80		26 - 110	05/09/23 18:27	05/10/23 13:32	1
p-Terphenyl-d14 (Surr)	81		20 - 141	05/09/23 18:27	05/10/23 13:32	1
Phenol-d5 (Surr)	28		16 - 117	05/09/23 18:27	05/10/23 13:32	1

Lab Sample ID: LCS 860-102484/2-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike Added	LCS LCS Result Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0256	mg/L		64	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0325	mg/L		81	39 - 125
2,4,6-Trichlorophenol	0.0400	0.0316	mg/L		79	42 - 125
2,4-Dinitrotoluene	0.0400	0.0323	mg/L		81	41 - 128
2-Methylphenol	0.0400	0.0242	mg/L		60	36 - 105
Hexachlorobenzene	0.0400	0.0307	mg/L		77	39 - 128
Hexachlorobutadiene	0.0400	0.0263	mg/L		66	31 - 120
Hexachloroethane	0.0400	0.0246	mg/L		62	37 - 109
Nitrobenzene	0.0400	0.0314	mg/L		79	37 - 114
Pentachlorophenol	0.0400	0.0310	mg/L		78	10 - 137
Pyridine	0.0400	0.00866	mg/L	J	22	5 - 130
3 & 4 Methylphenol	0.0400	0.0217	mg/L		54	35 - 116

Surrogate	LCS LCS %Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	76		31 - 132
2-Fluorobiphenyl (Surr)	68		29 - 112
2-Fluorophenol (Surr)	43		21 - 114
Nitrobenzene-d5 (Surr)	73		26 - 110
p-Terphenyl-d14 (Surr)	82		20 - 141
Phenol-d5 (Surr)	30		16 - 117

Lab Sample ID: LCSD 860-102484/3-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike Added	LCSD LCSD Result Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0400	0.0222	mg/L		55	37 - 111	15	30
2,4,5-Trichlorophenol	0.0400	0.0293	mg/L		73	39 - 125	10	30
2,4,6-Trichlorophenol	0.0400	0.0285	mg/L		71	42 - 125	10	30
2,4-Dinitrotoluene	0.0400	0.0291	mg/L		73	41 - 128	10	30
2-Methylphenol	0.0400	0.0227	mg/L		57	36 - 105	6	30
Hexachlorobenzene	0.0400	0.0275	mg/L		69	39 - 128	11	30
Hexachlorobutadiene	0.0400	0.0234	mg/L		59	31 - 120	12	30
Hexachloroethane	0.0400	0.0221	mg/L		55	37 - 109	11	30
Nitrobenzene	0.0400	0.0258	mg/L		64	37 - 114	20	30
Pentachlorophenol	0.0400	0.0288	mg/L		72	10 - 137	8	40

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-102484/3-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Pyridine	0.0400	0.00493	J *1	mg/L		12	5 - 130	55	50
3 & 4 Methylphenol	0.0400	0.0201		mg/L		50	35 - 116	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	70		31 - 132
2-Fluorobiphenyl (Surr)	59		29 - 112
2-Fluorophenol (Surr)	39		21 - 114
Nitrobenzene-d5 (Surr)	61		26 - 110
p-Terphenyl-d14 (Surr)	76		20 - 141
Phenol-d5 (Surr)	28		16 - 117

Lab Sample ID: LB 860-102256/1-E

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102484

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4-Dinitrotoluene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2-Methylphenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachlorobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachlorobutadiene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachloroethane	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Nitrobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Pentachlorophenol	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1
Pyridine	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1
3 & 4 Methylphenol	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		31 - 132	05/09/23 18:27	05/10/23 22:20	1
2-Fluorobiphenyl (Surr)	67		29 - 112	05/09/23 18:27	05/10/23 22:20	1
2-Fluorophenol (Surr)	58		21 - 114	05/09/23 18:27	05/10/23 22:20	1
Nitrobenzene-d5 (Surr)	73		26 - 110	05/09/23 18:27	05/10/23 22:20	1
p-Terphenyl-d14 (Surr)	77		20 - 141	05/09/23 18:27	05/10/23 22:20	1
Phenol-d5 (Surr)	47		16 - 117	05/09/23 18:27	05/10/23 22:20	1

Lab Sample ID: 860-48490-A-1-E MS

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		55	37 - 111
2,4,5-Trichlorophenol	ND		0.200	0.141		mg/L		70	39 - 125
2,4,6-Trichlorophenol	ND		0.200	0.135		mg/L		68	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.162		mg/L		81	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		57	36 - 105
Hexachlorobenzene	ND		0.200	0.148		mg/L		74	39 - 128

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 860-48490-A-1-E MS

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	ND		0.200	ND		mg/L		60	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		55	37 - 109
Nitrobenzene	ND		0.200	0.131		mg/L		65	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		102	10 - 137
Pyridine	ND	*1	0.200	ND		mg/L		32	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		64	35 - 116

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	67		31 - 132
2-Fluorobiphenyl (Surr)	61		29 - 112
2-Fluorophenol (Surr)	47		21 - 114
Nitrobenzene-d5 (Surr)	61		26 - 110
p-Terphenyl-d14 (Surr)	76		20 - 141
Phenol-d5 (Surr)	40		16 - 117

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-102544/1-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102544

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 14:38	1
Endrin	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Heptachlor	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Heptachlor epoxide	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
gamma-BHC (Lindane)	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Methoxychlor	ND		0.00016		mg/L		05/10/23 11:17	05/10/23 14:38	1
Toxaphene	ND		0.0016		mg/L		05/10/23 11:17	05/10/23 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	92		15 - 136	05/10/23 11:17	05/10/23 14:38	1
Tetrachloro-m-xylene	91		18 - 126	05/10/23 11:17	05/10/23 14:38	1

Lab Sample ID: LCS 860-102544/2-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.000800	0.000800		mg/L		100	14 - 169
Heptachlor	0.000800	0.000752		mg/L		94	10 - 157
Heptachlor epoxide	0.000800	0.000800		mg/L		100	15 - 155
gamma-BHC (Lindane)	0.000800	0.000765		mg/L		96	8 - 157
Methoxychlor	0.000800	0.000775		mg/L		97	25 - 161

Surrogate	%Recovery	Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	80		15 - 136
Tetrachloro-m-xylene	80		18 - 126

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCSD 860-102544/3-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102544

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endrin	0.000800	0.000859		mg/L		107	14 - 169	7	25
Heptachlor	0.000800	0.000824		mg/L		103	10 - 157	9	25
Heptachlor epoxide	0.000800	0.000874		mg/L		109	15 - 155	9	25
gamma-BHC (Lindane)	0.000800	0.000840		mg/L		105	8 - 157	9	25
Methoxychlor	0.000800	0.000848		mg/L		106	25 - 161	9	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	90		15 - 136
Tetrachloro-m-xylene	89		18 - 126

Lab Sample ID: LB 860-102256/1-G

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102544

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0025		mg/L		05/10/23 11:17	05/10/23 14:51	1
Endrin	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Heptachlor	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Heptachlor epoxide	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
gamma-BHC (Lindane)	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Methoxychlor	ND		0.00020		mg/L		05/10/23 11:17	05/10/23 14:51	1
Toxaphene	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 14:51	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	90		15 - 136	05/10/23 11:17	05/10/23 14:51	1
Tetrachloro-m-xylene	90		18 - 126	05/10/23 11:17	05/10/23 14:51	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-102044/1-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1221	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1232	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1242	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1248	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1254	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1260	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		35 - 140	05/06/23 08:22	05/08/23 13:47	1
DCB Decachlorobiphenyl (Surr)	76		37 - 142	05/06/23 08:22	05/08/23 13:47	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 860-102044/2-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.112		mg/Kg		67	27 - 121
PCB-1260	0.167	0.108		mg/Kg		65	27 - 139
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene	64		35 - 140				
DCB Decachlorobiphenyl (Surr)	76		37 - 142				

Lab Sample ID: LCSD 860-102044/3-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
	Added	Result	Qualifier			Limits			
PCB-1016	0.167	0.119		mg/Kg		72	27 - 121	6	20
PCB-1260	0.167	0.112		mg/Kg		67	27 - 139	4	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	69		35 - 140
DCB Decachlorobiphenyl (Surr)	80		37 - 142

Lab Sample ID: 860-48444-B-4-B MS

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Added	Result			Qualifier		
PCB-1016	ND		0.214	0.153		mg/Kg	☒	72		27 - 121
PCB-1260	ND		0.214	0.156		mg/Kg	☒	73		27 - 139
Surrogate	MS	MS	Limits	%Recovery	Qualifier					
Tetrachloro-m-xylene	66		35 - 140							
DCB Decachlorobiphenyl (Surr)	89		37 - 142							

Lab Sample ID: 860-48444-B-4-C MSD

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Added	Result				Qualifier		
PCB-1016	ND		0.214	0.146		mg/Kg	☒	69	27 - 121	5	20
PCB-1260	ND		0.214	0.150		mg/Kg	☒	70	27 - 139	4	20
Surrogate	MSD	MSD	Limits								
	%Recovery	Qualifier									
Tetrachloro-m-xylene	63		35 - 140								
DCB Decachlorobiphenyl (Surr)	90		37 - 142								

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-102500/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 102528						Prep Batch: 102500			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 12:47	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 12:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	101		70 - 162				05/09/23 18:39	05/10/23 12:47	

Lab Sample ID: LCS 860-102500/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 102528				Prep Batch: 102500			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00204	0.00203		mg/L		99	67 - 124
2,4,5-TP (Silvex)	0.00204	0.00199		mg/L		98	66 - 141
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	125		70 - 162				

Lab Sample ID: LCSD 860-102500/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Solid				Prep Type: Total/NA							
Analysis Batch: 102528				Prep Batch: 102500							
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D			0.00203	0.00199		mg/L		98	67 - 124	2	25
2,4,5-TP (Silvex)			0.00203	0.00200		mg/L		98	66 - 141	0	25
Surrogate		LCSD	LCSD								
	%Recovery	Qualifier	Limits								
2,4-Dichlorophenylacetic acid	125		70 - 162								

Lab Sample ID: LB 860-102256/1-F						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 102528						Prep Batch: 102500			
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 15:25	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 15:25	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		70 - 162				05/09/23 18:39	05/10/23 15:25	1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-102374/1-A							Client Sample ID: Method Blank		
Matrix: Solid							Prep Type: Total/NA		
Analysis Batch: 102516							Prep Batch: 102374		
Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Antimony	ND		0.020		mg/L		05/09/23 10:30	05/09/23 15:41	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 860-102374/1-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Cadmium	ND		0.0050		mg/L		05/09/23 10:30	05/09/23 15:41	1
Chromium	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Beryllium	ND		0.0040		mg/L		05/09/23 10:30	05/09/23 15:41	1
Lead	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Selenium	ND		0.030		mg/L		05/09/23 10:30	05/09/23 15:41	1
Silver	ND		0.020		mg/L		05/09/23 10:30	05/09/23 15:41	1
Nickel	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1

Lab Sample ID: LCS 860-102374/2-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	1.02		mg/L		102	80 - 120
Antimony	1.00	0.990		mg/L		99	80 - 120
Barium	1.00	0.963		mg/L		96	80 - 120
Cadmium	1.00	0.982		mg/L		98	80 - 120
Chromium	1.00	1.00		mg/L		100	80 - 120
Beryllium	1.00	0.994		mg/L		99	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120
Selenium	1.00	1.02		mg/L		102	80 - 120
Silver	0.500	0.485		mg/L		97	80 - 120
Nickel	1.00	0.983		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-102374/3-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.00	1.02		mg/L		102	80 - 120	0	20
Antimony	1.00	0.995		mg/L		100	80 - 120	1	20
Barium	1.00	0.966		mg/L		97	80 - 120	0	20
Cadmium	1.00	0.988		mg/L		99	80 - 120	1	20
Chromium	1.00	1.01		mg/L		101	80 - 120	1	20
Beryllium	1.00	1.00		mg/L		100	80 - 120	1	20
Lead	1.00	1.02		mg/L		102	80 - 120	1	20
Selenium	1.00	1.02		mg/L		102	80 - 120	0	20
Silver	0.500	0.487		mg/L		97	80 - 120	0	20
Nickel	1.00	0.989		mg/L		99	80 - 120	1	20

Lab Sample ID: 830-3498-A-2-C MSD ^5  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	1.10		mg/L		110	75 - 125	0	20
Antimony	ND		1.00	1.10		mg/L		110	75 - 125	3	20
Barium	0.055		1.00	1.13		mg/L		107	75 - 125	1	20

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 830-3498-A-2-C MSD ^5

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	ND		1.00	1.08		mg/L		108	75 - 125	1	20
Chromium	ND		1.00	1.11		mg/L		111	75 - 125	2	20
Beryllium	ND		1.00	1.11		mg/L		111	75 - 125	1	20
Lead	ND		1.00	1.11		mg/L		111	75 - 125	1	20
Selenium	ND		1.00	1.10		mg/L		110	75 - 125	1	20
Silver	ND		0.500	0.530		mg/L		106	75 - 125	1	20
Nickel	ND		1.00	1.09		mg/L		109	75 - 125	1	20

Lab Sample ID: LB 860-102256/1-C

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102374

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Antimony	ND		0.10		mg/L		05/09/23 10:30	05/09/23 16:53	1
Barium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Cadmium	ND		0.025		mg/L		05/09/23 10:30	05/09/23 16:53	1
Chromium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Beryllium	ND		0.020		mg/L		05/09/23 10:30	05/09/23 16:53	1
Lead	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Selenium	ND		0.15		mg/L		05/09/23 10:30	05/09/23 16:53	1
Silver	ND		0.10		mg/L		05/09/23 10:30	05/09/23 16:53	1
Nickel	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1

Lab Sample ID: 860-48516-A-1-F MS

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1.00	1.07		mg/L		107	75 - 125
Antimony	ND		1.00	1.04		mg/L		104	75 - 125
Barium	0.050		1.00	1.08		mg/L		103	75 - 125
Cadmium	ND		1.00	1.05		mg/L		105	75 - 125
Chromium	ND		1.00	1.05		mg/L		105	75 - 125
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125
Lead	ND		1.00	1.05		mg/L		105	75 - 125
Selenium	ND		1.00	1.11		mg/L		111	75 - 125
Silver	ND		0.500	0.505		mg/L		101	75 - 125
Nickel	ND		1.00	1.05		mg/L		105	75 - 125

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-102388/1-A

Matrix: Solid

Analysis Batch: 102487

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:20	05/09/23 18:19	1

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 860-102388/2-A  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 102388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00210		mg/L		105	80 - 120

Lab Sample ID: LCSD 860-102388/3-A  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 102388

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00204		mg/L		102	80 - 120	3	20

Lab Sample ID: LB 860-102256/1-D  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:21	05/09/23 18:53	1

Lab Sample ID: 860-48165-A-1-H MS  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00021		0.00200	0.00211		mg/L		95	75 - 125

Lab Sample ID: 860-48165-A-1-I MSD  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Matrix Spike Duplicate  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00021		0.00200	0.00213		mg/L		96	75 - 125	1	20

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-102147/1  
Matrix: Solid  
Analysis Batch: 102147

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.2				%			05/08/23 08:28	1
Percent Solids	99.8				%			05/08/23 08:28	1

Lab Sample ID: 860-48490-B-1 DU  
Matrix: Solid  
Analysis Batch: 102147

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	97.4		97.5		%		0.1	20
Percent Solids	2.6		2.5		%		4	20

Eurofins Houston



## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### GC/MS VOA

#### Analysis Batch: 102314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-102319/1-A	Method Blank	TCLP	Solid	8260C	107319
MB 860-102314/10	Method Blank	Total/NA	Solid	8260C	
LCS 860-102314/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-102314/4	Lab Control Sample Dup	Total/NA	Solid	8260C	
860-48516-A-1-D MS	Matrix Spike	TCLP	Solid	8260C	102319

#### Analysis Batch: 102315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8260C	102319
MB 860-102315/19	Method Blank	Total/NA	Solid	8260C	
LCS 860-102315/1013	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-102315/14	Lab Control Sample Dup	Total/NA	Solid	8260C	

#### Leach Batch: 102319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102319/1-A	Method Blank	TCLP	Solid	1311	
860-48516-A-1-D MS	Matrix Spike	TCLP	Solid	1311	

### GC/MS Semi VOA

#### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-E	Method Blank	TCLP	Solid	1311	
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 102484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3510C	102256
LB 860-102256/1-E	Method Blank	TCLP	Solid	3510C	102256
MB 860-102484/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-102484/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-102484/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	3510C	102256

#### Analysis Batch: 102521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-102256/1-E	Method Blank	TCLP	Solid	8270D	102484
MB 860-102484/1-A	Method Blank	Total/NA	Solid	8270D	102484
LCS 860-102484/2-A	Lab Control Sample	Total/NA	Solid	8270D	102484
LCSD 860-102484/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	102484
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	8270D	102484

#### Analysis Batch: 102631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8270D	102484

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# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## GC Semi VOA

### Prep Batch: 102044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	3550C	
MB 860-102044/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-102044/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-102044/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
860-48444-B-4-B MS	Matrix Spike	Total/NA	Solid	3550C	
860-48444-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

### Analysis Batch: 102105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	8082A	102044
MB 860-102044/1-A	Method Blank	Total/NA	Solid	8082A	102044
LCS 860-102044/2-A	Lab Control Sample	Total/NA	Solid	8082A	102044
LCSD 860-102044/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	102044
860-48444-B-4-B MS	Matrix Spike	Total/NA	Solid	8082A	102044
860-48444-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	102044

### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-F	Method Blank	TCLP	Solid	1311	
LB 860-102256/1-G	Method Blank	TCLP	Solid	1311	

### Analysis Batch: 102466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8081B	102544
LB 860-102256/1-G	Method Blank	TCLP	Solid	8081B	102544
MB 860-102544/1-A	Method Blank	Total/NA	Solid	8081B	102544
LCS 860-102544/2-A	Lab Control Sample	Total/NA	Solid	8081B	102544
LCSD 860-102544/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	102544

### Prep Batch: 102500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3511	102256
LB 860-102256/1-F	Method Blank	TCLP	Solid	3511	102256
MB 860-102500/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-102500/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-102500/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

### Analysis Batch: 102528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8151A	102500
LB 860-102256/1-F	Method Blank	TCLP	Solid	8151A	102500
MB 860-102500/1-A	Method Blank	Total/NA	Solid	8151A	102500
LCS 860-102500/2-A	Lab Control Sample	Total/NA	Solid	8151A	102500
LCSD 860-102500/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	102500

### Prep Batch: 102544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3510C	102256
LB 860-102256/1-G	Method Blank	TCLP	Solid	3510C	102256
MB 860-102544/1-A	Method Blank	Total/NA	Solid	3510C	

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### GC Semi VOA (Continued)

#### Prep Batch: 102544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-102544/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-102544/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

### Metals

#### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-C	Method Blank	TCLP	Solid	1311	
LB 860-102256/1-D	Method Blank	TCLP	Solid	1311	
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	1311	
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 102374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3010A	102256
LB 860-102256/1-C	Method Blank	TCLP	Solid	3010A	102256
MB 860-102374/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-102374/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-102374/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
830-3498-A-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3010A	
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	3010A	102256

#### Prep Batch: 102388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	7470A	102256
LB 860-102256/1-D	Method Blank	TCLP	Solid	7470A	102256
MB 860-102388/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 860-102388/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-102388/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	7470A	102256
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	102256

#### Analysis Batch: 102487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	7470A	102388
LB 860-102256/1-D	Method Blank	TCLP	Solid	7470A	102388
MB 860-102388/1-A	Method Blank	Total/NA	Solid	7470A	102388
LCS 860-102388/2-A	Lab Control Sample	Total/NA	Solid	7470A	102388
LCSD 860-102388/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	102388
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	7470A	102388
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	102388

#### Analysis Batch: 102516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	6010B	102374
LB 860-102256/1-C	Method Blank	TCLP	Solid	6010B	102374
MB 860-102374/1-A	Method Blank	Total/NA	Solid	6010B	102374
LCS 860-102374/2-A	Lab Control Sample	Total/NA	Solid	6010B	102374
LCSD 860-102374/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	102374

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Metals (Continued)

#### Analysis Batch: 102516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-3498-A-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	102374
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	6010B	102374

### General Chemistry

#### Analysis Batch: 102147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	Moisture	
MB 860-102147/1	Method Blank	Total/NA	Solid	Moisture	
860-48490-B-1 DU	Duplicate	Total/NA	Solid	Moisture	

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	102319	05/08/23 14:00	SYB	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	102315	05/09/23 06:00 Completed: 05/09/23 17:39	TTD	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	1 mL	102484	05/09/23 05:00 Completed: 05/09/23 18:27	RC	EET HOU
TCLP	Analysis	8270D		5			102631	05/11/23 02:17	PXS	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	2 mL	102544	05/09/23 05:00 Completed: 05/10/23 11:17	BH	EET HOU
TCLP	Analysis	8081B		1	1 mL	1 mL	102466	05/10/23 16:43	BNW	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3511			50.2 mL	4 mL	102500	05/09/23 05:00 Completed: 05/09/23 18:39	JN	EET HOU
TCLP	Analysis	8151A		1			102528	05/10/23 22:54	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3010A			10 mL	50 mL	102374	05/09/23 05:00 Completed: 05/09/23 10:30	MD	EET HOU
TCLP	Analysis	6010B		1			102516	05/09/23 17:27	JDM	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	102388	05/09/23 05:00 Completed: 05/09/23 11:21	PB	EET HOU
TCLP	Analysis	7470A		1			102487	05/09/23 19:11	SHZ	EET HOU
Total/NA	Analysis	Moisture		1			102147	05/08/23 08:28	JM	EET HOU

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

Percent Solids: 1.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			1.04 g	5 mL	102044	05/06/23 08:22	OH	EET HOU
Total/NA	Analysis	8082A		1			102105	05/09/23 01:25	WP	EET HOU

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

Eurofins Houston

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

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## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-48518-1	FBC 30 Digester c	Solid	04/28/23 10:15	05/02/23 10:15

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P O Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email. eastexlab@eastex.net  
Tel. 936 653 3249

5/1/23  
MBB



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone: 713-690-4444  
Fax. 713-690-5646

**PO 050223C**

### PROJECT NAME

Fort Bend County MUD 30

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
2	4/28/23	9 35 am	FBC 30 Digester c	Grab	C3D5824-01	TCLP SUBCONTRACT
2				Grab		PCB SUBCONTRACT

### Special Instructions:

☐ See Attached

FULL TCLP REPORT, PCB MG/KG %SOLIDS



860-48518 Chain of Custody

Temp: 1.1 IR ID: HOU-344  
C/F -0.2  
Corrected Temp: 0.9

Received Iced Y/N Temp \_\_\_\_\_

Released By [Signature]

Date & Time 5/2/2023 10:15

Received By [Signature] Date & Time 5/2/23 10:15

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-48518-1

Login Number: 48518

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	

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# EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 • Goldspring, TX 77331 P.O. Box 631375 • Nacogdoches, TX 75963-1375  
(936) 653-3249 • (800) 525-0508 (936) 569-8879 • FAX (936) 569-8951

www.eastexlabs.com

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

## REPORT TO:

Company: WDD5

Address:

on file

Attn:

Phone#:

Email:

P.O. #:

Sampler's Name (print):

Sampler's Signature:

Project Name: FBG mwd 30

Work Order ID

ESD5824

Digester

Digester

4/28/03 0935

50

G

1

5

P

C

✓

✓

✓

✓

✓

✓

✓

✓

## INVOICE TO:

Company:

Address: SAME

Remarks:

Attn:

Phone#:

INSTRUCTIONS:

C or G: C=Composite G=Grab

Matrix: DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT=Other

Container Size: 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL

6=125mL (4oz) 7=60mL (2 oz) 8=40mL Vial 9=Other

Type:

P=Plastic G=Glass T=Teflon S=Stainless

Preservatives: C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z=Zn Acetate

ST=Sodium Thiosulfate H=HCL O=Other

## Field Data

## Containers

## ANALYSIS REQUESTED

TCLP, PCB  
1-5012

Relinquished By:

Received By:

Received By and/or Checked In By:

Relinquished By:

Alternate Check In:

Sample Condition Acceptable:

YES / NO

YES

Temp C

5.9

Time

15

Date

4-28-23

Time

1540

\*Thermometer has 0.0 factor and recorded temperature is actual temperature









8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsis.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

October 20, 2023

## LABORATORY REPORT

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20231020084017Sta..

RE: HC MUD 26 - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Stations For Deena Higginbotham  
Director of Client Services



☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☐ Metals  
☐ PCB ☒ F/S ☒



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23J3697-01

Sample Matrix: Solid  
Date Collected: 10/16/2023 10:00  
Collected by: Jose Gutierrez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	148000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	69500	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	125000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	59600	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	75900	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	78200	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	103000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.428	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGJ2584	10/17/2023 09:00	AKA
SM 2550 B	Temperature °C Field	20.9	°C	BGJ2651	10/16/2023 10:00	JG
SM 2540 G	% Solids	1.61 V	%	BGJ2580	10/18/2023 10:00	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.

659200  
÷ 7  
94171.43

pass

< 2 M  
< 1.5



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

## Quality Control

### General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2580 - Percent Solids</b>									
<b>Blank (BGJ2580-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Duplicate (BGJ2580-DUP1)</b>									
% Solids		0.100	%		1.62			0.126	20
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Duplicate (BGJ2580-DUP2)</b>									
% Solids		0.100	%		0.436			0.278	30
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Reference (BGJ2580-SRM1)</b>									
% Solids		0.100	%	0.350		110	78.9-118		



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Quality Control (Continued)

#### Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2544 - FC Quantitray</b>									
<b>Blank (BGJ2544-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 10/16/2023 Analyzed: 10/17/2023									
<b>Duplicate (BGJ2544-DUP1)</b>									
Fecal coliforms		621	MPN/g TS dry		148000			32.2	200
Source: 23J3697-01 Prepared: 10/16/2023 Analyzed: 10/17/2023									





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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



Page 1 of 1

23J3697

Lab PM : Deena Higginbotham	Project Name : HC MUD 26 - Non Potable - Class B Annual			Schedule Comments:	
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Sarricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL				

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J3697-01	Digester		10/16/2022/10:00	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L Na2S2O3 I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 20.9°C

Field Remarks:		Lab Preservation: H2SO4 (Circle and Write ID Below)	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name Joe Gutierrez	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLs	Relinquished To Lab By: (Signature)	Date/Time 10-16-23/15:50	Received for Laboratory By: (Signature) POT	Date/Time 10-16-23	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Spring South

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022



November 17, 2023

## Laboratory Report

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20231117112001AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Aundra Noe For Deena Higginbotham  
Director of Client Services

RECEIVED  
DEC 29 2023  
ENTERED DEC 29 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☐ F/S ☐ & Solid



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23J3698-01  
HC MUD 26 - Sewage Sludge Annual

Sample Matrix: Solid  
Date Collected: 10/16/2023 9:50  
Collected by: Jose Gutierrez

4

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### Organics by GC

SW-8082	PCBs, Total	A	<1.21U	mg/kg (dry wt) dry	10	0.605	1.21	BGJ3644	10/31/2023 04:46	CDG
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	119%	60-140						10/31/2023 04:46	
SW-8082	Surrogate: Decachlorobiphenyl-surr	125%	60-140						10/31/2023 04:46	

#### Metals, Total

SW-6010C	Arsenic	A	6.23	mg/kg dry	1	0.449	2.05	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Cadmium	A	0.969	mg/kg dry	1	0.0532	0.205	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Chromium	A	30.7	mg/kg dry	1	0.768	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Copper	A	240	mg/kg dry	5	1.09	10.2	BGJ3262	10/24/2023 14:45	FAA
SW-7471B	Mercury	A	0.299	mg/kg dry	1	0.0123	0.0245	BGJ4936	10/31/2023 16:22	AKR
SW-6010C	Lead	A	14.3	mg/kg dry	1	0.522	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Molybdenum	A	7.74	mg/kg dry	1	1.03	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Nickel	A	15.1	mg/kg dry	1	0.277	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Potassium	A	2890	mg/kg dry	1	17.6	205	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Selenium	A	13.3	mg/kg dry	1	0.799	2.05	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Total Phosphorus	A	15200	mg/kg dry	5	43.0	1020	BGJ3262	10/24/2023 14:45	FAA
SW-6010C	Zinc	A	1160	mg/kg dry	25	25.7	25.7	BGJ3262	10/24/2023 14:48	FAA

#### General Chemistry

EPA 350.2	Ammonia as N	A	12800	mg/kg dry	1	613	1230	BGJ2578	10/17/2023 09:08	GIW
SW-9056A	Nitrate as N	A	65.5	mg/kg dry	1	3.08	7.69	BGJ2669	10/17/2023 13:03	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	53100	mg/kg dry	1	1510	1510	BGJ3202	10/20/2023 10:59	NAZ
SM 2540 G	% Solids	A	1.62V	%	1	0.100	0.100	BGJ2580	10/18/2023 10:00	JRU

#### TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGJ3041	10/20/2023 15:07	FAA
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGJ2829	10/24/2023 01:27	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BGJ2829	10/24/2023 01:27	KRB
SW-8151	Surrogate: DCAA-surr	137% S	70-130						10/24/2023 01:27	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGK1044	11/07/2023 15:01	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGJ3693	10/28/2023 09:38	ALA

\* A = Accredited, N = Not Accredited or Accreditation not available





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

**Sample Results**  
(Continued)

Client Sample ID: Digester (Continued)  
Lab Sample ID: 23J3698-01  
HC MUD 26 - Sewage Sludge Annual

4

Sample Matrix: Solid  
Date Collected: 10/16/2023 9:50  
Collected by: Jose Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>TCLP (Continued)</b>										
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500C+, U	mg/L	1	3.00E-6	0.500	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		89.0%	60-140					10/28/2023 09:38	
SW-8081	Surrogate: Decachlorobiphenyl-surr		84.7%	60-140					10/28/2023 09:38	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGJ3234	10/20/2023 02:10	krb
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 02:10	krb
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 02:10	krb
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGJ3234	10/20/2023 02:10	krb
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		78.9%	54.6-148					10/20/2023 02:10	
SW-8270	Surrogate: 2-Fluorophenol-surr		80.7%	55-152					10/20/2023 02:10	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		94.8%	52.4-136					10/20/2023 02:10	
SW-8270	Surrogate: Nitrobenzene-d5-surr		90.2%	52-162					10/20/2023 02:10	
SW-8270	Surrogate: Phenol-d5-surr		84.5%	58.7-152					10/20/2023 02:10	
SW-8270	Surrogate: p-Terphenyl-d14-surr		72.7%	51.9-147					10/20/2023 02:10	

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

### Quality Control

#### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3644 - SW-3570</b>										
<b>MB PCB (BGJ3644-BLK1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00604	mg/kg (dry wt) wet	0.00600		101	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00703	mg/kg (dry wt) wet	0.00600		117	60-140		
<b>BS PCB (BGJ3644-BS1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	0.0503		0.0200	mg/kg (dry wt) wet	0.0600		83.8	60-140		
Aroclor-1260 (PCB-1260)	0.0587		0.0200	mg/kg (dry wt) wet	0.0600		97.9	60-140		
PCBs, Total	0.0571		0.0200	mg/kg (dry wt) wet	0.0600		95.2	60-140		
Surrogate: 2,4,5,6			0.00582	mg/kg (dry wt) wet	0.00600		97.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00700	mg/kg (dry wt) wet	0.00600		117	60-140		
<b>BSD PCB (BGJ3644-BSD1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	0.0612		0.0200	mg/kg (dry wt) wet	0.0600		102	60-140	19.6	40
Aroclor-1260 (PCB-1260)	0.0659		0.0200	mg/kg (dry wt) wet	0.0600		110	60-140	11.5	40
PCBs, Total	0.0650		0.0200	mg/kg (dry wt) wet	0.0600		108	60-140	12.9	40
Surrogate: 2,4,5,6			0.00625	mg/kg (dry wt) wet	0.00600		104	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00757	mg/kg (dry wt) wet	0.00600		126	60-140		
<b>23J3144-01 MS (BGJ3644-MS1)</b>										
Source: 23J3144-01 Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	6.12		2.60	mg/kg (dry wt) dry	7.80	<2.60	78.5	60-140		
Aroclor-1260 (PCB-1260)	7.15		2.60	mg/kg (dry wt) dry	7.80	<2.60	91.7	60-140		
PCBs, Total	6.96		2.60	mg/kg (dry wt) dry	7.80	<2.60	89.2	60-140		
Surrogate: 2,4,5,6			0.835	mg/kg (dry wt) dry	0.780		107	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.891	mg/kg (dry wt) dry	0.780		114	60-140		

23J3144-01 MSD (BGJ3644-MSD1)

Source: 23J3144-01

Prepared: 10/23/2023 Analyzed: 10/31/2023

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3644 - SW-3570 (Continued)</b>										
<b>23J3144-01 MSD (BGJ3644-MSD1)</b>			<b>Source: 23J3144-01</b>		Prepared: 10/23/2023 Analyzed: 10/31/2023					
Aroclor-1016 (PCB-1016)	6.86		2.60	mg/kg (dry wt) dry	7.80	<2.60	88.0	60-140	11.4	40
Aroclor-1260 (PCB-1260)	7.76		2.60	mg/kg (dry wt) dry	7.80	<2.60	99.6	60-140	8.23	40
PCBs, Total	7.59		2.60	mg/kg (dry wt) dry	7.80	<2.60	97.4	60-140	8.79	40
<hr/>										
Surrogate: 2,4,5,6			0.870	mg/kg (dry wt) dry	0.780		112	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.928	mg/kg (dry wt) dry	0.780		119	60-140		

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**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3262 - SW-3050 for 6010**

**Blank (BGJ3262-BLK1)**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	<1.81	U	1.81	mg/kg wet					
Cadmium	<0.181	U	0.181	mg/kg wet					
Chromium	<0.906	U	0.906	mg/kg wet					
Copper	<1.81	U	1.81	mg/kg wet					
Lead	<0.906	U	0.906	mg/kg wet					
Molybdenum	<0.906	U	0.906	mg/kg wet					
Nickel	<0.906	U	0.906	mg/kg wet					
Potassium	<181	U	181	mg/kg wet					
Selenium	<1.81	U	1.81	mg/kg wet					
Total Phosphorus	<181	U	181	mg/kg wet					
Zinc	<0.906	U	0.906	mg/kg wet					

**LCS (BGJ3262-BS1)**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	45.7		1.90	mg/kg wet	47.5		96.2	80-120
Cadmium	4.64		0.190	mg/kg wet	4.75		97.6	80-120
Chromium	23.4		0.952	mg/kg wet	23.8		98.5	80-120
Copper	46.2		1.90	mg/kg wet	47.5		97.3	80-120
Lead	23.3		0.952	mg/kg wet	23.8		98.0	80-120
Molybdenum	23.1		0.952	mg/kg wet	23.8		97.2	80-120
Nickel	23.2		0.952	mg/kg wet	23.8		97.7	80-120
Potassium	4600		190	mg/kg wet	4750		96.7	80-120
Selenium	46.0		1.90	mg/kg wet	47.5		96.9	80-120
Total Phosphorus	4640		190	mg/kg wet	4750		97.6	80-120
Zinc	24.8		0.952	mg/kg wet	23.8		104	80-120

**Matrix Spike (BGJ3262-MS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	64.4		2.42	mg/kg dry	60.6	5.76	96.7	75-125
Cadmium	6.82		0.242	mg/kg dry	6.06	0.919	97.4	75-125
Chromium	48.5		1.21	mg/kg dry	30.3	19.8	94.6	75-125
Copper	1480		48.4	mg/kg dry	1270	366	87.2	75-125
Lead	39.9		1.21	mg/kg dry	30.3	11.1	94.9	75-125
Molybdenum	33.1		1.21	mg/kg dry	30.3	5.10	92.5	75-125
Nickel	43.0		1.21	mg/kg dry	30.3	14.6	93.6	75-125
Potassium	8710		242	mg/kg dry	6060	2610	101	75-125
Selenium	69.7		2.42	mg/kg dry	60.6	7.98	102	75-125
Total Phosphorus	2110	J1	1210	mg/kg dry	12100	13000	NR	75-125
Zinc	2420		60.7	mg/kg dry	1240	1140	103	75-125

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3262 - SW-3050 for 6010 (Continued)**

**Matrix Spike Dup (BGJ3262-MSD1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	65.5		2.42	mg/kg dry	60.6	5.76	98.7	75-125	1.84	20
Cadmium	6.88		0.242	mg/kg dry	6.06	0.919	98.4	75-125	0.886	20
Chromium	48.5		1.21	mg/kg dry	30.3	19.8	94.7	75-125	0.0483	20
Copper	1610		48.4	mg/kg dry	1270	366	98.1	75-125	8.92	20
Lead	41.7		1.21	mg/kg dry	30.3	11.1	101	75-125	4.34	20
Molybdenum	33.6		1.21	mg/kg dry	30.3	5.10	94.2	75-125	1.45	20
Nickel	42.9		1.21	mg/kg dry	30.3	14.6	93.5	75-125	0.0420	20
Potassium	8380		242	mg/kg dry	6060	2610	95.1	75-125	3.95	20
Selenium	69.8		2.42	mg/kg dry	60.6	7.98	102	75-125	0.143	20
Total Phosphorus	19200	J1	1210	mg/kg dry	12100	13000	51.7	75-125	160	20
Zinc	2440		60.7	mg/kg dry	1240	1140	105	75-125	0.875	20

**Post Spike (BGJ3262-PS1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	527			ug/L	500	44.9	96.4	80-120		
Cadmium	56.1			ug/L	50.0	7.17	97.9	80-120		
Chromium	398			ug/L	250	155	97.5	80-120		
Copper	3640	J1		ug/L	500	2860	156	80-120		
Lead	332			ug/L	250	86.9	97.9	80-120		
Molybdenum	279			ug/L	250	39.8	95.5	80-120		
Nickel	353			ug/L	250	114	95.7	80-120		
Potassium	69500			ug/L	50000	20400	98.2	80-120		
Selenium	568			ug/L	500	62.2	101	80-120		
Total Phosphorus	162000	J1		ug/L	50000	101000	122	80-120		
Zinc	9540	J1		ug/L	250	8930	247	80-120		

**Dilution Check (BGJ3262-SRL1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	6.74	U	12.1	mg/kg dry		5.76			15.7	10
Cadmium	0.958	U	1.21	mg/kg dry		0.919			4.16	10
Chromium	20.9		6.08	mg/kg dry		19.8			5.08	10
Copper	368		12.1	mg/kg dry		366			0.538	10
Lead	12.2		6.08	mg/kg dry		11.1			9.09	10
Molybdenum	<6.08	U	6.08	mg/kg dry		<6.08			200	10
Nickel	15.8		6.08	mg/kg dry		14.6			7.52	10
Potassium	2550		1210	mg/kg dry		2610			2.43	10
Selenium	7.29	U	12.1	mg/kg dry		7.98			8.99	10
Total Phosphorus	13300		1210	mg/kg dry		13000			2.41	10

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ4936 - SW-7471</b>									
<b>MDL Check (BGJ4936-MRL1)</b>									
Mercury	0.0103	U	0.0196	mg/kg wet	0.00982		105		
<b>Matrix Spike (BGJ4936-MS1)</b>									
<b>Source: 23J4078-01</b>					<b>Prepared &amp; Analyzed: 10/31/2023</b>				
Mercury	0.486		0.0352	mg/kg dry	0.440	0.0995	87.9	80-120	
<b>Matrix Spike Dup (BGJ4936-MSD1)</b>									
<b>Source: 23J4078-01</b>					<b>Prepared &amp; Analyzed: 10/31/2023</b>				
Mercury	0.430	J1	0.0351	mg/kg dry	0.439	0.0995	75.4	80-120	20



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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2578 - TKN T</b>										
<b>Blank (BGJ2578-BLK1)</b>										
Ammonia as N	<9.98	U	9.98	mg/kg wet	Prepared & Analyzed: 10/17/2023					
<b>LCS (BGJ2578-BS1)</b>										
Ammonia as N	97.6		9.99	mg/kg wet	99.9		97.7	85-115		
<b>Duplicate (BGJ2578-DUP1)</b>										
Ammonia as N	3290		1450	mg/kg dry	2770				17.3	20
<b>MRL Check (BGJ2578-MRL1)</b>										
Ammonia as N	9.78	U	9.98	mg/kg wet	9.98		98.0	50-150		
<b>Matrix Spike (BGJ2578-MS1)</b>										
Ammonia as N	17400		1450	mg/kg dry	14500	2770	101	85-115		
<b>Batch: BGJ2580 - Percent Solids</b>										
<b>Blank (BGJ2580-BLK1)</b>										
% Solids	<0.100	U	0.100	%	Prepared: 10/17/2023 Analyzed: 10/18/2023					
<b>Duplicate (BGJ2580-DUP1)</b>										
% Solids	1.62		0.100	%	1.62				0.126	20
<b>Duplicate (BGJ2580-DUP2)</b>										
% Solids	0.438		0.100	%	0.436				0.278	30
<b>Reference (BGJ2580-SRM1)</b>										
% Solids	0.387		0.100	%	0.350		110	78.9-118		

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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2669 - Solid Anions No Prep</b>										
<b>Duplicate (BGJ2669-DUP1)</b>		<b>Source: 23J3698-01</b>				Prepared & Analyzed: 10/17/2023				
Nitrate as N	65.4		7.69	mg/kg dry		65.5			0.282	15
<b>MRL Check (BGJ2669-MRL1)</b>						Prepared & Analyzed: 10/17/2023				
Nitrate as N	0.112	U	0.125	mg/kg wet	0.100		112	50-150		
<b>Matrix Spike (BGJ2669-MS1)</b>		<b>Source: 23J3698-01</b>				Prepared & Analyzed: 10/17/2023				
Nitrate as N	206		8.55	mg/kg dry	137	65.5	103	80-120		
<b>Batch: BGJ3202 - TKN T</b>										
<b>Blank (BGJ3202-BLK1)</b>						Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
<b>LCS (BGJ3202-BS1)</b>						Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	19.9		9.88	mg/kg wet	20.0		99.8	85-115		
<b>Duplicate (BGJ3202-DUP1)</b>		<b>Source: 23J3698-01</b>				Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	69300	J1	1490	mg/kg dry		53100			26.5	20
<b>Matrix Spike (BGJ3202-MS1)</b>		<b>Source: 23J3698-01</b>				Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	73000	J1	1510	mg/kg dry	6030	53100	330	85-115		

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**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2829 - SW-3511</b>										
<b>MB HERB (BGJ2829-BLK1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0251	mg/L	0.0249		101	70-130		
<b>BS HERB (BGJ2829-BS1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00480	U	10.0	mg/L	0.00508		94	70-130		
Silvex (2,4,5-TP)	0.00474	U	1.00	mg/L	0.00493		96	70-130		
Surrogate: DCAA-surr			0.0216	mg/L	0.0247		88	70-130		
<b>BSD HERB (BGJ2829-BS1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00492	U	10.0	mg/L	0.00511		96	70-130	2	30
Silvex (2,4,5-TP)	0.00463	U	1.00	mg/L	0.00497		93	70-130	2	30
Surrogate: DCAA-surr			0.0222	mg/L	0.0248		90	70-130		
<b>BGJ1444-BLK1 (BGJ2829-LBK1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.120	mg/L	0.100		120	70-130		
<b>BGJ2741-BLK1 (BGJ2829-LBK2)</b>										
					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	5		0.142	mg/L	0.100		142	70-130		
<b>23J2360-01 MS (BGJ2829-MS1)</b>										
			<b>Source: 23J2360-01</b>		Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.0216	U	10.0	mg/L	0.0206	<10.0	105	70-130		
Silvex (2,4,5-TP)	0.0212	U	1.00	mg/L	0.0200	<1.00	106	70-130		
Surrogate: DCAA-surr			0.0951	mg/L	0.100		95	70-130		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2829 - SW-3511 (Continued)</b>										
<b>23J2360-01 MSD (BGJ2829-MSD1)</b>			<b>Source: 23J2360-01</b>		Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	70-130	0.5	30
Silvex (2,4,5-TP)	0.0204	U	1.00	mg/L	0.0200	<1.00	102	70-130	4	30
Surrogate: DCAA-surr			0.0967	mg/L	0.100		97	70-130		

**Batch: BGJ3041 - EPA 200.2 TCLP**

**Blank (BGJ3041-BLK1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L

**LCS (BGJ3041-BS1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.515	U	5.00	mg/L	0.500	103	80-120
Barium	0.518	U	100	mg/L	0.500	104	80-120
Cadmium	0.0517	U	1.00	mg/L	0.0500	103	80-120
Chromium	0.257	U	5.00	mg/L	0.250	103	80-120
Lead	0.260	U	5.00	mg/L	0.250	104	80-120
Selenium	0.513	U	1.00	mg/L	0.500	103	80-120
Silver	0.0509	U	5.00	mg/L	0.0500	102	80-120

**Duplicate (BGJ3041-DUP1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L	<5.00		20
Barium	1.05	U	100	mg/L	1.12	6.61	20
Cadmium	<1.00	U	1.00	mg/L	<1.00		20
Chromium	<5.00	U	5.00	mg/L	<5.00		20
Lead	<5.00	U	5.00	mg/L	<5.00		20
Selenium	<1.00	U	1.00	mg/L	<1.00		20
Silver	<5.00	U	5.00	mg/L	<5.00		20



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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3041 - EPA 200.2 TCLP (Continued)**

**BGJ2741-BLK1 (BGJ3041-LBK1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.669	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**Matrix Spike (BGJ3041-MS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.547	U	5.00	mg/L	0.500	<5.00	109	75-125		
Barium	1.64	U	100	mg/L	0.500	1.12	104	75-125		
Cadmium	0.0559	U	1.00	mg/L	0.0500	<1.00	112	75-125		
Chromium	0.261	U	5.00	mg/L	0.250	<5.00	104	75-125		
Lead	0.258	U	5.00	mg/L	0.250	<5.00	103	75-125		
Selenium	0.530	U	1.00	mg/L	0.500	<1.00	106	75-125		
Silver	0.0524	U	5.00	mg/L	0.0500	<5.00	105	75-125		

**Post Spike (BGJ3041-PS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	537			ug/L	500	7.81	106	80-120		
Barium	1550			ug/L	500	1090	92.4	80-120		
Cadmium	53.9			ug/L	50.0	0.673	106	80-120		
Chromium	257			ug/L	250	1.17	102	80-120		
Lead	257			ug/L	250	1.42	102	80-120		
Selenium	521			ug/L	500	2.93	104	80-120		
Silver	51.3			ug/L	50.0	0.448	102	80-120		

**Dilution Check (BGJ3041-SRL1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.12	U	100	mg/L		1.12			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

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Quality Control  
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511

MB SV (BGJ3234-BLK1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00862	mg/L	0.00978		88.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0189	mg/L	0.0196		96.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0210	mg/L	0.0196		108	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00980	mg/L	0.00978		100	52-162		
Surrogate: Phenol-d5-surr			0.0160	mg/L	0.0196		81.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00913	mg/L	0.00978		93.3	51.9-147		

BS SV (BGJ3234-BS1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0197		109	60-140		
2,4,6-Trichlorophenol	0.0200	U	2.00	mg/L	0.0197		102	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0117	U	0.130	mg/L	0.00984		119	60-140		
2-Methylphenol	0.0182	U	200	mg/L	0.0197		92.7	60-140		
3,4-Methylphenol	0.0340	U	200	mg/L	0.0394		86.4	60-140		
Hexachlorobenzene	0.00901	U	0.130	mg/L	0.00984		91.6	60-140		
Hexachlorobutadiene	0.00718	U	0.500	mg/L	0.00984		73.0	60-140		
Hexachloroethane	0.00791	U	3.00	mg/L	0.00984		80.4	60-140		
Nitrobenzene	0.0102	U	2.00	mg/L	0.00984		104	60-140		
Pentachlorophenol	0.0221	U	100	mg/L	0.0197		112	36.8-149		
Pyridine	0.0223	U	5.00	mg/L	0.0492		45.3	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00847	mg/L	0.00984		86.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0191	mg/L	0.0197		97.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0162	mg/L	0.0197		82.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00906	mg/L	0.00984		92.0	52-162		
Surrogate: Phenol-d5-surr			0.0177	mg/L	0.0197		90.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00750	mg/L	0.00984		76.2	51.9-147		

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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3234 - SW-3511 (Continued)</b>										
<b>BSD SV (BGJ3234-BS01)</b>					Prepared & Analyzed: 10/19/2023					
2,4,5-Trichlorophenol	0.0223	U	400	mg/L	0.0199		112	60-140	3.71	40
2,4,6-Trichlorophenol	0.0228	U	2.00	mg/L	0.0199		115	60-140	13.2	40
2,4-Dinitrotoluene (2,4-DNT)	0.0116	U	0.130	mg/L	0.00993		117	60-140	0.518	40
2-Methylphenol	0.0194	U	200	mg/L	0.0199		97.7	60-140	6.12	40
3,4-Methylphenol	0.0378	L, U	200	mg/L	0.0397		95.3	60-140	10.7	40
Hexachlorobenzene	0.00985	U	0.130	mg/L	0.00993		99.2	60-140	8.89	40
Hexachlorobutadiene	0.00817	U	0.500	mg/L	0.00993		82.3	60-140	13.0	40
Hexachloroethane	0.00891	U	3.00	mg/L	0.00993		89.7	60-140	11.8	40
Nitrobenzene	0.0111	U	2.00	mg/L	0.00993		112	60-140	8.31	40
Pentachlorophenol	0.0226	U	100	mg/L	0.0199		114	36.8-149	2.11	40
Pyridine	0.0234	U	5.00	mg/L	0.0497		47.1	2.5-101	4.85	40
Surrogate: 2-Fluorobiphenyl-surr			0.00896	mg/L	0.00993		90.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0203	mg/L	0.0199		102	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0177	mg/L	0.0199		88.9	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00919	mg/L	0.00993		92.5	52-162		
Surrogate: Phenol-d5-surr			0.0198	mg/L	0.0199		99.7	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00842	mg/L	0.00993		84.8	51.9-147		
<b>BGJ2741-BLK1 (BGJ3234-LBK2)</b>										
					Prepared: 10/19/2023 Analyzed: 10/20/2023					
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0360	mg/L	0.0400		90.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0836	mg/L	0.0800		105	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0926	mg/L	0.0800		116	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0406	mg/L	0.0400		102	52-162		
Surrogate: Phenol-d5-surr			0.0803	mg/L	0.0800		100	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0277	mg/L	0.0400		69.3	51.9-147		

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Quality Control  
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511 (Continued)

MDL SV (BGJ3234-MRL1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.00135	U	400	mg/L	0.000985		137		
2,4,6-Trichlorophenol	0.00159	U	2.00	mg/L	0.000985		161		
2,4-Dinitrotoluene (2,4-DNT)	0.000941	U	0.130	mg/L	0.000492		191		
2-Methylphenol	0.00122	U	200	mg/L	0.000985		124		
3,4-Methylphenol	0.00231	U	200	mg/L	0.00197		117		
Hexachlorobenzene	0.000383	U	0.130	mg/L	0.000492		77.8		
Hexachlorobutadiene	0.000555	U	0.500	mg/L	0.000492		113		
Hexachloroethane	0.000388	U	3.00	mg/L	0.000492		78.8		
Nitrobenzene	0.000747	U	2.00	mg/L	0.000492		152		
Pentachlorophenol	0.00104	U	100	mg/L	0.000985		105		
Pyridine	0.00328	U	5.00	mg/L	0.00246		133		
Surrogate: 2-Fluorobiphenyl-surr			0.00930	mg/L	0.00985		94.4	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0197		98.0	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0233	mg/L	0.0197		118	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0110	mg/L	0.00985		112	52-162	
Surrogate: Phenol-d5-surr			0.0176	mg/L	0.0197		89.2	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00968	mg/L	0.00985		98.2	51.9-147	

23J3307-02 MS (BGJ3234-MS1)

Source: 23J3307-02

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0201	U	400	mg/L	0.0199	<400	101	44.9-171	
2,4,6-Trichlorophenol	0.0204	U	2.00	mg/L	0.0199	<2.00	102	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0105	U	0.130	mg/L	0.00995	<0.130	106	50.3-144	
2-Methylphenol	0.0173	U	200	mg/L	0.0199	<200	86.8	17.3-182	
3,4-Methylphenol	0.0349	U	200	mg/L	0.0398	<200	87.6	43.4-188	
Hexachlorobenzene	0.00857	U	0.130	mg/L	0.00995	<0.130	86.1	56.1-137	
Hexachlorobutadiene	0.00723	U	0.500	mg/L	0.00995	<0.500	72.7	33.1-110	
Hexachloroethane	0.00752	U	3.00	mg/L	0.00995	<3.00	75.6	36.2-106	
Nitrobenzene	0.0109	U	2.00	mg/L	0.00995	<2.00	109	54.9-156	
Pentachlorophenol	0.0209	U	100	mg/L	0.0199	<100	105	42.2-151	
Pyridine	0.0346	U	5.00	mg/L	0.0497	<5.00	69.5	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.00775	mg/L	0.00995		77.9	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0188	mg/L	0.0199		94.5	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0155	mg/L	0.0199		77.8	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00839	mg/L	0.00995		84.4	52-162	
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0199		92.4	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00659	mg/L	0.00995		66.2	51.9-147	



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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3234 - SW-3511 (Continued)</b>										
<b>23J3307-02 MSD (BGJ3234-MSD1)</b>			<b>Source: 23J3307-02</b>			<b>Prepared &amp; Analyzed: 10/19/2023</b>				
2,4,5-Trichlorophenol	0.0207	U	400	mg/L	0.0199	<400	104	44.9-171	2.80	40
2,4,6-Trichlorophenol	0.0215	U	2.00	mg/L	0.0199	<2.00	108	34.7-143	5.59	40
2,4-Dinitrotoluene (2,4-DNT)	0.0112	U	0.130	mg/L	0.00996	<0.130	112	50.3-144	5.75	40
2-Methylphenol	0.0178	U	200	mg/L	0.0199	<200	89.3	17.3-182	3.01	40
3,4-Methylphenol	0.0343	U	200	mg/L	0.0398	<200	86.0	43.4-188	1.75	40
Hexachlorobenzene	0.00865	U	0.130	mg/L	0.00996	<0.130	86.9	56.1-137	0.966	40
Hexachlorobutadiene	0.00765	U	0.500	mg/L	0.00996	<0.500	76.9	33.1-110	5.74	40
Hexachloroethane	0.00809	U	3.00	mg/L	0.00996	<3.00	81.2	36.2-106	7.39	40
Nitrobenzene	0.0110	U	2.00	mg/L	0.00996	<2.00	111	54.9-156	1.66	40
Pentachlorophenol	0.0215	U	100	mg/L	0.0199	<100	108	42.2-151	2.53	40
Pyridine	0.0332	U	5.00	mg/L	0.0498	<5.00	66.7	2-87.4	3.92	40
Surrogate: 2-Fluorobiphenyl-surr			0.00826	mg/L	0.00996		82.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0183	mg/L	0.0199		92.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0162	mg/L	0.0199		81.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00876	mg/L	0.00996		87.9	52-162		
Surrogate: Phenol-d5-surr			0.0178	mg/L	0.0199		89.4	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00690	mg/L	0.00996		69.3	51.9-147		

**Batch: BGJ3693 - SW-3511**

<b>Blank (BGJ3693-BLK1)</b>			<b>Prepared: 10/23/2023 Analyzed: 10/28/2023</b>							
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		85.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.7	60-140		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3693 - SW-3511 (Continued)**

LCS TOX (BGJ3693-BS1)									
					Prepared: 10/23/2023 Analyzed: 10/28/2023				
Toxaphene (Chlorinated Camphene)	0.00114	U	0.500	mg/L	0.00120		94.7	60-140	
Surrogate: 2,4,5,6			9.30E-5	mg/L	0.000120		77.5	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		88.6	60-140	

LCS (BGJ3693-BS2)									
					Prepared: 10/23/2023 Analyzed: 10/28/2023				
Chlordane (Total)	0.000561	U	0.0300	mg/L	0.000480		117	60-140	
Endrin	0.000132	U	0.0200	mg/L	0.000120		110	60-140	
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000136	U	0.400	mg/L	0.000120		113	60-140	
Heptachlor	0.000146	U	0.00800	mg/L	0.000120		121	60-140	
Heptachlor epoxide	0.000137	U	0.00800	mg/L	0.000120		114	60-140	
Methoxychlor	0.000109	U	10.0	mg/L	0.000120		90.7	60-140	
Surrogate: 2,4,5,6			9.70E-5	mg/L	0.000120		80.8	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.7	60-140	

LCSD TOX (BGJ3693-BSD1)									
					Prepared: 10/23/2023 Analyzed: 10/28/2023				
Toxaphene (Chlorinated Camphene)	0.00118	U	0.500	mg/L	0.00120		98.6	60-140	4.09 40
Surrogate: 2,4,5,6			8.65E-5	mg/L	0.000120		72.1	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.4	60-140	

LCS Dup (BGJ3693-BSD2)									
					Prepared: 10/23/2023 Analyzed: 10/28/2023				
Chlordane (Total)	0.000503	U	0.0300	mg/L	0.000480		105	60-140	11.0 40
Endrin	0.000114	U	0.0200	mg/L	0.000120		95.2	60-140	14.5 40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000119	U	0.400	mg/L	0.000120		99.5	60-140	12.7 40
Heptachlor	0.000129	U	0.00800	mg/L	0.000120		107	60-140	12.3 40
Heptachlor epoxide	0.000122	U	0.00800	mg/L	0.000120		102	60-140	11.7 40
Methoxychlor	0.000113	U	10.0	mg/L	0.000120		94.3	60-140	3.92 40
Surrogate: 2,4,5,6			9.12E-5	mg/L	0.000120		76.0	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.5	60-140	

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3693 - SW-3511 (Continued)**

**BGJ2741-BLK1 (BGJ3693-LBK1)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	2.31E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			8.45E-5	mg/L	0.000120		70.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			7.75E-5	mg/L	0.000120		64.6	60-140		

**MRL TOX (BGJ3693-MRL1)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Toxaphene (Chlorinated Camphene)	0.000293	U	0.500	mg/L	0.000300		97.5			
Surrogate: 2,4,5,6			7.78E-5	mg/L	0.000120		64.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.79E-5	mg/L	0.000120		81.6	60-140		

**MRL Check (BGJ3693-MRL2)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	5.56E-5	U	0.0300	mg/L	4.80E-5		116			
Endrin	1.49E-5	U	0.0200	mg/L	1.20E-5		124			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.50E-5	U	0.400	mg/L	1.20E-5		125			
Heptachlor	1.71E-5	U	0.00800	mg/L	1.20E-5		143			
Heptachlor epoxide	1.36E-5	U	0.00800	mg/L	1.20E-5		114			
Methoxychlor	1.58E-5	U	10.0	mg/L	1.20E-5		131			
Surrogate: 2,4,5,6			9.14E-5	mg/L	0.000120		76.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.6	60-140		

**Matrix Spike (BGJ3693-MS1)**

Source: 23J2995-01

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	0.000462	U	0.0300	mg/L	0.000480	<0.0300	96.2	60-140		
Endrin	0.000115	U	0.0200	mg/L	0.000120	<0.0200	95.5	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000111	U	0.400	mg/L	0.000120	<0.400	92.5	60-140		
Heptachlor	0.000124	U	0.00800	mg/L	0.000120	<0.00800	103	60-140		
Heptachlor epoxide	0.000109	U	0.00800	mg/L	0.000120	<0.00800	91.0	60-140		
Methoxychlor	0.000121	U	10.0	mg/L	0.000120	<10.0	101	60-140		
Surrogate: 2,4,5,6			7.20E-5	mg/L	0.000120		60.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000115	mg/L	0.000120		95.5	60-140		

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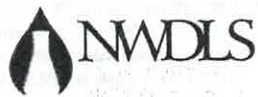
**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3693 - SW-3511 (Continued)</b>										
<b>Matrix Spike Dup (BGJ3693-MSD1)</b>			<b>Source: 23J2995-01</b>		Prepared: 10/23/2023 Analyzed: 10/28/2023					
Chlordane (Total)	0.000498	U	0.0300	mg/L	0.000480	<0.0300	104	60-140	7.46	40
Endrin	0.000122	U	0.0200	mg/L	0.000120	<0.0200	102	60-140	6.58	40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000119	U	0.400	mg/L	0.000120	<0.400	98.8	60-140	6.68	40
Heptachlor	0.000133	U	0.00800	mg/L	0.000120	<0.00800	111	60-140	7.50	40
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000120	<0.00800	98.2	60-140	7.61	40
Methoxychlor	0.000118	U	10.0	mg/L	0.000120	<10.0	98.8	60-140	2.07	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		6.94E-5	mg/L	0.000120		57.8	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000109	mg/L	0.000120		91.2	60-140		

**Batch: BGK1044 - SW-7471 TCLP**

<b>Duplicate (BGK1044-DUP1)</b>			<b>Source: 23J5785-02</b>		Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>Duplicate (BGK1044-DUP2)</b>			<b>Source: 23J2900-01</b>		Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGK0140-LBK1 (BGK1044-LBK1)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>BGJ2741-LBK2 (BGK1044-LBK2)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGK1044-MRL1)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	0.000211	U	0.200	mg/L	0.000200		106			
<b>Matrix Spike (BGK1044-MS1)</b>			<b>Source: 23J5785-02</b>		Prepared & Analyzed: 11/7/2023					
Mercury	0.00490	U	0.200	mg/L	0.00500	<0.200	98.0	80-120		



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www.NWDLS.com  
TCEQ T104704238-23-39

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**TCLP (Continued)**

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

**Batch: BGK1044 - SW-7471 TCLP (Continued)**

**Matrix Spike (BGK1044-MS2)**

**Source: 23J2900-01**

Prepared & Analyzed: 11/7/2023

Mercury	0.00513	U	0.200	mg/L	0.00500	<0.200	103	80-120		
---------	---------	---	-------	------	---------	--------	-----	--------	--	--

\* A = Accredited, N = Not Accredited or Accreditation not available



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www. NWDLS.com  
TCEQ T104704238-23-39

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

### Sample Condition Checklist

Work Order: 23J3698

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

\* A = Accredited, N = Not Accredited or Accreditation not available



## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



Page 1 of 2

23J3698

<b>Lab PM :</b> Deena Higginbotham		<b>Project Name :</b> HC MUD 26 - Sewage Sludge Annual		<b>Schedule Comments:</b>			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Saricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL					
<b>Sample ID</b>	<b>Collection Point</b>	<b>Date/Time Begin</b>	<b>Date/Time Sampled</b>	<b>Sample Type</b>	<b>Container</b>	<b>Analysis/Preservation</b>	<b>Field Results</b>
23J3698-01	Digester		10/16/2023/9:50	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass VOA 60mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C Sub_VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com



Page 2 of 2

23J3698

(Continued)

TCEQ T104704238-23-39

Lab PM : Deena Higginbotham	Project Name : HC MUD 26 - Sewage Sludge Annual	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Sarricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>Joe Gutierrez</i>	Relinquished By: (Signature)	Date/Time			
Print Name <i>Joe Gutierrez</i>	Relinquished By: (Signature)	Date/Time			
Affiliation <i>NWDLS</i>	Relinquished To Lab By: (Signature) <i>Joe Gutierrez</i>	Date/Time <i>10-19-23</i>			
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Spring South

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23101996



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>


Client Project Name :  
23J3698

Report To : Client Name: NWDLS  
Attn: Deena Higginbotham  
Client Address: 130 S Trade Center Pkwy  
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23J3698  
Sample Collected By:  
Date Collected: 10/16/23

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23J3698-01	Solid	23101996.01

  
Released By: Gobinath Rangasamy  
Title: Project Manager  
Date: 10/24/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

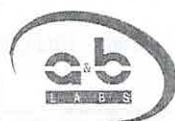
This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 10/18/2023 08:45



# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23101996

Date: 10/24/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation. Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

## Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



## LABORATORY TEST RESULTS

Job ID : 23101996

Date 10/24/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23J3698

Client Sample ID: 23J3698-01

Job Sample ID: 23101996.01

Date Collected: 10/16/23

Sample Matrix Solid

Time Collected: 09:50

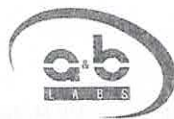
% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	10/23/23 22:08	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	10/23/23 22:08	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	10/23/23 22:08	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	10/23/23 22:08	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	10/23/23 22:08	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	10/23/23 22:08	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	10/23/23 22:08	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	10/23/23 22:08	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	10/23/23 22:08	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	10/23/23 22:08	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	10/23/23 22:08	ZQ
	1,2-Dichloroethane-d4(surr)	105	%	1.00		70-130			10/23/23 22:08	ZQ
	Dibromofluoromethane(surr)	101	%	1.00		70-130			10/23/23 22:08	ZQ
	p-Bromofluorobenzene(surr)	101	%	1.00		70-130			10/23/23 22:08	ZQ
	Toluene-d8(surr)	100	%	1.00		70-130			10/23/23 22:08	ZQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23101996

Date : 10/24/2023

Analysis : TCLP VOC Method : SW-846 8260C Reporting Units : mg/L

QC Batch ID : Qb23102401 Created Date : 10/23/23 Created By : Zeeshan

Samples in This QC Batch : 23101996.01

Sample Preparation : PB23102401 Prep Method : SW-846 5030C Prep Date : 10/23/23 10:00 Prep By : Zeeshan  
TCLP Prep : PB23102106 Prep Method : SW-846 1311 Prep Date : 10/20/23 16:51 Prep By : JCoku

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	101	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	101	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	103	%	1.00			
Toluene-d8(surr)	2037-26-5	100	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.04	104	1	1.00	100	4.1	35	70-130	
1,2-Dichloroethane	1	0.957	95.7	1	0.983	98.3	2.6	35	70-130	
1,4-Dichlorobenzene	1	0.983	98.3	1	0.949	94.9	3.5	35	70-130	
Benzene	1	0.957	95.7	1	0.945	94.5	1.3	35	70-130	
Carbon tetrachloride	1	1.02	102	1	1.00	100	2	35	70-130	
Chlorobenzene	1	0.992	99.2	1	0.980	98	1.2	35	70-130	
Chloroform	1	1.03	103	1	0.986	98.6	3.9	35	70-130	
MEK	1	0.898	89.8	1	0.911	91.1	1.4	35	70-130	
Tetrachloroethylene	1	0.943	94.3	1	0.942	94.2	0.1	35	70-130	
Trichloroethylene	1	0.986	98.7	1	0.977	97.7	1	35	70-130	
Vinyl Chloride	1	1.02	102	1	0.981	98.1	4.4	35	70-130	

## QC Type: MS and MSD

QC Sample ID: 23101844.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.03	103						70-130	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 23101996

Date : 10/24/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23102401

Created Date : 10/23/23

Created By : Zeeshan

Samples in This QC Batch : 23101996.01

QC Type: MS and MSD

QC Sample ID: 23101844.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.948	94.8						70-130	
1,4-Dichlorobenzene	BRL	1	1.01	101						70-130	
Benzene	BRL	1	0.972	97.2						70-130	
Carbon tetrachloride	BRL	1	1.05	105						70-130	
Chlorobenzene	BRL	1	1.01	101						70-130	
Chloroform	BRL	1	0.991	99.1						70-130	
MEK	BRL	1	0.937	93.7						70-130	
Tetrachloroethylene	BRL	1	0.992	99.2						70-130	
Trichloroethylene	BRL	1	1.02	102						70-130	
Vinyl Chloride	BRL	1	0.995	99.5						70-130	

ab-q213-0321

Refer to the Definition page for terms.

Page 30 of 32





# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23J3698

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23J3698-01 Solid Sampled: 10/16/2023 09:50

Sub\_VOA-TCLP 10/30/2023 10/30/2023 09:50

### Analyte(s):

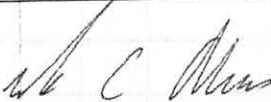
1,1-Dichloroethylene  
1,4-Dichlorobenzene (p-Dichlorobenzene)  
Benzene  
Chloroform  
Toluene-d8-surr

1,2-Dichloroethane (Ethylene dichloride)  
2-Butanone (Methyl ethyl ketone, MEK)  
Carbon tetrachloride  
Dibromofluoromethane-surr  
Trichloroethene (Trichloroethylene)

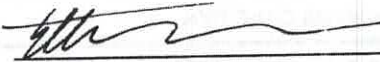
1,2-Dichloroethane-d4-surr  
4-Bromofluorobenzene-surr  
Chlorobenzene  
Tetrachloroethylene (Perchloroethylene)  
Vinyl chloride (Chloroethene)

Containers Supplied:

OIA

  
Released By

10-18-23  
Date

  
Received By

10/18/23 8:45  
Date

8.1 °C  
In 5 min

Job ID:23101996



10/18/2023

NWDLS

AMS



## Sample Condition Checklist

A&B JobID : <b>23101996</b>		Date Received : <b>10/18/2023</b>		Time Received : <b>8:45AM</b>								
Client Name : <b>NWDLS</b>												
Temperature : <b>8.1°C</b>		Sample pH : <b>NA</b>										
Thermometer ID : <b>IR5</b>		pH Paper ID : <b>NA</b>										
Preservative :												
	<b>Check Points</b>				<b>Yes</b>	<b>No</b>	<b>N/A</b>					
1.	Cooler Seal present and signed.					X						
2.	Sample(s) in a cooler.				X							
3.	If yes, ice in cooler.				X							
4.	Sample(s) received with chain-of-custody.				X							
5.	C-O-C signed and dated.				X							
6.	Sample(s) received with signed sample custody seal.					X						
7.	Sample containers arrived intact. (If No comment)				X							
8.	Matrix:	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Samples were received in appropriate container(s)				X							
10.	Sample(s) were received with Proper preservative						X					
11.	All samples were tagged or labeled.				X							
12.	Sample ID labels match C-O-C ID's.				X							
13.	Bottle count on C-O-C matches bottles found.				X							
14.	Sample volume is sufficient for analyses requested.				X							
15.	Samples were received with in the hold time.				X							
16.	VOA vials completely filled.						X					
17.	Sample accepted.				X							
18.	Has client been contacted about sub-out						X					

**Comments : Include actions taken to resolve discrepancies/problem:**

Samples do not meet temp requirements. COC shows solid matrix, received sludge. ~EV 10/18/2023

Brought by : Client

Received by : EValdez

Check in by/date : EValdez / 10/18/2023

ab-s005-0321

Phone : 713-453-6060

www.ablabs.com



HC 200  
8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsis.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

May 01, 2023

## LABORATORY REPORT

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20230501123128DLH

RE: HC MUD 200 - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in cursive script that reads "Deena Higginbotham".

Deena Higginbotham  
Director of Client Services



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23D4754-01

Sample Matrix: Solid  
Date Collected: 04/24/2023 8:10  
Collected by: Angel Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	455000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	163000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	286000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	196000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	196000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	187000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	229000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	1.46	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGD3708	04/24/2023 15:28	AKA
SM 2550 B	Temperature °C Field	23.7	°C	BGD3770	04/24/2023 08:10	AR
SM 2540 G	% Solids	1.20	%	BGD3710	04/25/2023 12:03	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

## Quality Control

### General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD3710 - Percent Solids</b>									
<b>Blank (BGD3710-BLK1)</b>									
% Solids	<0.100 U	0.100	%						
Prepared: 04/24/2023 Analyzed: 04/25/2023									
<b>Duplicate (BGD3710-DUP1)</b>									
% Solids		0.100	%		0.614			1.28	10
Prepared: 04/24/2023 Analyzed: 04/25/2023									
<b>Reference (BGD3710-SRM1)</b>									
% Solids		0.100	%	0.350		103	78.9-118		



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Quality Control (Continued)

#### Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
<b>Batch: BGD3694 - FC Quantitray</b>								
<b>Blank (BGD3694-BLK1)</b>								
Fecal coliforms	<10.0U	10.0	MPN/g TS wet					
Prepared: 04/24/2023 Analyzed: 04/25/2023								
<b>Duplicate (BGD3694-DUP1)</b>								
Fecal coliforms		831	MPN/g TS dry		455000		79.6	200
Source: 23D4754-01 Prepared: 04/24/2023 Analyzed: 04/25/2023								



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



Page 1 of 1

23D4754

Lab PM : Deena Higginbotham		Project Name : HC MUD 200 - Non Potable - Class B Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 13050 Stonefield Dr Houston 77014 Gate Combo 2006					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23D4754-01	Digester		4/24/2023 08:10	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C 4°C SOUR-2710 SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 27.7

Field Remarks:		Lab Preservation: H2SO4		HNO3		NaOH		Other:	
(Circle and Write ID Below)		Date/Time		Received By: (Signature)		Date/Time			
Sample Signature									
Print Name									
Affiliation									
Relinquished To: Lab By: (Signature)									
Custody Seal: Yes / No		COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Received on Ice: Yes / No		Temperature: °C	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID: _____	
North West									



HC MUD 200



130 S. Trade Center Parkway, Conroe TX 77385

Tel: (936) 321-6060

Email: lab@nwdls.com

www. NWDLS.com

May 24, 2023

## Laboratory Report

John Montgomery

Municipal Operations and Consulting

27316 Spectrum Way

Oak Ridge, TX 77385

Report ID: 20230524132502AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Aundra Noe For Deena Higginbotham

Director of Client Services



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
05/24/2023 13:25

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23D1283-01

Sample Matrix: Solid  
Date Collected: 04/04/2023 10:00  
Collected by: Francisco Gutierrez

HC MUD 200 - Non Potable - Sewage Sludge Annual

2

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>Metals, Total</b>										
SW-6010C	Arsenic	A	7.30	mg/kg dry	1	0.821	3.74	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Cadmium	A	0.717	mg/kg dry	1	0.0972	0.374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Chromium	A	9.47	mg/kg dry	1	1.40	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Copper	A	264	mg/kg dry	5	2.00	18.7	BGD0607	04/21/2023 16:38	FAL
SW-7471B	Mercury	A	0.211	mg/kg dry	1	0.0224	0.0448	BGD1436	04/12/2023 15:11	AKR
SW-6010C	Lead	A	5.37	mg/kg dry	1	0.954	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Molybdenum	A	5.95	mg/kg dry	1	1.88	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Nickel	A	13.4	mg/kg dry	1	0.505	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Potassium	A	6120	mg/kg dry	1	32.1	374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Selenium	A	4.12	mg/kg dry	1	1.46	3.74	BGD0607	04/24/2023 13:56	FAL
SW-6010C	Total Phosphorus	A	18100	mg/kg dry	1	15.7	374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Zinc	A	744	mg/kg dry	10	18.8	18.8	BGD0607	04/21/2023 16:41	FAL
<b>General Chemistry</b>										
EPA 350.2	Ammonia as N	A	18500	mg/kg dry	1	1110	2220	BGD2245	04/17/2023 09:29	GIW
SW-9056A	Nitrate as N	A	<14.0U, TV	mg/kg dry	1	5.62	14.0	BGD0625	04/05/2023 14:41	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	86000	mg/kg dry	1	2580	2580	BGD2244	04/17/2023 12:58	GIW
SM 2540 G	% Solids	A	0.890 V, TV	%	1	0.100	0.100	BGD0694	04/06/2023 16:22	AKA
<b>TCLP</b>										
SW-6010C	Arsenic	A	<5.00U, TV	mg/L	1	0.0200	5.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Barium	A	<100U, V2, TV	mg/L	5	0.0500	100	BGD2687	05/12/2023 15:01	FAL
SW-6010C	Cadmium	A	<1.00U, TV	mg/L	1	0.00100	1.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Chromium	A	<5.00U, TV	mg/L	1	0.00500	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8151	2,4-D	A	<10.0U, TV	mg/L	2	0.000476	10.0	BGD2443	04/25/2023 11:00	cdg
SW-8151	Silvex (2,4,5-TP)	A	<1.00U, TV	mg/L	2	0.000476	1.00	BGD2443	04/25/2023 11:00	cdg
SW-8151	Surrogate: DCAA-surr		104%	70-130					04/25/2023 11:00	
SW-7471B	Mercury	A	<0.200U, TV	mg/L	1	0.000200	0.200	BGD2137	04/17/2023 14:42	AKR
SW-6010C	Lead	A	<5.00U, TV	mg/L	1	0.0100	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8081	Chlordane (Total)	A	<0.0300U, TV	mg/L	1	3.00E-6	0.0300	BGD2621	05/01/2023 22:19	ala
SW-8081	Endrin	N	<0.0200U, TV	mg/L	1	3.00E-6	0.0200	BGD2621	05/01/2023 22:19	ala

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Sample Results**  
(Continued)

Client Sample ID: Digester (Continued)

Lab Sample ID: 23D1283-01

Sample Matrix: Solid

Date Collected: 04/04/2023 10:00

HC MUD 200 - Non Potable - Sewage Sludge Annual

2

Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**TCLP (Continued)**

SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400 U, TV	mg/L	1	3.00E-6	0.400	BGD2621	05/01/2023 22:19	ala
SW-8081	Heptachlor	A	<0.00800 U, TV	mg/L	1	3.00E-6	0.00800	BGD2621	05/01/2023 22:19	ala
SW-8081	Heptachlor epoxide	A	<0.00800 U, TV	mg/L	1	3.00E-6	0.00800	BGD2621	05/01/2023 22:19	ala
SW-8081	Methoxychlor	A	<10.0 U, TV	mg/L	1	3.00E-6	10.0	BGD2621	05/01/2023 22:19	ala
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U, TV	mg/L	1	3.00E-6	0.500	BGD2621	05/01/2023 22:19	ala
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		111%	60-140					05/01/2023 22:19	
SW-8081	Surrogate: Decachlorobiphenyl-surr		90.9%	60-140					05/01/2023 22:19	
SW-6010C	Selenium	A	<1.00 U, TV	mg/L	1	0.0200	1.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Silver	A	<5.00 U, TV	mg/L	1	0.00200	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400 U, TV	mg/L	1	0.00250	400	BGD2179	05/14/2023 08:27	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00 U, TV	mg/L	1	0.00250	2.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U, TV	mg/L	1	0.00250	0.130	BGD2179	05/14/2023 08:27	KRB
SW-8270	2-Methylphenol	A	<200 U, TV	mg/L	1	0.00250	200	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U, TV	mg/L	1	0.00250	0.130	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachlorobutadiene	A	<0.500 U, TV	mg/L	1	0.00250	0.500	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachloroethane	A	<3.00 U, TV	mg/L	1	0.00250	3.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Nitrobenzene	A	<2.00 U, TV	mg/L	1	0.00250	2.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Pentachlorophenol	A	<100 U, TV	mg/L	1	0.00250	100	BGD2179	05/14/2023 08:27	KRB
SW-8270	Pyridine	A	<5.00 U, TV	mg/L	1	0.00250	5.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		93.8%	54.6-148					05/14/2023 08:27	
SW-8270	Surrogate: 2-Fluorophenol-surr		107%	55-152					05/14/2023 08:27	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		114%	52.4-136					05/14/2023 08:27	
SW-8270	Surrogate: Nitrobenzene-d5-surr		106%	52-162					05/14/2023 08:27	
SW-8270	Surrogate: Phenol-d5-surr		97.8%	58.7-152					05/14/2023 08:27	
SW-8270	Surrogate: p-Terphenyl-d14-surr		110%	51.9-147					05/14/2023 08:27	

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Sample Results**  
(Continued)

Client Sample ID: Digester  
Lab Sample ID: 23D1283-01RE1

Sample Matrix: Solid  
Date Collected: 04/04/2023 10:00  
Collected by: Francisco Gutierrez

HC MUD 200 - Non Potable - Sewage Sludge Annual

2

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Organics by GC**

SW-8082	PCBs, Total (Rerun)	A	<2250U, TV	ug/kg dry	10	1120	2250	BGD0593	05/09/2023 07:25	CRO
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	92.8%	60-140						05/09/2023 07:25	
SW-8082	Surrogate: Decachlorobiphenyl-surr (Rerun)	92.8%	60-140						05/09/2023 07:25	

**TCLP**

SW-8270	3,4-Methylphenol (Rerun)	A	<200U, TV	mg/L	3	0.00750	200	BGD2179	05/16/2023 05:09	KRB
SW-8270	Surrogate: 2-Fluorophenol-surr (Rerun)	123%	55-152						05/16/2023 05:09	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)	99.7%	52.4-136						05/16/2023 05:09	
SW-8270	Surrogate: Phenol-d5-surr (Rerun)	110%	58.7-152						05/16/2023 05:09	

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

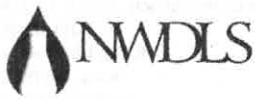
**Reported:**  
05/24/2023 13:25

## Quality Control

### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0593 - SW-3570</b>										
<b>Blank (BGD0593-BLK1)</b>			Prepared: 4/5/2023 Analyzed: 4/29/2023							
Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
<b>Blank (BGD0593-BLK2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
PCBs, Total	<20.0	U	20.0	ug/kg wet						
Surrogate: 2,4,5,6			4.13	ug/kg wet	6.00		68.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.28	ug/kg wet	6.00		88.0	60-140		
<b>LCS (BGD0593-BS2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	50.2		20.0	ug/kg wet	60.0		83.7	60-140		
Aroclor-1260 (PCB-1260)	57.5		20.0	ug/kg wet	60.0		95.9	60-140		
PCBs, Total	54.6		20.0	ug/kg wet	60.0		91.0	60-140		
Surrogate: 2,4,5,6			4.41	ug/kg wet	6.00		73.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.74	ug/kg wet	6.00		95.6	60-140		
<b>LCS Dup (BGD0593-BSD2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	50.2		20.0	ug/kg wet	60.0		83.6	60-140	0.0681	40
Aroclor-1260 (PCB-1260)	57.8		20.0	ug/kg wet	60.0		96.3	60-140	0.491	40
PCBs, Total	54.8		20.0	ug/kg wet	60.0		91.3	60-140	0.286	40
Surrogate: 2,4,5,6			4.35	ug/kg wet	6.00		72.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.80	ug/kg wet	6.00		96.7	60-140		
<b>Matrix Spike (BGD0593-MS2)</b>										
			Source: 23D1094-01RE1 Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	5660		2280	ug/kg dry	6830	<2280	82.9	60-140		
Aroclor-1260 (PCB-1260)	6330		2280	ug/kg dry	6830	<2280	92.7	60-140		
PCBs, Total	6060		2280	ug/kg dry	6830	<2280	88.8	60-140		
Surrogate: 2,4,5,6			576	ug/kg dry	683		84.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			665	ug/kg dry	683		97.5	60-140		

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0593 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGD0593-MSD2)</b>			<b>Source: 23D1094-01RE1</b>			Prepared: 4/5/2023 Analyzed: 5/9/2023				
Aroclor-1016 (PCB-1016)	6400		2280	ug/kg dry	6830	<2280	93.8	60-140	12.4	40
Aroclor-1260 (PCB-1260)	6950		2280	ug/kg dry	6830	<2280	102	60-140	9.29	40
PCBs, Total	6730		2280	ug/kg dry	6830	<2280	98.6	60-140	10.5	40
<hr/>										
Surrogate: 2,4,5,6			718	ug/kg dry	683		105	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			726	ug/kg dry	683		106	60-140		



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD0607 - SW-3050 for 6010**

**Blank (BGD0607-BLK1)**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	<1.70	U	1.70	mg/kg wet						
Cadmium	<0.170	U	0.170	mg/kg wet						
Chromium	<0.855	U	0.855	mg/kg wet						
Copper	<1.70	U	1.70	mg/kg wet						
Lead	<0.855	U	0.855	mg/kg wet						
Molybdenum	<0.855	U	0.855	mg/kg wet						
Nickel	<0.855	U	0.855	mg/kg wet						
Potassium	<170	U	170	mg/kg wet						
Selenium	<1.70	U	1.70	mg/kg wet						
Total Phosphorus	<170	U	170	mg/kg wet						
Zinc	<0.855	U	0.855	mg/kg wet						

**LCS (BGD0607-BS1)**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	43.5		1.91	mg/kg wet	47.8		91.0	80-120		
Cadmium	4.24		0.191	mg/kg wet	4.78		88.6	80-120		
Chromium	22.2		0.958	mg/kg wet	23.9		92.8	80-120		
Copper	43.5		1.91	mg/kg wet	47.8		90.9	80-120		
Lead	21.4		0.958	mg/kg wet	23.9		89.7	80-120		
Molybdenum	21.1		0.958	mg/kg wet	23.9		88.4	80-120		
Nickel	21.5		0.958	mg/kg wet	23.9		89.8	80-120		
Potassium	4450		191	mg/kg wet	4780		93.2	80-120		
Selenium	44.7		1.91	mg/kg wet	47.8		93.5	80-120		
Total Phosphorus	4540		191	mg/kg wet	4780		95.0	80-120		
Zinc	21.8		0.958	mg/kg wet	23.9		91.3	80-120		

**Matrix Spike (BGD0607-MS1)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	84.7	J1	4.41	mg/kg dry	110	3.71	73.4	75-125		
Cadmium	8.66	J1	0.441	mg/kg dry	11.0	0.547	73.5	75-125		
Chromium	50.3	J1	2.21	mg/kg dry	55.2	9.06	74.8	75-125		
Lead	45.6	J1	2.21	mg/kg dry	55.2	5.69	72.3	75-125		
Molybdenum	41.8	J1	2.21	mg/kg dry	55.2	3.96	68.7	75-125		
Nickel	50.9	J1	2.21	mg/kg dry	55.2	12.7	69.2	75-125		
Potassium	15400		441	mg/kg dry	11000	4750	96.5	75-125		
Selenium	88.7		4.41	mg/kg dry	110	4.32	76.5	75-125		



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**Quality Control**  
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**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD0607 - SW-3050 for 6010 (Continued)**

**Matrix Spike (BGD0607-MS2)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	45.9	J1	2.14	mg/kg dry	53.5	5.89	74.8	75-125		
Cadmium	4.29	J1	0.214	mg/kg dry	5.35	0.427	72.3	75-125		
Chromium	25.4		1.07	mg/kg dry	26.7	5.33	75.3	75-125		
Lead	25.0	J1	1.07	mg/kg dry	26.7	5.25	73.7	75-125		
Molybdenum	25.1	J1	1.07	mg/kg dry	26.7	6.35	70.2	75-125		
Nickel	25.9	J1	1.07	mg/kg dry	26.7	6.42	72.9	75-125		

**Matrix Spike (BGD0607-MS3)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/21/2023

Copper	2560		110	mg/kg dry	2320	131	105	75-125		
Total Phosphorus	32800		4410	mg/kg dry	22100	10700	100	75-125		

**Matrix Spike (BGD0607-MS4)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/21/2023

Copper	1180		53.4	mg/kg dry	1120	161	90.7	75-125		
Potassium	12600		1070	mg/kg dry	5350	7400	96.6	75-125		
Selenium	51.1		10.7	mg/kg dry	53.5	<10.7	95.6	75-125		
Total Phosphorus	32400		1070	mg/kg dry	10700	21100	106	75-125		

**Matrix Spike (BGD0607-MS5)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/24/2023

Zinc	1870	J1	55.3	mg/kg dry	2260	483	61.4	75-125		
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**Matrix Spike (BGD0607-MS6)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/24/2023

Zinc	1400		53.6	mg/kg dry	1100	523	80.1	75-125		
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**Matrix Spike Dup (BGD0607-MSD1)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	74.1	J1	4.41	mg/kg dry	110	3.71	63.7	75-125	13.4	20
Cadmium	7.66	J1	0.441	mg/kg dry	11.0	0.547	64.4	75-125	12.3	20
Chromium	44.1	J1	2.21	mg/kg dry	55.2	9.06	63.4	75-125	13.2	20
Lead	40.0	J1	2.21	mg/kg dry	55.2	5.69	62.1	75-125	13.0	20
Molybdenum	36.6	J1	2.21	mg/kg dry	55.2	3.96	59.0	75-125	13.5	20
Nickel	44.3	J1	2.21	mg/kg dry	55.2	12.7	57.3	75-125	13.7	20
Potassium	15200		441	mg/kg dry	11000	4750	94.3	75-125	1.47	20
Selenium	75.8	J1	4.41	mg/kg dry	110	4.32	64.7	75-125	15.6	20





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**Quality Control**  
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**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Matrix Spike Dup (BGD0607-MSD2)</b>		<b>Source: 23C6098-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/20/2023</b>					
Arsenic	50.9		2.13	mg/kg dry	53.4	5.89	84.4	75-125	10.5	20
Cadmium	5.00		0.213	mg/kg dry	5.34	0.427	85.6	75-125	15.2	20
Chromium	28.3		1.07	mg/kg dry	26.7	5.33	86.1	75-125	10.7	20
Lead	27.5		1.07	mg/kg dry	26.7	5.25	83.5	75-125	9.81	20
Molybdenum	28.1		1.07	mg/kg dry	26.7	6.35	81.7	75-125	11.4	20
Nickel	28.5		1.07	mg/kg dry	26.7	6.42	82.6	75-125	9.46	20
<b>Matrix Spike Dup (BGD0607-MSD3)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/21/2023</b>					
Copper	2290		110	mg/kg dry	2320	131	93.2	75-125	11.1	20
Total Phosphorus	32600		4410	mg/kg dry	22100	10700	98.9	75-125	0.747	20
<b>Matrix Spike Dup (BGD0607-MSD4)</b>		<b>Source: 23C6098-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/21/2023</b>					
Copper	1120		107	mg/kg dry	1120	161	85.3	75-125	5.41	20
Potassium	12100		1070	mg/kg dry	5340	7400	88.4	75-125	3.61	20
Selenium	50.7		10.7	mg/kg dry	53.4	<10.7	95.0	75-125	0.843	20
Total Phosphorus	31400		1070	mg/kg dry	10700	21100	96.7	75-125	3.02	20
Zinc	1510		53.5	mg/kg dry	1090	523	89.8	75-125	7.23	20
<b>Matrix Spike Dup (BGD0607-MSD5)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/24/2023</b>					
Zinc	2480	J1	55.4	mg/kg dry	2260	483	88.1	75-125	27.9	20
<b>Post Spike (BGD0607-PS1)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/20/2023</b>					
Arsenic	336	J1		ug/L	500	15.9	64.1	80-120		
Cadmium	34.6	J1		ug/L	50.0	2.34	64.4	80-120		
Chromium	207	J1		ug/L	250	38.8	67.1	80-120		
Copper	803	J1		ug/L	500	561	48.4	80-120		
Lead	180	J1		ug/L	250	24.4	62.1	80-120		
Molybdenum	169	J1		ug/L	250	17.0	60.9	80-120		
Nickel	206	J1		ug/L	250	54.3	60.6	80-120		
Potassium	71300			ug/L	50000	20300	102	80-120		
Selenium	346	J1		ug/L	500	18.5	65.6	80-120		
Total Phosphorus	96800			ug/L	50000	45900	102	80-120		

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Post Spike (BGD0607-PS2)</b>		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023						
Arsenic	556			ug/L	500	52.1	101	80-120		
Cadmium	50.1			ug/L	50.0	3.78	92.7	80-120		
Chromium	303			ug/L	250	47.1	103	80-120		
Lead	287			ug/L	250	46.4	96.2	80-120		
Molybdenum	311			ug/L	250	56.2	102	80-120		
Nickel	305			ug/L	250	56.8	99.3	80-120		
<b>Post Spike (BGD0607-PS3)</b>		<b>Source: 23C5686-01</b>		Prepared: 4/18/2023 Analyzed: 4/21/2023						
Zinc	3330	J1		ug/L	250	2070	503	80-120		
<b>Post Spike (BGD0607-PS4)</b>		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/21/2023						
Copper	2220	J1		ug/L	500	1430	160	80-120		
Potassium	118000			ug/L	50000	65500	105	80-120		
Selenium	519			ug/L	500	32.7	97.3	80-120		
Total Phosphorus	257000	J1		ug/L	50000	186000	141	80-120		
Zinc	5640	J1		ug/L	250	4630	403	80-120		
<b>Dilution Check (BGD0607-SRL1)</b>		<b>Source: 23C5686-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023						
Arsenic	5.99	U	22.0	mg/kg dry		<22.0			47.0	10
Cadmium	0.573	U	2.20	mg/kg dry		<2.20			4.73	10
Chromium	<11.0	U	11.0	mg/kg dry		9.06			200	10
Copper	108	J1	22.0	mg/kg dry		131			19.1	10
Lead	5.80	U	11.0	mg/kg dry		5.69			1.92	10
Molybdenum	<11.0	U	11.0	mg/kg dry		<11.0			200	10
Nickel	10.7	U	11.0	mg/kg dry		12.7			16.6	10
Potassium	4940		2200	mg/kg dry		4750			3.92	10
Selenium	<22.0	U	22.0	mg/kg dry		<22.0			200	10
Total Phosphorus	11200		2200	mg/kg dry		10700			4.07	10
Zinc	483		11.0	mg/kg dry		483			0.00166	10

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGD0607-SRL2)</b>		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023						
Arsenic	9.37	U	10.7	mg/kg dry		5.89			45.6	10
Cadmium	0.539	U	1.07	mg/kg dry		0.427			23.2	10
Chromium	5.83		5.35	mg/kg dry		5.33			9.02	10
Copper	155		10.7	mg/kg dry		161			3.82	10
Lead	6.54		5.35	mg/kg dry		5.25			22.0	10
Molybdenum	7.90		5.35	mg/kg dry		6.35			21.7	10
Nickel	7.44		5.35	mg/kg dry		6.42			14.8	10
Potassium	7230		1070	mg/kg dry		7400			2.36	10
Total Phosphorus	21100		1070	mg/kg dry		21100			0.00	10
<b>Dilution Check (BGD0607-SRL4)</b>										
		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/24/2023						
Selenium	<10.7	U	10.7	mg/kg dry		<10.7			200	10
<b>Batch: BGD1436 - SW-7471</b>										
<b>MDL Check (BGD1436-MRL1)</b>				Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.0161	U	0.0197	mg/kg wet	0.00987		163			
<b>Matrix Spike (BGD1436-MS1)</b>										
		<b>Source: 23C5936-01</b>		Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.667		0.0468	mg/kg dry	0.585	0.157	87.0	80-120		
<b>Matrix Spike Dup (BGD1436-MSD1)</b>										
		<b>Source: 23C5936-01</b>		Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.596	J1	0.0469	mg/kg dry	0.587	0.157	74.9	80-120	11.1	20



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**Quality Control**  
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**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0625 - Solid Anions No Prep</b>										
<b>Duplicate (BGD0625-DUP1)</b>		<b>Source: 23D1094-01</b>			Prepared & Analyzed: 4/5/2023					
Nitrate as N	11400		711	mg/kg dry		11400			0.150	15
<b>MRL Check (BGD0625-MRL1)</b>					Prepared & Analyzed: 4/5/2023					
Nitrate as N	0.116	U	0.125	mg/kg wet	0.100		116	50-150		
<b>Matrix Spike (BGD0625-MS1)</b>		<b>Source: 23D1094-01</b>			Prepared & Analyzed: 4/5/2023					
Nitrate as N	11800	J1	790	mg/kg dry	253	11400	169	80-120		
<b>Batch: BGD0694 - Percent Solids</b>										
<b>Blank (BGD0694-BLK1)</b>					Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	<0.100	U	0.100	%						
<b>Duplicate (BGD0694-DUP1)</b>		<b>Source: 23D1274-08</b>			Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.639		0.100	%		0.642			0.563	20
<b>Duplicate (BGD0694-DUP2)</b>		<b>Source: 23D1471-01</b>			Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.775		0.100	%		0.770			0.564	20
<b>Reference (BGD0694-SRM1)</b>					Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.376		0.100	%	0.350		107	78.9-118		
<b>Batch: BGD2244 - TKN T</b>										
<b>Blank (BGD2244-BLK1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	<9.84	U	9.84	mg/kg wet						

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**Quality Control**  
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**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2244 - TKN T (Continued)**

**LCS (BGD2244-BS1)**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Total Kjeldahl Nitrogen - (TKN)	33.6		10.0	mg/kg wet	35.6		94.4	85-115		
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**Duplicate (BGD2244-DUP1)**

**Source: 23D0681-45**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Total Kjeldahl Nitrogen - (TKN)	215		14.1	mg/kg dry		200			7.59	20
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**MRL Check (BGD2244-MRL1)**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Total Kjeldahl Nitrogen - (TKN)	25.7		9.96	mg/kg wet	39.8		64.4	50-150		
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**Matrix Spike (BGD2244-MS1)**

**Source: 23D0681-45**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Total Kjeldahl Nitrogen - (TKN)	279	J1	14.1	mg/kg dry	56.3	200	141	85-115		
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**Batch: BGD2245 - NH3-N T**

**Blank (BGD2245-BLK1)**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Ammonia as N	<9.92	U	9.92	mg/kg wet						
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**LCS (BGD2245-BS1)**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Ammonia as N	93.1		9.90	mg/kg wet	99.0		94.1	85-115		
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**Duplicate (BGD2245-DUP1)**

**Source: 23D0681-45**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Ammonia as N	17.8	J1	13.8	mg/kg dry		13.0			31.2	20
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**MRL Check (BGD2245-MRL1)**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Ammonia as N	9.49	U	9.97	mg/kg wet	9.97		95.2	50-150		
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**Matrix Spike (BGD2245-MS1)**

**Source: 23D0681-45**

Prepared: 4/14/2023 Analyzed: 4/17/2023

Ammonia as N	151		14.2	mg/kg dry	142	13.0	97.5	85-115		
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**Quality Control**  
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**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2137 - SW-7471 TCLP</b>										
<b>Duplicate (BGD2137-DUP1)</b>			<b>Source: 23D1481-01</b>		Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGD1470-LBK1 (BGD2137-LBK1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGD2137-MRL1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	0.000225	U	0.200	mg/L	0.000200		112			
<b>Matrix Spike (BGD2137-MS1)</b>			<b>Source: 23D1481-01</b>		Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	0.00504	U	0.200	mg/L	0.00500	<0.200	101	80-120		

**Batch: BGD2179 - SW-3511**

**MB SV (BGD2179-BLK1)**

Prepared: 4/14/2023 Analyzed: 5/13/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
<hr/>										
Surrogate: 2-Fluorobiphenyl-surr			0.0100	mg/L	0.0100		100	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0251	mg/L	0.0200		125	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0254	mg/L	0.0200		127	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0110	mg/L	0.0100		110	52-162		
Surrogate: Phenol-d5-surr			0.0203	mg/L	0.0200		102	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.0100		109	51.9-147		



Municipal Operations and Consulting  
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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**BS SV (BGD2179-BS1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.0210	U	400	mg/L	0.0200		105	60-140		
2,4,6-Trichlorophenol	0.0222	U	2.00	mg/L	0.0200		111	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0111	U	0.130	mg/L	0.0100		111	60-140		
2-Methylphenol	0.0204	U	200	mg/L	0.0200		102	60-140		
3,4-Methylphenol	0.0379	L, U	200	mg/L	0.0400		94.8	60-140		
Hexachlorobenzene	0.0111	U	0.130	mg/L	0.0100		111	60-140		
Hexachlorobutadiene	0.00529	J1, U	0.500	mg/L	0.0100		52.9	60-140		
Hexachloroethane	0.00594	J1, U	3.00	mg/L	0.0100		59.4	60-140		
Nitrobenzene	0.0117	U	2.00	mg/L	0.0100		117	60-140		
Pentachlorophenol	0.0186	U	100	mg/L	0.0200		93.2	36.8-149		
Pyridine	0.0103	U	5.00	mg/L	0.0500		20.7	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00986	mg/L	0.0100		98.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0251	mg/L	0.0200		125	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0216	mg/L	0.0200		108	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0106	mg/L	0.0100		106	52-162		
Surrogate: Phenol-d5-surr			0.0226	mg/L	0.0200		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00990	mg/L	0.0100		99.0	51.9-147		

**BSD SV (BGD2179-BS1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.0222	U	400	mg/L	0.0200		111	60-140	5.56	40
2,4,6-Trichlorophenol	0.0224	U	2.00	mg/L	0.0200		112	60-140	0.765	40
2,4-Dinitrotoluene (2,4-DNT)	0.0113	U	0.130	mg/L	0.0100		113	60-140	0.942	40
2-Methylphenol	0.0211	U	200	mg/L	0.0200		105	60-140	3.07	40
3,4-Methylphenol	0.0384	L, U	200	mg/L	0.0400		95.9	60-140	1.20	40
Hexachlorobenzene	0.0111	U	0.130	mg/L	0.0100		111	60-140	0.130	40
Hexachlorobutadiene	0.00573	J1, U	0.500	mg/L	0.0100		57.3	60-140	7.86	40
Hexachloroethane	0.00628	U	3.00	mg/L	0.0100		62.8	60-140	5.60	40
Nitrobenzene	0.0112	U	2.00	mg/L	0.0100		112	60-140	4.69	40
Pentachlorophenol	0.0171	U	100	mg/L	0.0200		85.6	36.8-149	8.47	40
Pyridine	0.00699	U	5.00	mg/L	0.0500		14.0	2.5-101	38.7	40
Surrogate: 2-Fluorobiphenyl-surr			0.0102	mg/L	0.0100		102	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0241	mg/L	0.0200		121	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0219	mg/L	0.0200		110	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0104	mg/L	0.0100		104	52-162		
Surrogate: Phenol-d5-surr			0.0234	mg/L	0.0200		117	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00978	mg/L	0.0100		97.8	51.9-147		

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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**BGD1470-BLK1 (BGD2179-LBK1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00275	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0386	mg/L	0.0400		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0925	mg/L	0.0800		116	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0919	mg/L	0.0800		115	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0465	mg/L	0.0400		116	52-162		
Surrogate: Phenol-d5-surr			0.0745	mg/L	0.0800		93.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0364	mg/L	0.0400		90.9	51.9-147		

**23D1094-01 MS (BGD2179-MS1)**

**Source: 23D1094-01**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.116	U	400	mg/L	0.0800	<400	145	44.9-171		
2,4,6-Trichlorophenol	0.101	U	2.00	mg/L	0.0800	<2.00	126	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0600	J1, U	0.130	mg/L	0.0400	<0.130	150	50.3-144		
2-Methylphenol	0.0815	U	200	mg/L	0.0800	<200	102	17.3-182		
3,4-Methylphenol	0.167	L, U	200	mg/L	0.160	<200	105	43.4-188		
Hexachlorobenzene	0.0419	U	0.130	mg/L	0.0400	<0.130	105	56.1-137		
Hexachlorobutadiene	0.0195	U	0.500	mg/L	0.0400	<0.500	48.7	33.1-110		
Hexachloroethane	0.0229	U	3.00	mg/L	0.0400	<3.00	57.3	36.2-106		
Nitrobenzene	0.0502	U	2.00	mg/L	0.0400	<2.00	125	54.9-156		
Pentachlorophenol	0.124	J1, U	100	mg/L	0.0800	<100	156	42.2-151		
Pyridine	0.0669	U	5.00	mg/L	0.200	<5.00	33.5	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0397	mg/L	0.0400		99.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0969	mg/L	0.0800		121	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0890	mg/L	0.0800		111	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0473	mg/L	0.0400		118	52-162		
Surrogate: Phenol-d5-surr			0.0936	mg/L	0.0800		117	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0435	mg/L	0.0400		109	51.9-147		

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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**23D1094-01 MSD (BGD2179-MSD1)**

**Source: 23D1094-01**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.105	U	400	mg/L	0.0800	<400	131	44.9-171	9.92	40
2,4,6-Trichlorophenol	0.0941	U	2.00	mg/L	0.0800	<2.00	118	34.7-143	6.87	40
2,4-Dinitrotoluene (2,4-DNT)	0.0545	U	0.130	mg/L	0.0400	<0.130	136	50.3-144	9.56	40
2-Methylphenol	0.0787	U	200	mg/L	0.0800	<200	98.4	17.3-182	3.42	40
3,4-Methylphenol	0.162	L, U	200	mg/L	0.160	<200	101	43.4-188	3.09	40
Hexachlorobenzene	0.0414	U	0.130	mg/L	0.0400	<0.130	104	56.1-137	1.17	40
Hexachlorobutadiene	0.0218	U	0.500	mg/L	0.0400	<0.500	54.5	33.1-110	11.3	40
Hexachloroethane	0.0249	U	3.00	mg/L	0.0400	<3.00	62.4	36.2-106	8.46	40
Nitrobenzene	0.0486	U	2.00	mg/L	0.0400	<2.00	121	54.9-156	3.23	40
Pentachlorophenol	0.109	U	100	mg/L	0.0800	<100	136	42.2-151	13.5	40
Pyridine	0.0659	U	5.00	mg/L	0.200	<5.00	32.9	2-87.4	1.64	40
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Surrogate: 2-Fluorobiphenyl-surr			0.0381	mg/L	0.0400		95.2	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0955	mg/L	0.0800		119	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0879	mg/L	0.0800		110	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0416	mg/L	0.0400		104	52-162		
Surrogate: Phenol-d5-surr			0.0901	mg/L	0.0800		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0429	mg/L	0.0400		107	51.9-147		

**Batch: BGD2443 - SW-3511**

**Blank (BGD2443-BLK1)**

Prepared: 4/17/2023 Analyzed: 4/25/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
<hr/>										
Surrogate: DCAA-surr			0.0216	mg/L	0.0250		86	70-130		

**LCS (BGD2443-BS1)**

Prepared: 4/17/2023 Analyzed: 4/25/2023

2,4-D	0.00427	U	10.0	mg/L	0.00515		83	70-130		
Silvex (2,4,5-TP)	0.00419	U	1.00	mg/L	0.00500		84	70-130		
<hr/>										
Surrogate: DCAA-surr			0.0204	mg/L	0.0250		82	70-130		



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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2443 - SW-3511 (Continued)</b>										
<b>LCS Dup (BGD2443-BSD1)</b>					Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.00465	U	10.0	mg/L	0.00515		90	70-130	9	30
Silvex (2,4,5-TP)	0.00434	U	1.00	mg/L	0.00500		87	70-130	4	30
Surrogate: DCAA-surr			0.0227	mg/L	0.0250		91	70-130		
<b>BGD1470-BLK1 (BGD2443-LBK3)</b>										
					Prepared: 4/17/2023 Analyzed: 5/13/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.153	mg/L	0.100		153	70-130		
<b>BGD1975-BLK1 (BGD2443-LBK4)</b>										
					Prepared: 4/17/2023 Analyzed: 5/13/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.155	mg/L	0.100		155	70-130		
<b>Matrix Spike (BGD2443-MS1)</b>										
			<b>Source: 23D0909-01</b>		Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.0205	U	10.0	mg/L	0.0206	<10.0	99	70-130		
Silvex (2,4,5-TP)	0.0191	U	1.00	mg/L	0.0200	<1.00	96	70-130		
Surrogate: DCAA-surr			0.0911	mg/L	0.100		91	70-130		
<b>Matrix Spike Dup (BGD2443-MSD1)</b>										
			<b>Source: 23D0909-01</b>		Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	70-130	5	30
Silvex (2,4,5-TP)	0.0199	U	1.00	mg/L	0.0200	<1.00	100	70-130	4	30
Surrogate: DCAA-surr			0.112	mg/L	0.100		112	70-130		
<b>Batch: BGD2621 - SW-3511</b>										
<b>Blank (BGD2621-BLK1)</b>					Prepared: 4/18/2023 Analyzed: 5/1/2023					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			9.55E-5	mg/L	0.000120		79.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		84.6	60-140		



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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2621 - SW-3511 (Continued)**

**TOX LCS (BGD2621-BS1)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Toxaphene (Chlorinated Camphene)	0.00124	U	0.500	mg/L	0.00120		103	60-140		
Surrogate: 2,4,5,6			0.000133	mg/L	0.000120		111	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000141	mg/L	0.000120		118	60-140		

**LCS (BGD2621-BS2)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.000346	U	0.0300	mg/L	0.000480		72.2	60-140		
Endrin	9.31E-5	U	0.0200	mg/L	0.000120		77.6	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.69E-5	U	0.400	mg/L	0.000120		72.4	60-140		
Heptachlor	8.74E-5	U	0.00800	mg/L	0.000120		72.8	60-140		
Heptachlor epoxide	8.70E-5	U	0.00800	mg/L	0.000120		72.5	60-140		
Methoxychlor	9.64E-5	U	10.0	mg/L	0.000120		80.3	60-140		
Surrogate: 2,4,5,6			8.78E-5	mg/L	0.000120		73.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		85.4	60-140		

**TOX LCSD (BGD2621-BSD1)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Toxaphene (Chlorinated Camphene)	0.00129	U	0.500	mg/L	0.00120		107	60-140	3.66	40
Surrogate: 2,4,5,6			0.000122	mg/L	0.000120		102	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000133	mg/L	0.000120		111	60-140		

**LCS Dup (BGD2621-BSD2)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.000345	U	0.0300	mg/L	0.000480		71.9	60-140	0.436	40
Endrin	9.13E-5	U	0.0200	mg/L	0.000120		76.1	60-140	2.03	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.06E-5	U	0.400	mg/L	0.000120		75.5	60-140	4.26	40
Heptachlor	8.87E-5	U	0.00800	mg/L	0.000120		73.9	60-140	1.44	40
Heptachlor epoxide	8.69E-5	U	0.00800	mg/L	0.000120		72.4	60-140	0.186	40
Methoxychlor	9.20E-5	U	10.0	mg/L	0.000120		76.7	60-140	4.66	40
Surrogate: 2,4,5,6			9.70E-5	mg/L	0.000120		80.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		87.0	60-140		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2621 - SW-3511 (Continued)**

**BGD1470-BLK1 (BGD2621-LBK1)**

Prepared: 4/18/2023 Analyzed: 5/2/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	6.93E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000572	mg/L	0.000600		95.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000505	mg/L	0.000600		84.1	60-140		

**BGD2228-BLK2 (BGD2621-LBK2)**

Prepared: 4/18/2023 Analyzed: 5/2/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	2.59E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	3.39E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	1.66E-5	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000138	mg/L	0.000120		115	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.98E-5	mg/L	0.000120		83.1	60-140		

**TOX MRL (BGD2621-MRL1)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Toxaphene (Chlorinated Camphene)	0.000515	U	0.500	mg/L	0.000300		172			
Surrogate: 2,4,5,6			0.000151	mg/L	0.000120		126	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000170	mg/L	0.000120		142	60-140		

**MRL Check (BGD2621-MRL2)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	3.65E-5	U	0.0300	mg/L	4.80E-5		76.1			
Endrin	9.91E-6	U	0.0200	mg/L	1.20E-5		82.6			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.06E-5	U	0.400	mg/L	1.20E-5		88.1			
Heptachlor	1.11E-5	U	0.00800	mg/L	1.20E-5		92.8			
Heptachlor epoxide	9.00E-6	U	0.00800	mg/L	1.20E-5		75.0			
Methoxychlor	1.11E-5	U	10.0	mg/L	1.20E-5		92.2			
Surrogate: 2,4,5,6			9.95E-5	mg/L	0.000120		82.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		85.2	60-140		





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2621 - SW-3511 (Continued)**

**Matrix Spike (BGD2621-MS1)**

**Source: 23D0985-01**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.00252	U	0.0300	mg/L	0.00240	4.98E-6	105	60-140		
Endrin	0.000707	U	0.0200	mg/L	0.000600	<0.0200	118	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000692	U	0.400	mg/L	0.000600	<0.400	115	60-140		
Heptachlor	0.000690	U	0.00800	mg/L	0.000600	<0.00800	115	60-140		
Heptachlor epoxide	0.000668	U	0.00800	mg/L	0.000600	4.98E-6	111	60-140		
Methoxychlor	0.000793	U	10.0	mg/L	0.000600	<10.0	132	60-140		
Surrogate: 2,4,5,6			0.000646	mg/L	0.000600		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000526	mg/L	0.000600		87.7	60-140		

**Matrix Spike Dup (BGD2621-MSD1)**

**Source: 23D0985-01**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.00283	U	0.0300	mg/L	0.00240	4.98E-6	118	60-140	11.4	40
Endrin	0.000804	U	0.0200	mg/L	0.000600	<0.0200	134	60-140	12.8	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000811	U	0.400	mg/L	0.000600	<0.400	135	60-140	15.9	40
Heptachlor	0.000776	U	0.00800	mg/L	0.000600	<0.00800	129	60-140	11.8	40
Heptachlor epoxide	0.000762	U	0.00800	mg/L	0.000600	4.98E-6	126	60-140	13.1	40
Methoxychlor	0.000891	U	10.0	mg/L	0.000600	<10.0	148	60-140	11.6	40
Surrogate: 2,4,5,6			0.000745	mg/L	0.000600		124	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000553	mg/L	0.000600		92.2	60-140		

**Batch: BGD2687 - EPA 200.2 TCLP**

**Blank (BGD2687-BLK1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**LCS (BGD2687-BS1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.510	U	5.00	mg/L	0.500		102	80-120		
Barium	0.513	U	100	mg/L	0.500		103	80-120		
Cadmium	0.0513	U	1.00	mg/L	0.0500		103	80-120		
Chromium	0.256	U	5.00	mg/L	0.250		102	80-120		
Lead	0.255	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.506	U	1.00	mg/L	0.500		101	80-120		
Silver	0.0531	U	5.00	mg/L	0.0500		106	80-120		

**Duplicate (BGD2687-DUP1)**

Source: 23D1481-01

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.13	U	100	mg/L		1.17			4.18	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

**Duplicate (BGD2687-DUP2)**

Source: 23D2913-01

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.67	U	100	mg/L		1.85			9.95	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

**BGD1470-BLK1 (BGD2687-LBK1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.843	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**BGD1975-BLK1 (BGD2687-LBK2)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.0112	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**Matrix Spike (BGD2687-MS1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.537	U	5.00	mg/L	0.500	<5.00	107	75-125		
Barium	1.58	U	100	mg/L	0.500	1.17	81.0	75-125		
Cadmium	0.0535	U	1.00	mg/L	0.0500	<1.00	107	75-125		
Chromium	0.246	U	5.00	mg/L	0.250	<5.00	98.4	75-125		
Lead	0.253	U	5.00	mg/L	0.250	<5.00	101	75-125		
Selenium	0.515	U	1.00	mg/L	0.500	<1.00	103	75-125		
Silver	0.0523	U	5.00	mg/L	0.0500	<5.00	105	75-125		

**Matrix Spike (BGD2687-MS2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.505	U	5.00	mg/L	0.500	<5.00	101	75-125		
Barium	1.45	J1, U	100	mg/L	0.500	1.85	NR	75-125		
Cadmium	0.0526	U	1.00	mg/L	0.0500	<1.00	105	75-125		
Chromium	0.253	U	5.00	mg/L	0.250	<5.00	101	75-125		
Lead	0.251	U	5.00	mg/L	0.250	<5.00	100	75-125		
Selenium	0.505	U	1.00	mg/L	0.500	<1.00	101	75-125		
Silver	0.0531	U	5.00	mg/L	0.0500	<5.00	106	75-125		

**Post Spike (BGD2687-PS1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	531			ug/L	500	13.2	104	80-120		
Barium	1470	J1		ug/L	500	1140	65.4	80-120		
Cadmium	52.1			ug/L	50.0	0.478	103	80-120		
Chromium	250			ug/L	250	1.89	99.4	80-120		
Lead	249			ug/L	250	3.28	98.3	80-120		
Selenium	505			ug/L	500	3.60	100	80-120		
Silver	53.0			ug/L	50.0	0.410	105	80-120		

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**Post Spike (BGD2687-PS2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	530			ug/L	500	14.0	103	80-120		
Barium	2190	J1		ug/L	500	1800	77.6	80-120		
Cadmium	52.0			ug/L	50.0	0.351	103	80-120		
Chromium	249			ug/L	250	0.897	99.4	80-120		
Lead	248			ug/L	250	0.546	98.9	80-120		
Selenium	515			ug/L	500	1.80	103	80-120		
Silver	52.3			ug/L	50.0	0.634	103	80-120		

**Dilution Check (BGD2687-SRL1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.17	U	100	mg/L		1.17			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

**Dilution Check (BGD2687-SRL2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.85	U	100	mg/L		1.85			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

### Sample Condition Checklist

Work Order: 23D1283

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

## Term and Qualifier Definitions

Item	Definition
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
TV	Estimated value - The method required temperature requirement was outside of the acceptable range.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

\* A = Accredited, N = Not Accredited or Accreditation not available



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-38 TCEQ-TOX T104704202-22-17



Page 1 of 2

23D1283

Lab PM : Deena Higginbotham		Project Name : HC MUD 200 - Non Potable - Sewage Sludge Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 13050 Stonefield Dr Houston 77014 Gate Combo 2006					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23D1283-01	Digester		4/4/2023 1000	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass VOA 60mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C Sub_VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-38 TCEQ-TOX T104704202-22-17



Page 2 of 2

23D1283

(Continued)

Lab PM : Deena Higginbotham	Project Name : HC MUD 200 - Non Potable - Sewage Sludge Annual	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 13050 Stonesfield Dr Houston 77014 Gate Combo 2006	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
		(Circle and Write ID Below)			
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation	Relinquished To Lab By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	
		4.4.23/1635	ROP	4.4.23/1635	
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

North West

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022



# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23040458



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

## Client Project Name :

**23D1283**

### Report To :

Client Name: NWDLS  
Attn: Deena Higginbotham  
Client Address: 130 S Trade Center Pkwy  
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23D1283

Sample Collected By:

Date Collected: 04/04/23

### A&B Labs has analyzed the following samples...

#### Client Sample ID

23D1283-01

#### Matrix

Solid

#### A&B Sample ID

23040458.01

A handwritten signature in black ink, appearing to read 'Senthilkumar Sevukan'.

Released By: Senthilkumar Sevukan

Title: Vice President Operations

Date: 4/14/2023



This Laboratory is NELAP ( T104704213) accredited. Effective: 04/01/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 04/05/2023 17:42

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23040458

Date: 4/14/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

V1 CCV recovery is above acceptance limits. This target analyte was not detected in the sample.

**LABORATORY TEST RESULTS**

Job ID : 23040458

Date 4/14/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23D1283

Client Sample ID: 23D1283-01

Job Sample ID: 23040458.01

Date Collected: 04/04/23

Sample Matrix Solid

Time Collected: 10:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8270D	TCLP Semivolatiles									
	2,4,5-Trichlorophenol	< 0.004	mg/L	1.00	0.004	0.025	400		04/10/23 21:24	GM
	2,4,6-Trichlorophenol	< 0.004	mg/L	1.00	0.004	0.025	2		04/10/23 21:24	GM
	2,4-Dinitrotoluene	< 0.005	mg/L	1.00	0.005	0.025	0.13	V1	04/10/23 21:24	GM
	2-Methylphenol	< 0.005	mg/L	1.00	0.005	0.025	200		04/10/23 21:24	GM
	3- & 4-Methylphenols	0.07975	mg/L	1.00	0.007	0.025	200		04/10/23 21:24	GM
	Hexachlorobenzene	< 0.003	mg/L	1.00	0.003	0.025	0.13		04/10/23 21:24	GM
	Hexachlorobutadiene	< 0.002	mg/L	1.00	0.002	0.025	0.5		04/10/23 21:24	GM
	Hexachloroethane	< 0.002	mg/L	1.00	0.002	0.025	3		04/10/23 21:24	GM
	Nitrobenzene	< 0.005	mg/L	1.00	0.005	0.025	2		04/10/23 21:24	GM
	Pentachlorophenol	< 0.003	mg/L	1.00	0.003	0.025	100		04/10/23 21:24	GM
	Pyridine	< 0.002	mg/L	1.00	0.002	0.025	5		04/10/23 21:24	GM
	2,4,6-Tribromophenol(surr)	58.8	%	1.00		10-120			04/10/23 21:24	GM
	2-Fluorobiphenyl(surr)	70.9	%	1.00		30-115			04/10/23 21:24	GM
	2-Fluorophenol(surr)	40.9	%	1.00		17-115			04/10/23 21:24	GM
	Nitrobenzene-d5(surr)	68.8	%	1.00		20-120			04/10/23 21:24	GM
	Phenol-d6(surr)	41	%	1.00		15-120			04/10/23 21:24	GM
	p-Terphenyl-d14(surr)	88.1	%	1.00		30-140			04/10/23 21:24	GM

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23040458

Date : 4/14/2023

Analysis : TCLP Semivolatiles Method : SW-846 8270D Reporting Units : mg/L

QC Batch ID : Qb230410117 Created Date : 03/10/23 Created By : GeMu

Samples in This QC Batch : 23040458.01

Extraction : PB23041035 Prep Method : SW-846 3510C Prep Date : 04/10/23 10:30 Prep By : MMuteen  
TCLP Prep : PB23040801 Prep Method : SW-846 1311 Prep Date : 04/07/23 17:00 Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
2,4,5-Trichlorophenol	95-95-4	< MDL	mg/L	0.20	0.005	0.00425	
2,4,6-Trichlorophenol	88-06-2	< MDL	mg/L	0.20	0.005	0.00395	
2,4-Dinitrotoluene	121-14-2	< MDL	mg/L	0.20	0.005	0.00485	
2-Methylphenol	95-48-7	< MDL	mg/L	0.20	0.005	0.005	
3- & 4-Methylphenols	65794-96-9	< MDL	mg/L	0.20	0.005	0.0066	
Hexachlorobenzene	118-74-1	< MDL	mg/L	0.20	0.005	0.00345	
Hexachlorobutadiene	87-68-3	< MDL	mg/L	0.20	0.005	0.00205	
Hexachloroethane	67-72-1	< MDL	mg/L	0.20	0.005	0.00235	
Nitrobenzene	98-95-3	< MDL	mg/L	0.20	0.005	0.00455	
Pentachlorophenol	87-86-5	< MDL	mg/L	0.20	0.005	0.0025	
Pyridine	110-86-1	< MDL	mg/L	0.20	0.005	0.00175	
2-Fluorophenol(surr)	367-12-4	48.5	%	0.20			
Phenol-d6(surr)	13127-88-3	15.8	%	0.20			
Nitrobenzene-d5(surr)	4165-60-0	70.8	%	0.20			
2-Fluorobiphenyl(surr)	321-60-8	60.2	%	0.20			
2,4,6-Tribromophenol(surr)	118-79-6	87.9	%	0.20			
p-Terphenyl-d14(surr)	1718-51-0	81.8	%	0.20			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
2,4,5-Trichlorophenol	0.25	0.186	74.6	0.25	0.182	72.8	2.4	35	10-115	
2,4,6-Trichlorophenol	0.25	0.190	75.9	0.25	0.186	74.5	2	35	40-138	
2,4-Dinitrotoluene	0.25	0.184	73.8	0.25	0.187	74.7	1.4	35	32-114	
2-Methylphenol	0.25	0.166	66.4	0.25	0.169	67.6	1.7	35	10-132	
3- & 4-Methylphenols	0.5	0.317	63.5	0.5	0.338	67.7	6.3	35	29-132	
Hexachlorobenzene	0.25	0.226	90.6	0.25	0.240	96	5.8	35	44-142	
Hexachlorobutadiene	0.25	0.208	83	0.25	0.196	78.5	5.7	35	20-124	
Hexachloroethane	0.25	0.160	64.2	0.25	0.159	63.8	0.9	35	14-136	
Nitrobenzene	0.25	0.159	63.5	0.25	0.167	66.6	5.1	35	38-146	
Pentachlorophenol	0.25	0.207	82.6	0.25	0.198	79	4.2	35	25-125	
Pyridine	0.25	0.142	57	0.25	0.137	54.6	3.9	35	10-112	
Pyridine	0.25	0.142	57	0.25	0.137	54.6	3.9	35	10-112	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 23040458

Date : 4/14/2023

Analysis : TCLP Semivolatiles

Method : SW-846 8270D

Reporting Units : mg/L

QC Batch ID : Qb230410117 Created Date : 03/10/23

Created By : GeMu

Samples in This QC Batch : 23040458.01

QC Type: MS and MSD

QC Sample ID: 23040467.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,4,5-Trichlorophenol	BRL	0.25	0.221	88.5						10-115	
2,4,6-Trichlorophenol	BRL	0.25	0.220	88.1						40-138	
2,4-Dinitrotoluene	BRL	0.25	0.237	94.9						32-114	
2-Methylphenol	BRL	0.25	0.211	84.4						10-132	
3- & 4-Methylphenols	BRL	0.5	0.412	82.4						29-132	
Hexachlorobenzene	BRL	0.25	0.291	116						44-142	
Hexachlorobutadiene	BRL	0.25	0.260	104						20-124	
Hexachloroethane	BRL	0.25	0.203	81.1						14-136	
Nitrobenzene	BRL	0.25	0.200	79.8						38-146	
Pentachlorophenol	BRL	0.25	0.283	113						25-125	
Pyridine	BRL	0.25	0.219	87.7						10-112	



# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23D1283

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23D1283-01 Solid Sampled: 04/04/2023 10:00

SVOA-TCLP 04/18/2023 04/11/2023 10:00

### Analyte(s):

2,4,5 & 2,4,6-Trichlorophenol  
2,4,6-Trichlorophenol  
2-Fluorophenol-surr  
Hexachlorobenzene  
Nitrobenzene  
Phenol-d5-surr

OIA

2,4,5-Trichlorophenol  
2,4-Dinitrotoluene (2,4-DNT)  
2-Methylphenol  
Hexachlorobutadiene  
Nitrobenzene-d5-surr  
p-Terphenyl-d14-surr

2,4,6-Tribromophenol-surr  
2-Fluorobiphenyl-surr  
3,4-Methylphenol  
Hexachloroethane  
Pentachlorophenol  
Pyridine

### Containers Supplied:

Released By

Date

Received By

Date

Job ID:23040458



04/05/2023

NWDLS

AMS



## Sample Condition Checklist

A&B JobID : <b>23040458</b>	Date Received : <b>04/05/2023</b>	Time Received : <b>5:42PM</b>
Client Name : <b>NWDLS</b>		
Temperature : <b>2.1°C</b>	Sample pH : <b>NA</b>	
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>	
Preservative :		

	Check Points	Yes	No	N/A											
1.	Cooler Seal present and signed.		X												
2.	Sample(s) in a cooler.	X													
3.	If yes, ice in cooler.	X													
4.	Sample(s) received with chain-of-custody.	X													
5.	C-O-C signed and dated.	X													
6.	Sample(s) received with signed sample custody seal.		X												
7.	Sample containers arrived intact. (If No comment)	X													
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water <input type="checkbox"/></td> <td>Soil <input type="checkbox"/></td> <td>Liquid <input type="checkbox"/></td> <td>Sludge <input type="checkbox"/></td> <td>Solid <input checked="" type="checkbox"/></td> <td>Cassette <input type="checkbox"/></td> <td>Tube <input type="checkbox"/></td> <td>Bulk <input type="checkbox"/></td> <td>Badge <input type="checkbox"/></td> <td>Food <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> </table>	Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>			
Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>					
9.	Samples were received in appropriate container(s)	X													
10.	Sample(s) were received with Proper preservative			X											
11.	All samples were tagged or labeled.	X													
12.	Sample ID labels match C-O-C ID's.	X													
13.	Bottle count on C-O-C matches bottles found.	X													
14.	Sample volume is sufficient for analyses requested.	X													
15.	Samples were received within the hold time.	X													
16.	VOA vials completely filled.			X											
17.	Sample accepted.	X													
18.	Has client been contacted about sub-out			X											

**Comments : Include actions taken to resolve discrepancies/problem:**

COC shows solid, received sludge. ~EV 4/5/2023

Received by : EValdez

Check in by/date : EValdez / 04/05/2023

ab-s005-0321







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Tel: 936 653 3249



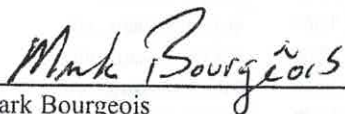
July 07, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

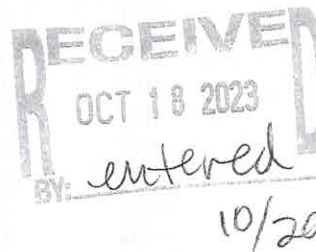
RE: **HC WCID 92 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 06/01/23 17:30, with Lab ID Number C3E5990. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Bourgeois  
Special Projects Manager



☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☒ Metals  
☒ PCB ☐ F/S

PS .7



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

## LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester a  
Client Matrix: Waste

Sample Date & Time: 06/01/2023 11:37  
Collector: CNG  
Sample Type: Grab  
Print Date: 7/7/2023

### Digester C3E5990-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Metals</u></b>								
Arsenic	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Cadmium	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Chromium	14.2	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Copper	240	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Lead	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Mercury, Total	0.373	0.222	mg/Kg dry	A	B3F3803	06/26/2023 15:47	EPA SW 846-7471B	
Molybdenum	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Nickel	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Phosphorus, %	1.54	1.00	% dry	A	B3G0041	07/06/2023 14:38	EPA SW 846-6010, 3050	
Potassium, %	<0.556	0.556	% dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Selenium	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Zinc	838	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	

### Wet Lab

NH3N %	<4.44	4.44	% dry	A	B3F2073	06/22/2023 08:50	EPA 350.2	
Nitrate-N, %	0.457	0.000222	% dry	N	B3F2589	06/20/2023 11:34	SM 4500 NO3 D	
Percent Solid	0.9	0.1	%	A	B3F2399	06/15/2023 12:48	SM 2540G	3
pH-Sludge	6.6		std unit	A	B3F2126	06/14/2023 16:25	EPA SW 846-9040	
TKN %	4.87	0.111	% dry	N	B3F2345	06/22/2023 10:23	EPA 351.2	13

457  
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0000457



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 Tel: 936 653 3249



Harris County WCID 92  
 P.O. Box 579  
 Spring TX, 77383

**EPA 350.2 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F2073 - No Prep Prepared: 06/22/23 08:50</b>										
<b>Blank (B3F2073-BLK1)</b>				<b>Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	ND	0.0400	% wet							
<b>LCS (B3F2073-BS1)</b>				<b>Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.03		mg/L	2.00		101	80-120			
<b>Matrix Spike (B3F2073-MS1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.51		mg/L	2.50	0.00300	100	80-120			
<b>Matrix Spike Dup (B3F2073-MSD1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.52		mg/L	2.50	0.00300	100	80-120	0.159	20	
<b>Batch B3F2126 - No Prep Prepared: 06/14/23 16:25</b>										
<b>LCS (B3F2126-BS1)</b>				<b>Analyzed: 6/14/2023 4:25:00PM</b>						
pH-Sludge	6.88		std unit	6.86		100	0-200			
<b>Duplicate (B3F2126-DUP1)</b>				<b>Source: C3E5990-01 Analyzed: 6/14/2023 4:25:00PM</b>						
pH-Sludge	6.6		std unit		6.6			0.00	20	
<b>Batch B3F2345 - SM 4500 Norg C Prepared: 06/22/23 10:23</b>										
<b>Blank (B3F2345-BLK1)</b>				<b>Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	ND	0.00100	% wet							
<b>LCS (B3F2345-BS1)</b>				<b>Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	8.124		mg/L	10.0		81.2	80-120			13
<b>Matrix Spike (B3F2345-MS1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	7.275178	0.111	% dry	2.78	4.871811	86.5	80-120			13
<b>Matrix Spike Dup (B3F2345-MSD1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	7.441434	0.111	% dry	2.78	4.871811	92.5	80-120	2.26	20	13
<b>Batch B3F2399 - No Prep Prepared: 06/15/23 12:48</b>										
<b>Blank (B3F2399-BLK1)</b>				<b>Analyzed: 6/15/2023 12:48:00PM</b>						
Percent Solid	ND	0.1	%							
<b>Duplicate (B3F2399-DUP1)</b>				<b>Source: C3F3098-01 Analyzed: 6/15/2023 12:48:00PM</b>						
Percent Solid	1.5	0.1	%		1.5			0.00	20	

Eastex Environmental Laboratory - Coldspring

The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
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Tel: 936 653 3249



Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

**SM 4500 NO3 D - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F2589 - No Prep</b> <b>Prepared: 06/20/23 11:34</b>										
<b>Blank (B3F2589-BLK1)</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3F2589-BS1)</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	0.996		mg/L	1.00		99.6	80-120			
<b>Matrix Spike (B3F2589-MS1)</b> <b>Source: C3E5990-01</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	1.016667	0.000222	% dry	0.556	0.4566667	101	80-120			
<b>Matrix Spike Dup (B3F2589-MSD1)</b> <b>Source: C3E5990-01</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	1.106667	0.000222	% dry	0.556	0.4566667	117	80-120	8.48	20	
<b>Batch B3F3803 - SW 846-7471B</b> <b>Prepared: 06/23/23 13:50</b>										
<b>Blank (B3F3803-BLK1)</b> <b>Analyzed: 6/26/2023 3:30:00PM</b>										
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3F3803-BS1)</b> <b>Analyzed: 6/26/2023 3:32:31PM</b>										
Mercury, Total	0.0252	0.00200	mg/Kg wet	0.0250		101	80-120			
<b>Matrix Spike (B3F3803-MS1)</b> <b>Source: C3E5984-01</b> <b>Analyzed: 6/26/2023 3:40:54PM</b>										
Mercury, Total	1.51	0.133	mg/Kg dry	1.67	0.150	81.8	75-125			
<b>Matrix Spike Dup (B3F3803-MSD1)</b> <b>Source: C3E5984-01</b> <b>Analyzed: 6/26/2023 3:43:26PM</b>										
Mercury, Total	1.67	0.133	mg/Kg dry	1.67	0.150	91.0	75-125	9.64	20	
<b>Batch B3G0040 - SW846-3050</b> <b>Prepared: 07/03/23 15:29</b>										
<b>Blank (B3G0040-BLK1)</b> <b>Analyzed: 7/6/2023 11:36:56AM</b>										
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3G0040-BS1)</b> <b>Analyzed: 7/6/2023 11:40:23AM</b>										

Eastex Environmental Laboratory - Coldspring

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 Spring TX, 77383

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3G0040 - SW846-3050**

**Prepared: 07/03/23 15:29**

**LCS (B3G0040-BS1)**

**Analyzed: 7/6/2023 11:40:23AM**

Molybdenum	2.72	0.100	mg/Kg wet	2.50		109	80-120			
Arsenic	2.56	0.100	mg/Kg wet	2.50		102	80-120			
Cadmium	2.7	0.100	mg/Kg wet	2.50		107	80-120			
Chromium	2.67	0.100	mg/Kg wet	2.50		107	80-120			
Copper	2.91	0.100	mg/Kg wet	2.50		116	80-120			
Lead	2.66	0.100	mg/Kg wet	2.50		106	80-120			
Nickel	2.73	0.100	mg/Kg wet	2.50		109	80-120			
Potassium, %	0.0276	0.00500	% wet	0.0250		110	80-120			
Selenium	2.43	0.100	mg/Kg wet	2.50		97.2	80-120			
Zinc	2.7	0.100	mg/Kg wet	2.50		108	80-120			

**Matrix Spike (B3G0040-MS1)**

**Source: C3E2834-01**

**Analyzed: 7/6/2023 11:50:42AM**

Molybdenum	883.3333	33.3	mg/Kg dry	833	3.4	106	75-125			
Arsenic	850	33.3	mg/Kg dry	833	ND	102	75-125			
Cadmium	870	33.3	mg/Kg dry	833	ND	105	75-125			
Chromium	937	33.3	mg/Kg dry	833	81.7	103	75-125			
Copper	1380	33.3	mg/Kg dry	833	433	114	75-125			
Lead	870	33.3	mg/Kg dry	833	11.1	103	75-125			
Nickel	930	33.3	mg/Kg dry	833	13.7	110	75-125			
Potassium, %	9.40	1.67	% dry	8.33	1.16	98.8	75-125			
Selenium	817	33.3	mg/Kg dry	833	ND	98.0	75-125			
Zinc	4133.333	33.3	mg/Kg dry	833	3220	110	75-125			

**Matrix Spike Dup (B3G0040-MSD1)**

**Source: C3E2834-01**

**Analyzed: 7/6/2023 11:54:11AM**

Molybdenum	883.3333	33.3	mg/Kg dry	833	3.4	106	75-125	0.00	20	
Arsenic	853	33.3	mg/Kg dry	833	ND	102	75-125	0.391	20	
Cadmium	880	33.3	mg/Kg dry	833	ND	105	75-125	0.381	20	
Chromium	937	33.3	mg/Kg dry	833	81.7	103	75-125	0.00	20	
Copper	1370	33.3	mg/Kg dry	833	433	112	75-125	0.727	20	
Lead	880	33.3	mg/Kg dry	833	11.1	104	75-125	1.14	20	
Nickel	927	33.3	mg/Kg dry	833	13.7	110	75-125	0.359	20	
Potassium, %	9.37	1.67	% dry	8.33	1.16	98.4	75-125	0.355	20	
Selenium	817	33.3	mg/Kg dry	833	ND	98.0	75-125	0.00	20	
Zinc	4066.667	33.3	mg/Kg dry	833	3220	102	75-125	1.63	20	

**Batch B3G0041 - SW846-3050**

**Prepared: 07/06/23 14:17**

**Blank (B3G0041-BLK1)**

**Analyzed: 7/6/2023 2:17:15PM**

Eastex Environmental Laboratory - Coldspring

*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.*

\*NELAC Status: A=Accredited, N=Accreditation not offered, O=Not Accredited, P=Approved



P.O. Box 1089 Coldspring Tx 77331  
 Website: eastexlabs.com  
 Email: eastexlab@eastex.net  
 Tel: 936 653 3249



Harris County WCID 92  
 P.O. Box 579  
 Spring TX, 77383

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3G0041 - SW846-3050</b>										
<b>Prepared: 07/06/23 14:17</b>										
<b>Blank (B3G0041-BL.K1)</b>										
<b>Analyzed: 7/6/2023 2:17:15PM</b>										
Phosphorus, %	ND	1.00	% wet							
<b>LCS (B3G0041-BS1)</b>										
<b>Analyzed: 7/6/2023 2:20:44PM</b>										
Phosphorus, %	0.00233	1.00	% wet	0.00252		92.3	80-120			
<b>Matrix Spike (B3G0041-MS1)</b>										
<b>Source: C3E2834-01</b>										
<b>Analyzed: 7/6/2023 2:31:09PM</b>										
Phosphorus, %	3.50	1.00	% dry	0.840	2.61	105	75-125			
<b>Matrix Spike Dup (B3G0041-MSD1)</b>										
<b>Source: C3E2834-01</b>										
<b>Analyzed: 7/6/2023 2:34:36PM</b>										
Phosphorus, %	3.46	1.00	% dry	0.840	2.61	101	75-125	0.986	20	



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

#### Notes and Definitions

- 3 Sample analysis performed out of holding time.
- 13 LCS associated with sample batch outside of acceptance limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 6/19/2023 11:24:51 AM

12  
13  
14  
15

## JOB DESCRIPTION

Harris County WCID 92

## JOB NUMBER

860-51255-1



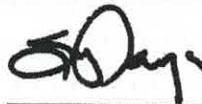
# Eurofins Houston

## 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



Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

Generated  
6/19/2023 11:24:51 AM

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Job ID: 860-51255-1

Laboratory: Eurofins Houston

Narrative

Job Narrative  
860-51255-1

### Receipt

The sample was received on 6/14/2023 2:05 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

### PCBs

Method 8082A: liquid sludge. weighed to 5 gramsHC WCID 92 Digester a (860-51255-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Percent Solids: 0.7

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1221	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1232	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1242	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1248	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1254	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1260	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		35 - 140	06/15/23 13:56	06/16/23 10:51	1
DCB Decachlorobiphenyl (Surr)	92		37 - 142	06/15/23 13:56	06/16/23 10:51	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	99.3				%			06/15/23 15:19	1
Percent Solids (EPA Moisture)	0.7				%			06/15/23 15:19	1

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCB1
		(35-140)	(37-142)
860-51255-1	HC WCID 92 Digester a	76	92
LCS 860-107986/2-A	Lab Control Sample	81	88
LCSD 860-107986/3-A	Lab Control Sample Dup	81	88
MB 860-107986/1-A	Method Blank	78	87

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-107986/1-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1221	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1232	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1242	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1248	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1254	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1260	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		35 - 140	06/15/23 13:55	06/15/23 17:01	1
DCB Decachlorobiphenyl (Surr)	87		37 - 142	06/15/23 13:55	06/15/23 17:01	1

Lab Sample ID: LCS 860-107986/2-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.121		mg/Kg		73	27 - 121
PCB-1260	0.167	0.119		mg/Kg		71	27 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	81		35 - 140
DCB Decachlorobiphenyl (Surr)	88		37 - 142

Lab Sample ID: LCSD 860-107986/3-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.122		mg/Kg		73	27 - 121	0	20
PCB-1260	0.167	0.119		mg/Kg		72	27 - 139	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	81		35 - 140
DCB Decachlorobiphenyl (Surr)	88		37 - 142

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-108051/1  
Matrix: Solid  
Analysis Batch: 108051

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.4				%			06/15/23 15:19	1
Percent Solids	99.6				%			06/15/23 15:19	1

Eurofins Houston



## QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-51255-1 DU

Matrix: Solid

Analysis Batch: 108051

Client Sample ID: HC WCID 92 Digester a

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Moisture	99.3		99.3		%		0	20
Percent Solids	0.7		0.7		%		0	20

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

## GC Semi VOA

### Analysis Batch: 107881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-107986/1-A	Method Blank	Total/NA	Solid	8082A	107986
LCS 860-107986/2-A	Lab Control Sample	Total/NA	Solid	8082A	107986
LCSD 860-107986/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	107986

### Prep Batch: 107986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	3550C	
MB 860-107986/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-107986/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-107986/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 108126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	8082A	107986

## General Chemistry

### Analysis Batch: 108051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	Moisture	
MB 860-108051/1	Method Blank	Total/NA	Solid	Moisture	
860-51255-1 DU	HC WCID 92 Digester a	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			108051	06/15/23 15:19	JM	EET HOU

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Percent Solids: 0.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.02 g	5 mL	107986	06/15/23 13:56	BH	EET HOU
Total/NA	Analysis	8082A		1			108126	06/16/23 10:51	BNW	EET HOU

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26



## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-51255-1	HC WCID 92 Digester a	Solid	06/01/23 11:37	06/14/23 14:05





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6/13/23  
WBE

## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone 713-690-4444  
Fax 713-690-5646

**PO 061423D**

### PROJECT NAME.

Harris County WCID 92

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
1	6-13	11 37 am	HC WCID 92 Digester a	Grab	C3E5990-01	PCB 8082

### Special instructions.

☐ See Attached

PCB MG/KG %SOLIDS



860-51255 Chain of Custody

Temp. 1.8 IR ID: HOU-343  
C/F -0.4  
Corrected Temp: 1.4

Received Iced Y/N Temp \_\_\_\_\_

Released By

Date & Time

Received By

Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-51255-1

Login Number: 51255

List Number: 1

Creator: Rubio, Yuri

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	
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	





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(936) 569-8879 \* FAX (936) 569-8951  
www.eastexlabs.com

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

REPORT TO:

INVOICE TO:

Company: WDW

Company: Address: SAME

Remarks:

Attn:

Attn:

Phone#:

Phone#:

Email:

P.O. #:

Sample's Name (print):

Sample's Signature:

Project Name:

Work Order ID

Sample ID

Date

Time

Matrix

C or G

DO

pH

Cl2

Flow

Temp

#

Size

Type

Pres

Field Data

Containers

ANALYSIS REQUESTED

Land App

Relinquished By:

Received By:

Date

Time

Relinquished By:

Received By:

Date

Time

Relinquished By:

Received By and/or Checked in By:

Date

Time

LAB USE ONLY

Sample Condition Acceptable:

YES / NO

Temp °C

\*Therm ID

Logged in By:

Date

Received Iced:

YES / NO

Alternate Check In:

Date

Time

Temp °C

\*Therm ID

Logged in By:

Date

Received Iced:

YES / NO

\*Thermometer has 0.0 factor and recorded temperature is actual temperature





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July 14, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

RE: **HC WCID 92 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 06/01/23 16:24, with Lab ID Number C3E5991. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager



- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☐ TCLP ☐ Metals
- ☐ PCB ☒ F/S



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O2/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester b  
Client Matrix: Waste

Sample Date & Time: 06/01/2023 11:37  
Collector: CNG  
Sample Type: Grab  
Print Date: 7/14/2023

#### Digester C3E5991-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	--------------------	-------	-----------------	-------	-------------------------	--------	-------

#### Microbiological Lab

Fecal Coliform IDEXX	231400	1000	mpn/gram	N	B3F0416	06/01/2023 17:50	Colilert 18	
Vector	1.8	0.1	mg O2/hr/g	N	B3G1691	06/01/2023 17:00	TAC 312.83(b)(4)	

#### Wet Lab

Percent Solid	0.9	0.1	%	A	B3F0457	06/02/2023 16:44	SM 2540G	
Volatile Percent Solid	70.2	0.1	%	A	B3F0431	06/05/2023 10:38	SM 2540G	





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Harris County WCID 92  
 P.O. Box 579  
 Spring TX, 77383

**Colilert 18 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F0416 - No Prep Micro</b> <b>Prepared: 06/01/23 17:50</b>										
<b>Blank (B3F0416-BLK1)</b> <b>Analyzed: 6/1/2023 5:50:00PM</b>										
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3F0416-DUP1)</b> <b>Source: C3F0733-03</b> <b>Analyzed: 6/1/2023 5:50:00PM</b>										
Fecal Coliform IDEXX	183500	1000	mpn/gram		248100			29.9	200	
<b>Batch B3F0431 - No Prep</b> <b>Prepared: 06/05/23 10:38</b>										
<b>Blank (B3F0431-BLK1)</b> <b>Analyzed: 6/5/2023 10:38:00AM</b>										
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3F0431-DUP1)</b> <b>Source: C3E5991-01</b> <b>Analyzed: 6/5/2023 10:38:00AM</b>										
Volatile Percent Solid	68.2	0.1	%		70.2			2.89	10	
<b>Batch B3F0457 - No Prep</b> <b>Prepared: 06/02/23 16:44</b>										
<b>Blank (B3F0457-BLK1)</b> <b>Analyzed: 6/2/2023 4:44:00PM</b>										
Percent Solid	ND	0.1	%							
<b>Duplicate (B3F0457-DUP1)</b> <b>Source: C3E5991-01</b> <b>Analyzed: 6/2/2023 4:44:00PM</b>										
Percent Solid	0.9	0.1	%		0.9			0.00	20	
<b>Batch B3G1691 - No Prep Micro</b> <b>Prepared: 06/01/23 17:00</b>										
<b>Blank (B3G1691-BLK1)</b> <b>Analyzed: 6/1/2023 5:00:00PM</b>										
Vector	ND	0.1	mg O2/hr/g							
<b>Duplicate (B3G1691-DUP1)</b> <b>Source: C3F0530-01</b> <b>Analyzed: 6/1/2023 5:00:00PM</b>										
Vector	5.85	0.1	mg O2/hr/g		2.66			75.0	200	



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Tel: 936 653 3249



Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



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June 09, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

RE: HC WCID 92 Digester

Enclosed are the results of analyses for samples received by the laboratory on 05/18/23 17:07, with Lab ID Number C3D5831. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Mark Bourgeois*

Mark Bourgeois  
Special Projects Manager



- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☒ TCLP
- ☐ PCB
- ☐ Metals
- ☐ F/S



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

### LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester c  
Client Matrix: Waste

Sample Date & Time: 05/18/2023 12:40  
Collector: TMF  
Sample Type: Grab  
Print Date: 6/9/2023

#### Digester C3D5831-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
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#### Wet Lab

Percent Solid	0.6	0.1	%	A	B3E3232	05/19/2023 14:09	SM 2540G	
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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

**SM 2540G - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E3232 - No Prep</b>		<b>Prepared: 05/19/23 14:09</b>							
<b>Blank (B3E3232-BLK1)</b>		<b>Analyzed: 5/19/2023 2:09:00PM</b>							
Percent Solid	ND	0.1	%						
<b>Duplicate (B3E3232-DUP1)</b>		<b>Source: C3E5025-02 Analyzed: 5/19/2023 2:09:00PM</b>							
Percent Solid	1.8	0.1	%		1.8		0.00	20	



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 6/5/2023 1:47:13 PM

## JOB DESCRIPTION

Harris County WCID 92

## JOB NUMBER

860-49823-1

# Eurofins Houston

## 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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Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004



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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Qualifiers

#### GC/MS Semi VOA

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.

#### GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Job ID: 860-49823-1

Laboratory: Eurofins Houston

Narrative

Job Narrative  
860-49823-1

### Receipt

The sample was received on 5/23/2023 10:16 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 860-105101 recovered above the upper control limit for Tetrachloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-105101/2).

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

### GC/MS Semi VOA

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

### Herbicides

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

### Pesticides

Method 8081B: The laboratory is using 70 - 130% as interim acceptance criteria for recoveries of spiked analytes, until in-house LCS limits are developed. Data is flagged and reported. HC WCID 92 Digester C (860-49823-1), (LB 860-104900/1-F), (LCS 860-105332/2-A), (LCSD 860-105332/3-A) and (MB 860-105332/1-A)

Method 8081B: The laboratory is using 70 - 130% as interim acceptance criteria for recoveries of spiked analytes, until in-house LCS limits are developed. Data is flagged and reported. HC WCID 92 Digester C (860-49823-1), (LB 860-104900/1-F) and (MB 860-105332/1-A)

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

### Metals

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

## Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston





# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			05/27/23 02:51	50
Carbon tetrachloride	ND		0.25		mg/L			05/27/23 02:51	50
Chlorobenzene	ND		0.050		mg/L			05/27/23 02:51	50
Chloroform	ND		0.050		mg/L			05/27/23 02:51	50
1,2-Dichloroethane	ND		0.050		mg/L			05/27/23 02:51	50
1,1-Dichloroethene	ND		0.050		mg/L			05/27/23 02:51	50
2-Butanone	ND		2.5		mg/L			05/27/23 02:51	50
Tetrachloroethene	ND		0.050		mg/L			05/27/23 02:51	50
Trichloroethene	ND		0.25		mg/L			05/27/23 02:51	50
Vinyl chloride	ND		0.10		mg/L			05/27/23 02:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		63 - 144		05/27/23 02:51	50
4-Bromofluorobenzene (Surr)	101		74 - 124		05/27/23 02:51	50
Dibromofluoromethane (Surr)	97		75 - 131		05/27/23 02:51	50
Toluene-d8 (Surr)	103		80 - 120		05/27/23 02:51	50

## Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4-Dinitrotoluene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2-Methylphenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachlorobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachlorobutadiene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachloroethane	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Nitrobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Pentachlorophenol	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5
Pyridine	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5
3 & 4 Methylphenol	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		31 - 132	05/31/23 14:00	06/01/23 19:32	5
2-Fluorobiphenyl (Surr)	50		29 - 112	05/31/23 14:00	06/01/23 19:32	5
2-Fluorophenol (Surr)	43		21 - 114	05/31/23 14:00	06/01/23 19:32	5
Nitrobenzene-d5 (Surr)	57		26 - 110	05/31/23 14:00	06/01/23 19:32	5
p-Terphenyl-d14 (Surr)	73		20 - 141	05/31/23 14:00	06/01/23 19:32	5
Phenol-d5 (Surr)	33		16 - 117	05/31/23 14:00	06/01/23 19:32	5

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 16:24	1
Endrin	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Heptachlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Heptachlor epoxide	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
gamma-BHC (Lindane)	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Methoxychlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	48	S1-	70 - 130	05/30/23 10:34	05/30/23 16:24	1

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62	S1-	70 - 130	05/30/23 10:34	05/30/23 16:24	1

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	06/02/23 13:30	1

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	06/01/23 16:21	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	06/01/23 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82		70 - 162	05/28/23 17:53	06/01/23 16:21	1

## Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Antimony	ND		0.10		mg/L		05/26/23 10:00	05/26/23 18:31	1
Barium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Cadmium	ND		0.025		mg/L		05/26/23 10:00	05/26/23 18:31	1
Chromium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Beryllium	ND		0.020		mg/L		05/26/23 10:00	05/26/23 18:31	1
Lead	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Selenium	ND		0.15		mg/L		05/26/23 10:00	05/26/23 18:31	1
Silver	ND		0.10		mg/L		05/26/23 10:00	05/26/23 18:31	1
Nickel	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 19:16	1

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-105101/3	Lab Control Sample	103	87	94	99
LCSD 860-105101/4	Lab Control Sample Dup	104	86	92	100
MB 860-105101/8	Method Blank	95	108	99	107

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-49823-1	HC WCID 92 Digester C	94	101	97	103

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-105600/2-A	Lab Control Sample	89	69	40	66	87	28
LCSD 860-105600/3-A	Lab Control Sample Dup	89	73	49	69	87	36
MB 860-105600/1-A	Method Blank	77	80	48	80	94	30

**Surrogate Legend**  
TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-49778-A-1-F MS	Matrix Spike	67	58	41	50	79	33
860-49823-1	HC WCID 92 Digester C	58	50	43	57	73	33
LB 860-104900/1-G	Method Blank	84	85	61	87	94	51

**Surrogate Legend**



## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-49823-1

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (70-130)	TCX1 (70-130)
LCS 860-105332/2-A	Lab Control Sample	52 S1-	69 S1-
LCSD 860-105332/3-A	Lab Control Sample Dup	63 S1-	67 S1-
MB 860-105332/1-A	Method Blank	56 S1-	64 S1-
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (70-130)	TCX1 (70-130)
860-49823-1	HC WCID 92 Digester C	48 S1-	62 S1-
LB 860-104900/1-F	Method Blank	50 S1-	71
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
LCS 860-105229/2-A	Lab Control Sample	85	
LCSD 860-105229/3-A	Lab Control Sample Dup	97	
MB 860-105229/1-A	Method Blank	77	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
860-49823-1	HC WCID 92 Digester C	82	
LB 860-104900/1-E	Method Blank	85	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-105101/8

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
B34z343	ND		0.0010		mg/L			05/27/23 01:09	1
Carbon tetrachloride	ND		0.0050		mg/L			05/27/23 01:09	1
Chlorobenzene	ND		0.0010		mg/L			05/27/23 01:09	1
Chloroform	ND		0.0010		mg/L			05/27/23 01:09	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/27/23 01:09	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/27/23 01:09	1
2-Butanone	ND		0.050		mg/L			05/27/23 01:09	1
Tetrachloroethene	ND		0.0010		mg/L			05/27/23 01:09	1
Trichloroethene	ND		0.0050		mg/L			05/27/23 01:09	1
Vinyl chloride	ND		0.0020		mg/L			05/27/23 01:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		05/27/23 01:09	1
4-Bromofluorobenzene (Surr)	108		74 - 124		05/27/23 01:09	1
Dibromofluoromethane (Surr)	99		75 - 131		05/27/23 01:09	1
Toluene-d8 (Surr)	107		80 - 120		05/27/23 01:09	1

Lab Sample ID: LCS 860-105101/3

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0519		mg/L		104	75 - 125
Carbon tetrachloride	0.0500	0.0497		mg/L		99	70 - 130
Chlorobenzene	0.0500	0.0500		mg/L		100	65 - 135
Chloroform	0.0500	0.0497		mg/L		99	70 - 121
1,2-Dichloroethane	0.0500	0.0541		mg/L		108	72 - 130
1,1-Dichloroethene	0.0500	0.0457		mg/L		91	50 - 150
2-Butanone	0.250	0.231		mg/L		92	60 - 140
Tetrachloroethene	0.0500	0.0556		mg/L		111	71 - 125
Trichloroethene	0.0500	0.0520		mg/L		104	75 - 135
Vinyl chloride	0.0500	0.0365		mg/L		73	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		63 - 144
4-Bromofluorobenzene (Surr)	87		74 - 124
Dibromofluoromethane (Surr)	94		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 860-105101/4

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0517		mg/L		103	75 - 125	0	25
Carbon tetrachloride	0.0500	0.0506		mg/L		101	70 - 130	2	25
Chlorobenzene	0.0500	0.0507		mg/L		101	65 - 135	1	25
Chloroform	0.0500	0.0497		mg/L		99	70 - 121	0	25

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-105101/4

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0529		mg/L		106	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0478		mg/L		96	50 - 150	5	25
2-Butanone	0.250	0.239		mg/L		96	60 - 140	4	25
Tetrachloroethene	0.0500	0.0569		mg/L		114	71 - 125	2	25
Trichloroethene	0.0500	0.0512		mg/L		102	75 - 135	2	25
Vinyl chloride	0.0500	0.0375		mg/L		75	60 - 140	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		63 - 144
4-Bromofluorobenzene (Surr)	86		74 - 124
Dibromofluoromethane (Surr)	92		75 - 131
Toluene-d8 (Surr)	100		80 - 120

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-105600/1-A

Matrix: Solid

Analysis Batch: 105501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105600

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2-Methylphenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachlorobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachlorobutadiene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachloroethane	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Nitrobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Pentachlorophenol	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1
Pyridine	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1
3 & 4 Methylphenol	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		31 - 132	05/31/23 14:00	05/31/23 19:36	1
2-Fluorobiphenyl (Surr)	80		29 - 112	05/31/23 14:00	05/31/23 19:36	1
2-Fluorophenol (Surr)	48		21 - 114	05/31/23 14:00	05/31/23 19:36	1
Nitrobenzene-d5 (Surr)	80		26 - 110	05/31/23 14:00	05/31/23 19:36	1
p-Terphenyl-d14 (Surr)	94		20 - 141	05/31/23 14:00	05/31/23 19:36	1
Phenol-d5 (Surr)	30		16 - 117	05/31/23 14:00	05/31/23 19:36	1

Lab Sample ID: LCS 860-105600/2-A

Matrix: Solid

Analysis Batch: 105501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105600

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0216		mg/L		54	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0306		mg/L		77	39 - 125

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-105600/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 105501				Prep Batch: 105600			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trichlorophenol	0.0400	0.0281		mg/L		70	42 - 125
2,4-Dinitrotoluene	0.0400	0.0345		mg/L		86	41 - 128
2-Methylphenol	0.0400	0.0209		mg/L		52	36 - 105
Hexachlorobenzene	0.0400	0.0308		mg/L		77	39 - 128
Hexachlorobutadiene	0.0400	0.0227		mg/L		57	31 - 120
Hexachloroethane	0.0400	0.0188		mg/L		47	37 - 109
Nitrobenzene	0.0400	0.0260		mg/L		65	37 - 114
Pentachlorophenol	0.0400	0.0292		mg/L		73	10 - 137
Pyridine	0.0400	0.00943	J	mg/L		24	5 - 130
3 & 4 Methylphenol	0.0400	0.0198		mg/L		49	35 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		31 - 132
2-Fluorobiphenyl (Surr)	69		29 - 112
2-Fluorophenol (Surr)	40		21 - 114
Nitrobenzene-d5 (Surr)	66		26 - 110
p-Terphenyl-d14 (Surr)	87		20 - 141
Phenol-d5 (Surr)	28		16 - 117

Lab Sample ID: LCSD 860-105600/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 105501

Prep Batch: 105600

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0400	0.0253		mg/L		63	37 - 111	16	30
2,4,5-Trichlorophenol	0.0400	0.0319		mg/L		80	39 - 125	4	30
2,4,6-Trichlorophenol	0.0400	0.0313		mg/L		78	42 - 125	11	30
2,4-Dinitrotoluene	0.0400	0.0355		mg/L		89	41 - 128	3	30
2-Methylphenol	0.0400	0.0255		mg/L		64	36 - 105	20	30
Hexachlorobenzene	0.0400	0.0322		mg/L		80	39 - 128	4	30
Hexachlorobutadiene	0.0400	0.0246		mg/L		62	31 - 120	8	30
Hexachloroethane	0.0400	0.0233		mg/L		58	37 - 109	22	30
Nitrobenzene	0.0400	0.0274		mg/L		69	37 - 114	5	30
Pentachlorophenol	0.0400	0.0303		mg/L		76	10 - 137	4	40
Pyridine	0.0400	0.0111		mg/L		28	5 - 130	17	50
3 & 4 Methylphenol	0.0400	0.0234		mg/L		59	35 - 116	17	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		31 - 132
2-Fluorobiphenyl (Surr)	73		29 - 112
2-Fluorophenol (Surr)	49		21 - 114
Nitrobenzene-d5 (Surr)	69		26 - 110
p-Terphenyl-d14 (Surr)	87		20 - 141
Phenol-d5 (Surr)	36		16 - 117



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-104900/1-G						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 105311						Prep Batch: 105294			
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4-Dinitrotoluene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2-Methylphenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachlorobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachlorobutadiene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachloroethane	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Nitrobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Pentachlorophenol	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
Pyridine	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
3 & 4 Methylphenol	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	84		31 - 132				05/30/23 11:48	05/30/23 15:51	1
2-Fluorobiphenyl (Surr)	85		29 - 112				05/30/23 11:48	05/30/23 15:51	1
2-Fluorophenol (Surr)	61		21 - 114				05/30/23 11:48	05/30/23 15:51	1
Nitrobenzene-d5 (Surr)	87		26 - 110				05/30/23 11:48	05/30/23 15:51	1
p-Terphenyl-d14 (Surr)	94		20 - 141				05/30/23 11:48	05/30/23 15:51	1
Phenol-d5 (Surr)	51		16 - 117				05/30/23 11:48	05/30/23 15:51	1

Lab Sample ID: 860-49778-A-1-F MS						Client Sample ID: Matrix Spike			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 105501						Prep Batch: 105600			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		51	37 - 111
2,4,5-Trichlorophenol	ND		0.200	ND		mg/L		60	39 - 125
2,4,6-Trichlorophenol	ND		0.200	ND		mg/L		52	42 - 125
2,4-Dinitrotoluene	ND		0.200	ND		mg/L		63	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		45	36 - 105
Hexachlorobenzene	ND		0.200	0.145		mg/L		72	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		49	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		44	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		50	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		77	10 - 137
Pyridine	ND		0.200	ND		mg/L		31	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		48	35 - 116
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4,6-Tribromophenol (Surr)	67		31 - 132						
2-Fluorobiphenyl (Surr)	58		29 - 112						
2-Fluorophenol (Surr)	41		21 - 114						
Nitrobenzene-d5 (Surr)	50		26 - 110						
p-Terphenyl-d14 (Surr)	79		20 - 141						
Phenol-d5 (Surr)	33		16 - 117						



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-105332/1-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		05/30/23 10:34	05/30/23 13:36	1
Endrin	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Heptachlor	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Heptachlor epoxide	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Methoxychlor	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Toxaphene	ND		0.0010		mg/L		05/30/23 10:34	05/30/23 13:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	56	S1-	70 - 130	05/30/23 10:34	05/30/23 13:36	1
Tetrachloro-m-xylene	64	S1-	70 - 130	05/30/23 10:34	05/30/23 13:36	1

Lab Sample ID: MB 860-105332/1-A

Matrix: Solid

Analysis Batch: 105807

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.0010		mg/L		05/30/23 10:34	06/02/23 11:04	1

Lab Sample ID: LCS 860-105332/2-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00130	0.00118		mg/L		91	55 - 102
Heptachlor	0.00130	0.00124		mg/L		96	55 - 106
Heptachlor epoxide	0.00130	0.00123		mg/L		95	56 - 109
gamma-BHC (Lindane)	0.00130	0.00131		mg/L		101	59 - 107
Methoxychlor	0.00130	0.00110		mg/L		85	53 - 102

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	52	S1-	70 - 130
Tetrachloro-m-xylene	69	S1-	70 - 130

Lab Sample ID: LCSD 860-105332/3-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Endrin	0.00129	0.00119		mg/L		92	55 - 102	1	25
Heptachlor	0.00129	0.00125		mg/L		96	55 - 106	0	25
Heptachlor epoxide	0.00129	0.00124		mg/L		96	56 - 109	1	25
gamma-BHC (Lindane)	0.00129	0.00132		mg/L		102	59 - 107	0	25
Methoxychlor	0.00129	0.00111		mg/L		86	53 - 102	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	63	S1-	70 - 130
Tetrachloro-m-xylene	67	S1-	70 - 130

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LB 860-104900/1-F

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105332

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 14:32	1
Endrin	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Heptachlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Heptachlor epoxide	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
gamma-BHC (Lindane)	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Methoxychlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 14:32	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	50	S1-	70 - 130				05/30/23 10:34	05/30/23 14:32	1
Tetrachloro-m-xylene	71		70 - 130				05/30/23 10:34	05/30/23 14:32	1

Lab Sample ID: LB 860-104900/1-F

Matrix: Solid

Analysis Batch: 105807

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105332

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	06/02/23 11:38	1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-105229/1-A

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 13:34	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 13:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		70 - 162				05/28/23 17:53	05/31/23 13:34	1

Lab Sample ID: LCS 860-105229/2-A

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00202	0.00173		mg/L		86	67 - 124
2,4,5-TP (Silvex)	0.00202	0.00185		mg/L		92	66 - 141
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	85		70 - 162				

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 860-105229/3-A

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105229

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	0.00202	0.00183		mg/L		91	67 - 124	6	25
2,4,5-TP (Silvex)	0.00202	0.00213		mg/L		105	66 - 141	14	25
Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits						
2,4-Dichlorophenylacetic acid	97		70 - 162						

Lab Sample ID: LB 860-104900/1-E

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105229

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 16:13	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 16:13	1
Surrogate	LB %Recovery	LB Qualifier	LB Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	85		70 - 162				05/28/23 17:53	05/31/23 16:13	1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-105040/1-A

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Antimony	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:02	1
Barium	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Cadmium	ND		0.0050		mg/L		05/26/23 10:00	05/26/23 17:02	1
Chromium	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Beryllium	ND		0.0040		mg/L		05/26/23 10:00	05/26/23 17:02	1
Lead	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Selenium	ND		0.030		mg/L		05/26/23 10:00	05/26/23 17:02	1
Silver	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:02	1
Nickel	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1

Lab Sample ID: LCS 860-105040/2-A

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.937		mg/L		94	80 - 120
Antimony	1.00	0.935		mg/L		94	80 - 120
Barium	1.00	0.926		mg/L		93	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Chromium	1.00	0.959		mg/L		96	80 - 120
Beryllium	1.00	0.946		mg/L		95	80 - 120
Lead	1.00	0.946		mg/L		95	80 - 120
Selenium	1.00	0.947		mg/L		95	80 - 120

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-105040/2-A

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.500	0.469		mg/L		94	80 - 120
Nickel	1.00	0.947		mg/L		95	80 - 120

Lab Sample ID: LCSD 860-105040/3-A

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105040

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	1.00	0.938		mg/L		94	80 - 120	0	20
Antimony	1.00	0.943		mg/L		94	80 - 120	1	20
Barium	1.00	0.931		mg/L		93	80 - 120	1	20
Cadmium	1.00	0.958		mg/L		96	80 - 120	1	20
Chromium	1.00	0.962		mg/L		96	80 - 120	0	20
Beryllium	1.00	0.954		mg/L		95	80 - 120	1	20
Lead	1.00	0.952		mg/L		95	80 - 120	1	20
Selenium	1.00	0.949		mg/L		95	80 - 120	0	20
Silver	0.500	0.472		mg/L		94	80 - 120	1	20
Nickel	1.00	0.951		mg/L		95	80 - 120	0	20

Lab Sample ID: LB 860-104900/1-C

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105040

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Antimony	ND		0.10		mg/L		05/26/23 10:00	05/26/23 17:12	1
Barium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Cadmium	ND		0.025		mg/L		05/26/23 10:00	05/26/23 17:12	1
Chromium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Beryllium	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:12	1
Lead	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Selenium	ND		0.15		mg/L		05/26/23 10:00	05/26/23 17:12	1
Silver	ND		0.10		mg/L		05/26/23 10:00	05/26/23 17:12	1
Nickel	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1

Lab Sample ID: 830-3604-A-1-E MS

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1.00	0.980		mg/L		98	75 - 125
Antimony	ND		1.00	0.925		mg/L		93	75 - 125
Barium	0.15		1.00	1.10		mg/L		95	75 - 125
Cadmium	ND		1.00	0.995		mg/L		100	75 - 125
Chromium	ND		1.00	1.01		mg/L		99	75 - 125
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125
Lead	ND		1.00	0.985		mg/L		99	75 - 125
Selenium	ND		1.00	1.03		mg/L		103	75 - 125
Silver	ND		0.500	0.483		mg/L		97	75 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 830-3604-A-1-E MS

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	ND		1.00	1.03		mg/L		101	75 - 125

Lab Sample ID: 830-3604-A-1-F MSD

Matrix: Solid

Analysis Batch: 105326

Client Sample ID: Matrix Spike Duplicate

Prep Type: TCLP

Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	0.990		mg/L		99	75 - 125	1	20
Antimony	ND		1.00	0.925		mg/L		93	75 - 125	0	20
Barium	0.15		1.00	1.10		mg/L		95	75 - 125	0	20
Cadmium	ND		1.00	1.00		mg/L		100	75 - 125	1	20
Chromium	ND		1.00	1.02		mg/L		100	75 - 125	0	20
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125	0	20
Lead	ND		1.00	0.960		mg/L		96	75 - 125	3	20
Selenium	ND		1.00	1.03		mg/L		103	75 - 125	0	20
Silver	ND		0.500	0.483		mg/L		97	75 - 125	0	20
Nickel	ND		1.00	1.04		mg/L		101	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-105056/10-A

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105056

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 18:58	1

Lab Sample ID: LCS 860-105056/11-A

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105056

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00202		mg/L		101	80 - 120

Lab Sample ID: LCSD 860-105056/12-A

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105056

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00201		mg/L		101	80 - 120	0	20

Lab Sample ID: LB 860-104900/1-D

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105056

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 19:21	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 860-49821-A-1-E MS

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 105056

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00025		0.00200	0.00221		mg/L		98	75 - 125

Lab Sample ID: 860-49821-A-1-F MSD

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Matrix Spike Duplicate

Prep Type: TCLP

Prep Batch: 105056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00025		0.00200	0.00224		mg/L		99	75 - 125	1	20

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### GC/MS VOA

#### Leach Batch: 104913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	

#### Analysis Batch: 105101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8260C	104913
MB 860-105101/8	Method Blank	Total/NA	Solid	8260C	
LCS 860-105101/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-105101/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

### GC/MS Semi VOA

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-G	Method Blank	TCLP	Solid	1311	
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 105294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-G	Method Blank	TCLP	Solid	3510C	104900

#### Analysis Batch: 105311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-G	Method Blank	TCLP	Solid	8270D	105294

#### Analysis Batch: 105501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-105600/1-A	Method Blank	Total/NA	Solid	8270D	105600
LCS 860-105600/2-A	Lab Control Sample	Total/NA	Solid	8270D	105600
LCSD 860-105600/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	105600
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	8270D	105600

#### Prep Batch: 105600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3510C	104900
MB 860-105600/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-105600/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-105600/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	3510C	104900

#### Analysis Batch: 105851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8270D	105600

### GC Semi VOA

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	1311	
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-E	Method Blank	TCLP	Solid	1311	
LB 860-104900/1-F	Method Blank	TCLP	Solid	1311	

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### GC Semi VOA

#### Prep Batch: 105229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3511	104900
LB 860-104900/1-E	Method Blank	TCLP	Solid	3511	104900
MB 860-105229/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-105229/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-105229/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

#### Prep Batch: 105332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3511	104900
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	3511	104900
LB 860-104900/1-F	Method Blank	TCLP	Solid	3511	104900
MB 860-105332/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-105332/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-105332/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

#### Analysis Batch: 105355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8081B	105332
LB 860-104900/1-F	Method Blank	TCLP	Solid	8081B	105332
MB 860-105332/1-A	Method Blank	Total/NA	Solid	8081B	105332
LCS 860-105332/2-A	Lab Control Sample	Total/NA	Solid	8081B	105332
LCSD 860-105332/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	105332

#### Analysis Batch: 105485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-E	Method Blank	TCLP	Solid	8151A	105229
MB 860-105229/1-A	Method Blank	Total/NA	Solid	8151A	105229
LCS 860-105229/2-A	Lab Control Sample	Total/NA	Solid	8151A	105229
LCSD 860-105229/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	105229

#### Analysis Batch: 105707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8151A	105229

#### Analysis Batch: 105807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	8081B	105332
LB 860-104900/1-F	Method Blank	TCLP	Solid	8081B	105332
MB 860-105332/1-A	Method Blank	Total/NA	Solid	8081B	105332

### Metals

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-C	Method Blank	TCLP	Solid	1311	
LB 860-104900/1-D	Method Blank	TCLP	Solid	1311	
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	1311	
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	1311	
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	1311	

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Metals

#### Prep Batch: 105040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3010A	104900
LB 860-104900/1-C	Method Blank	TCLP	Solid	3010A	104900
MB 860-105040/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-105040/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-105040/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	3010A	104900
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	3010A	104900

#### Prep Batch: 105056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	7470A	104900
LB 860-104900/1-D	Method Blank	TCLP	Solid	7470A	104900
MB 860-105056/10-A	Method Blank	Total/NA	Solid	7470A	
LCS 860-105056/11-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-105056/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	7470A	104900
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	104900

#### Analysis Batch: 105153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	7470A	105056
LB 860-104900/1-D	Method Blank	TCLP	Solid	7470A	105056
MB 860-105056/10-A	Method Blank	Total/NA	Solid	7470A	105056
LCS 860-105056/11-A	Lab Control Sample	Total/NA	Solid	7470A	105056
LCSD 860-105056/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	105056
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	7470A	105056
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	105056

#### Analysis Batch: 105326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	6010B	105040
LB 860-104900/1-C	Method Blank	TCLP	Solid	6010B	105040
MB 860-105040/1-A	Method Blank	Total/NA	Solid	6010B	105040
LCS 860-105040/2-A	Lab Control Sample	Total/NA	Solid	6010B	105040
LCSD 860-105040/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	105040
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	6010B	105040
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	6010B	105040

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	104913	05/25/23 14:00	SYB	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	Completed: 105101	05/26/23 06:00		
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/27/23 02:51	NA	EET HOU
TCLP	Prep	3510C			200 mL	1.0 mL	Completed: 105600	05/25/23 12:30	EMC	EET HOU
TCLP	Analysis	8270D		5			105851	05/26/23 04:30	MPC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/31/23 14:00	PXS	EET HOU
TCLP	Prep	3511			51.1 mL	5 mL	Completed: 105332	06/01/23 19:32		
TCLP	Analysis	8081B		1			105355	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311	RA		1.0 g	1.0 mL	104900	05/26/23 04:30	TH	EET HOU
TCLP	Prep	3511	RA		51.1 mL	5 mL	Completed: 105332	05/30/23 10:34	BNW	EET HOU
TCLP	Analysis	8081B	RA	1			105807	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/26/23 04:30	TH	EET HOU
TCLP	Prep	3511			49.3 mL	4 mL	Completed: 105229	05/30/23 13:30	BNW	EET HOU
TCLP	Analysis	8151A		1			105707	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	Completed: 05/26/23 04:30		
TCLP	Prep	3010A			10 mL	50 mL	105040	05/28/23 17:53	JN	EET HOU
TCLP	Analysis	6010B		1			105326	05/26/23 10:00	MD	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/26/23 18:31	JDM	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	105056	05/25/23 12:30	EMC	EET HOU
TCLP	Analysis	7470A		1			105153	Completed: 05/26/23 04:30		
								05/26/23 11:29	PB	EET HOU
								05/26/23 19:16	SHZ	EET HOU

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

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



## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-49823-1	HC WCID 92 Digester C	Solid	05/18/23 12:40	05/23/23 10:16



P O. Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email. eastexlab@eastex.net  
Tel. 936 653 3249



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr.  
Stafford, TX 77477  
Phone 713-690-4444  
Fax. 713-690-5646

*BB 5/18/23*

**PO 052323E**

### PROJECT NAME.

Harris County WCID 92

### Turnaround

**10 DAYS**

### Matrix

**Waste**

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
3	5/18/23	12.40 pm	HC WCID 92 Digester	c Grab	C3D5831-01	TCLP SUBCONTRACT

### Special Instructions:

FULL TCLP REPORT

☐ See Attached



860-49823 Chain of Custody

Temp: 4.4 IR ID: HOU-343  
C/F -0.4  
Corrected Temp: 4.0

Received Iced Y/N Temp \_\_\_\_\_

*[Signature]*  
Released By

5/23/2023  
Date & Time

1014  
Received By

5/23/23 1016  
Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-49823-1

Login Number: 49823

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

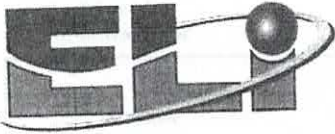
Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	



White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

[illegible]





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

28 August 2023

Si Environmental, LLC  
Chris Manthei  
6420 Reading Road  
Rosenberg, TX 77471

### Pecan Grove MUD WWTP

Enclosed are the results of analyses for samples received by the laboratory on 22-Jun-23 15:10. 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 7

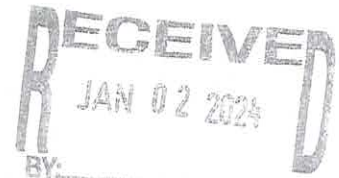
Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

Laura Bonjonia For Sarah Chaplain  
Client Services Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ & Solid



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

#### ANALYTICAL REPORT FOR SAMPLES

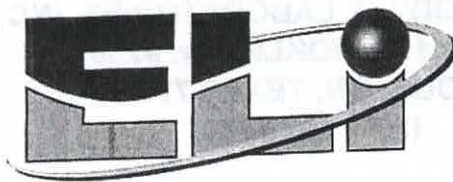
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Digester	23F2402-01	Solids	22-Jun-23 12:35	22-Jun-23 15:10

L - Sample analyzed by TNI certified lab: T104704215-22-47

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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.



# ENVIRODYNE LABORATORIES, INC.

CLIENT: **PECAN GROVE WWTP**  
 (Si Environmental)  
 DATE COLLECTED: 22-Jun-23  
 DATE COMPLETED: 28-Jul-23  
 DATE ANALYZED: 28-Jul-23

LAB NUMBER: 23F2402A  
 DATE RECEIVED: 22-Jun-23  
 SAMPLED BY: Si

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION:	CAKE @ 1235	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	Ceiling	
PARAMETERS:			(mg/kg)	(mg/kg)	
pH (UNITS)	6.20	9045	> 6.00		
TOT.NITROGEN-N * (%)	0.48	Calc	N.A.		0.01
TKN-N * (%)	0.25	EPA 351.2	N.A.		0.01
NO3-N * (%)	0.20	SM 4500-NO3 E	N.A.		0.01
NH3-N * (%)	0.01	SM 4500-NH3 F	N.A.		0.01
NH4-N * (%)	0.01	Calc	N.A.		0.01
TOTAL PHOSPHORUS * (%)	2.80	SM 4500-P E	N.A.		0.01
PHOSPHORUS PENTOXIDE * (%)	2.10	Calc	N.A.		0.01
POTASSIUM * (%)	0.16	6010B	N.A.		0.002
ARSENIC * (mg/kg)	2.39	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	0.42	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	193.78	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	3.00	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	7.28	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	7.46	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	13.02	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.02	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<0.25	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	347.34	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	13.50	SM 2540 B	N.A.		
VOLATILE SOLIDS (%)	9.12		N.A.		
Org.CONC. (%)	67.6		N.A.		

Ref. SW-846  
 \*EPA CHEMICAL ANALYSIS

Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

CERTIFICATE OF ANALYSIS

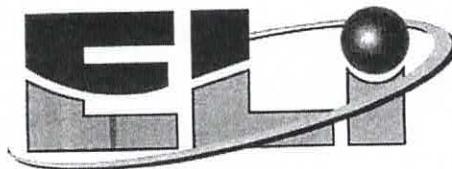
CLIENT: <b>PECAN GROVE WWTP</b> (Si Environmental)	LAB NUMBER: 23F2402B
DATE COLLECTED: 22-Jun-23	DATE RECEIVED: 22-Jun-23
DATE COMPLETED: 28-Jul-23	SAMPLED BY: Si
SAMPLE TYPE: <b>Processes to Significantly Reduce Pathogens (PSRP)</b>	
LOCATION:	CAKE @ 1235
PARAMETERS:	LIMITS
Microbial Populations	
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	4,030 2,000,000 CFU/g/TS
Vector Attraction Pontential	
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.24 1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics	
Total Solids (%)	13.50 N/A
Volatile Solids (%)	9.12 N/A
Organic Conc. (%)	67.6
Soil pH - Measured in Water (Units)	6.20 > 5.50
Sample Temp. (C/F)	N/A 20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A N/A
Test Temp. - Start / Stop (C)	22/22 (+/- 1C) - Var.

SOUR diluted to TS <2.0%

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH

  
CERTIFIED BY





# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: **PECAN GROVE MUD WWTP**  
(Si Environmental)

LAB NUMBER: 23F2402C

DATE COLLECTED: 22-Jun-23

DATE RECEIVED: 22-Jun-23

DATE COMPLETED: 28-Jun-23

SAMPLED BY: Si

Toxicity Characteristic Leaching Procedure

EXTRACTION DATE: 27-Jun-23

TESTING DATE: 28-Jun-23

SAMPLE TYPE:

LOCATION:

PARAMETERS:

SW 846 1311 EPA 6010B

ANTIIMONY (mg/l) <0.10

ARSENIC (mg/l) <0.05

BARIUM (mg/l) 0.40

BERYLLIUM (mg/l) <0.02

CADMIUM (mg/l) <0.025

CHROMIUM (mg/l) <0.05

LEAD (mg/l) <0.05

NICKEL (mg/l) <0.05

SELENIUM (mg/l) <0.150

SILVER (mg/l) <0.100

SW 846 1311 EPA 7470

MERCURY (mg/l) <0.002

SW 846 1311 EPA 8260

BENZENE (mg/l) <0.05

CARBON TETRACHLORIDE (mg/l) <0.25

CHLOROBENZENE (mg/l) <0.05

CHLOROFORM (mg/l) <0.05

METHYL ETHYL KETONE (mg/l) <2.50

1,2-DICHLOROETHANE (mg/l) <0.05

1,1-DICHLOROETHENE (mg/l) <0.05

TETRACHLOROETHENE (mg/l) <0.05

TRICHLOROETHENE (mg/l) <0.250

VINYL CHLORIDE (mg/l) <0.10

SW 846 1311 EPA 8270

Total Cresol (mg/l) <0.250

1,4-DICHLOROBENZENE (mg/l) <0.0250

2,4-DINITROTOLUENE (mg/l) <0.0250

HEXACHLOROBENZENE (mg/l) <0.0250

HEXACHLOROBUTADIENE (mg/l) <0.0250

HEXACHLOROETHANE (mg/l) <0.0250

NITROBENZENE (mg/l) <0.0250

PENTACHLOROPHENOL (mg/l) <0.0250

2,4,5-TRICHLOROPHENOL (mg/l) <0.0250

2,4,6-TRICHLOROPHENOL (mg/l) <0.0250

PYRIDINE (mg/l) <0.0500

2-Methylphenol (mg/l) <0.0500

3,5-Methylphenol (mg/l) <0.0500

SW 846 1311 EPA 8081

CHLORDANE (mg/l) <0.00105

ENDRIN (mg/l) <0.00005

HEPTACHLOR (mg/l) <0.00005

HEPTACHLOR EPOXIDE (mg/l) <0.00005

LINDANE (mg/l) <0.00005

METHOXYCHLOR (mg/l) <0.00005

TOXAPHENE (mg/l) <0.00105

PCBs (mg/l) <0.01

SW 846 1311 EPA 8150

2,4-D (mg/l) <0.000201

2,4,5-TP (Silvex) (mg/l) <0.000201

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

Microbiology - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3G3558 - Microbiology</b>										
<b>Blank (B3G3558-BLK1)</b>					Prepared & Analyzed: 28-Jun-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g							
<b>Duplicate (B3G3558-DUP1)</b>					Source: 23F2402-01 Prepared & Analyzed: 28-Jun-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g		4030				200	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

Page 5 of 7



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

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

**Batch B3F5660 - Inorganics**

Duplicate (B3F5660-DUP1)		Source: 23F2233-05			Prepared & Analyzed: 28-Jun-23					
Total Solids	0.910	0.01	%		0.910			0.00	20	
Volatile Solids	0.660	0.01	"		0.650			1.53	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

*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.*



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

### Notes and Definitions

H Hold time exceeded  
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

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

*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.*



[illegible]





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

30 October 2023

Si Environmental, LLC  
Mike Thornhill  
6420 Reading Road  
Rosenberg, TX 77471

### Rosenberg #1A - WWTP

Enclosed are the results of analyses for samples received by the laboratory on 26-Jul-23 08:25. 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 10

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

Sincerely,

Laura Bonjonia For Sarah Chaplain  
Client Services Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ Ph



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Digester	23G2876-01	Solids	25-Jul-23 06:25	26-Jul-23 08:25

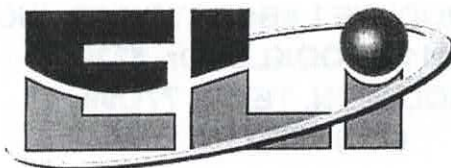
L - Sample analyzed by TNI certified lab: T104704215-22-47

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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.





# ENVIRODYNE LABORATORIES, INC.

CLIENT: ROSENBERG #1  
(Si Environmental)  
DATE COLLECTED: 25-Jul-23  
DATE COMPLETED: 28-Aug-23  
DATE ANALYZED: 28-Aug-23

LAB NUMBER: 23G2876A  
DATE RECEIVED: 25-Jul-23  
SAMPLED BY: GM

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION: PARAMETERS:	DIGESTER @ 0625	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	/ Ceiling (mg/kg)	
pH (UNITS)	6.48	9045	> 6.00		
TOT.NITROGEN-N * (%)	0.18	Calc	N.A.		0.01
TKN-N * (%)	0.10	EPA 351.2	N.A.		0.01
NO3-N * (%)	0.01	SM 4500-NO3 E	N.A.		0.01
NH3-N * (%)	0.01	SM 4500-NH3 F	N.A.		0.01
NH4-N * (%)	0.01	Calc	N.A.		0.01
TOTAL PHOSPHORUS* (%)	0.08	SM 4500-P E	N.A.		0.01
PHOSPHORUS PENTOXIDE * (%)	0.06	Calc	N.A.		0.01
POTASSIUM * (%)	0.46	6010B	N.A.		0.002
ARSENIC * (mg/kg)	<0.25	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	<0.25	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	303.00	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	<0.25	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	<0.25	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	34.90	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	24.60	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.02	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<0.25	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	846.00	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	1.20	SM 2540 B	N.A.		
VOLATILE SOLIDS (%)	0.83		N.A.		
Org.CONC. (%)	69.2		N.A.		

Ref. SW-846

\*EPA CHEMICAL ANALYSIS

Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

CERTIFICATE OF ANALYSIS

CLIENT: **ROSENBERG #1** LAB NUMBER: 23G2876B  
(Si Environmental)  
DATE COLLECTED: 25-Jul-23 DATE RECEIVED: 25-Jul-23  
DATE COMPLETED: 28-Aug-23 SAMPLED BY: GM

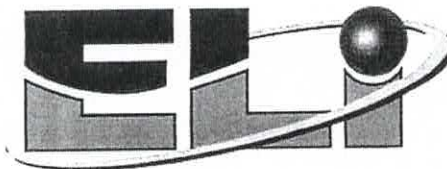
SAMPLE TYPE: **Processes to Significantly Reduce Pathogens (PSRP)**

LOCATION:	DIGESTER	LIMITS
PARAMETERS:	@ 0625	
Microbial Populations		
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	131,000	2,000,000 CFU/g/TS
Vector Attraction Pontential		
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.50	1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics		
Total Solids (%)	1.20	N/A
Volatile Solids (%)	0.83	N/A
Organic Conc. (%)	69.2	
Soil pH - Measured in Water (Units)	6.48	> 5.50
Sample Temp. (C/F)	N/A	20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A	N/A
Test Temp. - Start / Stop (C)	22/22	(+/- 1C) - Var.

SOUR diluted to TS <2.0%

  
CERTIFIED BY

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH



# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: **ROSENBERG #1** LAB NUMBER: 23G2876C  
(Si Environmental)

DATE COLLECTED: 25-Jul-23 DATE RECEIVED: 25-Jul-23

DATE COMPLETED: 28-Aug-23 SAMPLED BY: GM

Toxicity Characteristic Leaching Procedure

EXTRACTION DATE: 28-Jul-23

TESTING DATE: 28-Aug-23

SAMPLE TYPE:

LOCATION:	DIGESTER	T.C.L.P.
PARAMETERS:	@ 0625	MAXIMUM LIMIT
		(mg/l)
SW 846 1311 EPA 6010B		
ANTIMONY (mg/l)	<0.10	
ARSENIC (mg/l)	<0.05	5.0
BARIUM (mg/l)	0.51	100.0
BERYLLIUM (mg/l)	<0.02	0.080
CADMIUM (mg/l)	<0.025	1.0
CHROMIUM (mg/l)	<0.05	5.0
LEAD (mg/l)	<0.05	5.0
NICKEL (mg/l)	<0.05	70.0
SELENIUM (mg/l)	<0.150	1.0
SILVER (mg/l)	<0.100	5.0
SW 846 1311 EPA 7470		
MERCURY (mg/l)	<0.002	0.2
SW 846 1311 EPA 8260		
BENZENE (mg/l)	<0.05	0.5
CARBON TETRACHLORIDE (mg/l)	<0.25	0.5
CHLOROBENZENE (mg/l)	<0.05	100.0
CHLOROFORM (mg/l)	<0.05	6.0
METHYL ETHYL KETONE (mg/l)	<2.50	200.0
1,2-DICHLOROETHANE (mg/l)	<0.05	0.5
1,1-DICHLOROETHENE (mg/l)	<0.05	0.7
TETRACHLOROETHENE (mg/l)	<0.05	0.7
TRICHLOROETHENE (mg/l)	<0.250	0.5
VINYL CHLORIDE (mg/l)	<0.10	0.2
SW 846 1311 EPA 8270		
Total Cresol (mg/l)	<0.250	200.0
1,4-DICHLOROBENZENE (mg/l)	<0.125	7.5
2,4-DINITROTOLUENE (mg/l)	<0.125	0.13
HEXACHLOROBENZENE (mg/l)	<0.125	0.13
HEXACHLOROBUTADIENE (mg/l)	<0.125	0.5
HEXACHLOROETHANE (mg/l)	<0.125	3.0
NITROBENZENE (mg/l)	<0.125	2.0
PENTACHLOROPHENOL (mg/l)	<0.250	100.0
2,4,5-TRICHLOROPHENOL (mg/l)	<0.125	400.0
2,4,6-TRICHLOROPHENOL (mg/l)	<0.125	2.0
PYRIDINE (mg/l)	<0.250	5.0
2-Methylphenol (mg/l)	<0.250	200.0
3&4 Methylphenol (mg/l)	<0.250	200.0
SW 846 1311 EPA 8081		
CHLORDANE (mg/l)	<0.00102	0.03
ENDRIN (mg/l)	<0.00005	0.02
HEPTACHLOR (mg/l)	<0.00005	0.008
HEPTACHLOR EPOXIDE (mg/l)	<0.00005	0.008
LINDANE (mg/l)	<0.00005	0.4
METHOXYCHLOR (mg/l)	<0.00005	10.0
TOXAPHENE (mg/l)	<0.00102	0.5
PCBs (mg/l)	<0.01	
SW 846 1311 EPA 8150		
2,4-D (mg/l)	<0.000201	10.0
2,4,5-TP (Silvex) (mg/l)	<0.000201	1.0

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWT (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

Microbiology - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3G5744 - Microbiology										
Blank (B3G5744-BLK1)					Prepared & Analyzed: 26-Jul-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g							
Duplicate (B3G5744-DUP1)					Source: 23G2876-01 Prepared & Analyzed: 26-Jul-23					
Fecal Coliform (geomean of 7)	<1000	1000	CFU/g		13100000				200	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### Wet Chemistry - Quality Control

### Envirodyne Laboratories, Inc.

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

#### Batch B3H3846 - Inorganics

#### Duplicate (B3H3846-DUP1)

Source: 23G2653-01

Prepared & Analyzed: 09-Aug-23

Total Solids	0.740	0.01	%		0.760			2.67	20	H
Volatile Solids	0.330	0.01	"		0.330			0.00	20	H

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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Houston, TX 77099  
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Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### Total Metals by ICP - Quality Control

#### Envirodyne Laboratories, Inc.

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

#### Batch B3H6110 - Metals - EPA 3050B

##### Blank (B3H6110-BL.K1)

Prepared: 23-Aug-23 Analyzed: 28-Aug-23

Cadmium	<0.50	0.50	mg/kg
Chromium	<0.5	0.5	"
Lead	<0.50	0.50	"
Selenium	<0.50	0.50	"
Arsenic	<0.50	0.50	"
Zinc	<0.5	0.5	"
Copper	<0.5	0.5	"
Molybdenum	<500	500	"
Nickel	<0.5	0.5	"
Potassium	<0.02	0.02	%

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### TCLP Extraction by EPA 1311 - Quality Control

#### Envirodyne Laboratories, Inc.

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

#### Batch B3H5541 - Metals - TCLP EPA 1311

##### Blank (B3H5541-BLK1)

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Chromium	<0.01	0.01	mg/L
Copper	<0.01	0.01	"
Nickel	<0.01	0.01	"
Arsenic	<0.01	0.01	"
Lead	<0.01	0.01	"
Silver	<0.01	0.01	"
Selenium	<0.01	0.01	"
Barium	<0.01	0.01	"
Cadmium	<0.01	0.01	"
Beryllium	<0.01	0.01	"
Antimony	<0.01	0.01	"

##### LCS (B3H5541-BS1)

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Arsenic	0.263		mg/L	0.250	105	85-115
Nickel	0.228		"	0.250	91.2	85-115
Chromium	0.240		"	0.250	96.0	85-115
Silver	0.220		"	0.250	88.0	85-115
Copper	0.251		"	0.250	100	85-115
Lead	0.232		"	0.250	92.8	85-115
Selenium	0.268		"	0.250	107	85-115
Barium	0.253		"	0.250	101	85-115
Antimony	0.262		"	0.250	105	85-115
Beryllium	0.244		"	0.250	97.6	85-115

##### Matrix Spike (B3H5541-MS1)

Source: 23G2653-01

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Silver	0.0991	0.01	mg/L	0.125	0.00314	76.8	80-120	Q
Selenium	0.115	0.01	"	0.125	0.00613	87.3	80-120	
Nickel	0.102	0.01	"	0.125	0.00214	80.0	80-120	
Copper	0.191	0.01	"	0.125	0.0160	140	80-120	Q
Lead	0.102	0.01	"	0.125	0.0154	69.1	80-120	Q
Arsenic	0.106	0.01	"	0.125	ND	84.8	80-120	
Chromium	0.104	0.01	"	0.125	ND	83.2	80-120	
Barium	0.215	0.01	"	0.125	0.0456	135	80-120	Q

Envirodyne Laboratories, Inc.

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*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

**TCLP Extraction by EPA 1311 - Quality Control**  
**Envirodyne Laboratories, Inc.**

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

**Batch B3H5541 - Metals - TCLP EPA 1311**

**Matrix Spike (B3H5541-MS1)**

**Source: 23G2653-01**

**Prepared: 23-Aug-23 Analyzed: 25-Aug-23**

Beryllium	0.106	0.01	mg/L	0.125	0.000158	85.0	80-120			
Antimony	0.116	0.01	"	0.125	0.00888	85.4	80-120			

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

#### Notes and Definitions

Q QC did not meet ELI acceptance criteria  
H Hold time exceeded  
< < 0.25  
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

Envirodyne Laboratories, Inc.

A handwritten signature in cursive script, reading 'Laura Bonjonia', is written over a horizontal line.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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TCEQ Certification # T104704265

**Name:** Si Environmental  
**Address:** 6420 Reading Rd.  
**City:** Rosenberg, TX 77471  
**Contact:** Mike Thornhill

### Analysis Request and Chain of Custody Record

Contact: Mike Thornhill  
Phone: 832-490-1507  
Email:

Project No.

Client/Project	
----------------	--

Rosenberg 1A

Lab. No.	Field Sample No./ Identification	Date & Time	Grab	Comp	Sample Container (Size/Vol)	Sample Type (Liquid, Sludge, etc.)	Preservative	ANALYSIS REQUESTED	pH	D.O.	Turbidity
	Digester	7/25/03 6:15	✓		1 Lt/P	Sludge	Ice	TCLP			
	Digester	7/25/03 6:20	✓		1 Lt/P	Sludge	Ice	BLF, PSRP			
	Digester	7/25/03 6:25	✓		(7) 120ml IDEXX	Sludge	Ice	Fecal Coliform (Geomean)			
Samples: (Signature)		Relinquished by: <i>George McKenna</i>		Date: 7/25/03		Received by: <i>[Signature]</i>		Date: 7/25/03		Seal Intact?	
Affiliation		Relinquished by: <i>[Signature]</i>		Date:		Received by: <i>[Signature]</i>		Date:		Seal Intact?	
S.C.A.R.V.		Relinquished by: <i>[Signature]</i>		Date: 7/25/03		Received by Lab: <i>[Signature]</i>		Date: 7/25/03		Seal Intact?	
Remarks:		FLOW		Arrival Temp.		Data Results To:		Laboratory No.			
		Meter Reading				1.					
		Cls. Rejected		32/30		Site Representative:					
		Mts. Checked		<i>[Signature]</i>							
		Cls. Corrected									



# Chaparral Laboratories, Inc.



861 State Hwy 19 P.O. Box 1622 Huntsville, TX 77342-1622 www.chaparrallabs.com Phone: 936-291-1881 Fax: 936-295-1731

## Certificate of Analysis

City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

## Analytical Results

Collection Point: Digester

Date/Time Collected: 09/14/2023 10:30

Sample Type: Grab

Collector: JAS

Parameter	Result	Units	Date/Time	Analyst	Bottle	Method	QC ID	Acrid
Ammonia Nitrogen	1032	mg/kg	09/28/2023 10:15	JCG	-01	EPA 350.2	QC2310195	NELAP
Arsenic	5.0	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310124	NELAP
Cadmium	<2.5	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310126	NELAP
Chromium	34.0	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310127	NELAP
Copper	308.5	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310128	NELAP
Lead	37.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310134	NELAP
Mercury	1.52	mg/kg	09/19/2023 10:26	MHE	-01	EPA 7471 A	QC2309263	NELAP
Molybdenum	6.1	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310131	NELAP
Nickel	16.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310132	NELAP
Phosphorus	10068	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310133	NELAP
Potassium	1391	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310129	NELAP
Selenium	8.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310135	NELAP
Total Kjeldahl Nitrogen	16702	mg/kg	09/28/2023 09:41	JCG	-01	SM 4500-NH3 C	QC2310205	
Total Solids	20.7	%	09/15/2023 13:01	DKH	-01	SM 2540 G	QC2309374	NELAP
Zinc	6737.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310136	NELAP
7 Pt Fecal Geometric Mean	525491	CFU/g/TS	09/15/2023 15:54	MHE	-02	Calculation	QC2309435	
Fecal Coliform	671494	CFU/g/TS	09/14/2023 15:40	JCG	-02	SM 9222 D	QC2309434	NELAP
Fecal Coliform	190832	CFU/g/TS	09/14/2023 15:40	JCG	-03	SM 9222 D	QC2309434	NELAP
Fecal Coliform	570469	CFU/g/TS	09/14/2023 15:40	JCG	-04	SM 9222 D	QC2309434	NELAP
Fecal Coliform	955671	CFU/g/TS	09/14/2023 15:40	JCG	-05	SM 9222 D	QC2309434	NELAP
Fecal Coliform	287726	CFU/g/TS	09/14/2023 15:40	JCG	-06	SM 9222 D	QC2309434	NELAP
Fecal Coliform	574995	CFU/g/TS	09/14/2023 15:40	JCG	-07	SM 9222 D	QC2309434	NELAP
Fecal Coliform	957376	CFU/g/TS	09/14/2023 15:40	JCG	-08	SM 9222 D	QC2309434	NELAP
Nitrate Nitrogen	151.0	mg/kg	09/25/2023 19:48	SA	-09	EPA 9056	QC2310232	NELAP
TCLP	See SPL Report			SA	-09	N/A	QC2310221	NELAP
PCB	See SPL Report			SA	-10	N/A	QC2310222	NELAP
Oxygen Uptake Rate	<0.1	mg/g/h	09/15/2023 09:04	JFL	-11		QC2309451	

ENTERED NOV 21 2023

Wednesday, October 11, 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ & Solid



# Chaparral Laboratories, Inc.



861 State Hwy 19 P.O. Box 1622 Huntsville, TX 77342-1622 www.chaparrallabs.com Phone: 936-291-1881 Fax: 936-295-1731

## Certificate of Analysis

City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

### Quality Control

QC ID	Param	QC Type	Result	Units	Flag
QC2309263	Mercury	Duplicate %RPD	19.9	%	
		LCS	100.2	%	
		Method Blank	<0.040	mg/kg	
		MS %R	105	%	
		MSD %R	105	%	
QC2309374	Total Solids	Duplicate %RPD	0	%	
		LCS	102.3	%	
		Method Blank	<0.0005	%	
QC2309434	Fecal Coliform	Duplicate %RPD	33.6	%	
		Method Blank	<1.0	CFU/g/TS	
QC2309451	Oxygen Uptake Rate	Duplicate %RPD	0	%	
		Method Blank	<0.1	mg/g/h	
QC2310124	Arsenic	Duplicate %RPD	0.9	%	
		LCS	94.1	%	
		Method Blank	<2.5	mg/kg	
		MS %R	99.7	%	
QC2310126	Cadmium	Duplicate %RPD	0	%	
		LCS	86.3	%	
		Method Blank	<2.5	mg/kg	
		MS %R	101.2	%	





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Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
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Project: City of Sealy WWTP  
Location: Austin County, TX

QC2310127 Chromium

Duplicate %RPD	0	%
LCS	97.7	%
Method Blank	<2.5	mg/kg
MS %R	100.7	%

QC2310128 Copper

Duplicate %RPD	24.6	%
LCS	94.1	%
Method Blank	<2.5	mg/kg
MS %R	113.1	%

QC2310129 Potassium

Duplicate %RPD	0.2	%
LCS	103.4	%
Method Blank	<250	mg/kg
MS %R	106	%

QC2310131 Molybdenum

Duplicate %RPD	0	%
LCS	88.5	%
Method Blank	<5.0	mg/kg
MS %R	100.6	%

QC2310132 Nickel

Duplicate %RPD	0	%
LCS	91.5	%
Method Blank	<2.5	mg/kg
MS %R	103.5	%

QC2310133 Phosphorus

Duplicate %RPD	0	%
Method Blank	<50	mg/kg
MS %R	117	%



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Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

QC2310134 Lead

Duplicate %RPD	2.4	%
LCS	100.8	%
Method Blank	<2.5	mg/kg
MS %R	102.4	%

QC2310135 Selenium

Duplicate %RPD	0	%
LCS	86.9	%
Method Blank	<2.5	mg/kg
MS %R	94.9	%

QC2310136 Zinc

Duplicate %RPD	0.2	%
LCS	93.7	%
Method Blank	<2.5	mg/kg
MS %R	106.8	%

QC2310195 Ammonia Nitrogen

Duplicate %RPD	0.1	%
LCS	89.9	%
Method Blank	<22.0	mg/kg
MS %R	95.2	%
MSD %R	95.2	%

QC2310205 Total Kjeldahl Nitrogen

Duplicate %RPD	2	%
LCS	95.2	%
Method Blank	<11.0	mg/kg
MS %R	117.9	%
MSD %R	104.7	%



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City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

### Notes:

Initials of SA = Subcontract Analysis sent to SPL for testing.

*The analytical results in this Certificate of Analysis relate only to the samples tested. This Certificate of Analysis, with its corresponding Chain of Custody, completes the data package. This data package may not be reproduced, except in full, without the written approval of Chaparral Laboratories, Inc. Chaparral Laboratories, Inc. NELAP accredited certification # T104704204. (<) = Result was below quantitation limits. (>) = Result was above quantitation limits. Samples analyzed for Oxygen Uptake Rate are diluted to <2% total solids for analysis. Results reported as mg/kg, %, or CFU/g/TS are calculated on a dry weight basis, unless otherwise noted. Precision Criteria for Fecal Coliform, Escherichia coli and Enterococci analyses are calculated according to SM 9020 B 8.5.b. Acceptable = meets Precision Criteria; Unacceptable = does not meet Precision Criteria.*

*\*Note 1: Laboratory Approval by TCEQ*

Approved by David H. Veinotte  
Laboratory Director



## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

**Project**  
**1076460**

Printed 10/11/2023 10:22

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1076460_r10_05_ProjectQC	SPL Kilgore Project P:1076460 C:CLDV Project Quality Control Groups	13
<b>Total Pages:</b>		<b>19</b>

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 20





CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Page 1 of 6

Project  
1076460

Printed: 10/11/2023

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## RESULTS

### Sample Results

2238598 23090412 SEALY

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report#2232400

#### EPA 6020A

Prepared: 1082717 09/21/2023 13:00:00 Analyzed 1082980 09/22/2023 16:05:00 HLT

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Arsenic	<0.050	mg/L	0.050		7440-38-2	08
NELAC	TCLP Barium	0.268	mg/L	0.050		7440-39-3	08
NELAC	TCLP Cadmium	<0.005	mg/L	0.005		7440-43-9	08
NELAC	TCLP Chromium	<0.050	mg/L	0.050		7440-47-3	08
NELAC	TCLP Lead	<0.050	mg/L	0.050		7439-92-1	08
NELAC	TCLP Selenium	<0.050	mg/L	0.050	B	7782-49-2	08

#### EPA 6020A

Prepared: 1082717 09/21/2023 13:00:00 Analyzed 1083033 09/22/2023 19:57:00 JC2

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Silver	<0.050	mg/L	0.050		7440-22-4	08

#### EPA 7470 A

Prepared: 1082677 09/21/2023 12:25:00 Analyzed 1082761 09/21/2023 15:26:00 CAS

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Mercury	<0.00113	mg/L	0.00113		7439-97-6	06

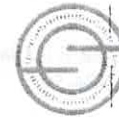
#### EPA 8081A

Prepared: 1082716 09/21/2023 13:30:00 Analyzed 1084248 09/25/2023 18:51:00 KLB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Chlordane	<0.001	mg/L	0.001		57-74-9	07
NELAC	TCLP Endrin	<0.00005	mg/L	0.00005		72-20-8	07
NELAC	TCLP gamma-BHC (Lindane)	<0.00005	mg/L	0.00005		58-89-9	07
NELAC	TCLP Heptachlor	<0.00005	mg/L	0.00005		76-44-8	07
NELAC	TCLP Heptachlor Epoxide	<0.00005	mg/L	0.00005		1024-57-3	07
NELAC	TCLP Methoxychlor	<0.00005	mg/L	0.00005		72-43-5	07
NELAC	TCLP Toxaphene	<0.001	mg/L	0.001		8001-35-2	07



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CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
1076460

Printed: 10/11/2023

2238598 23090412 SEALY

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report 2232400

EPA 8082

Prepared: 1083342 09/26/2023

16:31:53

Analyzed 1083728 09/28/2023

04:14:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<1000 *	ug/kg	1000		12674-11-2	14
NELAC PCB-1221	<1000 *	ug/kg	1000		11104-28-2	14
NELAC PCB-1232	<1000 *	ug/kg	1000		11141-16-5	14
NELAC PCB-1242	<1000 *	ug/kg	1000		53469-21-9	14
NELAC PCB-1248	<1000 *	ug/kg	1000		12672-29-6	14
NELAC PCB-1254	<1000 *	ug/kg	1000		11097-69-1	14
NELAC PCB-1260	<1000 *	ug/kg	1000	X	11096-82-5	14

\* Dry Weight Basis

EPA 8151

Prepared: 1083228 09/26/2023

10:45:00

Analyzed 1083861 09/29/2023

03:34:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4 D	<0.500	mg/L	0.500		94-75-7	12
NELAC TCLP 2,4,5-TP (Silvex)	<0.300	mg/L	0.300		93-72-1	12

EPA 8260B

Prepared: 1082851 09/21/2023

17:30:00

Analyzed 1083209 09/25/2023

15:30:00 PM1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 1,1-Dichloroethene	<0.010	mg/L	0.010		75-35-4	10
NELAC TCLP 1,2-Dichloroethane	<0.010	mg/L	0.010		107-06-2	10
NELAC TCLP 1,4 Dichlorobenzene	<0.010	mg/L	0.010		106-46-7	10
NELAC TCLP Benzene	<0.010	mg/L	0.010		71-43-2	10
NELAC TCLP Carbon tetrachloride	<0.010	mg/L	0.010		56-23-5	10
NELAC TCLP Chlorobenzene	<0.010	mg/L	0.010		108-90-7	10
NELAC TCLP Chloroform	<0.010	mg/L	0.010		67-66-3	10
NELAC TCLP MEK	<0.010	mg/L	0.010		78-93-3	10
NELAC TCLP Tetrachloroethylene	<0.010	mg/L	0.010		127-18-4	10
NELAC TCLP Trichloroethylene	<0.010	mg/L	0.010		79-01-6	10
NELAC TCLP Vinyl chloride	<0.010	mg/L	0.010		75-01-4	10

EPA 8270C

Prepared: 1083292 09/26/2023

14:15:00

Analyzed 1084018 09/30/2023

00:14:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4,5-Trichlorophenol	<0.010	mg/L	0.010		95-95-4	13
NELAC TCLP 2,4,6-Trichlorophenol	<0.010	mg/L	0.010		88-06-2	13



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**CLDV-G**

Chaparral Labs  
Dave Veinotte  
861 Hwy 19,  
Huntsville, TX 77320

Project

**1076460**

Printed: 10/11/2023

**2238598 23090412 SEALY**

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report 2232400

**EPA 8270C**

Prepared: 1083292 09/26/2023 14:15:00 Analyzed 1084018 09/30/2023 00:14:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4-Dinitrotoluene	<0.035	mg/L	0.035		121-14-2	13
NELAC TCLP 2-Methylphenol (o-Cresol)	<0.052	mg/L	0.052		95-48-7	13
NELAC TCLP 3&4-Methylphenol (m&p-Creso	<0.062	mg/L	0.062		108-39-4	13
NELAC TCLP Hexachlorobenzene	<0.010	mg/L	0.010		118-74-1	13
NELAC TCLP Hexachlorobutadiene	<0.010	mg/L	0.010		87-68-3	13
NELAC TCLP Hexachloroethane	<0.010	mg/L	0.010		67-72-1	13
NELAC TCLP Nitrobenzene	<0.010	mg/L	0.010		98-95-3	13
NELAC TCLP Pentachlorophenol	<0.010	mg/L	0.010		87-86-5	13
NELAC TCLP Pyridine (Reg. Limit 5)	<0.054	mg/L	0.054	D	110-86-1	13

**EPA 8270C**

Prepared: 1083292 09/26/2023 14:15:00 Calculated 1084018 10/04/2023 07:38:33 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
TCLP Total Cresols (Reg Lim 200)	<0.062	mg/L	0.062		108-39-4,ect.	13

**EPA 9056**

Prepared: 1083139 09/25/2023 16:20:12 Analyzed 1083217 09/25/2023 19:48:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrate-Nitrogen	151*	mg/kg	1.09		14797-55-8	11

\* Dry Weight Basis

**SM2540 G-1997/MOD**

Prepared: 1082592 09/20/2023 14:30:00 Analyzed 1082592 09/20/2023 14:30:00 JK1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Solids for Dry Wt Conversi	20.8	%	0.010			02

Sample Preparation

**2238598 23090412 SEALY**

Received: 09/20/2023

09/14/2023



Report Page 4 of 20





# CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

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Project  
**1076460**

Printed: 10/11/2023

2238598 23090412 SEALY

Received: 09/20/2023

09/14/2023

EPA 3510C	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082716	09/21/2023	13:30:00	MCC
TCLP Liq-Liq Extr. W/Hex Exch.	10/200	ml					05
EPA 3510C	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1083292	09/26/2023	14:15:00	MCC
TCLP Liquid-Liquid Extract	1/100	ml					05
EPA 1311	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082501	09/20/2023	14:40:00	SLF
NELAC TCLP Extraction Non-Volatile	SOLID EXT 1	ml					01
EPA 1311ZHE	Prepared: 1082851	09/21/2023	17:30:00	Analyzed 1082851	09/21/2023	17:30:00	SLF
NELAC TCLP Extraction ZHE Volatiles	100% SOLID	ml					01
EPA 3005A	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082717	09/21/2023	13:00:00	TES
Metals Digestion TCLP Extract	50/10	ml					04
EPA 3550B	Prepared: 1083342	09/26/2023	16:31:53	Analyzed 1083342	09/26/2023	16:31:53	NAZ
NELAC PCB Total Sonic Extr. W/Hex Exch	10/2.01	grams					02
EPA 7470A	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082677	09/21/2023	12:25:00	ALB
NELAC Metals Digestion TCLP 7470	50/2.5	ml					04
EPA 8081A	Prepared: 1082716	09/21/2023	13:30:00	Analyzed 1084248	09/25/2023	18:51:00	KLB



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**CLDV-G**

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

**1076460**

Printed: 10/11/2023

**2238598 23090412 SEALY**

Received: 09/20/2023

09/14/2023

EPA 8081A	Prepared: 1082716 09/21/2023 13:30:00	Analyzed 1084248 09/25/2023 18:51:00	KLB
NELAC GC TCLP Pesticide	Entered		07
EPA 8082	Prepared: 1083342 09/26/2023 16:31:53	Analyzed 1083728 09/28/2023 04:14:00	BLF
NELAC Polychlorinated Biphenyls	Entered		14
EPA 8151	Prepared: 1083228 09/26/2023 10:45:00	Analyzed 1083861 09/29/2023 03:34:00	BLF
NELAC GC TCLP Herbicide	Entered		12
EPA 8151A (Prep)	Prepared: 1082501 09/20/2023 14:40:00	Analyzed 1083228 09/26/2023 10:45:00	CED
NELAC Esterification of TCLP Extract	10/1 ml		05
EPA 8260B	Prepared: 1082851 09/21/2023 17:30:00	Analyzed 1083209 09/25/2023 15:30:00	PM1
NELAC MS TCLP Volatile Analysis	Entered		10
EPA 8270C	Prepared: 1083292 09/26/2023 14:15:00	Analyzed 1084018 09/30/2023 00:14:00	BLF
NELAC MS TCLP Semivolatile Analysis	Entered		13
EPA 9056	Prepared: 1083139 09/25/2023 16:20:12	Analyzed 1083139 09/25/2023 16:20:12	NAZ
Water Extract-Ion Chromatography	50/4.99 grams		02



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CLDV-G

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Chaparral Labs  
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861 Hwy 19  
Huntsville, TX 77320

Project

1076460

Printed: 10/11/2023

2238598 23090412 SEALY

Received: 09/20/2023

09/14/2023

SM 2540 G-1997

Prepared: 1082454 09/20/2023 14:30:00 Analyzed 1082454 09/20/2023 14:30:00 JK1

NELAC Total Solids Start Code

Started

Qualifiers:

- B - Analyte detected in the associated method blank  
X - Standard reads higher than desired.  
D - Duplicate RPD was higher than expected.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. Kilgore laboratory which holds International, Federal, and State accreditations. Please see our Websites for details

(N)ELAC - Covered in our NELAC scope of accreditation  
Z - Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the Results column of our report (without a "J" flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

*Bill Peery*

Bill Peery, MS, VP Technical Services



Report Page 7 of 20

# QUALITY CONTROL



**SPL**  
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Page 1 of 13

**CLDV-G**

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
**1076460**

Printed 10/11/2023

Analytical Set **1082592**

**SM2540 G-1997 /MOD**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Solids for Dry Wt Conversi	1082592	0			grams	125457012
Duplicate						
Parameter	Sample	Result	Unknown		Unit	RPD
Total Solids for Dry Wt Conversi	2231691	100	100		%	0
Total Solids for Dry Wt Conversi	2232002	3.16	3.18		%	0.631

Analytical Set **1083217**

**EPA 9056**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nitrate-Nitrogen	1083139	0.00542	0.00185	0.0226	mg/kg	125471967
CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471966
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471982
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471984
LCS Dup						
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%
Nitrate-Nitrogen	1083139	1.12	1.12	1.13	75.0 - 120	99.1
MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits
Nitrate-Nitrogen	2232323	2.30	2.35	0.0722	2.26	80.0 - 120

Analytical Set **1082761**

**EPA 7470 A**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP Mercury	1082677	ND	0.000113	0.0002	mg/L	125460229
CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.00502	0.005	mg/L	100	90.0 - 110	125460227
TCLP Mercury	0.00501	0.005	mg/L	100	90.0 - 110	125460228
TCLP Mercury	0.00475	0.005	mg/L	95.0	90.0 - 110	125460236
TCLP Mercury	0.00484	0.005	mg/L	96.8	90.0 - 110	125460239
ICL						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.0208	0.02	mg/L	104	90.0 - 110	125460226
ICV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.00486	0.005	mg/L	97.2	90.0 - 110	125460225



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# QUALITY CONTROL



SPL  
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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

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Project

1076460

Printed 10/11/2023

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Mercury	1082677	0.00934	0.00987	0.010	85.1 - 117	93.4	98.7	mg/L	5.52	20.0
MSD										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP Mercury	2232285	0.095	0.0968	ND	0.100	80.9 - 121	95.0	96.8	mg/L	1.88

Analytical Set

1082980

EPA 6020A

Blank										
Parameter	PrepSet	Reading	MDL	MQL	Units	File				
TCLP Arsenic	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Barium	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Cadmium	1082717	ND	0.001	0.001	mg/L	125465513				
TCLP Chromium	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Lead	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Selenium	1082717	0.0524	0.010	0.010	mg/L	125465513				

CCV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP Arsenic	0.0506	0.05	mg/L	101	90.0 - 110	125465510				
TCLP Arsenic	0.0463	0.05	mg/L	92.6	90.0 - 110	125465520				
TCLP Arsenic	0.0454	0.05	mg/L	90.8	90.0 - 110	125465532				
TCLP Barium	0.050	0.05	mg/L	100	90.0 - 110	125465510				
TCLP Barium	0.0469	0.05	mg/L	93.8	90.0 - 110	125465520				
TCLP Barium	0.0459	0.05	mg/L	91.8	90.0 - 110	125465532				
TCLP Cadmium	0.0481	0.05	mg/L	96.2	90.0 - 110	125465510				
TCLP Cadmium	0.047	0.05	mg/L	94.0	90.0 - 110	125465520				
TCLP Cadmium	0.0454	0.05	mg/L	90.8	90.0 - 110	125465532				
TCLP Chromium	0.0492	0.05	mg/L	98.4	90.0 - 110	125465510				
TCLP Chromium	0.0483	0.05	mg/L	96.6	90.0 - 110	125465520				
TCLP Chromium	0.0476	0.05	mg/L	95.2	90.0 - 110	125465532				
TCLP Lead	0.0485	0.05	mg/L	97.0	90.0 - 110	125465510				
TCLP Lead	0.048	0.05	mg/L	96.0	90.0 - 110	125465520				
TCLP Lead	0.0473	0.05	mg/L	94.6	90.0 - 110	125465532				
TCLP Selenium	0.0496	0.05	mg/L	99.2	90.0 - 110	125465510				
TCLP Selenium	0.0528	0.05	mg/L	106	90.0 - 110	125465520				
TCLP Selenium	0.0484	0.05	mg/L	96.8	90.0 - 110	125465532				

ICV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP Arsenic	0.0514	0.05	mg/L	103	90.0 - 110	125465476				
TCLP Barium	0.0515	0.05	mg/L	103	90.0 - 110	125465476				
TCLP Cadmium	0.0501	0.05	mg/L	100	90.0 - 110	125465476				
TCLP Chromium	0.0502	0.05	mg/L	100	90.0 - 110	125465476				
TCLP Lead	0.0518	0.05	mg/L	104	90.0 - 110	125465476				
TCLP Selenium	0.0511	0.05	mg/L	102	90.0 - 110	125465476				



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# QUALITY CONTROL



**SPL**  
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Page 3 of 13

**CLDV-G**

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

**1076460**

Printed 10/11/2023

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Arsenic	1082717	0.459	0.471	0.500	82.8 - 120	91.8	94.2	mg/L	2.58	14.0
TCLP Barium	1082717	0.463	0.468	0.500	83.1 - 113	92.6	93.6	mg/L	1.07	14.0
TCLP Cadmium	1082717	0.222	0.228	0.250	86.0 - 115	88.8	91.2	mg/L	2.67	14.0
TCLP Chromium	1082717	0.486	0.479	0.500	84.3 - 118	97.2	95.8	mg/L	1.45	14.0
TCLP Lead	1082717	0.438	0.444	0.500	85.1 - 115	87.6	88.8	mg/L	1.36	14.0
TCLP Selenium	1082717	0.496	0.494	0.500	83.5 - 121	99.2	98.8	mg/L	0.404	14.0

MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Arsenic	2232285	2.30	2.28	ND	2.50	84.9 - 114	92.0	91.2	mg/L	0.873	20.0
TCLP Barium	2232285	3.07	3.03	0.644	2.50	80.3 - 115	97.0	95.4	mg/L	1.66	20.0
TCLP Cadmium	2232285	1.11	1.14	ND	1.25	78.2 - 120	88.8	91.2	mg/L	2.67	20.0
TCLP Chromium	2232285	2.39	2.37	0.0139	2.50	86.0 - 117	95.0	94.2	mg/L	0.845	20.0
TCLP Lead	2232285	2.22	2.26	ND	2.50	85.0 - 116	88.8	90.4	mg/L	1.79	20.0
TCLP Selenium	2232285	2.37	2.34	0.0847	2.50	80.2 - 121	91.4	90.2	mg/L	1.32	20.0

Analytical Set

**1083033**

**EPA 6020A**

Blank						
Parameter	PrepSet	Reading	MDL	MDL	Units	File
TCLP Silver	1082717	ND	0.010	0.010	mg/L	125467805

CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Silver	0.0492	0.05	mg/L	98.4	90.0 - 110	125467802
TCLP Silver	0.0495	0.05	mg/L	99.0	90.0 - 110	125467808
TCLP Silver	0.0494	0.05	mg/L	98.8	90.0 - 110	125467820

ICV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Silver	0.0495	0.05	mg/L	99.0	90.0 - 110	125467747

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Silver	1082717	0.103	0.104	0.100	80.1 - 118	103	104	mg/L	0.966	14.0

MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Silver	2232285	0.523	0.531	ND	0.500	80.7 - 115	105	106	mg/L	1.52	20.0

Analytical Set

**1083209**

**EPA 8260B**

BFB					
Parameter	Sample	RefMass	Reading	%	Limits%
BFB Mass 173	1083209	174	0	0.0	0 - 2.00
BFB Mass 174	1083209	95.0	938	64.1	50.0 - 100
BFB Mass 175	1083209	174	80	8.5	5.00 - 9.00
BFB Mass 176	1083209	174	902	96.2	95.0 - 101



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
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1076460

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### BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 177	1083209	176	52	5.7	5.00 - 9.00	125471872
BFB Mass 50	1083209	95.0	316	21.6	15.0 - 40.0	125471872
BFB Mass 75	1083209	95.0	821	56.1	30.0 - 60.0	125471872
BFB Mass 95	1083209	95.0	1462	100.0	100 - 100	125471872
BFB Mass 96	1083209	95.0	89	6.1	5.00 - 9.00	125471872

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP 1,1-Dichloroethene	1083209	ND	0.000574	0.001	mg/L	125471876
TCLP 1,2-Dichloroethane	1083209	ND	0.00059	0.001	mg/L	125471876
TCLP 1,4 Dichlorobenzene	1083209	ND	0.000837	0.001	mg/L	125471876
TCLP Benzene	1083209	ND	0.000453	0.001	mg/L	125471876
TCLP Carbon tetrachloride	1083209	ND	0.000299	0.001	mg/L	125471876
TCLP Chlorobenzene	1083209	ND	0.000558	0.001	mg/L	125471876
TCLP Chloroform	1083209	ND	0.000463	0.001	mg/L	125471876
TCLP MEK	1083209	ND	0.000742	0.001	mg/L	125471876
TCLP Tetrachloroethylene	1083209	ND	0.000607	0.001	mg/L	125471876
TCLP Trichloroethylene	1083209	ND	0.000521	0.001	mg/L	125471876
TCLP Vinyl chloride	1083209	ND	0.000702	0.001	mg/L	125471876

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP 1,1-Dichloroethene	0.0212	0.020	mg/L	106	70.0 - 130	125471873
TCLP 1,2-Dichloroethane	0.0229	0.020	mg/L	114	70.0 - 130	125471873
TCLP 1,4 Dichlorobenzene	0.0193	0.020	mg/L	96.5	70.0 - 130	125471873
TCLP Benzene	0.0216	0.020	mg/L	108	70.0 - 130	125471873
TCLP Carbon tetrachloride	0.0216	0.020	mg/L	108	70.0 - 130	125471873
TCLP Chlorobenzene	0.0196	0.020	mg/L	98.0	70.0 - 130	125471873
TCLP Chloroform	0.022	0.020	mg/L	110	70.0 - 130	125471873
TCLP MEK	0.0226	0.020	mg/L	113	70.0 - 130	125471873
TCLP Tetrachloroethylene	0.019	0.020	mg/L	95.0	70.0 - 130	125471873
TCLP Trichloroethylene	0.0197	0.020	mg/L	98.5	70.0 - 130	125471873
TCLP Vinyl chloride	0.0238	0.020	mg/L	119	70.0 - 130	125471873

### IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1083209	CCV	42720	42720	29900	55540	125471873	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS	46180	42720	29900	55540	125471874	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS Dup	41510	42720	29900	55540	125471875	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	Blank	33810	42720	29900	55540	125471876	1083209
ChlorobenzeneD5 (ISTD)	1083209	CCV	85560	85560	59900	111200	125471873	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS	92160	85560	59900	111200	125471874	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS Dup	82640	85560	59900	111200	125471875	1083209
ChlorobenzeneD5 (ISTD)	1083209	Blank	77000	85560	59900	111200	125471876	1083209
1,4-DichlorobenzeneD4 (ISTD)	2232400	MS	33870	42720	29900	55540	125471881	1082851
1,4-DichlorobenzeneD4 (ISTD)	2232400	MSD	36430	42720	29900	55540	125471882	1082851



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**CLDV-G**

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Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
ChlorobenzeneD5 (ISTD)	2232400	MS	68560	85560	59900	111200	125471881	1082851
ChlorobenzeneD5 (ISTD)	2232400	MSD	74250	85560	59900	111200	125471882	1082851

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS	11.97	11.97	11.91	12.03	125471874	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS Dup	11.97	11.97	11.91	12.03	125471875	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	Blank	11.97	11.97	11.91	12.03	125471876	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS	9.597	9.597	9.537	9.657	125471874	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS Dup	9.597	9.597	9.537	9.657	125471875	1083209
ChlorobenzeneD5 (ISTD)	1083209	Blank	9.597	9.597	9.537	9.657	125471876	1083209
1,4-DichlorobenzeneD4 (ISTD)	2232400	MS	11.97	11.97	11.91	12.03	125471881	1082851
1,4-DichlorobenzeneD4 (ISTD)	2232400	MSD	11.97	11.97	11.91	12.03	125471882	1082851
ChlorobenzeneD5 (ISTD)	2232400	MS	9.597	9.597	9.537	9.657	125471881	1082851
ChlorobenzeneD5 (ISTD)	2232400	MSD	9.597	9.597	9.537	9.657	125471882	1082851

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 1,1-Dichloroethene	1083209	0.0157	0.0163	0.020	56.7 - 135	78.5	81.5	mg/L	3.75	30.0
TCLP 1,2-Dichloroethane	1083209	0.0192	0.0216	0.020	69.8 - 132	96.0	108	mg/L	11.8	30.0
TCLP 1,4 Dichlorobenzene	1083209	0.0184	0.0199	0.020	74.8 - 116	92.0	99.5	mg/L	7.83	30.0
TCLP Benzene	1083209	0.0185	0.0204	0.020	67.1 - 123	92.5	102	mg/L	9.77	30.0
TCLP Carbon tetrachloride	1083209	0.0186	0.0192	0.020	60.1 - 132	93.0	96.0	mg/L	3.17	30.0
TCLP Chlorobenzene	1083209	0.0177	0.0193	0.020	74.0 - 115	88.5	96.5	mg/L	8.65	30.0
TCLP Chloroform	1083209	0.019	0.0206	0.020	71.1 - 128	95.0	103	mg/L	8.08	30.0
TCLP MEK	1083209	0.0209	0.0248	0.020	40.7 - 166	104	124	mg/L	17.5	30.0
TCLP Tetrachloroethylene	1083209	0.0158	0.0181	0.020	71.2 - 126	79.0	90.5	mg/L	13.6	30.0
TCLP Trichloroethylene	1083209	0.0174	0.0178	0.020	71.4 - 126	87.0	89.0	mg/L	2.27	30.0
TCLP Vinyl chloride	1083209	0.0241	0.0249	0.020	18.5 - 155	120	124	mg/L	3.28	30.0

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP 1,1-Dichloroethene	2232400	0.152	0.135	ND	0.200	0.100 - 168	76.0	67.5	mg/L	11.8	30.0
TCLP 1,2-Dichloroethane	2232400	0.220	0.194	ND	0.200	48.4 - 134	110	97.0	mg/L	12.6	30.0
TCLP 1,4 Dichlorobenzene	2232400	0.190	0.177	ND	0.200	45.4 - 121	95.0	88.5	mg/L	7.08	30.0
TCLP Benzene	2232400	0.201	0.180	ND	0.200	5.00 - 119	100	90.0	mg/L	11.0	30.0
TCLP Carbon tetrachloride	2232400	0.182	0.152	ND	0.200	0.100 - 164	91.0	76.0	mg/L	18.0	30.0
TCLP Chlorobenzene	2232400	0.186	0.172	ND	0.200	32.5 - 130	93.0	86.0	mg/L	7.82	30.0
TCLP Chloroform	2232400	0.209	0.194	ND	0.200	22.1 - 141	104	97.0	mg/L	7.44	30.0
TCLP MEK	2232400	0.210	0.212	ND	0.200	9.88 - 197	105	106	mg/L	0.948	30.0
TCLP Tetrachloroethylene	2232400	0.164	0.137	ND	0.200	0.100 - 157	82.0	68.5	mg/L	17.9	30.0
TCLP Trichloroethylene	2232400	0.178	0.150	ND	0.200	0.100 - 161	89.0	75.0	mg/L	17.1	30.0
TCLP Vinyl chloride	2232400	0.183	0.167	ND	0.200	0.100 - 197	91.5	83.5	mg/L	9.14	30.0

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
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Parameter	Sample	Type	Surrogate		Units	Recover%	Limits%	File
			Reading	Known				
1,2-DCA-d4 (SURR)	1083209	CCV	0.0212	0.020	mg/L	106	74.2 - 132	125471873
1,2-DCA-d4 (SURR)	1083209	LCS	0.0212	0.020	mg/L	106	74.2 - 132	125471874
1,2-DCA-d4 (SURR)	1083209	LCS Dup	0.0206	0.020	mg/L	103	74.2 - 132	125471875
1,2-DCA-d4 (SURR)	1083209	Blank	0.0215	0.020	mg/L	108	74.2 - 132	125471876
Bromofluorobenzene (SURR)	1083209	CCV	0.020	0.020	mg/L	100	77.2 - 134	125471873
Bromofluorobenzene (SURR)	1083209	LCS	0.020	0.020	mg/L	100	77.2 - 134	125471874
Bromofluorobenzene (SURR)	1083209	LCS Dup	0.0207	0.020	mg/L	104	77.2 - 134	125471875
Bromofluorobenzene (SURR)	1083209	Blank	0.0213	0.020	mg/L	106	77.2 - 134	125471876
Dibromofluoromethane (SURR)	1083209	CCV	0.0194	0.020	mg/L	97.0	67.2 - 122	125471873
Dibromofluoromethane (SURR)	1083209	LCS	0.0191	0.020	mg/L	95.5	67.2 - 122	125471874
Dibromofluoromethane (SURR)	1083209	LCS Dup	0.0186	0.020	mg/L	93.0	67.2 - 122	125471875
Dibromofluoromethane (SURR)	1083209	Blank	0.0198	0.020	mg/L	99.0	67.2 - 122	125471876
TolueneD8 (SURR)	1083209	CCV	0.0198	0.020	mg/L	99.0	69.2 - 122	125471873
TolueneD8 (SURR)	1083209	LCS	0.0191	0.020	mg/L	95.5	69.2 - 122	125471874
TolueneD8 (SURR)	1083209	LCS Dup	0.0192	0.020	mg/L	96.0	69.2 - 122	125471875
TolueneD8 (SURR)	1083209	Blank	0.0195	0.020	mg/L	97.5	69.2 - 122	125471876
1,2-DCA-d4 (SURR)	2232400	MS	0.0217	0.020	mg/L	108	74.2 - 132	125471881
1,2-DCA-d4 (SURR)	2232400	MSD	0.0213	0.020	mg/L	106	74.2 - 132	125471882
Bromofluorobenzene (SURR)	2232400	MS	0.0206	0.020	mg/L	103	77.2 - 134	125471881
Bromofluorobenzene (SURR)	2232400	MSD	0.0205	0.020	mg/L	102	77.2 - 134	125471882
Dibromofluoromethane (SURR)	2232400	MS	0.0204	0.020	mg/L	102	67.2 - 122	125471881
Dibromofluoromethane (SURR)	2232400	MSD	0.0198	0.020	mg/L	99.0	67.2 - 122	125471882
TolueneD8 (SURR)	2232400	MS	0.0196	0.020	mg/L	98.0	69.2 - 122	125471881
TolueneD8 (SURR)	2232400	MSD	0.0193	0.020	mg/L	96.5	69.2 - 122	125471882

Analytical Set

1083728

EPA 8082

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1083342	ND	43.0	250	ug/kg	125481650
PCB-1221	1083342	ND	43.0	250	ug/kg	125481650
PCB-1232	1083342	ND	43.0	250	ug/kg	125481650
PCB-1242	1083342	ND	43.0	250	ug/kg	125481650
PCB-1248	1083342	ND	43.0	250	ug/kg	125481650
PCB-1254	1083342	ND	43.0	250	ug/kg	125481650
PCB-1260	1083342	ND	43.0	250	ug/kg	125481650

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	1080	1000	ug/kg	108	80.0 - 120	125481649
PCB-1016	1090	1000	ug/kg	109	80.0 - 120	125481663
PCB-1016	847	1000	ug/kg	84.7	80.0 - 120	125481665
PCB-1260	1130	1000	ug/kg	113	80.0 - 120	125481649
PCB-1260	2250	1000	ug/kg	225	80.0 - 120	125481663
PCB-1260	3290	1000	ug/kg	329	80.0 - 120	125481665



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**CLDV-G**

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LCS Dup											
Parameter	PrepSet	LQS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1083342	6540	6830		5000	28.4 - 187	131	137	ug/kg	4.48	30.0
PCB-1260	1083342	6870	7030		5000	22.3 - 183	137	141	ug/kg	2.88	30.0
MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
PCB-1016	2231591	11500	11500	ND	10000	0.100 - 427	115	115	ug/kg	0	30.0
PCB-1260	2231591	7700	8440	ND	10000	0.100 - 470	77.0	84.4	ug/kg	9.17	30.0
Surrogate											
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File			
Decachlorobiphenyl	1083342	Blank	77.9	100	ug/kg	77.9	10.0 - 200	125481650			
Tetrachloro-m-Xylene (Surr)	1083342	Blank	100	100	ug/kg	100	10.0 - 160	125481650			

Analytical Set

**1083861**

**EPA 8151**

Blank										
Parameter	PrepSet	Reading	MDL	MQL	Units	File				
TCLP 2,4 D	1082501	ND	0.000159	0.0005	mg/L	125486022				
TCLP 2,4,5-TP (Silvex)	1082501	ND	0.0000893	0.0003	mg/L	125486022				
TCLP 2,4 D	1083228	ND	0.000159	0.0005	mg/L	125486019				
TCLP 2,4 D	1083228	ND	0.000159	0.0005	mg/L	125486029				
TCLP 2,4,5-TP (Silvex)	1083228	ND	0.0000893	0.0003	mg/L	125486019				
TCLP 2,4,5-TP (Silvex)	1083228	ND	0.0000893	0.0003	mg/L	125486029				

CCV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP 2,4 D	0.150	0.150	mg/L	100	70.0 - 130	125486018				
TCLP 2,4 D	0.156	0.150	mg/L	104	70.0 - 130	125486036				
TCLP 2,4 D	0.156	0.150	mg/L	104	70.0 - 130	125486040				
TCLP 2,4,5-TP (Silvex)	0.157	0.150	mg/L	104	70.0 - 130	125486018				
TCLP 2,4,5-TP (Silvex)	0.158	0.150	mg/L	105	70.0 - 130	125486036				
TCLP 2,4,5-TP (Silvex)	0.157	0.150	mg/L	105	70.0 - 130	125486040				

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 2,4 D	1083228	0.000371	0.000275	0.001	2.06 - 194	37.1	27.5	mg/L	29.7	30.0
TCLP 2,4,5-TP (Silvex)	1083228	0.000423	0.000314	0.001	19.3 - 162	42.3	31.4	mg/L	29.6	30.0

Surrogate										
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File		
2,4-Dichlorophenylacetic Acid		CCV	0.151	0.200	mg/L	75.5	0.100 - 294	125486018		
2,4-Dichlorophenylacetic Acid		CCV	0.152	0.200	mg/L	76.0	0.100 - 294	125486036		
2,4-Dichlorophenylacetic Acid		CCV	0.152	0.200	mg/L	76.0	0.100 - 294	125486040		
2,4-Dichlorophenylacetic Acid	1082501	Blank	0.0373	0.200	mg/L	18.6	0.100 - 294	125486022		
2,4-Dichlorophenylacetic Acid	1083228	Blank	0.0328	0.200	mg/L	16.4	0.100 - 294	125486019		
2,4-Dichlorophenylacetic Acid	1083228	LCS	0.0411	0.200	mg/L	20.6	0.100 - 294	125486020		
2,4-Dichlorophenylacetic Acid	1083228	LCS Dup	0.0322	0.200	mg/L	16.1	0.100 - 294	125486021		



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## CLDV-G

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### Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid	1083228	Blank	0.0349	0.200	mg/L	17.4	0.100 - 294	125486029

Analytical Set

1084018

EPA 8270C

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP 2,4,5-Trichlorophenol	1082501	ND	0.000734	0.001	mg/L	125490260
TCLP 2,4,6-Trichlorophenol	1082501	ND	0.000704	0.001	mg/L	125490260
TCLP 2,4-Dinitrotoluene	1082501	ND	0.00335	0.0035	mg/L	125490260
TCLP 2-Methylphenol (o-Cresol)	1082501	ND	0.00513	0.0052	mg/L	125490260
TCLP 3&4-Methylphenol (m&p-Creso	1082501	ND	0.00615	0.0062	mg/L	125490260
TCLP Hexachlorobenzene	1082501	ND	0.000187	0.001	mg/L	125490260
TCLP Hexachlorobutadiene	1082501	ND	0.000618	0.001	mg/L	125490260
TCLP Hexachloroethane	1082501	ND	0.000789	0.001	mg/L	125490260
TCLP Nitrobenzene	1082501	ND	0.00039	0.001	mg/L	125490260
TCLP Pentachlorophenol	1082501	0.00058	0.000129	0.001	mg/L	125490260
TCLP Pyridine (Reg. Limit 5)	1082501	ND	0.00533	0.0054	mg/L	125490260
TCLP 2,4,5-Trichlorophenol	1083292	ND	0.000734	0.001	mg/L	125490257
TCLP 2,4,6-Trichlorophenol	1083292	ND	0.000704	0.001	mg/L	125490257
TCLP 2,4-Dinitrotoluene	1083292	ND	0.00335	0.0035	mg/L	125490257
TCLP 2-Methylphenol (o-Cresol)	1083292	ND	0.00513	0.0052	mg/L	125490257
TCLP 3&4-Methylphenol (m&p-Creso	1083292	ND	0.00615	0.0062	mg/L	125490257
TCLP Hexachlorobenzene	1083292	ND	0.000187	0.001	mg/L	125490257
TCLP Hexachlorobutadiene	1083292	ND	0.000618	0.001	mg/L	125490257
TCLP Hexachloroethane	1083292	ND	0.000789	0.001	mg/L	125490257
TCLP Nitrobenzene	1083292	ND	0.00039	0.001	mg/L	125490257
TCLP Pentachlorophenol	1083292	0.00057	0.000129	0.001	mg/L	125490257
TCLP Pyridine (Reg. Limit 5)	1083292	ND	0.00533	0.0054	mg/L	125490257

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP 2,4,5-Trichlorophenol	55.7	50.0	mg/L	111	70.0 - 130	125490256
TCLP 2,4,6-Trichlorophenol	55.4	50.0	mg/L	111	70.0 - 130	125490256
TCLP 2,4-Dinitrotoluene	45.0	50.0	mg/L	90.0	70.0 - 130	125490256
TCLP 2-Methylphenol (o-Cresol)	50.9	50.0	mg/L	102	70.0 - 130	125490256
TCLP 3&4-Methylphenol (m&p-Creso	51.5	50.0	mg/L	103	70.0 - 130	125490256
TCLP Hexachlorobenzene	48.1	50.0	mg/L	96.2	70.0 - 130	125490256
TCLP Hexachlorobutadiene	44.6	50.0	mg/L	89.1	70.0 - 130	125490256
TCLP Hexachloroethane	46.9	50.0	mg/L	93.8	70.0 - 130	125490256
TCLP Nitrobenzene	50.7	50.0	mg/L	101	70.0 - 130	125490256
TCLP Pentachlorophenol	46.6	50.0	mg/L	93.2	70.0 - 130	125490256
TCLP Pyridine (Reg. Limit 5)	44.5	50.0	mg/L	89.0	70.0 - 130	125490256

### DFTPP

Parameter		RefMass	Reading	%	Limits%	File
DFTPP Mass 127	620075	198	24765	54.6	40.0 - 60.0	125490255



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

1076460

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DFTPP						
Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 197	620075	198	0	0.0	125490255	
DFTPP Mass 198	620075	198	45389	100.0	125490255	
DFTPP Mass 199	620075	198	3244	7.1	125490255	
DFTPP Mass 275	620075	198	13168	29.0	125490255	
DFTPP Mass 365	620075	198	2783	6.1	125490255	
DFTPP Mass 441	620075	443	5068	92.3	125490255	
DFTPP Mass 442	620075	198	28888	63.6	125490255	
DFTPP Mass 443	620075	442	5490	19.0	125490255	
DFTPP Mass 51	620075	198	26144	57.6	125490255	
DFTPP Mass 68	620075	69.0	0	0.0	125490255	
DFTPP Mass 69	620075	198	27388	60.3	125490255	
DFTPP Mass 70	620075	69.0	116	0.4	125490255	

IS Areas							
Parameter	Sample	Type	Reading	CCVISM	Low	High	File
1,4-Dichlorobenzene-d4-ISTD	620073	CCV	61950	61950	30970	92920	125490256
Acenaphthene-d10-ISTD	620073	CCV	101200	101200	50580	151700	125490256
Naphthalene-d8-ISTD	620073	CCV	194200	194200	97100	291300	125490256
Phenanthrene-d10-ISTD	620073	CCV	153900	153900	76930	230800	125490256
1,4-Dichlorobenzene-d4-ISTD	1082501	Blank	60370	61950	30970	92920	125490260
Acenaphthene-d10-ISTD	1082501	Blank	105600	101200	50580	151700	125490260
Naphthalene-d8-ISTD	1082501	Blank	190300	194200	97100	291300	125490260
Phenanthrene-d10-ISTD	1082501	Blank	200400	153900	76930	230800	125490260
1,4-Dichlorobenzene-d4-ISTD	1083292	Blank	59390	61950	30970	92920	125490257
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS	61190	61950	30970	92920	125490258
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS Dup	64690	61950	30970	92920	125490259
Acenaphthene-d10-ISTD	1083292	Blank	102300	101200	50580	151700	125490257
Acenaphthene-d10-ISTD	1083292	LCS	102900	101200	50580	151700	125490258
Acenaphthene-d10-ISTD	1083292	LCS Dup	106000	101200	50580	151700	125490259
Naphthalene-d8-ISTD	1083292	Blank	191400	194200	97100	291300	125490257
Naphthalene-d8-ISTD	1083292	LCS	190700	194200	97100	291300	125490258
Naphthalene-d8-ISTD	1083292	LCS Dup	198700	194200	97100	291300	125490259
Phenanthrene-d10-ISTD	1083292	Blank	186500	153900	76930	230800	125490257
Phenanthrene-d10-ISTD	1083292	LCS	162900	153900	76930	230800	125490258
Phenanthrene-d10-ISTD	1083292	LCS Dup	212700	153900	76930	230800	125490259
1,4-Dichlorobenzene-d4-ISTD	2232209	MS	51200	61950	30970	92920	125490266
Acenaphthene-d10-ISTD	2232209	MS	88740	101200	50580	151700	125490266
Naphthalene-d8-ISTD	2232209	MS	161100	194200	97100	291300	125490266
Phenanthrene-d10-ISTD	2232209	MS	150700	153900	76930	230800	125490266

IS RetTime							
Parameter	Sample	Type	Reading	CCVISM	Low	High	File
1,4-Dichlorobenzene-d4-ISTD	620073	CCV	8.690	8.690	8.630	8.750	125490256
Acenaphthene-d10-ISTD	620073	CCV	15.20	15.20	15.14	15.26	125490256
Naphthalene-d8-ISTD	620073	CCV	11.22	11.22	11.16	11.28	125490256



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

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IS RetTime								
Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Phenanthrene-d10-ISTD	620073	CCV	17.74	17.74	17.68	17.80	125490256	620073
1,4-Dichlorobenzene-d4-ISTD	1082501	Blank	8.680	8.690	8.630	8.750	125490260	1082501
Acenaphthene-d10-ISTD	1082501	Blank	15.20	15.20	15.14	15.26	125490260	1082501
Naphthalene-d8-ISTD	1082501	Blank	11.21	11.22	11.16	11.28	125490260	1082501
Phenanthrene-d10-ISTD	1082501	Blank	17.73	17.74	17.68	17.80	125490260	1082501
1,4-Dichlorobenzene-d4-ISTD	1083292	Blank	8.690	8.690	8.630	8.750	125490257	1083292
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS	8.690	8.690	8.630	8.750	125490258	1083292
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS Dup	8.690	8.690	8.630	8.750	125490259	1083292
Acenaphthene-d10-ISTD	1083292	Blank	15.20	15.20	15.14	15.26	125490257	1083292
Acenaphthene-d10-ISTD	1083292	LCS	15.20	15.20	15.14	15.26	125490258	1083292
Acenaphthene-d10-ISTD	1083292	LCS Dup	15.20	15.20	15.14	15.26	125490259	1083292
Naphthalene-d8-ISTD	1083292	Blank	11.22	11.22	11.16	11.28	125490257	1083292
Naphthalene-d8-ISTD	1083292	LCS	11.22	11.22	11.16	11.28	125490258	1083292
Naphthalene-d8-ISTD	1083292	LCS Dup	11.21	11.22	11.16	11.28	125490259	1083292
Phenanthrene-d10-ISTD	1083292	Blank	17.73	17.74	17.68	17.80	125490257	1083292
Phenanthrene-d10-ISTD	1083292	LCS	17.73	17.74	17.68	17.80	125490258	1083292
Phenanthrene-d10-ISTD	1083292	LCS Dup	17.73	17.74	17.68	17.80	125490259	1083292
1,4-Dichlorobenzene-d4-ISTD	2232209	MS	8.680	8.690	8.630	8.750	125490266	1083292
Acenaphthene-d10-ISTD	2232209	MS	15.20	15.20	15.14	15.26	125490266	1083292
Naphthalene-d8-ISTD	2232209	MS	11.22	11.22	11.16	11.28	125490266	1083292
Phenanthrene-d10-ISTD	2232209	MS	17.73	17.74	17.68	17.80	125490266	1083292

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 2,4,5-Trichlorophenol	1083292	0.0218	0.0228	0.025	39.3 - 111	87.2	91.2	mg/L	4.48	30.0
TCLP 2,4,6-Trichlorophenol	1083292	0.0226	0.0246	0.025	38.2 - 109	90.4	98.4	mg/L	8.47	30.0
TCLP 2,4-Dinitrotoluene	1083292	0.0202	0.0227	0.025	36.3 - 132	80.8	90.8	mg/L	11.7	30.0
TCLP 2-Methylphenol (o-Cresol)	1083292	0.017	0.0155	0.025	23.0 - 87.8	68.0	62.0	mg/L	9.23	30.0
TCLP 3&4-Methylphenol (m&p-Creso	1083292	0.0163	0.0157	0.025	14.9 - 92.5	65.2	62.8	mg/L	3.75	30.0
TCLP Hexachlorobenzene	1083292	0.020	0.0191	0.025	44.4 - 117	80.0	76.4	mg/L	4.60	30.0
TCLP Hexachlorobutadiene	1083292	0.0146	0.014	0.025	17.2 - 88.9	58.4	56.0	mg/L	4.20	30.0
TCLP Hexachloroethane	1083292	0.0137	0.0135	0.025	14.6 - 88.8	54.8	54.0	mg/L	1.47	30.0
TCLP Nitrobenzene	1083292	0.0202	0.0192	0.025	34.3 - 113	80.8	76.8	mg/L	5.08	30.0
TCLP Pentachlorophenol	1083292	0.0191	0.0198	0.025	15.7 - 129	76.4	79.2	mg/L	3.60	30.0
TCLP Pyridine (Reg. Limit 5)	1083292	0.0103	0.0068	0.025	0.0753 - 83.4	41.2	27.2	mg/L	40.9 *	30.0

MS										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP 2,4,5-Trichlorophenol	2232209	0.193	0	0.0057	0.250	33.7 - 116	74.9		mg/L	30.0
TCLP 2,4,6-Trichlorophenol	2232209	0.193	0	0.0057	0.250	20.1 - 131	74.9		mg/L	30.0
TCLP 2,4-Dinitrotoluene	2232209	0.173	0	0.0057	0.250	31.8 - 135	66.9		mg/L	30.0
TCLP 2-Methylphenol (o-Cresol)	2232209	0.152	0	0.0057	0.250	10.6 - 106	58.5		mg/L	30.0
TCLP 3&4-Methylphenol (m&p-Creso	2232209	0.146	0	ND	0.250	0.100 - 149	58.4		mg/L	30.0
TCLP Hexachlorobenzene	2232209	0.177	0	0.0057	0.250	35.9 - 125	68.5		mg/L	30.0
TCLP Hexachlorobutadiene	2232209	0.125	0	0.0057	0.250	11.1 - 88.5	47.7		mg/L	30.0



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## CLDV-G

Chaparral Labs  
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MS										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP Hexachloroethane	2232209	0.130	0	0.0057	0.250	8.41 - 88.1	49.7		mg/L	30.0
TCLP Nitrobenzene	2232209	0.192	0	0.0057	0.250	28.7 - 119	74.5		mg/L	30.0
TCLP Pentachlorophenol	2232209	0.151	0	0.005	0.250	8.33 - 141	58.4		mg/L	30.0
TCLP Pyridine (Reg. Limit 5)	2232209	0.0901	0	0.0057	0.250	0.100 - 97.2	33.8		mg/L	30.0

SPCC					File
Parameter	Sample	RF	Minimum		
TCLP 2,4-Dinitrophenol	620073	48.8	0.050		125490256
TCLP 4-Nitrophenol	620073	48.8	0.050		125490256
TCLP Hexachlorocyclopentadiene	620073	56.2	0.050		125490256
TCLP N-Nitroso-n-propylamine	620073	49.6	0.050		125490256

Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	620073	CCV	44.0	100	mg/L	44.0	9.79 - 123	125490256
2-Fluorobiphenyl-SURR	620073	CCV	54.9	50.0	mg/L	110	0.100 - 131	125490256
2-Fluorophenol-SURR	620073	CCV	47.5	100	mg/L	47.5	5.36 - 80.2	125490256
4-Terphenyl-d14-SURR	620073	CCV	34.8	50.0	mg/L	69.6	0.100 - 137	125490256
Nitrobenzene-d5-SURR	620073	CCV	53.4	50.0	mg/L	107	0.100 - 131	125490256
Phenol-d6-SURR	620073	CCV	52.1	100	mg/L	52.1	0.100 - 66.5	125490256
2,4,6-Tribromophenol	1082501	Blank	1.78	3.33	mg/L	53.5	9.79 - 123	125490260
2-Fluorobiphenyl-SURR	1082501	Blank	20.5	50.0	mg/L	41.0	0.100 - 131	125490260
2-Fluorophenol-SURR	1082501	Blank	32.5	100	mg/L	32.5	5.36 - 80.2	125490260
4-Terphenyl-d14-SURR	1082501	Blank	25.5	50.0	mg/L	51.0	0.100 - 137	125490260
Nitrobenzene-d5-SURR	1082501	Blank	23.7	50.0	mg/L	47.4	0.100 - 131	125490260
Phenol-d6-SURR	1082501	Blank	20.2	100	mg/L	20.2	0.100 - 66.5	125490260
2,4,6-Tribromophenol	1083292	Blank	1.65	3.33	mg/L	49.5	9.79 - 123	125490257
2,4,6-Tribromophenol	1083292	LCS	1.74	3.33	mg/L	52.3	9.79 - 123	125490258
2,4,6-Tribromophenol	1083292	LCS Dup	2.04	3.33	mg/L	61.3	9.79 - 123	125490259
2-Fluorobiphenyl-SURR	1083292	Blank	19.9	50.0	mg/L	39.8	0.100 - 131	125490257
2-Fluorobiphenyl-SURR	1083292	LCS	21.2	50.0	mg/L	42.4	0.100 - 131	125490258
2-Fluorobiphenyl-SURR	1083292	LCS Dup	19.4	50.0	mg/L	38.8	0.100 - 131	125490259
2-Fluorophenol-SURR	1083292	Blank	30.7	100	mg/L	30.7	5.36 - 80.2	125490257
2-Fluorophenol-SURR	1083292	LCS	31.9	100	mg/L	31.9	5.36 - 80.2	125490258
2-Fluorophenol-SURR	1083292	LCS Dup	28.3	100	mg/L	28.3	5.36 - 80.2	125490259
4-Terphenyl-d14-SURR	1083292	Blank	22.3	50.0	mg/L	44.6	0.100 - 137	125490257
4-Terphenyl-d14-SURR	1083292	LCS	22.8	50.0	mg/L	45.6	0.100 - 137	125490258
4-Terphenyl-d14-SURR	1083292	LCS Dup	23.1	50.0	mg/L	46.2	0.100 - 137	125490259
Nitrobenzene-d5-SURR	1083292	Blank	22.2	50.0	mg/L	44.4	0.100 - 131	125490257
Nitrobenzene-d5-SURR	1083292	LCS	23.8	50.0	mg/L	47.6	0.100 - 131	125490258
Nitrobenzene-d5-SURR	1083292	LCS Dup	23.1	50.0	mg/L	46.2	0.100 - 131	125490259
Phenol-d6-SURR	1083292	Blank	19.8	100	mg/L	19.8	0.100 - 66.5	125490257
Phenol-d6-SURR	1083292	LCS	21.6	100	mg/L	21.6	0.100 - 66.5	125490258
Phenol-d6-SURR	1083292	LCS Dup	18.8	100	mg/L	18.8	0.100 - 66.5	125490259
2,4,6-Tribromophenol	2232209	MS	0.462	1.00	mg/L	46.2	9.79 - 123	125490266



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
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Huntsville, TX 77320

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Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2-Fluorobiphenyl-SURR	2232209	MS	0.186	0.500	mg/L	37.2	0.100 - 131	125490266
2-Fluorophenol-SURR	2232209	MS	0.278	1.00	mg/L	27.8	5.36 - 80.2	125490266
4-Terphenyl-d14-SURR	2232209	MS	0.197	0.500	mg/L	39.4	0.100 - 137	125490266
Nitrobenzene-d5-SURR	2232209	MS	0.212	0.500	mg/L	42.4	0.100 - 181	125490266
Phenol-d6-SURR	2232209	MS	0.189	1.00	mg/L	18.9	0.100 - 66.5	125490266

Analytical Set

1084248

EPA 8081A

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP Chlordane	1082501	ND	0.0183	0.020	mg/L	125495468
TCLP Endrin	1082501	ND	0.000538	0.001	mg/L	125495468
TCLP gamma-BHC (Lindane)	1082501	ND	0.000385	0.001	mg/L	125495468
TCLP Heptachlor	1082501	0.000858	0.000207	0.001	mg/L	125495468
TCLP Heptachlor Epoxide	1082501	ND	0.00066	0.001	mg/L	125495468
TCLP Methoxychlor	1082501	ND	0.000898	0.001	mg/L	125495468
TCLP Toxaphene	1082501	ND	0.000169	0.0002	mg/L	125495468
TCLP Chlordane	1082716	ND	0.0183	0.020	mg/L	125495465
TCLP Endrin	1082716	ND	0.000538	0.001	mg/L	125495465
TCLP gamma-BHC (Lindane)	1082716	ND	0.000385	0.001	mg/L	125495465
TCLP Heptachlor	1082716	ND	0.000207	0.001	mg/L	125495465
TCLP Heptachlor Epoxide	1082716	ND	0.00066	0.001	mg/L	125495465
TCLP Methoxychlor	1082716	ND	0.000898	0.001	mg/L	125495465
TCLP Toxaphene	1082716	ND	0.000169	0.0002	mg/L	125495465

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Endrin	0.0512	0.050	mg/L	102	70.0 - 130	125495464
TCLP Endrin	0.0488	0.050	mg/L	97.5	70.0 - 130	125495472
TCLP Endrin	0.0464	0.050	mg/L	92.8	70.0 - 130	125495476
TCLP gamma-BHC (Lindane)	0.0492	0.050	mg/L	98.5	70.0 - 130	125495464
TCLP gamma-BHC (Lindane)	0.0512	0.050	mg/L	102	70.0 - 130	125495472
TCLP gamma-BHC (Lindane)	0.0488	0.050	mg/L	97.6	70.0 - 130	125495476
TCLP Heptachlor	0.048	0.050	mg/L	96.1	70.0 - 130	125495464
TCLP Heptachlor	0.0443	0.050	mg/L	88.7	70.0 - 130	125495472
TCLP Heptachlor	0.0435	0.050	mg/L	86.9	70.0 - 130	125495476
TCLP Heptachlor Epoxide	0.0478	0.050	mg/L	95.7	70.0 - 130	125495464
TCLP Heptachlor Epoxide	0.048	0.050	mg/L	96.1	70.0 - 130	125495472
TCLP Heptachlor Epoxide	0.0462	0.050	mg/L	92.4	70.0 - 130	125495476
TCLP Methoxychlor	0.0576	0.050	mg/L	115	70.0 - 130	125495464
TCLP Methoxychlor	0.0405	0.050	mg/L	81.1	70.0 - 130	125495472
TCLP Methoxychlor	0.0395	0.050	mg/L	79.0	70.0 - 130	125495476

### LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Endrin	1082716	0.0727	0.0842	0.100	42.6 - 137	72.7	84.2	mg/L	14.7	30.0



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
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Huntsville, TX 77320

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LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP gamma-BHC (Lindane)	1082716	0.0661	0.0768	0.100	33.0 - 129	66.1	76.8	mg/L	15.0	30.0
TCLP Heptachlor	1082716	0.0626	0.076	0.100	24.2 - 129	62.6	76.0	mg/L	19.3	30.0
TCLP Heptachlor Epoxide	1082716	0.0675	0.0778	0.100	40.8 - 128	67.5	77.8	mg/L	14.2	30.0
TCLP Methoxychlor	1082716	0.0793	0.0977	0.100	33.3 - 146	79.3	97.7	mg/L	20.8	30.0

MS											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Endrin	2232468	0.00412	0	ND	0.005	24.3 - 151	82.4		mg/L		30.0
TCLP gamma-BHC (Lindane)	2232468	0.00402	0	ND	0.005	21.3 - 144	80.4		mg/L		30.0
TCLP Heptachlor	2232468	0.00362	0	ND	0.005	14.9 - 138	72.4		mg/L		30.0
TCLP Heptachlor Epoxide	2232468	0.00394	0	ND	0.005	29.9 - 133	78.8		mg/L		30.0
TCLP Methoxychlor	2232468	0.00364	0	ND	0.005	10.3 - 183	72.8		mg/L		30.0

Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl		CCV	0.0529	0.100	mg/L	52.9	10.0 - 150	125495464
Decachlorobiphenyl		CCV	0.0411	0.100	mg/L	41.1	10.0 - 150	125495472
Decachlorobiphenyl		CCV	0.046	0.100	mg/L	46.0	10.0 - 150	125495476
Tetrachloro-m-Xylene (Surr)		CCV	0.0493	0.100	mg/L	49.3	10.0 - 150	125495464
Tetrachloro-m-Xylene (Surr)		CCV	0.0487	0.100	mg/L	48.7	10.0 - 150	125495472
Tetrachloro-m-Xylene (Surr)		CCV	0.0489	0.100	mg/L	48.9	10.0 - 150	125495476
Decachlorobiphenyl	1082501	Blank	0.096	0.100	mg/L	96.0	10.0 - 150	125495468
Tetrachloro-m-Xylene (Surr)	1082501	Blank	0.0785	0.100	mg/L	78.5	10.0 - 150	125495468
Decachlorobiphenyl	1082716	Blank	0.0768	0.100	mg/L	76.8	10.0 - 150	125495465
Decachlorobiphenyl	1082716	LCS	0.0895	0.100	mg/L	89.5	10.0 - 150	125495466
Decachlorobiphenyl	1082716	LCS Dup	0.0975	0.100	mg/L	97.5	10.0 - 150	125495467
Tetrachloro-m-Xylene (Surr)	1082716	Blank	0.0614	0.100	mg/L	61.4	10.0 - 150	125495465
Tetrachloro-m-Xylene (Surr)	1082716	LCS	0.063	0.100	mg/L	63.0	10.0 - 150	125495466
Tetrachloro-m-Xylene (Surr)	1082716	LCS Dup	0.0815	0.100	mg/L	81.5	10.0 - 150	125495467
Decachlorobiphenyl	2232468	MS	0.00442	0.005	mg/L	88.4	10.0 - 150	125495475
Tetrachloro-m-Xylene (Surr)	2232468	MS	0.00417	0.005	mg/L	83.4	10.0 - 150	125495475

\* Out RPD is Relative Percent Difference:  $\frac{\text{abs}(r1-r2)}{\text{mean}(r1,r2)} * 100\%$

Recover% is Recovery Percent:  $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample, monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); ICV - Initial Calibration Verification; LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental sample; added to analytical samples for QC purposes \*\*ANSI/ASQC E4 1994 Ref#4 TRADE QA Resources Guide.); IS Area - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



Report Page 20 of 20



# Chaparral Laboratories, Inc.

861 State Hwy 19 P.O. Box 1622-Harrisville, TX. 77342 www.chaparrallabs.com reports@chaparrallabs.com Phone: 936-291-1881 FAX: 936-295-1731

## Chain of Custody Record

Client		Report To	Same as Client	Invoice Info	Same as Client	COC Page	of	Collection Code							
Name	City of Sealy			City of Sealy		1	1								
Attn:	Travis Cochran			Accounts Payable											
Address	P.O. Box 517														
City, State, Zip	Sealy, TX 77474			P.O. Box 517											
Phone #				Sealy, TX 77474											
Fax #				979-885-2761											
E-Mail															
Lab Use Only		Project	Collection Point	Sample Type	Matrix Code	Date Collected	Time Collected	Flow (mgd)	Bottle Code	Vol (mL)	Pres. Code	Analysis	Matrix Code	Bottle Code	Preservative Code
Sample #	Bottle #														
23090412	01	City of Sealy WWTP	Belt Press	Grab	-S-				P	1000	1	As, Cd, Cr, Cu, Hg, Mo, Ni, Pb, Se, T-K, T-P, TKN, %TS, Zn	SP	Non-Forable Water	1 - 6 - C
	02	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	2 - H2SO4
	03	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	3 - HNO3
	04	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	4 - NaOH
	05	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	5 - HCl
	06	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	6 - Na2S2O5
	07	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	7 - On-Site Analysis
	08	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	8 - Other
	09	City of Sealy WWTP	Belt Press	Grab	S				W	100	1		SP	Non-Forable Water	
	10	City of Sealy WWTP	Belt Press	Grab	S				G	250	1		SP	Non-Forable Water	
	11	City of Sealy WWTP	Belt Press	Grab	S				G	120	1		SP	Non-Forable Water	
		City of Sealy WWTP	Digester	Grab	S				P	1000	NA		SP	Non-Forable Water	
Sample Conditions as Received from Client		Retinquished by:		Date	Time	Received by:		Date	Time						
Samples intact: Y N NA		Temperature: °C*													
Received on ice: Y N NA		IF N: Temperature													
Sample Conditions as Received by Lab		Samples intact: Y N NA													
Received on ice: Y N NA		Cooler ID #													
Notes:															





8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321.6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

August 16, 2023

## LABORATORY REPORT

Glen Williams  
City of Tomball  
501 James Street  
Tomball, TX 77375

Report ID: 20230816173515DLH

RE: City of Tomball - South Plant - Class B

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Deena Higginbotham  
Director of Client Services

ENTERED DEC 15 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP  
☐ PCB  
☐ Metals  
☒ F/S  
☒ & Solid



City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23F1980-01

Sample Matrix: Solid  
Date Collected: 06/08/2023 8:15  
Collected by: Hermilo Cortes

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	112000	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	42600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	84100	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	63600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	61000	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	31300	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	42600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.590	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGF1351	06/08/2023 16:10	AKA
SM 2550 B	Temperature °C Field	38.5	°C	BGF1562	06/08/2023 08:15	HCI
SM 2540 G	% Solids	3.90 V	%	BGF1366	06/09/2023 11:45	JRU / BP

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.

62,457.14



City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Quality Control

#### General Chemistry

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1366 - Percent Solids</b>									
<b>Blank (BGF1366-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1366-DUP1)</b>									
% Solids		0.100	%		0.902			1.08	10
Source: 23F1810-04 Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1366-DUP2)</b>									
% Solids		0.100	%		1.65			1.94	10
Source: 23F2123-01 Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Reference (BGF1366-SRM1)</b>									
% Solids		0.100	%	0.350		112	78.9-118		



City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Quality Control (Continued)

#### Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1337 - FC Quantitray</b>									
<b>Blank (BGF1337-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1337-DUP1)</b>									
Fecal coliforms		256	MPN/g TS dry		112000			89.4	200
Source: 23F1980-01 Prepared: 06/08/2023 Analyzed: 06/09/2023									





City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 1

23F1980

Lab PM : Deena Higginbotham	Project Name : City of Tomball - South Plant - Class B		Schedule Comments:	
City of Tomball Glen Williams 501 James Street Tomball, TX 77375 Phone: 832-349-8027	Project Comments: 12411 Holderieth Rd Tomball 77375 Combo # 9898 Glen Williams - 832-349-8027 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23F1980-01	Digester		6/8/2023 0815	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C 4°C SOUR-2710 SOUR TS-2540 G TS-2540 G 4°C	Temp C Field 39.5°C

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>[Signature]</i>		Write ID Below			
Print Name <i>H. Carter</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation <i>NWDLs</i>	Relinquished To Lab By: (Signature) <i>[Signature]</i>	Date/Time	Received for Laboratory By: (Signature)	Date/Time	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022

Tomball

Tomball South



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www.NWDLS.com



August 01, 2023

## Laboratory Report

Glen Williams  
City of Tomball  
501 James Street  
Tomball, TX 77375

Report ID: 20230801105311AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in cursive script, appearing to read "Aundra Noe", is written over a horizontal line.

Aundra Noe For Deena Higginbotham  
Director of Client Services



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

## Sample Results

Client Sample ID: Centrifuge  
Lab Sample ID: 23F1979-01

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

City of Tomball - South Plant - Annual Sludge

55

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

### Organics by GC

SW-8082	PCBs, Total	A	<0.150 U	mg/kg (dry wt) dry	10	0.0750	0.150	BGF2732	06/26/2023 08:27	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		133%	60-140					06/26/2023 08:27	
SW-8082	Surrogate: Decachlorobiphenyl-surr		90.5%	60-140					06/26/2023 08:27	

### Metals, Total

SW-6010C	Arsenic	A	4.44	mg/kg dry	1	0.437	1.99	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Cadmium	A	0.540	mg/kg dry	1	0.0517	0.199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Chromium	A	17.6	mg/kg dry	1	0.747	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Copper	A	316	mg/kg dry	5	1.06	9.95	BGF2504	06/28/2023 14:11	FAL
SW-7471B	Mercury	A	0.491	mg/kg dry	5	0.0499	0.0997	BGF2130	06/14/2023 16:35	AKR
SW-6010C	Lead	A	11.7	mg/kg dry	1	0.507	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Molybdenum	A	4.87	mg/kg dry	1	0.998	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Nickel	A	11.3	mg/kg dry	1	0.269	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Potassium	A	1700	mg/kg dry	1	17.1	199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Selenium	A	4.47	mg/kg dry	1	0.777	1.99	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Total Phosphorus	A	8950	mg/kg dry	1	8.37	199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Zinc	A	737	mg/kg dry	20	20.0	20.0	BGF2504	06/28/2023 14:14	FAL

### General Chemistry

EPA 350.2	Ammonia as N	A	5880	mg/kg dry	1	76.7	153	BGF1604	06/12/2023 13:03	GIW
SW-9056A	Nitrate as N	A	88.8	mg/kg dry	1	3.88	9.70	BGF1622	06/09/2023 17:11	ORP
SW-9065	Free Liquids	A	Absent U		1	0.00	1.00	BGF2012	06/13/2023 15:39	EM
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	50800	mg/kg dry	1	194	194	BGF1608	06/12/2023 09:29	GIW
SM 2540 G	% Solids	A	12.9 V	%	1	0.100	0.100	BGF1881	06/13/2023 11:44	JRU

### TCLP

SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.0200	5.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Barium	A	<100 V2, U	mg/L	1	0.0100	100	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.00100	1.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Chromium	A	<5.00 U	mg/L	1	0.00500	5.00	BGF2074	06/15/2023 14:30	TBB
SW-8151	2,4-D	A	<10.0 C+, U	mg/L	2	0.000476	10.0	BGF2849	07/09/2023 02:05	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00 C+, U	mg/L	2	0.000476	1.00	BGF2849	07/09/2023 02:05	KRB
SW-8151	Surrogate: DCAA-surr		129%	70-130					07/09/2023 02:05	
SW-7471B	Mercury	A	<0.200 U	mg/L	1	0.000200	0.200	BGF1994	06/15/2023 13:26	AKR
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.0100	5.00	BGF2074	06/15/2023 14:30	TBB

\* A = Accredited, N = Not Accredited or Accreditation not available





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Sample Results**  
(Continued)

Client Sample ID: Centrifuge (Continued)  
Lab Sample ID: 23F1979-01  
City of Tomball - South Plant - Annual Sludge

55

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>TCLP (Continued)</b>										
SW-8081	Chlordane (Total)	A	<0.0300 C+, U	mg/L	1	3.00E-6	0.0300	BGF2470	07/13/2023 00:11	cdg
SW-8081	Endrin	N	<0.0200 U	mg/L	1	3.00E-6	0.0200	BGF2470	07/13/2023 00:11	cdg
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400 C+, U	mg/L	1	3.00E-6	0.400	BGF2470	07/13/2023 00:11	cdg
SW-8081	Heptachlor	A	<0.00800 C+, U	mg/L	1	3.00E-6	0.00800	BGF2470	07/13/2023 00:11	cdg
SW-8081	Heptachlor epoxide	A	<0.00800 U	mg/L	1	3.00E-6	0.00800	BGF2470	07/13/2023 00:11	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U	mg/L	1	3.00E-6	0.500	BGF2470	07/13/2023 00:11	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		106%	60-140					07/13/2023 00:11	
SW-8081	Surrogate: Decachlorobiphenyl-surr		64.7%	60-140					07/13/2023 00:11	
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.0200	1.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00200	5.00	BGF2074	06/16/2023 11:43	TBB
SW-8270	2,4,5 & 2,4,6 -Trichlorophenol	N	<0.0100 U	mg/L	1	0.00500	0.0100	BGF1942	07/11/2023 19:54	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U	mg/L	1	0.00250	0.130	BGF1942	07/11/2023 19:54	KRB
SW-8270	2-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGF1942	07/11/2023 19:54	KRB
SW-8270	3,4-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U	mg/L	1	0.00250	0.130	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachlorobutadiene	A	<0.500 U	mg/L	1	0.00250	0.500	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachloroethane	A	<3.00 U	mg/L	1	0.00250	3.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Nitrobenzene	A	<2.00 U	mg/L	1	0.00250	2.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Pentachlorophenol	A	<100 U	mg/L	1	0.00250	100	BGF1942	07/11/2023 19:54	KRB
SW-8270	Pyridine	A	<5.00 U	mg/L	1	0.00250	5.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		105%	54.6-148					07/11/2023 19:54	
SW-8270	Surrogate: 2-Fluorophenol-surr		98.3%	55-152					07/11/2023 19:54	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		118%	52.4-136					07/11/2023 19:54	
SW-8270	Surrogate: Nitrobenzene-d5-surr		109%	52-162					07/11/2023 19:54	
SW-8270	Surrogate: Phenol-d5-surr		96.1%	58.7-152					07/11/2023 19:54	
SW-8270	Surrogate: p-Terphenyl-d14-surr		95.8%	51.9-147					07/11/2023 19:54	

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Sample Results**  
(Continued)

Client Sample ID: Centrifuge  
Lab Sample ID: 23F1979-01RE1  
City of Tomball - South Plant - Annual Sludge

55

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**TCLP**

SW-8081	Methoxychlor (Rerun)	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF2470	07/14/2023 01:21	cdg
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SW-8081 Surrogate: 2,4,5,6 Tetrachloro-m-xylene-sur 91.0% 60-140 07/14/2023 01:21

SW-8081 Surrogate: Decachlorobiphenyl-surr (Rerun) 71.0% 60-140 07/14/2023 01:21



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

### Quality Control

#### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2732 - SW-3570</b>										
<b>Blank (BGF2732-BLK1)</b>			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	<0.0198	U	0.0198	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0198	U	0.0198	mg/kg (dry wt) wet						
PCBs, Total	<0.0198	U	0.0198	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00641	mg/kg (dry wt) wet	0.00593		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00585	mg/kg (dry wt) wet	0.00593		98.7	60-140		
<b>LCS (BGF2732-BS1)</b>										
			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	0.0417		0.0199	mg/kg (dry wt) wet	0.0598		69.7	60-140		
Aroclor-1260 (PCB-1260)	0.0641		0.0199	mg/kg (dry wt) wet	0.0598		107	60-140		
PCBs, Total	0.0529		0.0199	mg/kg (dry wt) wet	0.0598		88.4	60-140		
Surrogate: 2,4,5,6			0.00648	mg/kg (dry wt) wet	0.00598		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00633	mg/kg (dry wt) wet	0.00598		106	60-140		
<b>LCS Dup (BGF2732-BSD1)</b>										
			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	0.0384		0.0195	mg/kg (dry wt) wet	0.0585		65.7	60-140	8.19	40
Aroclor-1260 (PCB-1260)	0.0590		0.0195	mg/kg (dry wt) wet	0.0585		101	60-140	8.32	40
PCBs, Total	0.0487		0.0195	mg/kg (dry wt) wet	0.0585		83.2	60-140	8.27	40
Surrogate: 2,4,5,6			0.00567	mg/kg (dry wt) wet	0.00585		97.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00575	mg/kg (dry wt) wet	0.00585		98.3	60-140		
<b>Matrix Spike (BGF2732-MS1)</b>										
			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					
Aroclor-1016 (PCB-1016)	3.90		2.00	mg/kg (dry wt) dry	5.99	<2.00	65.0	60-140		
Aroclor-1260 (PCB-1260)	5.80		2.00	mg/kg (dry wt) dry	5.99	<2.00	96.9	60-140		
PCBs, Total	4.86		2.00	mg/kg (dry wt) dry	5.99	<2.00	81.1	60-140		
Surrogate: 2,4,5,6			0.762	mg/kg (dry wt) dry	0.599		127	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.570	mg/kg (dry wt) dry	0.599		95.2	60-140		
<b>Matrix Spike Dup (BGF2732-MSD1)</b>										
			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
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**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2732 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGF2732-MSD1)</b>			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					
Aroclor-1016 (PCB-1016)	4.58		1.99	mg/kg (dry wt) dry	5.96	<1.99	76.8	60-140	16.1	40
Aroclor-1260 (PCB-1260)	6.35		1.99	mg/kg (dry wt) dry	5.96	<1.99	106	60-140	8.97	40
PCBs, Total	5.47		1.99	mg/kg (dry wt) dry	5.96	<1.99	91.7	60-140	11.9	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.780	mg/kg (dry wt) dry	0.596		131	60-140		
Surrogate: Decachlorobiphenyl-surr			0.645	mg/kg (dry wt) dry	0.596		108	60-140		





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2130 - SW-7471**

**MDL Check (BGF2130-MRL1)**

Prepared & Analyzed: 6/14/2023

Mercury	0.00974	U	0.0199	mg/kg wet	0.00993		98.0			
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**Matrix Spike (BGF2130-MS1)**

**Source: 23F1434-18**

Prepared & Analyzed: 6/14/2023

Mercury	0.470	J1	0.0199	mg/kg dry	0.249	0.168	121	80-120		
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**Matrix Spike Dup (BGF2130-MSD1)**

**Source: 23F1434-18**

Prepared & Analyzed: 6/14/2023

Mercury	0.414		0.0199	mg/kg dry	0.249	0.168	98.9	80-120	12.5	20
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**Batch: BGF2504 - SW-3050 for 6010**

**Blank (BGF2504-BLK1)**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	<1.77	U	1.77	mg/kg wet						
Cadmium	<0.177	U	0.177	mg/kg wet						
Chromium	<0.885	U	0.885	mg/kg wet						
Copper	<1.77	U	1.77	mg/kg wet						
Lead	<0.885	U	0.885	mg/kg wet						
Molybdenum	<0.885	U	0.885	mg/kg wet						
Nickel	<0.885	U	0.885	mg/kg wet						
Potassium	<177	U	177	mg/kg wet						
Selenium	<1.77	U	1.77	mg/kg wet						
Total Phosphorus	<177	U	177	mg/kg wet						
Zinc	<0.885	U	0.885	mg/kg wet						

**LCS (BGF2504-BS1)**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	41.8		1.73	mg/kg wet	43.3		96.7	80-120		
Cadmium	4.04		0.173	mg/kg wet	4.33		93.5	80-120		
Chromium	20.7		0.867	mg/kg wet	21.6		95.9	80-120		
Copper	41.2		1.73	mg/kg wet	43.3		95.2	80-120		
Lead	20.7		0.867	mg/kg wet	21.6		95.8	80-120		
Molybdenum	21.4		0.867	mg/kg wet	21.6		99.0	80-120		
Nickel	20.7		0.867	mg/kg wet	21.6		95.7	80-120		
Potassium	3930		173	mg/kg wet	4330		90.9	80-120		
Selenium	41.3		1.73	mg/kg wet	43.3		95.5	80-120		
Total Phosphorus	4230		173	mg/kg wet	4330		97.7	80-120		
Zinc	20.8		0.867	mg/kg wet	21.6		96.1	80-120		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2504 - SW-3050 for 6010 (Continued)**

**Matrix Spike (BGF2504-MS1)**

**Source: 23E0762-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	43.4		2.00	mg/kg dry	50.0	4.56	77.7	75-125		
Cadmium	4.25		0.200	mg/kg dry	5.00	0.400	77.0	75-125		
Chromium	34.9	J1	1.00	mg/kg dry	25.0	17.1	71.2	75-125		
Copper	956		20.0	mg/kg dry	1050	150	76.8	75-125		
Lead	30.9	J1	1.00	mg/kg dry	25.0	12.3	74.5	75-125		
Molybdenum	25.0	J1	1.00	mg/kg dry	25.0	6.72	73.3	75-125		
Nickel	31.6	J1	1.00	mg/kg dry	25.0	14.1	69.8	75-125		
Potassium	9250		200	mg/kg dry	5000	5210	80.7	75-125		
Selenium	44.2		2.00	mg/kg dry	50.0	3.53	81.4	75-125		
Total Phosphorus	24200		2000	mg/kg dry	10000	15400	88.0	75-125		
Zinc	1390		50.1	mg/kg dry	1020	493	87.9	75-125		

**Matrix Spike (BGF2504-MS2)**

**Source: 23F2769-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	84.2		2.92	mg/kg dry	73.2	13.0	97.2	75-125		
Cadmium	7.62		0.292	mg/kg dry	7.32	0.702	94.5	75-125		
Chromium	75.2		14.7	mg/kg dry	36.6	39.1	98.7	75-125		
Copper	1550		146	mg/kg dry	1540	242	85.2	75-125		
Lead	40.1		1.47	mg/kg dry	36.6	6.12	92.8	75-125		
Molybdenum	41.1		1.47	mg/kg dry	36.6	7.57	91.6	75-125		
Nickel	46.6		1.47	mg/kg dry	36.6	12.6	93.0	75-125		
Potassium	13200		292	mg/kg dry	7320	5710	103	75-125		
Selenium	80.8		2.92	mg/kg dry	73.2	8.38	98.9	75-125		
Total Phosphorus	32100	J1	2920	mg/kg dry	14600	23600	58.0	75-125		
Zinc	2570		73.3	mg/kg dry	1500	1040	102	75-125		

**Matrix Spike Dup (BGF2504-MSD1)**

**Source: 23E0762-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	39.4	J1	2.00	mg/kg dry	50.0	4.56	69.6	75-125	9.80	20
Cadmium	3.90	J1	0.200	mg/kg dry	5.00	0.400	70.0	75-125	8.55	20
Chromium	31.6	J1	1.00	mg/kg dry	25.0	17.1	58.0	75-125	9.95	20
Copper	802	J1	20.0	mg/kg dry	1050	150	62.2	75-125	17.4	20
Lead	28.0	J1	1.00	mg/kg dry	25.0	12.3	62.8	75-125	9.97	20
Molybdenum	22.7	J1	1.00	mg/kg dry	25.0	6.72	64.1	75-125	9.61	20
Nickel	29.0	J1	1.00	mg/kg dry	25.0	14.1	59.5	75-125	8.57	20
Potassium	8200	J1	200	mg/kg dry	5000	5210	59.8	75-125	12.0	20
Selenium	40.0	J1	2.00	mg/kg dry	50.0	3.53	73.0	75-125	9.97	20
Total Phosphorus	22200	J1	2000	mg/kg dry	10000	15400	68.7	75-125	8.32	20
Zinc	984	J1	50.1	mg/kg dry	1020	493	47.9	75-125	34.4	20



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2504 - SW-3050 for 6010 (Continued)**

<b>Matrix Spike Dup (BGF2504-MSD2)</b>		<b>Source: 23F2769-01</b>		Prepared: 6/15/2023 Analyzed: 6/28/2023						
Arsenic	83.7		2.93	mg/kg dry	73.2	13.0	96.5	75-125	0.604	20
Cadmium	7.60		0.293	mg/kg dry	7.32	0.702	94.2	75-125	0.256	20
Chromium	73.6		14.7	mg/kg dry	36.6	39.1	94.2	75-125	2.19	20
Copper	1630		146	mg/kg dry	1540	242	90.4	75-125	5.02	20
Lead	40.0		1.47	mg/kg dry	36.6	6.12	92.4	75-125	0.331	20
Molybdenum	40.9		1.47	mg/kg dry	36.6	7.57	91.1	75-125	0.433	20
Nickel	46.2		1.47	mg/kg dry	36.6	12.6	91.9	75-125	0.863	20
Potassium	13200		293	mg/kg dry	7320	5710	102	75-125	0.216	20
Selenium	80.4		2.93	mg/kg dry	73.2	8.38	98.4	75-125	0.442	20
Total Phosphorus	29900	J1	2930	mg/kg dry	14600	23600	43.0	75-125	7.08	20
Zinc	2720		73.4	mg/kg dry	1500	1040	111	75-125	5.43	20

<b>Post Spike (BGF2504-PS1)</b>		<b>Source: 23E0762-01</b>		Prepared: 6/15/2023 Analyzed: 6/28/2023						
Arsenic	533			ug/L	500	43.1	97.9	80-120		
Cadmium	53.8			ug/L	50.0	3.78	100	80-120		
Chromium	398			ug/L	250	162	94.6	80-120		
Copper	2120	J1		ug/L	500	1420	141	80-120		
Lead	349			ug/L	250	116	93.3	80-120		
Molybdenum	300			ug/L	250	63.5	94.6	80-120		
Nickel	367			ug/L	250	134	93.2	80-120		
Potassium	94200			ug/L	50000	49200	89.8	80-120		
Selenium	544			ug/L	500	33.4	102	80-120		
Total Phosphorus	206000	J1		ug/L	50000	145000	122	80-120		
Zinc	5580	J1		ug/L	250	4660	367	80-120		

<b>Post Spike (BGF2504-PS2)</b>		<b>Source: 23F2769-01</b>		Prepared: 6/15/2023 Analyzed: 6/28/2023						
Arsenic	573			ug/L	500	84.1	97.7	80-120		
Cadmium	54.1			ug/L	50.0	4.53	99.1	80-120		
Chromium	517			ug/L	250	252	106	80-120		
Copper	1750	J1		ug/L	500	1560	37.8	80-120		
Lead	274			ug/L	250	39.5	93.8	80-120		
Molybdenum	290			ug/L	250	48.9	96.5	80-120		
Nickel	318			ug/L	250	81.3	94.9	80-120		
Potassium	89200			ug/L	50000	36800	105	80-120		
Selenium	562			ug/L	500	54.1	102	80-120		
Total Phosphorus	175000	J1		ug/L	50000	152000	46.6	80-120		
Zinc	7940	J1		ug/L	250	6730	483	80-120		



City of Tomball  
501 James Street  
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**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2504 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGF2504-SRL1)</b>			<b>Source: 23E0762-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023				
Arsenic	4.74	U	10.0	mg/kg dry		4.56			4.04	10
Cadmium	0.310	U	1.00	mg/kg dry		0.400			25.3	10
Chromium	14.2		5.01	mg/kg dry		17.1			18.3	10
Copper	150		10.0	mg/kg dry		150			0.0791	10
Lead	9.48		5.01	mg/kg dry		12.3			25.5	10
Molybdenum	5.57		5.01	mg/kg dry		6.72			18.7	10
Nickel	11.5		5.01	mg/kg dry		14.1			20.5	10
Potassium	4570	J1	1000	mg/kg dry		5210			13.1	10
Selenium	<10.0	U	10.0	mg/kg dry		<10.0			200	10
Total Phosphorus	15400		1000	mg/kg dry		15400			0.0791	10

<b>Dilution Check (BGF2504-SRL2)</b>			<b>Source: 23F2769-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023				
Arsenic	18.6		14.6	mg/kg dry		13.0			35.4	10
Cadmium	0.828	U	1.46	mg/kg dry		0.702			16.5	10
Chromium	51.5		7.34	mg/kg dry		39.1			27.5	10
Copper	242		14.6	mg/kg dry		242			0.00334	10
Lead	7.82		7.34	mg/kg dry		6.12			24.3	10
Molybdenum	9.92		7.34	mg/kg dry		7.57			26.8	10
Nickel	17.1		7.34	mg/kg dry		12.6			30.2	10
Potassium	7230	J1	1460	mg/kg dry		5710			23.5	10
Selenium	12.2	U	14.6	mg/kg dry		8.38			36.9	10
Total Phosphorus	23600		1460	mg/kg dry		23600			0.00330	10





City of Tomball  
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**Reported:**  
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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1604 - NH3-N T</b>										
<b>Blank (BGF1604-BLK1)</b>										
Ammonia as N	<10.0	U	10.0	mg/kg wet						
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>LCS (BGF1604-BS1)</b>										
Ammonia as N	93.6		9.92	mg/kg wet	99.2		94.4	85-115		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Duplicate (BGF1604-DUP1)</b>										
Ammonia as N	131		24.4	mg/kg dry		116			12.2	20
Source: 23E2399-13 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>MRL Check (BGF1604-MRL1)</b>										
Ammonia as N	10.1		9.99	mg/kg wet	9.99		101	50-150		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Matrix Spike (BGF1604-MS1)</b>										
Ammonia as N	340		25.4	mg/kg dry	254	116	88.3	85-115		
Source: 23E2399-13 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Batch: BGF1608 - TKN T</b>										
<b>Blank (BGF1608-BLK1)</b>										
Total Kjeldahl Nitrogen - (TKN)	<12.0	U	12.0	mg/kg wet						
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>LCS (BGF1608-BS1)</b>										
Total Kjeldahl Nitrogen - (TKN)	23.1		12.1	mg/kg wet	24.5		94.3	85-115		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Duplicate (BGF1608-DUP1)</b>										
Total Kjeldahl Nitrogen - (TKN)	40800	J1	2410	mg/kg dry		52000			24.2	20
Source: 23E5251-01 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Matrix Spike (BGF1608-MS1)</b>										
Total Kjeldahl Nitrogen - (TKN)	58900	J1	2390	mg/kg dry	9560	52000	72.3	85-115		
Source: 23E5251-01 Prepared: 6/9/2023 Analyzed: 6/12/2023										

\* A = Accredited, N = Not Accredited or Accreditation not available



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Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1622 - Solid Anions with Prep**

**Blank (BGF1622-BLK1)**

Prepared & Analyzed: 6/9/2023

Nitrate as N <1.21 U 1.21 mg/kg wet

**LCS (BGF1622-BS1)**

Prepared & Analyzed: 6/9/2023

Nitrate as N 18.6 1.24 mg/kg wet 19.9 93.7 90-110

**Duplicate (BGF1622-DUP1)**

**Source: 23F1977-01**

Prepared & Analyzed: 6/9/2023

Nitrate as N 175 8.70 mg/kg dry 196 11.3 15

**Matrix Spike (BGF1622-MS1)**

**Source: 23F1977-01**

Prepared & Analyzed: 6/9/2023

Nitrate as N 530 J1 43.4 mg/kg dry 139 196 240 80-120

**Batch: BGF1881 - Percent Solids**

**Blank (BGF1881-BLK1)**

Prepared: 6/12/2023 Analyzed: 6/13/2023

% Solids <0.100 U 0.100 %

**Duplicate (BGF1881-DUP1)**

**Source: 23F0644-05**

Prepared: 6/12/2023 Analyzed: 6/13/2023

% Solids 1.34 0.100 % 1.33 0.583 10

**Duplicate (BGF1881-DUP2)**

**Source: 23F2214-02**

Prepared: 6/12/2023 Analyzed: 6/13/2023

% Solids 2.03 0.100 % 2.03 0.0438 10

**Reference (BGF1881-SRM1)**

Prepared: 6/12/2023 Analyzed: 6/13/2023

% Solids 0.382 0.100 % 0.350 109 78.9-118

**Batch: BGF2012 - Paint Filter**

**Duplicate (BGF2012-DUP1)**

**Source: 23F1977-01**

Prepared & Analyzed: 6/13/2023

Free Liquids Absent U 1.00 [blank] <1.00 20



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511**

**MB SV (BGF1942-BLK1)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.00250	U	0.00250	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0102	mg/L	0.0100		102	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0188	mg/L	0.0200		93.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0187	mg/L	0.0200		93.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00947	mg/L	0.0100		94.7	52-162		
Surrogate: Phenol-d5-surr			0.0196	mg/L	0.0200		97.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00902	mg/L	0.0100		90.2	51.9-147		

**BS SV (BGF1942-BS2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0407		0.00250	mg/L	0.0400		102	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00997	U	0.130	mg/L	0.0100		99.7	60-140		
2-Methylphenol	0.0151	U	200	mg/L	0.0200		75.7	60-140		
3,4-Methylphenol	0.0327	U	200	mg/L	0.0400		81.8	60-140		
Hexachlorobenzene	0.00953	U	0.130	mg/L	0.0100		95.3	60-140		
Hexachlorobutadiene	0.00799	U	0.500	mg/L	0.0100		79.9	60-140		
Hexachloroethane	0.00778	U	3.00	mg/L	0.0100		77.8	60-140		
Nitrobenzene	0.00981	U	2.00	mg/L	0.0100		98.1	60-140		
Pentachlorophenol	0.0177	U	100	mg/L	0.0200		88.5	36.8-149		
Pyridine	0.00611	U	5.00	mg/L	0.0500		12.2	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.0101	mg/L	0.0100		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0186	mg/L	0.0200		93.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0185	mg/L	0.0200		92.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00886	mg/L	0.0100		88.6	52-162		
Surrogate: Phenol-d5-surr			0.0190	mg/L	0.0200		95.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00935	mg/L	0.0100		93.5	51.9-147		

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City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511 (Continued)**

**BSD SV (BGF1942-bsd2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0434		0.00250	mg/L	0.0400		108	60-140	6.48	40
2,4-Dinitrotoluene (2,4-DNT)	0.0101	U	0.130	mg/L	0.0100		101	60-140	0.858	40
2-Methylphenol	0.0161	U	200	mg/L	0.0200		80.6	60-140	6.31	40
3,4-Methylphenol	0.0341	U	200	mg/L	0.0400		85.2	60-140	4.06	40
Hexachlorobenzene	0.00963	U	0.130	mg/L	0.0100		96.3	60-140	1.09	40
Hexachlorobutadiene	0.00716	U	0.500	mg/L	0.0100		71.6	60-140	11.0	40
Hexachloroethane	0.00812	U	3.00	mg/L	0.0100		81.2	60-140	4.30	40
Nitrobenzene	0.0103	U	2.00	mg/L	0.0100		103	60-140	4.58	40
Pentachlorophenol	0.0173	U	100	mg/L	0.0200		86.4	36.8-149	2.51	40
Pyridine	0.0186	J1, U	5.00	mg/L	0.0500		37.3	2.5-101	101	40
Surrogate: 2-Fluorobiphenyl-surr			0.0101	mg/L	0.0100		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0200		96.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0183	mg/L	0.0200		91.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00930	mg/L	0.0100		93.0	52-162		
Surrogate: Phenol-d5-surr			0.0199	mg/L	0.0200		99.3	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00921	mg/L	0.0100		92.1	51.9-147		

**BGF1262-BLK1 (BGF1942-LBK1)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.0100	U	0.0100	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00574	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0402	mg/L	0.0400		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0731	mg/L	0.0800		91.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0852	mg/L	0.0800		107	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0377	mg/L	0.0400		94.2	52-162		
Surrogate: Phenol-d5-surr			0.0759	mg/L	0.0800		94.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0303	mg/L	0.0400		75.8	51.9-147		





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511 (Continued)**

**BGF1811-BLK1 (BGF1942-LBK2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.0100	U	0.0100	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00399	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0416	mg/L	0.0400		104	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0810	mg/L	0.0800		101	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0954	mg/L	0.0800		119	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0460	mg/L	0.0400		115	52-162		
Surrogate: Phenol-d5-surr			0.0797	mg/L	0.0800		99.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0384	mg/L	0.0400		95.9	51.9-147		

**MDL SV (BGF1942-MRL2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.00134	U	0.00250	mg/L	0.00200		66.9			
2,4-Dinitrotoluene (2,4-DNT)	0.000635	U	0.130	mg/L	0.000500		127			
2-Methylphenol	0.000484	U	200	mg/L	0.00100		48.4			
3,4-Methylphenol	0.00217	U	200	mg/L	0.00200		109			
Hexachlorobenzene	0.000215	U	0.130	mg/L	0.000500		42.9			
Hexachlorobutadiene	0.000379	U	0.500	mg/L	0.000500		75.9			
Hexachloroethane	0.000362	U	3.00	mg/L	0.000500		72.4			
Nitrobenzene	0.000568	U	2.00	mg/L	0.000500		114			
Pentachlorophenol	0.000753	U	100	mg/L	0.00100		75.3			
Pyridine	0.00611	U	5.00	mg/L	0.00250		244			
Surrogate: 2-Fluorobiphenyl-surr			0.0103	mg/L	0.0100		103	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0195	mg/L	0.0200		97.7	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0200	mg/L	0.0200		99.8	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0105	mg/L	0.0100		105	52-162		
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0200		92.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00917	mg/L	0.0100		91.7	51.9-147		

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City of Tomball  
501 James Street  
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**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1942 - SW-3511 (Continued)</b>										
<b>23F1434-02 MS (BGF1942-MS1)</b>			<b>Source: 23F1434-02</b>		Prepared: 6/13/2023 Analyzed: 7/11/2023					
2,4,5 & 2,4,6 -Trichlorophenol	0.0405		0.00249	mg/L	0.0398	<0.00249	102	44.9-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0102	U	0.130	mg/L	0.00995	<0.130	102	50.3-144		
2-Methylphenol	0.0162	U	200	mg/L	0.0199	<200	81.5	17.3-182		
3,4-Methylphenol	0.0373	U	200	mg/L	0.0398	<200	93.7	43.4-188		
Hexachlorobenzene	0.00865	U	0.130	mg/L	0.00995	<0.130	86.9	56.1-137		
Hexachlorobutadiene	0.00626	U	0.500	mg/L	0.00995	<0.500	63.0	33.1-110		
Hexachloroethane	0.00696	U	3.00	mg/L	0.00995	<3.00	70.0	36.2-106		
Nitrobenzene	0.0112	U	2.00	mg/L	0.00995	<2.00	112	54.9-156		
Pentachlorophenol	0.0163	U	100	mg/L	0.0199	<100	81.8	42.2-151		
Pyridine	0.0234	U	5.00	mg/L	0.0497	<5.00	47.1	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.00991	mg/L	0.00995		99.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0190	mg/L	0.0199		95.5	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0171	mg/L	0.0199		86.2	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00995	mg/L	0.00995		100	52-162		
Surrogate: Phenol-d5-surr			0.0223	mg/L	0.0199		112	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00836	mg/L	0.00995		84.0	51.9-147		
<b>23F1434-02 MSD (BGF1942-MSD1)</b>										
<b>Source: 23F1434-02</b>			Prepared: 6/13/2023 Analyzed: 7/11/2023							
2,4,5 & 2,4,6 -Trichlorophenol	0.0439		0.00249	mg/L	0.0398	<0.00249	110	44.9-143	8.24	40
2,4-Dinitrotoluene (2,4-DNT)	0.0110	U	0.130	mg/L	0.00996	<0.130	111	50.3-144	8.32	40
2-Methylphenol	0.0153	U	200	mg/L	0.0199	<200	76.6	17.3-182	6.06	40
3,4-Methylphenol	0.0353	U	200	mg/L	0.0398	<200	88.6	43.4-188	5.45	40
Hexachlorobenzene	0.00981	U	0.130	mg/L	0.00996	<0.130	98.5	56.1-137	12.6	40
Hexachlorobutadiene	0.00767	U	0.500	mg/L	0.00996	<0.500	77.0	33.1-110	20.2	40
Hexachloroethane	0.00821	U	3.00	mg/L	0.00996	<3.00	82.4	36.2-106	16.4	40
Nitrobenzene	0.0111	U	2.00	mg/L	0.00996	<2.00	111	54.9-156	0.818	40
Pentachlorophenol	0.0180	U	100	mg/L	0.0199	<100	90.5	42.2-151	10.3	40
Pyridine	0.0314	U	5.00	mg/L	0.0498	<5.00	63.0	2-87.4	28.9	40
Surrogate: 2-Fluorobiphenyl-surr			0.0109	mg/L	0.00996		110	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0195	mg/L	0.0199		98.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0188	mg/L	0.0199		94.1	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00973	mg/L	0.00996		97.7	52-162		
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0199		92.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00842	mg/L	0.00996		84.5	51.9-147		



City of Tomball  
501 James Street  
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**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1994 - SW-7471 TCLP</b>										
<b>Duplicate (BGF1994-DUP1)</b>			<b>Source: 23F2123-01</b>			Prepared: 6/14/2023 Analyzed: 6/15/2023				
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGF1262-LBK1 (BGF1994-LBK1)</b>						Prepared: 6/14/2023 Analyzed: 6/15/2023				
Mercury	<0.200	U	0.200	mg/L						
<b>BGF1811-LBK2 (BGF1994-LBK2)</b>						Prepared: 6/14/2023 Analyzed: 6/15/2023				
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGF1994-MRL1)</b>						Prepared: 6/14/2023 Analyzed: 6/15/2023				
Mercury	0.000191	U	0.200	mg/L	0.000200		95.5			
<b>Matrix Spike (BGF1994-MS1)</b>			<b>Source: 23F2123-01</b>			Prepared: 6/14/2023 Analyzed: 6/15/2023				
Mercury	0.00497	U	0.200	mg/L	0.00500	<0.200	99.4	80-120		
<b>Batch: BGF2074 - EPA 200.2 TCLP</b>										
<b>Blank (BGF2074-BLK1)</b>						Prepared: 6/14/2023 Analyzed: 6/15/2023				
Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
<b>Blank (BGF2074-BLK2)</b>						Prepared: 6/14/2023 Analyzed: 6/16/2023				
Silver	<5.00	U	5.00	mg/L						

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City of Tomball  
501 James Street  
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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2074 - EPA 200.2 TCLP (Continued)**

**LCS (BGF2074-BS1)**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	0.510	U	5.00	mg/L	0.500		102	80-120		
Barium	0.502	U	100	mg/L	0.500		100	80-120		
Cadmium	0.0491	U	1.00	mg/L	0.0500		98.2	80-120		
Chromium	0.255	U	5.00	mg/L	0.250		102	80-120		
Lead	0.256	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.511	U	1.00	mg/L	0.500		102	80-120		

**LCS (BGF2074-BS2)**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	0.0515	U	5.00	mg/L	0.0500		103	80-120		
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**Duplicate (BGF2074-DUP1)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.12	U	100	mg/L		1.37			20.4	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20

**Duplicate (BGF2074-DUP2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	<5.00	U	5.00	mg/L		<5.00				20
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**BGF1262-BLK1 (BGF2074-LBK1)**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.800	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						





City of Tomball  
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**Reported:**  
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**Quality Control**  
 (Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2074 - EPA 200.2 TCLP (Continued)</b>										
<b>BGF1811-BLK1 (BGF2074-LBK2)</b>					Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	<5.00	U	5.00	mg/L						
Barium	0.780	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
<b>BGF1262-BLK1 (BGF2074-LBK3)</b>					Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	<5.00	U	5.00	mg/L						
<b>BGF1811-BLK1 (BGF2074-LBK4)</b>					Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	<5.00	U	5.00	mg/L						
<b>Matrix Spike (BGF2074-MS1)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	0.524	U	5.00	mg/L	0.500	<5.00	105	75-125		
Barium	1.62	J1, U	100	mg/L	0.500	1.37	50.9	75-125		
Cadmium	0.0509	U	1.00	mg/L	0.0500	<1.00	102	75-125		
Chromium	0.240	U	5.00	mg/L	0.250	<5.00	96.0	75-125		
Lead	0.246	U	5.00	mg/L	0.250	<5.00	98.3	75-125		
Selenium	0.507	U	1.00	mg/L	0.500	<1.00	101	75-125		
<b>Matrix Spike (BGF2074-MS2)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	0.0433	U	5.00	mg/L	0.0500	<5.00	86.5	75-125		
<b>Post Spike (BGF2074-PS1)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	534			ug/L	500	15.3	104	80-120		
Barium	1600	J1		ug/L	500	1330	53.6	80-120		
Cadmium	51.9			ug/L	50.0	0.117	104	80-120		
Chromium	249			ug/L	250	2.37	98.7	80-120		
Lead	253			ug/L	250	1.72	101	80-120		
Selenium	516			ug/L	500	1.73	103	80-120		

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2074 - EPA 200.2 TCLP (Continued)**

**Post Spike (BGF2074-PS2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	50.7			ug/L	50.0	1.05	99.2	80-120		
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**Dilution Check (BGF2074-SRL1)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.37	U	100	mg/L		1.37			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10

**Dilution Check (BGF2074-SRL2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	<5.00	U	5.00	mg/L		<5.00				10
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**Batch: BGF2470 - SW-3511**

**MB OCP (BGF2470-BLK1)**

Prepared: 6/15/2023 Analyzed: 7/11/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000121	mg/L		0.000119		101		60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.97E-5	mg/L		0.000119		75.2		60-140

**BS TOX (BGF2470-BS1)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Toxaphene (Chlorinated Camphene)	0.00109	U	0.500	mg/L		0.00119		91.2		60-140
Surrogate: 2,4,5,6			0.000133	mg/L		0.000119		111		60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.93E-5	mg/L		0.000119		83.2		60-140



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2470 - SW-3511 (Continued)**

**BS OCP (BGF2470-BS2)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000475	U	0.0300	mg/L	0.000480		99.1	60-140		
Endrin	0.000121	U	0.0200	mg/L	0.000120		101	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000118	U	0.400	mg/L	0.000120		98.2	60-140		
Heptachlor	0.000130	U	0.00800	mg/L	0.000120		109	60-140		
Heptachlor epoxide	0.000117	U	0.00800	mg/L	0.000120		97.2	60-140		
Methoxychlor	0.000117	U	10.0	mg/L	0.000120		97.7	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000138	mg/L	0.000120		115	60-140		
Surrogate: Decachlorobiphenyl-surr			9.24E-5	mg/L	0.000120		77.0	60-140		

**BSD TOX (BGF2470-BS21)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Toxaphene (Chlorinated Camphene)	0.00117	U	0.500	mg/L	0.00119		98.3	60-140	7.43	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000137	mg/L	0.000119		115	60-140		
Surrogate: Decachlorobiphenyl-surr			9.95E-5	mg/L	0.000119		83.4	60-140		

**BSD OCP (BGF2470-BS22)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000467	U	0.0300	mg/L	0.000477		97.9	60-140	1.84	40
Endrin	0.000134	U	0.0200	mg/L	0.000119		113	60-140	10.5	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000117	U	0.400	mg/L	0.000119		98.5	60-140	0.353	40
Heptachlor	0.000123	U	0.00800	mg/L	0.000119		103	60-140	5.54	40
Heptachlor epoxide	0.000117	U	0.00800	mg/L	0.000119		98.4	60-140	0.648	40
Methoxychlor	0.000116	U	10.0	mg/L	0.000119		97.3	60-140	1.06	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000135	mg/L	0.000119		113	60-140		
Surrogate: Decachlorobiphenyl-surr			8.96E-5	mg/L	0.000119		75.2	60-140		

**BGF1811-BLK1 (BGF2470-LBK1)**

Prepared: 6/15/2023 Analyzed: 7/13/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000672	mg/L	0.000600		112	60-140		
Surrogate: Decachlorobiphenyl-surr	S		0.000281	mg/L	0.000600		46.8	60-140		

\* A = Accredited, N = Not Accredited or Accreditation not available





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2470 - SW-3511 (Continued)</b>										
<b>BGF1811-BLK1 (BGF2470-LBK3)</b>										
					Prepared: 6/15/2023 Analyzed: 7/14/2023					
Methoxychlor	<10.0	U	10.0	mg/L						
Surrogate: 2,4,5,6			0.000533	mg/L	0.000600		88.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000332	mg/L	0.000600		55.3	60-140		
<b>MDL TOX (BGF2470-MRL1)</b>										
					Prepared: 6/15/2023 Analyzed: 7/12/2023					
Toxaphene (Chlorinated Camphene)	0.000249	U	0.500	mg/L	0.000296		84.4			
Surrogate: 2,4,5,6	S		0.000167	mg/L	0.000118		142	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.40E-5	mg/L	0.000118		79.5	60-140		
<b>MDL OCP (BGF2470-MRL2)</b>										
					Prepared: 6/15/2023 Analyzed: 7/12/2023					
Chlordane (Total)	4.32E-5	U	0.0300	mg/L	4.74E-5		91.1			
Endrin	9.35E-6	U	0.0200	mg/L	1.18E-5		78.9			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.71E-6	U	0.400	mg/L	1.18E-5		81.9			
Heptachlor	1.28E-5	U	0.00800	mg/L	1.18E-5		108			
Heptachlor epoxide	1.18E-5	U	0.00800	mg/L	1.18E-5		99.9			
Methoxychlor	1.04E-5	U	10.0	mg/L	1.18E-5		87.8			
Surrogate: 2,4,5,6			0.000130	mg/L	0.000118		109	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.36E-5	mg/L	0.000118		70.5	60-140		
<b>23F0710-02 MS (BGF2470-MS1)</b>										
			<b>Source: 23F0710-02</b>		Prepared: 6/15/2023 Analyzed: 7/12/2023					
Chlordane (Total)	0.000421	U	0.0300	mg/L	0.000478	<0.0300	88.0	60-140		
Endrin	0.000119	U	0.0200	mg/L	0.000119	<0.0200	99.3	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000118	U	0.400	mg/L	0.000119	<0.400	98.8	60-140		
Heptachlor	0.000109	U	0.00800	mg/L	0.000119	<0.00800	91.1	60-140		
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000119	<0.00800	98.5	60-140		
Methoxychlor	7.21E-5	U	10.0	mg/L	0.000119	<10.0	60.3	60-140		
Surrogate: 2,4,5,6			0.000131	mg/L	0.000119		110	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.54E-5	mg/L	0.000119		71.5	60-140		





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2470 - SW-3511 (Continued)**

**23F0710-02 MSD (BGF2470-MSD1)**

Source: 23F0710-02

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000434	U	0.0300	mg/L	0.000478	<0.0300	90.7	60-140	3.09	40
Endrin	0.000123	U	0.0200	mg/L	0.000120	<0.0200	103	60-140	3.71	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000117	U	0.400	mg/L	0.000120	<0.400	98.2	60-140	0.566	40
Heptachlor	0.000107	U	0.00800	mg/L	0.000120	<0.00800	89.6	60-140	1.54	40
Heptachlor epoxide	0.000121	U	0.00800	mg/L	0.000120	<0.00800	101	60-140	2.32	40
Methoxychlor	7.15E-5	J1, U	10.0	mg/L	0.000120	<10.0	59.8	60-140	0.735	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000126	mg/L	0.000120		105	60-140		
Surrogate: Decachlorobiphenyl-surr			8.09E-5	mg/L	0.000120		67.6	60-140		

**Batch: BGF2849 - SW-3511**

**Blank (BGF2849-BLK1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0258	mg/L	0.0250		103	70-130		

**LCS (BGF2849-BS1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	0.00565	U	10.0	mg/L	0.00515		110	70-130		
Silvex (2,4,5-TP)	0.00503	U	1.00	mg/L	0.00500		101	70-130		
Surrogate: DCAA-surr			0.0292	mg/L	0.0250		117	70-130		

**LCS Dup (BGF2849-BSD1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	0.00594	U	10.0	mg/L	0.00515		115	70-130	5	30
Silvex (2,4,5-TP)	0.00524	U	1.00	mg/L	0.00500		105	70-130	4	30
Surrogate: DCAA-surr	S		0.0331	mg/L	0.0250		132	70-130		

**BGF1811-BLK1 (BGF2849-LBK1)**

Prepared: 6/19/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.139	mg/L	0.100		139	70-130		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2849 - SW-3511 (Continued)</b>										
<b>BGF2702-BLK1 (BGF2849-LBK2)</b>										
					Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.115	mg/L	0.100		115	70-130		
<b>Matrix Spike (BGF2849-MS1)</b>										
			<b>Source: 23F2847-02</b>		Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	0.00582	U	10.0	mg/L	0.00515	<10.0	113	70-130		
Silvex (2,4,5-TP)	0.00498	U	1.00	mg/L	0.00500	<1.00	100	70-130		
Surrogate: DCAA-surr		S	0.0355	mg/L	0.0250		142	70-130		
<b>Matrix Spike Dup (BGF2849-MSD1)</b>										
			<b>Source: 23F2847-02</b>		Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	0.00731	J1, U	10.0	mg/L	0.00515	<10.0	142	70-130	23	30
Silvex (2,4,5-TP)	0.00628	U	1.00	mg/L	0.00500	<1.00	126	70-130	23	30
Surrogate: DCAA-surr		S	0.0408	mg/L	0.0250		163	70-130		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

### Sample Condition Checklist

Work Order: 23F1979

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples taken through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

\* A = Accredited, N = Not Accredited or Accreditation not available





# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nmwdis.com

TCEQ T104704238-23-39



Page 1 of 2

23F1979

Lab PM : Deena Higginbotham

Project Name : City of Tomball - South Plant - Annual Sludge

Schedule Comments:

City of Tomball  
Glen Williams  
501 James Street  
Tomball, TX 77375  
Phone: 832-349-8027

Project Comments: 12411 Holdereth Rd Tomball 77375  
Combo # 9898 Glen Williams - 832-349-8027  
ENTER CODE TO CLOSE GATE WHEN YOU LEAVE

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23F1979-01	Centrifuge		6/8/2023 collected by operator 0700	S Grab	A Glass 1L B Glass 250mL w/ Teflon-lined Lid C HDPE IC 250mL D HDPE MET 250mL E HDPE WC 250mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL H Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C Paint Filter-9095 4°C TKN T-351.3 4°C TS-2540 G 4°C	



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdlis.com

TCEQ T104704238-23-39



Page 2 of 2

23F1979

(Continued)

Lab PM : Deena Higginbotham	Project Name : City of Tomball - South Plant - Annual Sludge	Schedule Comments:
City of Tomball Glen Williams 501 James Street Tomball, TX 77375 Phone: 832-349-8027	Project Comments: 12411 Holderrieth Rd Tomball 77375 Combo # 9898 Glen Williams - 832-349-8027 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE	

Field Remarks:		Lab Preservation: H2SO4		HNO3		NaOH		Other:	
		(Circle and Write ID Below)							
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	Received on Ice: Yes / No	Temperature: °C	
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time			Samples Accepted: Yes / No	Thermometer ID:	
Affiliation	Relinquished To Lab By: (Signature)	Date/Time							
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No					
Container Intact: Yes / No									

Tomball

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23061168



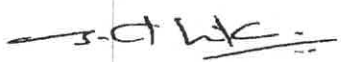
10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

## Client Project Name : 23F1979

**Report To :** Client Name: NWDLS P.O.#.: 23F1979  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 06/08/23  
City, State, Zip: Conroe, Texas, 77385

### A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23F1979-01	Solid	23061168.01

  
Released By: Senthilkumar Sevukan  
Title: Vice President Operations  
Date: 6/15/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024  
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 06/13/2023 09:50

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23061168

Date: 6/15/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---





## LABORATORY TEST RESULTS

Job ID : 23061168

Date 6/15/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23F1979

Client Sample ID: 23F1979-01

Job Sample ID: 23061168.01

Date Collected: 06/08/23

Sample Matrix Solid

Time Collected: 07:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	06/14/23 13:37	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	06/14/23 13:37	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	06/14/23 13:37	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	06/14/23 13:37	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	06/14/23 13:37	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	06/14/23 13:37	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	06/14/23 13:37	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	06/14/23 13:37	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	06/14/23 13:37	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	06/14/23 13:37	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	06/14/23 13:37	ZQ
	1,2-Dichloroethane-d4(surr)	105	%	1.00		70-130			06/14/23 13:37	ZQ
	Dibromofluoromethane(surr)	102	%	1.00		70-130			06/14/23 13:37	ZQ
	p-Bromofluorobenzene(surr)	106	%	1.00		70-130			06/14/23 13:37	ZQ
	Toluene-d8(surr)	105	%	1.00		70-130			06/14/23 13:37	ZQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23061168

Date : 6/15/2023

Analysis : TCLP VOC Method : SW-846 8260C Reporting Units : mg/L

QC Batch ID : Qb23061501 Created Date : 06/14/23 Created By : Zeeshan

Samples in This QC Batch : 23061168.01

Sample Preparation : PB23061501 Prep Method : SW-846 5030C Prep Date : 06/14/23 10:00 Prep By : Zeeshan  
TCLP Prep : PB23061430 Prep Method : SW-846 1311 Prep Date : 06/13/23 17:40 Prep By : JCoku

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr	17060-07-0	102	%	1.00			
Dibromofluoromethane(surr	1868-53-7	101	%	1.00			
p-Bromofluorobenzene(surr	460-00-4	106	%	1.00			
Toluene-d8(surr)	2037-26-5	104	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.06	106	1	1.05	105	0.6	35	70-130	
1,2-Dichloroethane	1	0.992	99.2	1	1.01	101	1.8	35	70-130	
1,4-Dichlorobenzene	1	0.999	99.9	1	0.998	99.8	0.1	35	70-130	
Benzene	1	0.999	99.9	1	0.986	98.6	1.3	35	70-130	
Carbon tetrachloride	1	1.04	104	1	1.03	103	0.9	35	70-130	
Chlorobenzene	1	0.982	98.3	1	0.984	98.4	0.2	35	70-130	
Chloroform	1	1.03	103	1	1.03	103	0.4	35	70-130	
MEK	1	1.06	106	1	1.01	101	4.6	35	70-130	
Tetrachloroethylene	1	0.915	91.5	1	0.831	83.1	9.6	35	70-130	
Trichloroethylene	1	0.951	95.1	1	0.958	95.8	0.8	35	70-130	
Vinyl Chloride	1	1.11	111	1	1.09	109	2	35	70-130	

## QC Type: MS and MSD

QC Sample ID: 23061167.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.09	109						70-130	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 23061168

Date : 6/15/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23061501 Created Date : 06/14/23

Created By : Zeeshan

Samples in This QC Batch : 23061168.01

QC Type: MS and MSD

QC Sample ID: 23061167.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	1.04	104						70-130	
1,4-Dichlorobenzene	BRL	1	1.01	101						70-130	
Benzene	BRL	1	1.03	103						70-130	
Carbon tetrachloride	BRL	1	1.00	100						70-130	
Chlorobenzene	BRL	1	0.995	99.5						70-130	
Chloroform	BRL	1	1.08	108						70-130	
MEK	BRL	1	0.884	88.4						70-130	
Tetrachloroethylene	BRL	1	0.804	80.4						70-130	
Trichloroethylene	BRL	1	0.995	99.5						70-130	
Vinyl Chloride	BRL	1	1.14	114						70-130	



# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23F1979

Analysis	Due	Expires	Comments
<b>Sample ID: 23F1979-01 Solid Sampled: 06/08/2023 07:00</b>			
TCLP ZHE	06/22/2023	06/22/2023 07:00	Auto-Included
VOA-TCLP	06/22/2023	06/22/2023 07:00	
<i>o/a</i>			
<b>Analyte(s):</b>			
1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr	
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr	
Benzene	Carbon tetrachloride	Chlorobenzene	
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)	
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)	

Containers Supplied:

Released By Juan K. Rodriguez 06/13/23 9:50 Date 06/13/23 9:50 Received By [Signature] Date 06/13/23 9:50

U. g. c  
JMS  
Bm

Job ID: 23061168



06/13/2023

NWDLS

AMS





## Sample Condition Checklist

A&B JobID :	23061168	Date Received :	06/13/2023		Time Received :	9:50AM	
Client Name :	NWDLS						
Temperature :	4.8°C	Sample pH :	NA				
Thermometer ID :	IR5	pH Paper ID :	NA				
Perservative :							

	Check Points	Yes	No	N/A																						
1.	Cooler Seal present and signed.		X																							
2.	Sample(s) in a cooler.	X																								
3.	If yes, ice in cooler.	X																								
4.	Sample(s) received with chain-of-custody.	X																								
5.	C-O-C signed and dated.	X																								
6.	Sample(s) received with signed sample custody seal.		X																							
7.	Sample containers arrived intact. (If No comment)	X																								
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water</td><td>Soil</td><td>Liquid</td><td>Sludge</td><td>Solid</td><td>Cassette</td><td>Tube</td><td>Bulk</td><td>Badge</td><td>Food</td><td>Other</td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> </table>	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other																
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																
9.	Samples were received in appropriate container(s)	X																								
10.	Sample(s) were received with Proper preservative			X																						
11.	All samples were tagged or labeled.	X																								
12.	Sample ID labels match C-O-C ID's.	X																								
13.	Bottle count on C-O-C matches bottles found.	X																								
14.	Sample volume is sufficient for analyses requested.	X																								
15.	Samples were received with in the hold time.	X																								
16.	VOA vials completely filled.			X																						
17.	Sample accepted.	X																								
18.	Has client been contacted about sub-out			X																						

Comments : Include actions taken to resolve discrepancies/problem:

Received by : EValdez

Check in by/date : EValdez / 06/13/2023





Treschwig

8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

May 24, 2023

## LABORATORY REPORT

Gregory Camp  
Inframark  
32259 Morton Road  
Brookshire, TX 77423

Report ID: 20230524134812Sta..

RE: Treschwig JP - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Stations For Deena Higginbotham  
Director of Client Services



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Sample Results

Client Sample ID: Digester 1  
Lab Sample ID: 23E4378-01

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	19600	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	24200	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	16000	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	25700	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	18200	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	14800	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	24800	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.576	mg O2/hr/g TS @ 20°C dry	BGE3528	05/22/2023 15:17	AKA
SM 2550 B	Temperature °C Field	13.2	°C	BGE3593	05/22/2023 08:40	JTS
SM 2540 G	% Solids	1.08 V	%	BGE3555	05/23/2023 11:17	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O2/hr/g TS.





Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

## Quality Control

### General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3555 - Percent Solids</b>									
<b>Blank (BGE3555-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Duplicate (BGE3555-DUP1)</b>									
<b>Source: 23E4424-01</b>									
% Solids		0.100	%		1.67			0.399	20
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Reference (BGE3555-SRM1)</b>									
% Solids		0.100	%	0.350		105	78.9-118		



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
www. NWDLS.com  
TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Quality Control (Continued)

#### Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3527 - FC Quantitray</b>									
<b>Blank (BGE3527-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Duplicate (BGE3527-DUP1)</b>									
Fecal coliforms		922	MPN/g TS dry		19600			14.4	200
Source: 23E4378-01 Prepared: 5/22/2023 Analyzed: 5/23/2023									



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 2

**23E4378**

<b>Lab PM :</b> Deena Higginbotham	<b>Project Name :</b> Treschwig JP - Non Potable - Class B Annual	<b>Schedule Comments:</b>
<b>Inframark</b> Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	<b>Project Comments:</b> 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito -- 832-302-4323 Chris - 713-657-5188 EDP helper	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23E4378-01	Digester 1		5/22/2023 <i>5840</i>	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field <i>12.1</i>
23E4378-02	Digester 2		5/22/2023 <i>5840</i>	S grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field <i>12.1</i>





## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 2 of 2

**23E4378**

(Continued)

<b>Lab PM :</b> Deena Higginbotham	<b>Project Name :</b> Treschwig JP - Non Potable - Class B Annual	<b>Schedule Comments:</b>
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	<b>Project Comments:</b> 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper	

<b>Field Remarks:</b>		<b>Lab Preservation:</b> H2SO4      HNO3      NaOH      Other: _____			
		<b>(Circle and Write ID Below)</b>			
<b>Sampler (Signature)</b> <i>SB</i>	<b>Relinquished By: (Signature)</b>	<b>Date/Time</b>	<b>Received By: (Signature)</b>	<b>Date/Time</b>	
<b>Print Name</b> <i>Sub T Smith</i>	<b>Relinquished By: (Signature)</b>	<b>Date/Time</b>	<b>Received By: (Signature)</b>	<b>Date/Time</b>	
<b>Affiliation</b> <i>NWDLs</i>	<b>Relinquished To Lab By: (Signature)</b> <i>SB</i>	<b>Date/Time</b> <i>5-22-23/3P</i>	<b>Received for Laboratory By: (Signature)</b> <i>RLR</i>	<b>Date/Time</b> <i>5-22-23 13:50</i>	
<b>Custody Seal :</b> Yes / No	<b>COC Labels Agree:</b> Yes / No	<b>Appropriate Volume:</b> Yes / No	<b>Received on Ice:</b> Yes / No	<b>Temperature:</b> _____ °C	
<b>Container Intact :</b> Yes / No	<b>Appropriate Containers:</b> Yes / No	<b>Coolers Intact:</b> Yes / No	<b>Samples Accepted:</b> Yes / No	<b>Thermometer ID:</b> _____	

Spring South

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022





July 25, 2023

## LAB REPORT

Gregory Camp  
Inframark  
32259 Morton Road  
Brookshire, TX 77423

Report ID: 20230725114901AEN

RE: Treschwig JP - Non Potable - Sewage Sludge Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Aundra Noe'.

Aundra Noe For Deena Higginbotham  
Director of Client Services



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Sample Results

Client Sample ID: Digester 1  
Lab Sample ID: 23E4380-01  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### Organics by GC

SW-8082	PCBs, Total	A	<1.84U	mg/kg (dry wt) dry	10	0.922	1.84	BGF0514	06/16/2023 09:25	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		195% S	60-140					06/16/2023 09:25	
SW-8082	Surrogate: Decachlorobiphenyl-surr		93.4%	60-140					06/16/2023 09:25	

### Metals, Total

SW-6010C	Arsenic	A	6.32	mg/kg dry	1	0.674	3.07	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Cadmium	A	0.922	mg/kg dry	1	0.0797	0.307	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Chromium	A	26.5	mg/kg dry	1	1.15	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Copper	A	245	mg/kg dry	5	1.64	15.3	BGE4698	06/07/2023 12:21	FAL
SW-7471B	Mercury	A	0.366	mg/kg dry	1	0.0184	0.0369	BGE4918	06/01/2023 14:58	AKR
SW-6010C	Lead	A	18.8	mg/kg dry	1	0.782	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Molybdenum	A	5.01	mg/kg dry	1	1.54	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Nickel	A	13.8	mg/kg dry	1	0.415	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Potassium	A	4800	mg/kg dry	1	26.4	307	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Selenium	A	10.1	mg/kg dry	1	1.20	3.07	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Total Phosphorus	A	16000	mg/kg dry	5	64.5	1530	BGE4698	06/07/2023 12:21	FAL
SW-6010C	Zinc	A	1060	mg/kg dry	20	30.8	30.8	BGE4698	06/07/2023 12:32	FAL

### General Chemistry

EPA 350.2	Ammonia as N	A	3540	mg/kg dry	1	917	1830	BGF0371	06/06/2023 13:11	GIW
SW-9056A	Nitrate as N	A	3880	mg/kg dry	10	46.1	115	BGE3627	05/22/2023 20:45	ORP
SM 2540 G	% Solids	A	1.08V	%	1	0.100	0.100	BGE3555	05/23/2023 11:17	JRU

### TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGF0509	06/06/2023 11:28	FAL
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGF0530	07/09/2023 08:06	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00C+, U	mg/L	2	0.000476	1.00	BGF0530	07/09/2023 08:06	KRB
SW-8151	Surrogate: DCAA-surr		125%	70-130					07/09/2023 08:06	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGF0431	06/05/2023 12:43	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGF0708	06/29/2023 11:10	cdg
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGF0708	06/29/2023 11:10	cdg
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexa nE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGF0708	06/29/2023 11:10	cdg
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:10	cdg
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:10	cdg





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32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

Reported:  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 1 (Continued)  
Lab Sample ID: 23E4380-01  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### TCLP (Continued)

SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF0708	06/29/2023 11:10	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BGF0708	06/29/2023 11:10	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		111%	60-140					06/29/2023 11:10	
SW-8081	Surrogate: Decachlorobiphenyl-surr		104%	60-140					06/29/2023 11:10	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGF0760	06/21/2023 10:10	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:10	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:10	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGF0760	06/21/2023 10:10	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		103%	54.6-148					06/21/2023 10:10	
SW-8270	Surrogate: 2-Fluorophenol-surr		87.5%	55-152					06/21/2023 10:10	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		86.5%	52.4-136					06/21/2023 10:10	
SW-8270	Surrogate: Nitrobenzene-d5-surr		108%	52-162					06/21/2023 10:10	
SW-8270	Surrogate: Phenol-d5-surr		88.1%	58.7-152					06/21/2023 10:10	
SW-8270	Surrogate: p-Terphenyl-d14-surr		77.9%	51.9-147					06/21/2023 10:10	



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32259 Morton Road  
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Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 1  
Lab Sample ID: 23E4380-01RE2  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	45300	mg/kg dry	1	2280	2280	BGF0406	06/05/2023 13:28	GIW
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Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

Reported:  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 2  
Lab Sample ID: 23E4380-02  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### Organics by GC

SW-8082	PCBs, Total	A	<1.85U	mg/kg (dry wt) dry	10	0.927	1.85	BGF0514	06/16/2023 09:50	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		150% S	60-140					06/16/2023 09:50	
SW-8082	Surrogate: Decachlorobiphenyl-surr		84.0%	60-140					06/16/2023 09:50	

#### Metals, Total

SW-6010C	Arsenic	A	6.33	mg/kg dry	1	0.677	3.08	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Cadmium	A	0.901	mg/kg dry	1	0.0801	0.308	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Chromium	A	26.6	mg/kg dry	1	1.16	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Copper	A	239	mg/kg dry	5	1.65	15.4	BGE4698	06/07/2023 12:35	FAL
SW-7471B	Mercury	A	0.361	mg/kg dry	1	0.0185	0.0371	BGF0125	06/01/2023 17:38	AKR
SW-6010C	Lead	A	19.2	mg/kg dry	1	0.786	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Molybdenum	A	5.08	mg/kg dry	1	1.55	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Nickel	A	13.4	mg/kg dry	1	0.417	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Potassium	A	4830	mg/kg dry	1	26.5	308	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Selenium	A	10.1	mg/kg dry	1	1.20	3.08	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Total Phosphorus	A	15500	mg/kg dry	5	64.8	1540	BGE4698	06/07/2023 12:35	FAL
SW-6010C	Zinc	A	954	mg/kg dry	20	30.9	30.9	BGE4698	06/07/2023 12:38	FAL

#### General Chemistry

EPA 350.2	Ammonia as N	A	2920	mg/kg dry	1	914	1830	BGE4355	05/30/2023 08:46	GIW
SW-9056A	Nitrate as N	A	3880	mg/kg dry	10	46.3	116	BGE3627	05/22/2023 22:45	ORP
SM 2540 G	% Solids	A	1.08V	%	1	0.100	0.100	BGE3555	05/23/2023 11:17	JRU

#### TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Barium	A	<100U, V2	mg/L	5	0.0500	100	BGF0509	06/06/2023 11:34	FAL
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGF0530	07/09/2023 08:36	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00C+, U	mg/L	2	0.000476	1.00	BGF0530	07/09/2023 08:36	KRB
SW-8151	Surrogate: DCAA-surr		142% S	70-130					07/09/2023 08:36	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGF0431	06/05/2023 12:46	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGF0708	06/29/2023 11:40	cdg
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGF0708	06/29/2023 11:40	cdg
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGF0708	06/29/2023 11:40	cdg
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:40	cdg
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:40	cdg



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Project Number: 50  
Project Manager: Gregory Camp

Reported:  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 2 (Continued)  
Lab Sample ID: 23E4380-02  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### TCLP (Continued)

SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF0708	06/29/2023 11:40	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BGF0708	06/29/2023 11:40	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		135%	60-140					06/29/2023 11:40	
SW-8081	Surrogate: Decachlorobiphenyl-surr		105%	60-140					06/29/2023 11:40	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGF0760	06/21/2023 10:45	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:45	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:45	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGF0760	06/21/2023 10:45	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		100%	54.6-148					06/21/2023 10:45	
SW-8270	Surrogate: 2-Fluorophenol-surr		90.2%	55-152					06/21/2023 10:45	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		80.4%	52.4-136					06/21/2023 10:45	
SW-8270	Surrogate: Nitrobenzene-d5-surr		110%	52-162					06/21/2023 10:45	
SW-8270	Surrogate: Phenol-d5-surr		100%	58.7-152					06/21/2023 10:45	
SW-8270	Surrogate: p-Terphenyl-d14-surr		75.3%	51.9-147					06/21/2023 10:45	





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Project Number: 50  
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07/25/2023 11:49

## Sample Results

(Continued)

Client Sample ID: Digester 2  
Lab Sample ID: 23E4380-02RE2  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	53200	mg/kg dry	1	2270	2270	BGF0406	06/05/2023 13:28	GIW
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Project Number: 50  
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Reported:  
07/25/2023 11:49

## Quality Control

### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0514 - SW-3570

##### Blank (BGF0514-BLK1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet					
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet					
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet					
Surrogate: 2,4,5,6	S		0.00967	mg/kg (dry wt) wet	0.00600		161	60-140	
Tetrachloro-m-xylene-surr			0.00645	mg/kg (dry wt) wet	0.00600		107	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### LCS (BGF0514-BS1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	0.0422		0.0200	mg/kg (dry wt) wet	0.0600		70.3	60-140	
Aroclor-1260 (PCB-1260)	0.0430		0.0200	mg/kg (dry wt) wet	0.0600		71.6	60-140	
PCBs, Total	0.0426		0.0200	mg/kg (dry wt) wet	0.0600		71.0	60-140	
Surrogate: 2,4,5,6	S		0.00949	mg/kg (dry wt) wet	0.00600		158	60-140	
Tetrachloro-m-xylene-surr			0.00674	mg/kg (dry wt) wet	0.00600		112	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### LCS Dup (BGF0514-BSD1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	0.0411		0.0200	mg/kg (dry wt) wet	0.0600	68.5	60-140	2.66	40
Aroclor-1260 (PCB-1260)	0.0412		0.0200	mg/kg (dry wt) wet	0.0600	68.7	60-140	4.16	40
PCBs, Total	0.0412		0.0200	mg/kg (dry wt) wet	0.0600	68.6	60-140	3.41	40
Surrogate: 2,4,5,6	S		0.0108	mg/kg (dry wt) wet	0.00600		180	60-140	
Tetrachloro-m-xylene-surr			0.00625	mg/kg (dry wt) wet	0.00600		104	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### Matrix Spike (BGF0514-MS1)

Source: 23E4380-01

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
Aroclor-1260 (PCB-1260)	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
PCBs, Total	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
Surrogate: 2,4,5,6	S		1.06	mg/kg (dry wt) dry	0.553		192	60-140	
Tetrachloro-m-xylene-surr			0.655	mg/kg (dry wt) dry	0.553		118	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### Matrix Spike Dup (BGF0514-MSD1)

Source: 23E4380-01

Prepared: 6/5/2023 Analyzed: 6/16/2023



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32259 Morton Road  
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Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Quality Control (Continued)

#### Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0514 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGF0514-MSD1)</b>										
<b>Source: 23E4380-01</b>										
Prepared: 6/5/2023 Analyzed: 6/16/2023										
Aroclor-1016 (PCB-1016)	4.01		1.84	mg/kg (dry wt) dry	5.53	<1.84	72.6	60-140	1.14	40
Aroclor-1260 (PCB-1260)	3.85		1.84	mg/kg (dry wt) dry	5.53	<1.84	69.6	60-140	2.91	40
PCBs, Total	3.93		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.1	60-140	0.865	40
Surrogate: 2,4,5,6	S		2.23	mg/kg (dry wt) dry	0.553		403	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		1.10	mg/kg (dry wt) dry	0.553		199	60-140		



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### Quality Control (Continued)

#### Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGE4698 - SW-3050 for 6010

##### Blank (BGE4698-BLK1)

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	<1.80	U	1.80	mg/kg wet						
Cadmium	<0.180	U	0.180	mg/kg wet						
Chromium	<0.901	U	0.901	mg/kg wet						
Copper	<1.80	U	1.80	mg/kg wet						
Lead	<0.901	U	0.901	mg/kg wet						
Molybdenum	<0.901	U	0.901	mg/kg wet						
Nickel	<0.901	U	0.901	mg/kg wet						
Potassium	<180	U	180	mg/kg wet						
Selenium	<1.80	U	1.80	mg/kg wet						
Total Phosphorus	<180	U	180	mg/kg wet						
Zinc	<0.901	U	0.901	mg/kg wet						

##### LCS (BGE4698-BS1)

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	45.7		1.81	mg/kg wet	45.3		101	80-120		
Cadmium	4.54		0.181	mg/kg wet	4.53		100	80-120		
Chromium	22.7		0.908	mg/kg wet	22.6		100	80-120		
Copper	45.3		1.81	mg/kg wet	45.3		100	80-120		
Lead	22.7		0.908	mg/kg wet	22.6		100	80-120		
Molybdenum	22.6		0.908	mg/kg wet	22.6		99.9	80-120		
Nickel	22.6		0.908	mg/kg wet	22.6		99.7	80-120		
Potassium	4380		181	mg/kg wet	4530		96.6	80-120		
Selenium	45.5		1.81	mg/kg wet	45.3		101	80-120		
Total Phosphorus	4470		181	mg/kg wet	4530		98.8	80-120		
Zinc	23.1		0.908	mg/kg wet	22.6		102	80-120		

##### Matrix Spike (BGE4698-MS1)

Source: 23E0151-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	52.2		1.99	mg/kg dry	49.8	3.51	97.7	75-125		
Cadmium	5.65		0.199	mg/kg dry	4.98	0.856	96.2	75-125		
Chromium	48.2		0.998	mg/kg dry	24.9	24.2	96.7	75-125		
Copper	1580		39.8	mg/kg dry	1050	658	88.0	75-125		
Lead	37.9		0.998	mg/kg dry	24.9	13.9	96.7	75-125		
Molybdenum	32.0		0.998	mg/kg dry	24.9	8.07	96.2	75-125		
Nickel	34.0		0.998	mg/kg dry	24.9	9.93	96.5	75-125		
Potassium	7810		199	mg/kg dry	4980	2820	100	75-125		
Selenium	71.3		1.99	mg/kg dry	49.8	18.3	107	75-125		
Total Phosphorus	17900	J1	3980	mg/kg dry	9970	10500	73.7	75-125		
Zinc	1420		49.9	mg/kg dry	1020	371	103	75-125		





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### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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#### Batch: BGE4698 - SW-3050 for 6010 (Continued)

##### Matrix Spike (BGE4698-MS2)

Source: 23E4735-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	53.9		2.00	mg/kg dry	50.1	5.35	96.8	75-125	
Cadmium	5.60		0.200	mg/kg dry	5.01	0.747	96.8	75-125	
Chromium	33.9		1.00	mg/kg dry	25.1	10.7	92.7	75-125	
Copper	1140		40.1	mg/kg dry	1050	41.3	104	75-125	
Lead	27.4		1.00	mg/kg dry	25.1	4.93	89.8	75-125	
Molybdenum	29.7		1.00	mg/kg dry	25.1	6.94	91.0	75-125	
Nickel	40.2		1.00	mg/kg dry	25.1	17.6	90.5	75-125	
Potassium	10000	J1	4010	mg/kg dry	5010	6760	64.6	75-125	
Selenium	58.3		2.00	mg/kg dry	50.1	8.35	99.7	75-125	
Total Phosphorus	28900	J1	4010	mg/kg dry	10000	22200	67.1	75-125	
Zinc	1940		50.2	mg/kg dry	1030	1000	91.6	75-125	

##### Matrix Spike Dup (BGE4698-MSD1)

Source: 23E0151-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	51.3		2.00	mg/kg dry	49.9	3.51	95.7	75-125	1.75	20
Cadmium	5.63		0.200	mg/kg dry	4.99	0.856	95.7	75-125	0.290	20
Chromium	47.9		1.00	mg/kg dry	25.0	24.2	95.0	75-125	0.789	20
Copper	1620		39.9	mg/kg dry	1050	658	91.3	75-125	2.29	20
Lead	37.5		1.00	mg/kg dry	25.0	13.9	94.8	75-125	1.16	20
Molybdenum	30.9		1.00	mg/kg dry	25.0	8.07	91.5	75-125	3.59	20
Nickel	33.3		1.00	mg/kg dry	25.0	9.93	93.5	75-125	2.05	20
Potassium	7680		200	mg/kg dry	4990	2820	97.2	75-125	1.76	20
Selenium	69.9		2.00	mg/kg dry	49.9	18.3	103	75-125	2.10	20
Total Phosphorus	17700	J1	3990	mg/kg dry	9990	10500	71.9	75-125	0.937	20
Zinc	1420		50.0	mg/kg dry	1020	371	102	75-125	0.358	20

##### Matrix Spike Dup (BGE4698-MSD2)

Source: 23E4735-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	55.0		2.01	mg/kg dry	50.2	5.35	98.9	75-125	2.12	20
Cadmium	5.73		0.201	mg/kg dry	5.02	0.747	99.3	75-125	2.34	20
Chromium	35.3		1.01	mg/kg dry	25.1	10.7	97.9	75-125	3.89	20
Copper	991		40.1	mg/kg dry	1050	41.3	90.1	75-125	13.8	20
Lead	28.1		1.01	mg/kg dry	25.1	4.93	92.1	75-125	2.27	20
Molybdenum	29.9		1.01	mg/kg dry	25.1	6.94	91.6	75-125	0.677	20
Nickel	41.2		1.01	mg/kg dry	25.1	17.6	94.1	75-125	2.34	20
Potassium	5890	J1	4010	mg/kg dry	5020	6760	NR	75-125	51.8	20
Selenium	59.3		2.01	mg/kg dry	50.2	8.35	101	75-125	1.68	20
Total Phosphorus	17400	J1	4010	mg/kg dry	10000	22200	NR	75-125	49.8	20
Zinc	1890		50.3	mg/kg dry	1030	1000	86.2	75-125	2.75	20



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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGE4698 - SW-3050 for 6010 (Continued)**

**Post Spike (BGE4698-PS1)**

**Source: 23E0151-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	536			ug/L	500	33.2	101	80-120		
Cadmium	58.7			ug/L	50.0	8.11	101	80-120		
Chromium	482			ug/L	250	229	101	80-120		
Copper	7090	J1		ug/L	500	6230	172	80-120		
Lead	379			ug/L	250	131	99.2	80-120		
Molybdenum	328			ug/L	250	76.4	101	80-120		
Nickel	344			ug/L	250	94.0	99.9	80-120		
Potassium	79700			ug/L	50000	26700	106	80-120		
Selenium	705			ug/L	500	173	107	80-120		
Total Phosphorus	153000			ug/L	50000	99600	106	80-120		
Zinc	3920	J1		ug/L	250	3510	164	80-120		

**Post Spike (BGE4698-PS2)**

**Source: 23E4735-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	552			ug/L	500	50.3	100	80-120		
Cadmium	58.1			ug/L	50.0	7.01	102	80-120		
Chromium	348			ug/L	250	100	99.1	80-120		
Copper	2420	J1		ug/L	500	388	406	80-120		
Lead	293			ug/L	250	46.3	98.7	80-120		
Molybdenum	316			ug/L	250	65.2	100	80-120		
Nickel	416			ug/L	250	165	101	80-120		
Potassium	109000			ug/L	50000	63500	91.0	80-120		
Selenium	607			ug/L	500	78.4	106	80-120		
Total Phosphorus	256000			ug/L	50000	208000	96.2	80-120		
Zinc	9970	J1		ug/L	250	9410	223	80-120		

**Dilution Check (BGE4698-SRL1)**

**Source: 23E0151-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	5.14	U	9.98	mg/kg dry	3.51		37.7	10
Cadmium	0.649	U	0.998	mg/kg dry	0.856		27.5	10
Chromium	18.5		5.00	mg/kg dry	24.2		26.7	10
Lead	11.1		5.00	mg/kg dry	13.9		22.1	10
Molybdenum	6.03		5.00	mg/kg dry	8.07		28.9	10
Nickel	7.71		5.00	mg/kg dry	9.93		25.3	10
Potassium	2600		998	mg/kg dry	2820		8.39	10
Selenium	14.0		9.98	mg/kg dry	18.3		26.8	10
Total Phosphorus	10500		998	mg/kg dry	10500		0.0513	10



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### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE4698 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGE4698-SRL2)</b>			<b>Source: 23E4735-01</b>		Prepared: 5/30/2023 Analyzed: 6/7/2023					
Arsenic	7.26	U	10.1	mg/kg dry		5.35			30.2	10
Cadmium	0.735	U	1.01	mg/kg dry		0.747			1.61	10
Chromium	10.5		5.04	mg/kg dry		10.7			1.39	10
Copper	202	J1	10.1	mg/kg dry		41.3			132	10
Lead	5.06		5.04	mg/kg dry		4.93			2.49	10
Molybdenum	6.76		5.04	mg/kg dry		6.94			2.53	10
Nickel	16.9		5.04	mg/kg dry		17.6			3.71	10
Potassium	6490		1010	mg/kg dry		6760			4.17	10
Selenium	7.18	U	10.1	mg/kg dry		8.35			15.0	10
Total Phosphorus	21600		1010	mg/kg dry		22200			2.30	10

#### Batch: BGE4918 - SW-7471

##### MDL Check (BGE4918-MRL1)

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.0102	U	0.0196	mg/kg wet	0.00980			104		
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##### Matrix Spike (BGE4918-MS1)

Source: 23E3563-01

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.782	J1	0.0434	mg/kg dry	0.542	0.595	34.4	80-120		
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##### Matrix Spike (BGE4918-MS2)

Source: 23E0740-22

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.277	J1	0.0197	mg/kg dry	0.247	0.107	68.7	80-120		
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##### Matrix Spike Dup (BGE4918-MSD1)

Source: 23E3563-01

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.643	J1	0.0434	mg/kg dry	0.543	0.595	8.81	80-120	19.5	20
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##### Matrix Spike Dup (BGE4918-MSD2)

Source: 23E0740-22

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.337		0.0199	mg/kg dry	0.249	0.107	92.4	80-120	19.7	20
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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0125 - SW-7471</b>										
<b>MDL Check (BGF0125-MRL1)</b>										
Mercury	0.0106	U	0.0195	mg/kg wet	0.00976		109			
<b>Matrix Spike (BGF0125-MS1)</b>										
	<b>Source: 23E4642-01</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.539	J1	0.0254	mg/kg dry	0.317	0.470	21.8	80-120		
<b>Matrix Spike (BGF0125-MS2)</b>										
	<b>Source: 23E4380-02</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.814		0.0371	mg/kg dry	0.463	0.361	98.0	80-120		
<b>Matrix Spike Dup (BGF0125-MSD1)</b>										
	<b>Source: 23E4642-01</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.571	J1	0.0254	mg/kg dry	0.317	0.470	31.9	80-120	5.73	20
<b>Matrix Spike Dup (BGF0125-MSD2)</b>										
	<b>Source: 23E4380-02</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.682	J1	0.0370	mg/kg dry	0.463	0.361	69.5	80-120	17.7	20





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### Quality Control (Continued)

#### General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3555 - Percent Solids</b>										
<b>Blank (BGE3555-BLK1)</b>										
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	<0.100	U	0.100	%						
<b>Duplicate (BGE3555-DUP1)</b>										
						Source: 23E4424-01				
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	1.68		0.100	%		1.67			0.399	20
<b>Reference (BGE3555-SRM1)</b>										
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	0.367		0.100	%	0.350		105	78.9-118		
<b>Batch: BGE3627 - Solid Anions No Prep</b>										
<b>Duplicate (BGE3627-DUP1)</b>										
						Source: 23E4380-01				
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	3870		115	mg/kg dry		3880			0.119	15
<b>MRL Check (BGE3627-MRL1)</b>										
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	0.128		0.125	mg/kg wet	0.100		128	50-150		
<b>Matrix Spike (BGE3627-MS1)</b>										
						Source: 23E4380-01				
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	4070		128	mg/kg dry	205	3880	92.2	80-120		
<b>Batch: BGE4355 - NH3-N T</b>										
<b>Blank (BGE4355-BLK1)</b>										
						Prepared: 5/26/2023 Analyzed: 5/30/2023				
Ammonia as N	<9.98	U	9.98	mg/kg wet						
<b>LCS (BGE4355-BS1)</b>										
						Prepared: 5/26/2023 Analyzed: 5/30/2023				
Ammonia as N	92.6		9.96	mg/kg wet	99.6		93.0	85-115		



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE4355 - NH3-N T (Continued)</b>										
<b>Duplicate (BGE4355-DUP1)</b>			<b>Source: 23D4568-16</b>		Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	179	J1	29.5	mg/kg dry		143			22.1	20
<b>MRL Check (BGE4355-MRL1)</b>					Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	10.8		9.92	mg/kg wet	9.92		109	50-150		
<b>Matrix Spike (BGE4355-MS1)</b>			<b>Source: 23D4568-16</b>		Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	460		29.5	mg/kg dry	295	143	107	85-115		
<b>Batch: BGE4886 - NH3-N T</b>										
<b>Blank (BGE4886-BLK1)</b>					Prepared: 5/31/2023 Analyzed: 6/1/2023					
Total Kjeldahl Nitrogen - (TKN)	<10.0	U	10.0	mg/kg wet						
<b>LCS (BGE4886-BS1)</b>					Prepared: 5/31/2023 Analyzed: 6/1/2023					
Total Kjeldahl Nitrogen - (TKN)	10.0		9.92	mg/kg wet	20.0		49.9	85-115		
<b>Batch: BGF0371 - TKN T</b>										
<b>Blank (BGF0371-BLK1)</b>					Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	<9.99	U	9.99	mg/kg wet						
<b>LCS (BGF0371-BS1)</b>					Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	97.1		9.97	mg/kg wet	99.7		97.4	85-115		
<b>Duplicate (BGF0371-DUP1)</b>			<b>Source: 23E1320-54</b>		Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	240	J1	29.0	mg/kg dry		190			23.1	20



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF0371 - TKN T (Continued)**

**MRL Check (BGF0371-MRL1)**

Prepared: 6/2/2023 Analyzed: 6/6/2023

Ammonia as N	9.77	U	9.97	mg/kg wet	9.97		98.0	50-150		
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**Matrix Spike (BGF0371-MS1)**

**Source: 23E1320-54**

Prepared: 6/2/2023 Analyzed: 6/6/2023

Ammonia as N	511		29.0	mg/kg dry	290	190	111	85-115		
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**Batch: BGF0406 - NH3-N T**

**Blank (BGF0406-BLK1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	<9.88	U	9.88	mg/kg wet						
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**LCS (BGF0406-BS1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	17.8		9.92	mg/kg wet	20.0		88.7	85-115		
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**Duplicate (BGF0406-DUP1)**

**Source: 23E3943-01RE2**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	65500		1870	mg/kg dry		76300			15.3	20
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**Matrix Spike (BGF0406-MS1)**

**Source: 23E3943-01RE2**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	84800		1870	mg/kg dry	7500	76300	113	85-115		
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Project Manager: Gregory Camp

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**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF0431 - SW-7471 TCLP**

**Duplicate (BGF0431-DUP1)**

**Source: 23E4999-01**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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**BGF0102-LBK1 (BGF0431-LBK1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	<0.200	U	0.200	mg/L						
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**MDL Check (BGF0431-MRL1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	0.000211	U	0.200	mg/L	0.000200		106			
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**Matrix Spike (BGF0431-MS1)**

**Source: 23E4999-01**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	0.00499	U	0.200	mg/L	0.00500	<0.200	99.9	80-120		
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**Batch: BGF0509 - EPA 200.2 TCLP**

**Blank (BGF0509-BLK1)**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**LCS (BGF0509-BS1)**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	0.501	U	5.00	mg/L	0.500		100	80-120		
Barium	0.500	U	100	mg/L	0.500		100	80-120		
Cadmium	0.0497	U	1.00	mg/L	0.0500		99.5	80-120		
Chromium	0.254	U	5.00	mg/L	0.250		102	80-120		
Lead	0.255	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.515	U	1.00	mg/L	0.500		103	80-120		
Silver	0.0493	U	5.00	mg/L	0.0500		98.6	80-120		





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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF0509 - EPA 200.2 TCLP (Continued)**

**Duplicate (BGF0509-DUP1)**

**Source: 23E4999-01**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.02	U	100	mg/L		1.14			10.2	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

**BGF0102-BLK1 (BGF0509-LBK1)**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.830	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**Matrix Spike (BGF0509-MS1)**

**Source: 23E4999-01**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	0.525	U	5.00	mg/L	0.500	<5.00	105	75-125		
Barium	1.50	J1, U	100	mg/L	0.500	1.14	73.2	75-125		
Cadmium	0.0527	U	1.00	mg/L	0.0500	<1.00	105	75-125		
Chromium	0.259	U	5.00	mg/L	0.250	<5.00	103	75-125		
Lead	0.251	U	5.00	mg/L	0.250	<5.00	100	75-125		
Selenium	0.532	U	1.00	mg/L	0.500	<1.00	106	75-125		
Silver	0.0414	U	5.00	mg/L	0.0500	<5.00	82.7	75-125		

**Post Spike (BGF0509-PS1)**

**Source: 23E4999-01**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	530			ug/L	500	9.53	104	80-120		
Barium	1450	J1		ug/L	500	1110	68.2	80-120		
Cadmium	54.1			ug/L	50.0	0.400	107	80-120		
Chromium	265			ug/L	250	1.96	105	80-120		
Lead	253			ug/L	250	3.06	99.9	80-120		
Selenium	536			ug/L	500	2.94	107	80-120		
Silver	53.1			ug/L	50.0	0.478	105	80-120		



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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0509 - EPA 200.2 TCLP (Continued)</b>										
<b>Dilution Check (BGF0509-SRL1)</b>			<b>Source: 23E4999-01</b>			Prepared: 6/5/2023 Analyzed: 6/6/2023				
Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.14	U	100	mg/L		1.14			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

**Batch: BGF0530 - SW-3511**

**Blank (BGF0530-BLK1)**

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0224	mg/L	0.0250		90	70-130		

**LCS (BGF0530-BS1)**

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.00627	U	10.0	mg/L	0.00515		122	70-130		
Silvex (2,4,5-TP)	0.00536	U	1.00	mg/L	0.00500		107	70-130		
Surrogate: DCAA-surr	S		0.0345	mg/L	0.0250		138	70-130		

**LCS Dup (BGF0530-BSD1)**

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.00648	U	10.0	mg/L	0.00515		126	70-130	3	30
Silvex (2,4,5-TP)	0.00579	U	1.00	mg/L	0.00500		116	70-130	8	30
Surrogate: DCAA-surr	S		0.0370	mg/L	0.0250		148	70-130		

**BGF0102-BLK1 (BGF0530-LBK1)**

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.144	mg/L	0.100		144	70-130		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0530 - SW-3511 (Continued)

##### Matrix Spike (BGF0530-MS1)

Source: 23E5251-01

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.0247	U	10.0	mg/L	0.0206	<10.0	120	70-130		
Silvex (2,4,5-TP)	0.0209	U	1.00	mg/L	0.0200	0.000702	101	70-130		
Surrogate: DCAA-surr	S		0.147	mg/L	0.100		147	70-130		

##### Matrix Spike Dup (BGF0530-MSD1)

Source: 23E5251-01

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.0257	U	10.0	mg/L	0.0206	<10.0	125	70-130	4	30
Silvex (2,4,5-TP)	0.0228	U	1.00	mg/L	0.0200	0.000702	111	70-130	9	30
Surrogate: DCAA-surr	S		0.149	mg/L	0.100		149	70-130		

#### Batch: BGF0708 - SW-3511

##### Blank (BGF0708-BLK1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000126	mg/L	0.000120		105	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140		

##### TOX LCS (BGF0708-BS1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Toxaphene (Chlorinated Camphene)	0.000998	U	0.500	mg/L	0.00120		83.2	60-140		
Surrogate: 2,4,5,6			0.000107	mg/L	0.000120		89.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000124	mg/L	0.000120		103	60-140		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0708 - SW-3511 (Continued)

##### LCS (BGF0708-BS2)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.000293	U	0.0300	mg/L	0.000480		61.1	60-140		
Endrin	8.34E-5	U	0.0200	mg/L	0.000120		69.5	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.12E-5	U	0.400	mg/L	0.000120		76.0	60-140		
Heptachlor	6.58E-5	J1, U	0.00800	mg/L	0.000120		54.9	60-140		
Heptachlor epoxide	7.53E-5	U	0.00800	mg/L	0.000120		62.8	60-140		
Methoxychlor	7.67E-5	U	10.0	mg/L	0.000120		63.9	60-140		
Surrogate: 2,4,5,6			0.000130	mg/L	0.000120		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140		

##### TOX LCSD (BGF0708-BS21)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Toxaphene (Chlorinated Camphene)	0.000920	U	0.500	mg/L	0.00120		76.7	60-140	8.12	40
Surrogate: 2,4,5,6			0.000116	mg/L	0.000120		96.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000119	mg/L	0.000120		98.8	60-140		

##### LCS Dup (BGF0708-BS22)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.000308	U	0.0300	mg/L	0.000480		64.2	60-140	4.99	40
Endrin	8.43E-5	U	0.0200	mg/L	0.000120		70.2	60-140	1.04	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.20E-5	U	0.400	mg/L	0.000120		68.3	60-140	10.7	40
Heptachlor	6.67E-5	J1, U	0.00800	mg/L	0.000120		55.6	60-140	1.30	40
Heptachlor epoxide	8.19E-5	U	0.00800	mg/L	0.000120		68.3	60-140	8.39	40
Methoxychlor	7.98E-5	U	10.0	mg/L	0.000120		66.5	60-140	3.90	40
Surrogate: 2,4,5,6			0.000118	mg/L	0.000120		98.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		

##### BGF0102-BLK1 (BGF0708-LBK1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000751	mg/L	0.000600		125	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000540	mg/L	0.000600		89.9	60-140		





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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0708 - SW-3511 (Continued)

##### TOX MRL (BGF0708-MRL1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Toxaphene (Chlorinated Camphene)	0.000676	U	0.500	mg/L	0.000300		225			
Surrogate: 2,4,5,6			0.000113	mg/L	0.000120		94.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000127	mg/L	0.000120		106	60-140		

##### MRL Check (BGF0708-MRL2)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	3.24E-5	U	0.0300	mg/L	4.80E-5		67.5			
Endrin	7.60E-6	U	0.0200	mg/L	1.20E-5		63.3			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	7.71E-6	U	0.400	mg/L	1.20E-5		64.2			
Heptachlor	6.98E-6	U	0.00800	mg/L	1.20E-5		58.1			
Heptachlor epoxide	8.05E-6	U	0.00800	mg/L	1.20E-5		67.1			
Methoxychlor	8.32E-6	U	10.0	mg/L	1.20E-5		69.4			
Surrogate: 2,4,5,6			0.000122	mg/L	0.000120		101	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		

##### Matrix Spike (BGF0708-MS1)

Source: 23E5597-01

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.00183	U	0.0300	mg/L	0.00240	<0.0300	76.3	60-140		
Endrin	0.000507	U	0.0200	mg/L	0.000600	<0.0200	84.6	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000514	U	0.400	mg/L	0.000600	<0.400	85.6	60-140		
Heptachlor	0.000455	U	0.00800	mg/L	0.000600	<0.00800	75.8	60-140		
Heptachlor epoxide	0.000486	U	0.00800	mg/L	0.000600	<0.00800	81.0	60-140		
Methoxychlor	0.000444	U	10.0	mg/L	0.000600	<10.0	74.0	60-140		
Surrogate: 2,4,5,6			0.000646	mg/L	0.000600		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000633	mg/L	0.000600		106	60-140		

##### Matrix Spike Dup (BGF0708-MSD1)

Source: 23E5597-01

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.00196	U	0.0300	mg/L	0.00240	<0.0300	81.8	60-140	7.02	40
Endrin	0.000534	U	0.0200	mg/L	0.000600	<0.0200	89.1	60-140	5.18	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000532	U	0.400	mg/L	0.000600	<0.400	88.7	60-140	3.58	40
Heptachlor	0.000465	U	0.00800	mg/L	0.000600	<0.00800	77.5	60-140	2.23	40
Heptachlor epoxide	0.000524	U	0.00800	mg/L	0.000600	<0.00800	87.3	60-140	7.49	40
Methoxychlor	0.000459	U	10.0	mg/L	0.000600	<10.0	76.5	60-140	3.41	40
Surrogate: 2,4,5,6			0.000706	mg/L	0.000600		118	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000632	mg/L	0.000600		105	60-140		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0760 - SW-3511

##### MB SV (BGF0760-BLK1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00950	mg/L	0.0100		95.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0171	mg/L	0.0200		85.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0169	mg/L	0.0200		84.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00971	mg/L	0.0100		97.1	52-162		
Surrogate: Phenol-d5-surr			0.0170	mg/L	0.0200		84.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00794	mg/L	0.0100		79.4	51.9-147		

##### BS SV (BGF0760-BS1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	0.0188	U	400	mg/L	0.0200		93.9	60-140		
2,4,6-Trichlorophenol	0.0202	U	2.00	mg/L	0.0200		101	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00935	U	0.130	mg/L	0.0100		93.5	60-140		
2-Methylphenol	0.0169	U	200	mg/L	0.0200		84.3	60-140		
3,4-Methylphenol	0.0319	U	200	mg/L	0.0400		79.7	60-140		
Hexachlorobenzene	0.00810	U	0.130	mg/L	0.0100		81.0	60-140		
Hexachlorobutadiene	0.00498	J1, U	0.500	mg/L	0.0100		49.8	60-140		
Hexachloroethane	0.00546	J1, U	3.00	mg/L	0.0100		54.6	60-140		
Nitrobenzene	0.00946	U	2.00	mg/L	0.0100		94.6	60-140		
Pentachlorophenol	0.0176	U	100	mg/L	0.0200		87.8	36.8-149		
Pyridine	0.0204	U	5.00	mg/L	0.0500		40.7	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00964	mg/L	0.0100		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0177	mg/L	0.0200		88.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0159	mg/L	0.0200		79.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.0100		103	52-162		
Surrogate: Phenol-d5-surr			0.0188	mg/L	0.0200		94.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00827	mg/L	0.0100		82.7	51.9-147		



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0760 - SW-3511 (Continued)</b>										
<b>BSD SV (BGF0760-BS1)</b>										
Prepared: 6/6/2023 Analyzed: 6/21/2023										
2,4,5-Trichlorophenol	0.0191	U	400	mg/L	0.0200		95.4	60-140	1.62	40
2,4,6-Trichlorophenol	0.0208	U	2.00	mg/L	0.0200		104	60-140	3.21	40
2,4-Dinitrotoluene (2,4-DNT)	0.00960	U	0.130	mg/L	0.0100		96.0	60-140	2.55	40
2-Methylphenol	0.0165	U	200	mg/L	0.0200		82.5	60-140	2.10	40
3,4-Methylphenol	0.0307	U	200	mg/L	0.0400		76.8	60-140	3.64	40
Hexachlorobenzene	0.00825	U	0.130	mg/L	0.0100		82.5	60-140	1.87	40
Hexachlorobutadiene	0.00440	J1, U	0.500	mg/L	0.0100		44.0	60-140	12.3	40
Hexachloroethane	0.00492	J1, U	3.00	mg/L	0.0100		49.2	60-140	10.3	40
Nitrobenzene	0.00961	U	2.00	mg/L	0.0100		96.1	60-140	1.54	40
Pentachlorophenol	0.0177	U	100	mg/L	0.0200		88.4	36.8-149	0.712	40
Pyridine	0.0203	U	5.00	mg/L	0.0500		40.6	2.5-101	0.451	40
Surrogate: 2-Fluorobiphenyl-surr			0.00948	mg/L	0.0100		94.8	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0171	mg/L	0.0200		85.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0159	mg/L	0.0200		79.3	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00939	mg/L	0.0100		93.9	52-162		
Surrogate: Phenol-d5-surr			0.0180	mg/L	0.0200		90.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00863	mg/L	0.0100		86.3	51.9-147		

#### BFG0102-BLK1 (BGF0760-LBK1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0464	mg/L	0.0400		116	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0663	mg/L	0.0800		82.9	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0689	mg/L	0.0800		86.1	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0441	mg/L	0.0400		110	52-162		
Surrogate: Phenol-d5-surr			0.0768	mg/L	0.0800		96.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0221	mg/L	0.0400		55.1	51.9-147		





Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

Reported:  
07/25/2023 11:49

### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0760 - SW-3511 (Continued)</b>										
<b>23E4427-01 MS (BGF0760-MS1)</b>			<b>Source: 23E4427-01</b>		Prepared: 6/6/2023 Analyzed: 6/21/2023					
2,4,5-Trichlorophenol	0.0753	U	400	mg/L	0.0800	<400	94.2	44.9-171		
2,4,6-Trichlorophenol	0.0711	U	2.00	mg/L	0.0800	<2.00	88.9	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0368	U	0.130	mg/L	0.0400	<0.130	91.9	50.3-144		
2-Methylphenol	0.0710	U	200	mg/L	0.0800	<200	88.8	17.3-182		
3,4-Methylphenol	0.131	U	200	mg/L	0.160	<200	81.7	43.4-188		
Hexachlorobenzene	0.0344	U	0.130	mg/L	0.0400	<0.130	86.0	56.1-137		
Hexachlorobutadiene	0.0187	U	0.500	mg/L	0.0400	<0.500	46.8	33.1-110		
Hexachloroethane	0.0208	U	3.00	mg/L	0.0400	<3.00	52.0	36.2-106		
Nitrobenzene	0.0374	U	2.00	mg/L	0.0400	<2.00	93.6	54.9-156		
Pentachlorophenol	0.0737	U	100	mg/L	0.0800	<100	92.1	42.2-151		
Pyridine	0.0485	U	5.00	mg/L	0.200	<5.00	24.3	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0384	mg/L	0.0400		95.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0713	mg/L	0.0800		89.2	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0674	mg/L	0.0800		84.2	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0400	mg/L	0.0400		99.9	52-162		
Surrogate: Phenol-d5-surr			0.0770	mg/L	0.0800		96.3	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0328	mg/L	0.0400		82.1	51.9-147		
<b>23E4427-01 MSD (BGF0760-MSD1)</b>										
<b>Source: 23E4427-01</b>			Prepared: 6/6/2023 Analyzed: 6/21/2023							
2,4,5-Trichlorophenol	0.0763	U	400	mg/L	0.0800	<400	95.4	44.9-171	1.30	40
2,4,6-Trichlorophenol	0.0746	U	2.00	mg/L	0.0800	<2.00	93.3	34.7-143	4.80	40
2,4-Dinitrotoluene (2,4-DNT)	0.0357	U	0.130	mg/L	0.0400	<0.130	89.2	50.3-144	2.99	40
2-Methylphenol	0.0713	U	200	mg/L	0.0800	<200	89.1	17.3-182	0.364	40
3,4-Methylphenol	0.133	U	200	mg/L	0.160	<200	83.2	43.4-188	1.84	40
Hexachlorobenzene	0.0293	U	0.130	mg/L	0.0400	<0.130	73.2	56.1-137	16.1	40
Hexachlorobutadiene	0.0180	U	0.500	mg/L	0.0400	<0.500	45.1	33.1-110	3.78	40
Hexachloroethane	0.0207	U	3.00	mg/L	0.0400	<3.00	51.6	36.2-106	0.667	40
Nitrobenzene	0.0364	U	2.00	mg/L	0.0400	<2.00	91.0	54.9-156	2.85	40
Pentachlorophenol	0.0668	U	100	mg/L	0.0800	<100	83.5	42.2-151	9.83	40
Pyridine	0.0487	U	5.00	mg/L	0.200	<5.00	24.4	2-87.4	0.420	40
Surrogate: 2-Fluorobiphenyl-surr			0.0376	mg/L	0.0400		93.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0643	mg/L	0.0800		80.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0589	mg/L	0.0800		73.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0389	mg/L	0.0400		97.3	52-162		
Surrogate: Phenol-d5-surr			0.0767	mg/L	0.0800		95.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0314	mg/L	0.0400		78.5	51.9-147		





Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Sample Condition Checklist

Work Order: 23E4380

### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 3

23E4380

<b>Lab PM :</b> Deena Higginbotham		<b>Project Name :</b> Treschwig JP - Non Potable - Sewage Sludge Annual		<b>Schedule Comments:</b>			
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966		Project Comments: 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23E4380-01	Digester 1		5/22/2023	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCPT-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



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TCEQ T104704238-23-39



Page 2 of 3

23E4380

(Continued)

Lab PM : Deena Higginbotham		Project Name : Treschwig JP - Non Potable - Sewage Sludge Annual		Schedule Comments:	
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966		Project Comments: 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper			
23E4380-02	Digester 2	5/22/2023	S grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCB-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C





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TCEQ T104704238-23-39



Page 3 of 3

23E4380

(Continued)

Lab PM : Deena Higginbotham	Project Name : Treschwig JP - Non Potable - Sewage Sludge Annual	Schedule Comments:
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	Project Comments: 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
		(Circle and Write ID Below)			
Sampler (Signature)	STS	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Print Name	Sub T Smith	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Affiliation	NWDLS	Relinquished To Lab By: (Signature)	Received for Laboratory By: (Signature)	Date/Time	Date/Time
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Spring South

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022

# Laboratory Analysis Report

Total Number of Pages: 8

Job ID : 23053102



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

**Client Project Name :**  
**23E4380**

**Report To :** Client Name: NWDLS P.O.#.: 23E4380  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 05/22/23  
City, State, Zip: Conroe, Texas, 77385

**A&B Labs has analyzed the following samples...**

Client Sample ID	Matrix	A&B Sample ID
23E4380-01	Sludge	23053102.01
23E4380-02	Sludge	23053102.02

A handwritten signature in cursive script, appearing to read 'ashute'.

Released By: Amanda Shute

Title: Project Manager

Date: 6/5/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024  
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 05/26/2023 13:25

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23053102

Date: 6/5/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference."The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
----	--



## LABORATORY TEST RESULTS

Job ID : 23053102

Date 6/5/2023

Client Name: NWDLS

Project Name: 23E4380

Attn: Deena Higginbotham

Client Sample ID: 23E4380-01

Date Collected: 05/22/23

Time Collected: 08:40

Other Information:

Job Sample ID: 23053102.01

Sample Matrix Sludge

% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	05/31/23 04:09	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	05/31/23 04:09	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	05/31/23 04:09	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	05/31/23 04:09	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	05/31/23 04:09	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	05/31/23 04:09	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	05/31/23 04:09	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	05/31/23 04:09	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	05/31/23 04:09	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	05/31/23 04:09	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	05/31/23 04:09	ZQ
	1,2-Dichloroethane-d4(surr)	104	%	1.00		70-130			05/31/23 04:09	ZQ
	Dibromofluoromethane(surr)	98.6	%	1.00		70-130			05/31/23 04:09	ZQ
	p-Bromofluorobenzene(surr)	96.7	%	1.00		70-130			05/31/23 04:09	ZQ
	Toluene-d8(surr)	94.2	%	1.00		70-130			05/31/23 04:09	ZQ

ab-q212-0321





## LABORATORY TEST RESULTS

Date 6/5/2023

Job ID : 23053102

Client Name: NWDLS  
Project Name: 23E4380

Attn: Deena Higginbotham

Client Sample ID: 23E4380-02  
Date Collected: 05/22/23  
Time Collected: 08:40  
Other Information:

Job Sample ID: 23053102.02  
Sample Matrix: Sludge  
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	05/31/23 04:27	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	05/31/23 04:27	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	05/31/23 04:27	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	05/31/23 04:27	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	05/31/23 04:27	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	05/31/23 04:27	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	05/31/23 04:27	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	05/31/23 04:27	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	05/31/23 04:27	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	05/31/23 04:27	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	05/31/23 04:27	ZQ
	1,2-Dichloroethane-d4(surr)	103	%	1.00		70-130			05/31/23 04:27	ZQ
	Dibromofluoromethane(surr)	95.8	%	1.00		70-130			05/31/23 04:27	ZQ
	p-Bromofluorobenzene(surr)	95.4	%	1.00		70-130			05/31/23 04:27	ZQ
	Toluene-d8(surr)	94.9	%	1.00		70-130			05/31/23 04:27	ZQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23053102

Date : 6/5/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23053101

Created Date : 05/30/23

Created By : Zeeshan

Samples in This QC Batch : 23053102.01,02

Sample Preparation : PB23053101

Prep Method : SW-846 5030C

Prep Date : 05/30/23 10:00

Prep By : Zeeshan

TCLP Prep : PB23052801

Prep Method : SW-846 1311

Prep Date : 05/27/23 13:26

Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	106	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	104	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	95.4	%	1.00			
Toluene-d8(surr)	2037-26-5	94.5	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.01	101	1	0.968	96.8	3.8	35	70-130	
1,2-Dichloroethane	1	0.985	98.5	1	0.945	94.5	4.1	35	70-130	
1,4-Dichlorobenzene	1	0.934	93.4	1	0.911	91.1	2.5	35	70-130	
Benzene	1	1.01	101	1	0.952	95.2	5.4	35	70-130	
Carbon tetrachloride	1	1.04	104	1	0.994	99.4	4.1	35	70-130	
Chlorobenzene	1	1.04	104	1	0.969	96.9	7	35	70-130	
Chloroform	1	0.994	99.4	1	0.961	96.1	3.4	35	70-130	
MEK	1	0.802	80.2	1	0.728	72.8	9.7	35	70-130	
Tetrachloroethylene	1	1.06	106	1	0.980	98	8	35	70-130	
Trichloroethylene	1	1.05	105	1	0.993	99.3	5.9	35	70-130	
Vinyl Chloride	1	0.943	94.3	1	0.925	92.5	1.9	35	70-130	

## QC Type: MS and MSD

QC Sample ID: 23052883.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	0.928	92.8						70-130	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 23053102

Date : 6/5/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23053101

Created Date : 05/30/23

Created By : Zeeshan

Samples in This QC Batch : 23053102.01,02

QC Type: MS and MSD

QC Sample ID: 23052883.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.928	92.8						70-130	M2
1,4-Dichlorobenzene	BRL	1	0.854	85.4						70-130	
Benzene	BRL	1	0.919	91.9						70-130	
Carbon tetrachloride	BRL	1	0.964	96.4						70-130	
Chlorobenzene	BRL	1	0.940	94						70-130	
Chloroform	BRL	1	0.923	92.3						70-130	
MEK	BRL	1	0.667	66.7						70-130	
Tetrachloroethylene	BRL	1	0.888	88.8						70-130	
Trichloroethylene	BRL	1	0.983	98.3						70-130	
Vinyl Chloride	BRL	1	0.873	87.3						70-130	



Job ID: 23053102  
05/28/2023 NWDLS AMS

# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23E4380

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23E4380-01 Solid Sampled: 05/22/2023 08:40

TCLP ZHE 06/05/2023 06/05/2023 08:40 Auto-Included

VOA-TCLP 06/05/2023 06/05/2023 08:40

### Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Sample ID: 23E4380-02 Solid Sampled: 05/22/2023 08:40

TCLP ZHE 06/05/2023 06/05/2023 08:40 Auto-Included

VOA-TCLP 06/05/2023 06/05/2023 08:40

### Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Released By

Date

Received By

Date

Juan Keady 1325

5-26-23

*[Signature]*

05/26/23 1325

3.9





## Sample Condition Checklist

A&B JobID : <b>23053102</b>	Date Received : <b>05/26/2023</b>	Time Received : <b>1:25PM</b>
Client Name : <b>NWDLS</b>		
Temperature : <b>3.9°C</b>	Sample pH : <b>NA</b>	
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>	
Perservative :		

	Check Points	Yes	No	N/A
1.	Cooler Seal present and signed.		X	
2.	Sample(s) in a cooler.	X		
3.	If yes, ice in cooler.	X		
4.	Sample(s) received with chain-of-custody.	X		
5.	C-O-C signed and dated.	X		
6.	Sample(s) received with signed sample custody seal.		X	
7.	Sample containers arrived intact. (If No comment)	X		
8.	Matrix:    Water    Soil    Liquid    Sludge    Solid    Cassette    Tube    Bulk    Badge    Food    Other <div style="display: flex; justify-content: space-around; font-size: small;"> <span><input type="checkbox"/> Water</span> <span><input type="checkbox"/> Soil</span> <span><input type="checkbox"/> Liquid</span> <span><input type="checkbox"/> Sludge</span> <span><input checked="" type="checkbox"/> Solid</span> <span><input type="checkbox"/> Cassette</span> <span><input type="checkbox"/> Tube</span> <span><input type="checkbox"/> Bulk</span> <span><input type="checkbox"/> Badge</span> <span><input type="checkbox"/> Food</span> <span><input type="checkbox"/> Other</span> </div>			
9.	Samples were received in appropriate container(s)	X		
10.	Sample(s) were received with Proper preservative			X
11.	All samples were tagged or labeled.	X		
12.	Sample ID labels match C-O-C ID's.	X		
13.	Bottle count on C-O-C matches bottles found.	X		
14.	Sample volume is sufficient for analyses requested.	X		
15.	Samples were received within the hold time.	X		
16.	VOA vials completely filled.			X
17.	Sample accepted.	X		
18.	Has client been contacted about sub-out			X

**Comments : Include actions taken to resolve discrepancies/problem:**

COC shows solid, recieved sludge. ~JE 05/26/23

Received by : Jedralin

Check in by/date : ASmith / 05/26/2023

ab-s005-0321

Phone : 713-453-6060

www.ablabs.com





P.O. Box 1089 Coldspring Tx 77331

Website: eastexlabs.com

Email: eastexlab@eastex.net

Tel: 936 653 3249



December 21, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

RE: Waller Digester

F/S - 12/21  
TCLP - 12/12  
PCB  
Metal

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K7384. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager

ENTERED DEC 28 2023

Pass

- ☐ Sludge Manager
- ☒ Master Spreadsheet
- ☒ TCLP
- ☒ PCB
- ☒ Metals
- ☒ F/S
- ☒ & Solid



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Email: eastexlab@eastex.net  
Tel: 936 653 3249



Waller, City of  
1218 Farr St  
Waller TX, 77484

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O<sub>2</sub>/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: Waller Digester b  
Client Matrix: Waste

Sample Date & Time: 11/28/2023 13:25

Collector: JMY

Sample Type: Grab

Print Date: 12/21/2023

#### Digester

C3K7384-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	--------------------	-------	-----------------	-------	-------------------------	--------	-------

#### Microbiological Lab

Fecal Coliform IDEXX	147687	1000	mpn/gram	N	B3K4594	11/28/2023 16:05	Colilert 1R	
Vector	1.0	0.1	mg O <sub>2</sub> /hr/g	N	B3K4740	11/28/2023 16:55	TAC 312.83(b)(4)	

#### Wet Lab

Percent Solid	1.5	0.1	%	A	B3K4607	11/29/2023 16:03	SM 2540G	
Volatile Percent Solid	59.8	0.1	%	A	B3K4603	11/30/2023 14:09	SM 2540G	





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 Email: eastexlab@eastex.net  
 Tel: 936 653 3249



Waller, City of  
 1218 Farr St  
 Waller TX, 77484

**Colilert 18 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3K4594 - No Prep Micro</b> <b>Prepared: 11/28/23 16:05</b>										
<b>Blank (B3K4594-BLK1)</b>					<b>Analyzed: 11/28/2023 4:05:00PM</b>					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3K4594-DUP1)</b>					<b>Source: C3K4659-01      Analyzed: 11/28/2023 4:05:00PM</b>					
Fecal Coliform IDEXX	98700	1000	mpn/gram		148300			40.2	200	
<b>Batch B3K4603 - No Prep</b> <b>Prepared: 11/30/23 14:09</b>										
<b>Blank (B3K4603-BLK1)</b>					<b>Analyzed: 11/30/2023 2:09:00PM</b>					
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4603-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/30/2023 2:09:00PM</b>					
Volatile Percent Solid	82.3	0.1	%		83.0			0.847	10	
<b>Batch B3K4607 - No Prep</b> <b>Prepared: 11/29/23 16:03</b>										
<b>Blank (B3K4607-BLK1)</b>					<b>Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4607-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	1.30	0.1	%		1.30			0.00	20	
<b>Batch B3K4740 - No Prep Micro</b> <b>Prepared: 11/28/23 16:55</b>										
<b>Blank (B3K4740-BLK1)</b>					<b>Analyzed: 11/28/2023 4:55:00PM</b>					
Vector	ND	0.1	mg O2/hr/g							
<b>Duplicate (B3K4740-DUP1)</b>					<b>Source: C3K7384-01      Analyzed: 11/28/2023 4:55:00PM</b>					
Vector	0.800	0.1	mg O2/hr/g		1.00			22.2	200	



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Waller, City of  
1218 Farr St  
Waller TX, 77484

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



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Tel: 936 653 3249



December 12, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

RE: **Waller Digester**

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K6938. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 12/8/2023 4:07:05 PM

## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62517-1



# Eurofins Houston

## 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



Generated  
12/8/2023 4:07:05 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Qualifiers

#### GC/MS Semi VOA

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.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Job ID: 860-62517-1

Laboratory: Eurofins Houston

### Narrative

#### Job Narrative 860-62517-1

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.

#### Receipt

The sample was received on 11/30/2023 9:58 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

#### GC/MS VOA

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

#### GC/MS Semi VOA

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

#### Herbicides

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

#### Pesticides

Method 8081B: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: (LCS 860-133535/2-A) and (LCSD 860-133535/3-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: Waller Digester c Digester (860-62517-1). Elevated reporting limits (RLs) are provided.

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

#### Metals

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

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# Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.087		0.050		mg/L	1		6010D	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Houston

- 1
- 2
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- 10
- 11
- 12
- 13
- 14
- 15

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

## Client Sample Results

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Date Collected: 11/28/23 13:25

Lab Sample ID: 860-62517-1

Date Received: 11/30/23 09:58

Matrix: Water

### Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			12/04/23 15:13	50
Carbon tetrachloride	ND		0.25		mg/L			12/04/23 15:13	50
Chlorobenzene	ND		0.050		mg/L			12/04/23 15:13	50
Chloroform	ND		0.050		mg/L			12/04/23 15:13	50
1,2-Dichloroethane	ND		0.050		mg/L			12/04/23 15:13	50
1,1-Dichloroethene	ND		0.050		mg/L			12/04/23 15:13	50
2-Butanone	ND		2.5		mg/L			12/04/23 15:13	50
Tetrachloroethene	ND		0.050		mg/L			12/04/23 15:13	50
Trichloroethene	ND		0.25		mg/L			12/04/23 15:13	50
Vinyl chloride	ND		0.10		mg/L			12/04/23 15:13	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		63 - 144		12/04/23 15:13	50
4-Bromofluorobenzene (Surr)	102		74 - 124		12/04/23 15:13	50
Dibromofluoromethane (Surr)	101		75 - 131		12/04/23 15:13	50
Toluene-d8 (Surr)	97		80 - 120		12/04/23 15:13	50

### Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4-Dinitrotoluene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2-Methylphenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachlorobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachlorobutadiene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachloroethane	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Nitrobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Pentachlorophenol	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5
Pyridine	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5
3 & 4 Methylphenol	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	48		31 - 132	12/04/23 06:37	12/04/23 15:05	5
2-Fluorobiphenyl (Surr)	52		29 - 112	12/04/23 06:37	12/04/23 15:05	5
2-Fluorophenol (Surr)	45		21 - 114	12/04/23 06:37	12/04/23 15:05	5
Nitrobenzene-d5 (Surr)	48		26 - 110	12/04/23 06:37	12/04/23 15:05	5
p-Terphenyl-d14 (Surr)	85		20 - 141	12/04/23 06:37	12/04/23 15:05	5
Phenol-d5 (Surr)	38		16 - 117	12/04/23 06:37	12/04/23 15:05	5

### Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.010		mg/L		12/04/23 08:52	12/05/23 11:31	10
Endrin	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Heptachlor	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Heptachlor epoxide	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
gamma-BHC (Lindane)	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Methoxychlor	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Toxaphene	ND		0.010		mg/L		12/04/23 08:52	12/05/23 11:31	10

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# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Date Collected: 11/28/23 13:25

Matrix: Water

Date Received: 11/30/23 09:58

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	30		28 - 94	12/04/23 08:52	12/05/23 11:31	10
Tetrachloro-m-xylene	72		52 - 134	12/04/23 08:52	12/05/23 11:31	10

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 14:50	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	90		42 - 150	12/05/23 14:58	12/07/23 14:50	1

## Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Barium	0.087		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Cadmium	ND		0.025		mg/L		12/04/23 10:00	12/06/23 11:23	1
Chromium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Lead	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Nickel	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Selenium	ND		0.15		mg/L		12/04/23 10:00	12/06/23 11:23	1
Silver	ND		0.10		mg/L		12/04/23 10:00	12/06/23 11:23	1
Beryllium	ND		0.020		mg/L		12/04/23 10:00	12/06/23 11:23	1
Antimony	ND		0.10		mg/L		12/04/23 10:00	12/06/23 11:23	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 17:10	1

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-133533/3	Lab Control Sample	101	104	106	99
LCSD 860-133533/4	Lab Control Sample Dup	101	102	106	98
MB 860-133533/9	Method Blank	104	102	104	98
<b>Surrogate Legend</b>					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
TOL = Toluene-d8 (Surr)					

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-62517-1	Waller Digester c Digester	105	102	101	97
860-62591-A-4-C MS	Matrix Spike	102	103	105	99
LB 860-133351/1-A	Method Blank	104	101	99	97
<b>Surrogate Legend</b>					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
TOL = Toluene-d8 (Surr)					

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-133494/2-A	Lab Control Sample	99	77	43	77	114	31
LCSD 860-133494/3-A	Lab Control Sample Dup	99	85	47	85	109	34
MB 860-133494/1-A	Method Blank	58	74	38	76	120	22
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
TPHd14 = p-Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-62517-1	Waller Digester c Digester	48	52	45	48	85	38
860-62567-A-1-F MS	Matrix Spike	74	62	46	56	89	40

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LB 860-133362/1-C	Method Blank	57	60	50	66	117	34
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
TPHd14 = p-Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB2 (28-94)	TCX1 (52-134)
LCS 860-133535/2-A	Lab Control Sample	33	60
LCSD 860-133535/3-A	Lab Control Sample Dup	30	57
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (28-94)	TCX1 (52-134)
MB 860-133535/1-A	Method Blank	67	101
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (28-94)	TCX1 (52-134)
860-62517-1 - DL	Waller Digester c Digester	30	72
LB 860-133362/1-E	Method Blank	55	85
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

**Method: 8151A - Herbicides (GC)**

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
LCS 860-133832/2-A	Lab Control Sample	102	
LCSD 860-133829/3-A	Lab Control Sample Dup	62	
LCSD 860-133832/3-A	Lab Control Sample Dup	99	
MB 860-133829/1-A	Method Blank	74	
MB 860-133832/1-A	Method Blank	81	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

**Method: 8151A - Herbicides (GC)**

Matrix: Water

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
860-62517-1	Waller Digester c Digester	90	
LB 860-133362/1-F	Method Blank	71	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

1  
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15

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-133533/9

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			12/04/23 12:50	1
Carbon tetrachloride	ND		0.0050		mg/L			12/04/23 12:50	1
Chlorobenzene	ND		0.0010		mg/L			12/04/23 12:50	1
Chloroform	ND		0.0010		mg/L			12/04/23 12:50	1
1,2-Dichloroethane	ND		0.0010		mg/L			12/04/23 12:50	1
1,1-Dichloroethene	ND		0.0010		mg/L			12/04/23 12:50	1
2-Butanone	ND		0.050		mg/L			12/04/23 12:50	1
Tetrachloroethene	ND		0.0010		mg/L			12/04/23 12:50	1
Trichloroethene	ND		0.0050		mg/L			12/04/23 12:50	1
Vinyl chloride	ND		0.0020		mg/L			12/04/23 12:50	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 144		12/04/23 12:50	1
4-Bromofluorobenzene (Surr)	102		74 - 124		12/04/23 12:50	1
Dibromofluoromethane (Surr)	104		75 - 131		12/04/23 12:50	1
Toluene-d8 (Surr)	98		80 - 120		12/04/23 12:50	1

Lab Sample ID: LCS 860-133533/3

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0496		mg/L		99	75 - 125
Carbon tetrachloride	0.0500	0.0491		mg/L		98	70 - 130
Chlorobenzene	0.0500	0.0473		mg/L		95	65 - 135
Chloroform	0.0500	0.0537		mg/L		107	70 - 121
1,2-Dichloroethane	0.0500	0.0524		mg/L		105	72 - 130
1,1-Dichloroethene	0.0500	0.0488		mg/L		98	50 - 150
2-Butanone	0.250	0.299		mg/L		120	60 - 140
Tetrachloroethene	0.0500	0.0446		mg/L		89	71 - 125
Trichloroethene	0.0500	0.0438		mg/L		88	75 - 135
Vinyl chloride	0.0500	0.0453		mg/L		91	60 - 140

Surrogate	%Recovery	LCS LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		63 - 144
4-Bromofluorobenzene (Surr)	104		74 - 124
Dibromofluoromethane (Surr)	106		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 860-133533/4

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0510		mg/L		102	75 - 125	3	25
Carbon tetrachloride	0.0500	0.0537		mg/L		107	70 - 130	9	25
Chlorobenzene	0.0500	0.0488		mg/L		98	65 - 135	3	25
Chloroform	0.0500	0.0548		mg/L		110	70 - 121	2	25

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-133533/4

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0532		mg/L		106	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0529		mg/L		106	50 - 150	8	25
2-Butanone	0.250	0.326		mg/L		130	60 - 140	8	25
Tetrachloroethene	0.0500	0.0513		mg/L		103	71 - 125	14	25
Trichloroethene	0.0500	0.0467		mg/L		93	75 - 135	7	25
Vinyl chloride	0.0500	0.0492		mg/L		98	60 - 140	8	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	106		75 - 131
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LB 860-133351/1-A

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050		mg/L			12/04/23 12:28	5
Carbon tetrachloride	ND		0.025		mg/L			12/04/23 12:28	5
Chlorobenzene	ND		0.0050		mg/L			12/04/23 12:28	5
Chloroform	ND		0.0050		mg/L			12/04/23 12:28	5
1,2-Dichloroethane	ND		0.0050		mg/L			12/04/23 12:28	5
1,1-Dichloroethene	ND		0.0050		mg/L			12/04/23 12:28	5
2-Butanone	ND		0.25		mg/L			12/04/23 12:28	5
Tetrachloroethene	ND		0.0050		mg/L			12/04/23 12:28	5
Trichloroethene	ND		0.025		mg/L			12/04/23 12:28	5
Vinyl chloride	ND		0.010		mg/L			12/04/23 12:28	5

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 144		12/04/23 12:28	5
4-Bromofluorobenzene (Surr)	101		74 - 124		12/04/23 12:28	5
Dibromofluoromethane (Surr)	99		75 - 131		12/04/23 12:28	5
Toluene-d8 (Surr)	97		80 - 120		12/04/23 12:28	5

Lab Sample ID: 860-62591-A-4-C MS

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		2.50	2.73		mg/L		109	66 - 142
Carbon tetrachloride	ND		2.50	2.70		mg/L		108	62 - 125
Chlorobenzene	ND		2.50	2.68		mg/L		107	60 - 133
Chloroform	ND		2.50	2.90		mg/L		116	70 - 130
1,2-Dichloroethane	ND		2.50	2.77		mg/L		111	68 - 127
1,1-Dichloroethene	ND		2.50	2.61		mg/L		104	59 - 172
2-Butanone	ND		12.5	15.5		mg/L		124	60 - 140
Tetrachloroethene	ND		2.50	2.69		mg/L		108	71 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 860-62591-A-4-C MS

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	ND		2.50	2.41		mg/L		96	62 - 137
Vinyl chloride	ND		2.50	2.19		mg/L		88	60 - 140
Surrogate	MS %Recovery	MS Qualifier	MS Limits						
1,2-Dichloroethane-d4 (Surr)	102		63 - 144						
4-Bromofluorobenzene (Surr)	103		74 - 124						
Dibromofluoromethane (Surr)	105		75 - 131						
Toluene-d8 (Surr)	99		80 - 120						

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-133494/1-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2-Methylphenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachlorobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachlorobutadiene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachloroethane	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Nitrobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Pentachlorophenol	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
Pyridine	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
3 & 4 Methylphenol	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
Surrogate	MB %Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		31 - 132				12/04/23 06:37	12/04/23 20:20	1
2-Fluorobiphenyl (Surr)	74		29 - 112				12/04/23 06:37	12/04/23 20:20	1
2-Fluorophenol (Surr)	38		21 - 114				12/04/23 06:37	12/04/23 20:20	1
Nitrobenzene-d5 (Surr)	76		26 - 110				12/04/23 06:37	12/04/23 20:20	1
p-Terphenyl-d14 (Surr)	120		20 - 141				12/04/23 06:37	12/04/23 20:20	1
Phenol-d5 (Surr)	22		16 - 117				12/04/23 06:37	12/04/23 20:20	1

Lab Sample ID: LCS 860-133494/2-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0253		mg/L		63	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0354		mg/L		89	39 - 125
2,4,6-Trichlorophenol	0.0400	0.0332		mg/L		83	42 - 125
2,4-Dinitrotoluene	0.0400	0.0379		mg/L		95	41 - 128
2-Methylphenol	0.0400	0.0241		mg/L		60	36 - 105
Hexachlorobenzene	0.0400	0.0406		mg/L		101	39 - 128

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-133494/2-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	0.0400	0.0268		mg/L		67	31 - 120
Hexachloroethane	0.0400	0.0244		mg/L		61	37 - 109
Nitrobenzene	0.0400	0.0305		mg/L		76	37 - 114
Pentachlorophenol	0.0400	0.0281		mg/L		70	10 - 137
Pyridine	0.0400	0.00717	J	mg/L		18	5 - 130
3 & 4 Methylphenol	0.0400	0.0213		mg/L		53	35 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	99		31 - 132
2-Fluorobiphenyl (Surr)	77		29 - 112
2-Fluorophenol (Surr)	43		21 - 114
Nitrobenzene-d5 (Surr)	77		26 - 110
p-Terphenyl-d14 (Surr)	114		20 - 141
Phenol-d5 (Surr)	31		16 - 117

Lab Sample ID: LCSD 860-133494/3-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,4-Dichlorobenzene	0.0400	0.0289		mg/L		72	37 - 111	13	30
2,4,5-Trichlorophenol	0.0400	0.0383		mg/L		96	39 - 125	8	30
2,4,6-Trichlorophenol	0.0400	0.0367		mg/L		92	42 - 125	10	30
2,4-Dinitrotoluene	0.0400	0.0374		mg/L		94	41 - 128	1	30
2-Methylphenol	0.0400	0.0274		mg/L		69	36 - 105	13	30
Hexachlorobenzene	0.0400	0.0410		mg/L		102	39 - 128	1	30
Hexachlorobutadiene	0.0400	0.0319		mg/L		80	31 - 120	17	30
Hexachloroethane	0.0400	0.0288		mg/L		72	37 - 109	16	30
Nitrobenzene	0.0400	0.0358		mg/L		90	37 - 114	16	30
Pentachlorophenol	0.0400	0.0284		mg/L		71	10 - 137	1	40
Pyridine	0.0400	0.0103		mg/L		26	5 - 130	36	50
3 & 4 Methylphenol	0.0400	0.0246		mg/L		61	35 - 116	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	99		31 - 132
2-Fluorobiphenyl (Surr)	85		29 - 112
2-Fluorophenol (Surr)	47		21 - 114
Nitrobenzene-d5 (Surr)	85		26 - 110
p-Terphenyl-d14 (Surr)	109		20 - 141
Phenol-d5 (Surr)	34		16 - 117

Lab Sample ID: LB 860-133362/1-C

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133494

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-133362/1-C

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133494

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2,4-Dinitrotoluene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2-Methylphenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachlorobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachlorobutadiene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachloroethane	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Nitrobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Pentachlorophenol	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1
Pyridine	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1
3 & 4 Methylphenol	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	57		31 - 132	12/04/23 06:37	12/04/23 20:45	1
2-Fluorobiphenyl (Surr)	60		29 - 112	12/04/23 06:37	12/04/23 20:45	1
2-Fluorophenol (Surr)	50		21 - 114	12/04/23 06:37	12/04/23 20:45	1
Nitrobenzene-d5 (Surr)	66		26 - 110	12/04/23 06:37	12/04/23 20:45	1
p-Terphenyl-d14 (Surr)	117		20 - 141	12/04/23 06:37	12/04/23 20:45	1
Phenol-d5 (Surr)	34		16 - 117	12/04/23 06:37	12/04/23 20:45	1

Lab Sample ID: 860-62567-A-1-F MS

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 133494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		50	37 - 111
2,4,5-Trichlorophenol	ND		0.200	ND		mg/L		48	39 - 125
2,4,6-Trichlorophenol	ND		0.200	ND		mg/L		48	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.138		mg/L		69	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		46	36 - 105
Hexachlorobenzene	ND		0.200	0.148		mg/L		74	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		53	31 - 120
Hexachloroethane	ND		0.200	0.147		mg/L		73	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		57	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		56	10 - 137
Pyridine	ND		0.200	ND		mg/L		10	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		49	35 - 116

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		31 - 132
2-Fluorobiphenyl (Surr)	62		29 - 112
2-Fluorophenol (Surr)	46		21 - 114
Nitrobenzene-d5 (Surr)	56		26 - 110
p-Terphenyl-d14 (Surr)	89		20 - 141
Phenol-d5 (Surr)	40		16 - 117

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-133535/1-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 13:37	1
Endrin	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Heptachlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Heptachlor epoxide	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
gamma-BHC (Lindane)	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Methoxychlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Toxaphene	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 13:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	67		28 - 94	12/04/23 08:52	12/04/23 13:37	1
Tetrachloro-m-xylene	101		52 - 134	12/04/23 08:52	12/04/23 13:37	1

Lab Sample ID: LCS 860-133535/2-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00129	0.000989		mg/L		77	55 - 102
Heptachlor	0.00129	0.000718		mg/L		56	55 - 106
Heptachlor epoxide	0.00129	0.00100		mg/L		78	56 - 109
gamma-BHC (Lindane)	0.00129	0.000987		mg/L		77	59 - 107
Methoxychlor	0.00129	0.000852		mg/L		66	53 - 102

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	33		28 - 94
Tetrachloro-m-xylene	60		52 - 134

Lab Sample ID: LCSD 860-133535/3-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133535

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Endrin	0.00131	0.000972		mg/L		74	55 - 102	2	25
Heptachlor	0.00131	0.000716		mg/L		55	55 - 106	0	25
Heptachlor epoxide	0.00131	0.000981		mg/L		75	56 - 109	2	25
gamma-BHC (Lindane)	0.00131	0.000969		mg/L		74	59 - 107	2	25
Methoxychlor	0.00131	0.000849		mg/L		65	53 - 102	0	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	30		28 - 94
Tetrachloro-m-xylene	57		52 - 134

Lab Sample ID: LB 860-133362/1-E

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133535

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 14:33	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LB 860-133362/1-E

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133535

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Heptachlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Heptachlor epoxide	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
gamma-BHC (Lindane)	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Methoxychlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Toxaphene	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 14:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	55		28 - 94				12/04/23 08:52	12/04/23 14:33	1
Tetrachloro-m-xylene	85		52 - 134				12/04/23 08:52	12/04/23 14:33	1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-133829/1-A

Matrix: Water

Analysis Batch: 133924

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133829

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:31	12/06/23 11:48	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:31	12/06/23 11:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	74		42 - 150				12/05/23 14:31	12/06/23 11:48	1

Lab Sample ID: LCSD 860-133829/3-A

Matrix: Water

Analysis Batch: 133924

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-D	0.00201	0.00109		mg/L		54	45 - 124	7	25
2,4,5-TP (Silvex)	0.00201	0.00129		mg/L		64	45 - 124	10	25
Surrogate	%Recovery	Qualifier	Limits						
2,4-Dichlorophenylacetic acid	62		42 - 150						

Lab Sample ID: MB 860-133832/1-A

Matrix: Water

Analysis Batch: 134118

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133832

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 10:55	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 10:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	81		42 - 150				12/05/23 14:58	12/07/23 10:55	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 860-133832/2-A  
Matrix: Water  
Analysis Batch: 134118

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 133832

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00200	0.00144		mg/L		72	45 - 124
2,4,5-TP (Silvex)	0.00200	0.00184		mg/L		92	45 - 124
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCS Qualifier</b>	<b>Limits</b>				
2,4-Dichlorophenylacetic acid	102		42 - 150				

Lab Sample ID: LCSD 860-133832/3-A  
Matrix: Water  
Analysis Batch: 134118

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 133832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
2,4-D	0.00202	0.00144		mg/L		71	45 - 124	1	25
2,4,5-TP (Silvex)	0.00202	0.00184		mg/L		91	45 - 124	0	25
<b>Surrogate</b>	<b>%Recovery</b>	<b>LCSD Qualifier</b>	<b>Limits</b>						
2,4-Dichlorophenylacetic acid	99		42 - 150						

Lab Sample ID: LB 860-133362/1-F  
Matrix: Water  
Analysis Batch: 133924

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133495

Analyte	Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/04/23 13:07	12/06/23 13:34	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/04/23 13:07	12/06/23 13:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>LB Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2,4-Dichlorophenylacetic acid	71		42 - 150				12/04/23 13:07	12/06/23 13:34	1

## Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-133556/1-A  
Matrix: Water  
Analysis Batch: 134049

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 133556

Analyte	Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Barium	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Cadmium	ND		0.0050		mg/L		12/04/23 10:00	12/05/23 21:02	1
Chromium	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Lead	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Nickel	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Selenium	ND		0.030		mg/L		12/04/23 10:00	12/05/23 21:02	1
Silver	ND		0.020		mg/L		12/04/23 10:00	12/05/23 21:02	1
Beryllium	ND		0.0040		mg/L		12/04/23 10:00	12/05/23 21:02	1
Antimony	ND		0.020		mg/L		12/04/23 10:00	12/05/23 21:02	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-133556/2-A

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.961		mg/L		96	80 - 120
Barium	1.00	0.950		mg/L		95	80 - 120
Cadmium	1.00	0.944		mg/L		94	80 - 120
Chromium	1.00	0.969		mg/L		97	80 - 120
Lead	1.00	0.977		mg/L		98	80 - 120
Nickel	1.00	0.969		mg/L		97	80 - 120
Selenium	1.00	0.965		mg/L		97	80 - 120
Silver	0.500	0.484		mg/L		97	80 - 120
Beryllium	1.00	0.929		mg/L		93	80 - 120
Antimony	1.00	0.917		mg/L		92	80 - 120

Lab Sample ID: LCSD 860-133556/3-A

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	1.00	0.944		mg/L		94	80 - 120	2	20
Barium	1.00	0.933		mg/L		93	80 - 120	2	20
Cadmium	1.00	0.924		mg/L		92	80 - 120	2	20
Chromium	1.00	0.950		mg/L		95	80 - 120	2	20
Lead	1.00	0.959		mg/L		96	80 - 120	2	20
Nickel	1.00	0.951		mg/L		95	80 - 120	2	20
Selenium	1.00	0.937		mg/L		94	80 - 120	3	20
Silver	0.500	0.475		mg/L		95	80 - 120	2	20
Beryllium	1.00	0.911		mg/L		91	80 - 120	2	20
Antimony	1.00	0.928		mg/L		93	80 - 120	1	20

Lab Sample ID: 560-114411-J-1-A MSD

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125	1	20
Barium	0.52		1.00	1.49		mg/L		97	75 - 125	0	20
Cadmium	ND		1.00	1.02		mg/L		102	75 - 125	0	20
Chromium	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Lead	ND		1.00	1.00		mg/L		100	75 - 125	0	20
Nickel	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Selenium	0.060		1.00	1.12		mg/L		106	75 - 125	3	20
Silver	ND		0.500	0.544		mg/L		109	75 - 125	1	20
Beryllium	ND		1.00	0.991		mg/L		99	75 - 125	1	20
Antimony	ND		1.00	1.04		mg/L		102	75 - 125	0	20

Lab Sample ID: LB 860-133362/1-D

Matrix: Water

Analysis Batch: 134055

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133556

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LB 860-133362/1-D  
Matrix: Water  
Analysis Batch: 134055

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133556

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Cadmium	ND		0.025		mg/L		12/04/23 10:00	12/06/23 10:51	1
Chromium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Lead	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Nickel	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Selenium	ND		0.15		mg/L		12/04/23 10:00	12/06/23 10:51	1
Silver	ND		0.10		mg/L		12/04/23 10:00	12/06/23 10:51	1
Beryllium	ND		0.020		mg/L		12/04/23 10:00	12/06/23 10:51	1
Antimony	ND		0.10		mg/L		12/04/23 10:00	12/06/23 10:51	1

Lab Sample ID: 860-62567-A-1-H MS  
Matrix: Water  
Analysis Batch: 134055

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 133556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	ND		1.00	0.995		mg/L		100	75 - 125
Barium	1.4		1.00	2.38		mg/L		94	75 - 125
Cadmium	ND		1.00	1.02		mg/L		102	75 - 125
Chromium	ND		1.00	1.01		mg/L		101	75 - 125
Lead	ND		1.00	1.05		mg/L		105	75 - 125
Nickel	ND		1.00	1.05		mg/L		105	75 - 125
Selenium	ND		1.00	0.965		mg/L		97	75 - 125
Silver	ND		0.500	0.515		mg/L		103	75 - 125
Beryllium	ND		1.00	1.03		mg/L		103	75 - 125
Antimony	ND		1.00	0.995		mg/L		100	75 - 125

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-133489/10-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:25	1

Lab Sample ID: LCS 860-133489/11-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00185		mg/L		92	80 - 120

Lab Sample ID: LCSD 860-133489/12-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00200	0.00187		mg/L		94	80 - 120	1	20

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LB 860-133184/1-F  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:29	1

Lab Sample ID: LB 860-133362/1-B  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:56	1

Lab Sample ID: 860-62417-B-1-J MS  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00200	0.00217		mg/L		109	75 - 125

Lab Sample ID: 860-62417-B-1-K MSD  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Matrix Spike Duplicate  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00199		mg/L		99	75 - 125	9	20

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### GC/MS VOA

#### Leach Batch: 133351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133351/1-A	Method Blank	TCLP	Water	1311	
860-62591-A-4-C MS	Matrix Spike	TCLP	Water	1311	

#### Analysis Batch: 133533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8260C	133351
LB 860-133351/1-A	Method Blank	TCLP	Water	8260C	133351
MB 860-133533/9	Method Blank	Total/NA	Water	8260C	
LCS 860-133533/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-133533/4	Lab Control Sample Dup	Total/NA	Water	8260C	
860-62591-A-4-C MS	Matrix Spike	TCLP	Water	8260C	133351

### GC/MS Semi VOA

#### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-C	Method Blank	TCLP	Water	1311	
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	1311	

#### Prep Batch: 133494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3510C	133362
LB 860-133362/1-C	Method Blank	TCLP	Water	3510C	133362
MB 860-133494/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-133494/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-133494/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	3510C	133362

#### Analysis Batch: 133584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8270D	133494

#### Analysis Batch: 133626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-C	Method Blank	TCLP	Water	8270D	133494
MB 860-133494/1-A	Method Blank	Total/NA	Water	8270D	133494
LCS 860-133494/2-A	Lab Control Sample	Total/NA	Water	8270D	133494
LCSD 860-133494/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	133494
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	8270D	133494

### GC Semi VOA

#### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	1311	
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-E	Method Blank	TCLP	Water	1311	
LB 860-133362/1-F	Method Blank	TCLP	Water	1311	

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### GC Semi VOA

#### Prep Batch: 133495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-F	Method Blank	TCLP	Water	3511	133362

#### Prep Batch: 133535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	3511	133362
LB 860-133362/1-E	Method Blank	TCLP	Water	3511	133362
MB 860-133535/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-133535/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-133535/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Analysis Batch: 133580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-E	Method Blank	TCLP	Water	8081B	133535
MB 860-133535/1-A	Method Blank	Total/NA	Water	8081B	133535
LCS 860-133535/2-A	Lab Control Sample	Total/NA	Water	8081B	133535
LCSD 860-133535/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	133535

#### Analysis Batch: 133720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	8081B	133535

#### Prep Batch: 133829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-133829/1-A	Method Blank	Total/NA	Water	3511	
LCSD 860-133829/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Prep Batch: 133832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3511	133362
MB 860-133832/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-133832/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-133832/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Analysis Batch: 133924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-F	Method Blank	TCLP	Water	8151A	133495
MB 860-133829/1-A	Method Blank	Total/NA	Water	8151A	133829
LCSD 860-133829/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	133829

#### Analysis Batch: 134118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8151A	133832
MB 860-133832/1-A	Method Blank	Total/NA	Water	8151A	133832
LCS 860-133832/2-A	Lab Control Sample	Total/NA	Water	8151A	133832
LCSD 860-133832/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	133832

### Metals

#### Leach Batch: 133184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133184/1-F	Method Blank	TCLP	Water	1311	

Eurofins Houston



# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Metals (Continued)

### Leach Batch: 133184 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	1311	
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	1311	

### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-B	Method Blank	TCLP	Water	1311	
LB 860-133362/1-D	Method Blank	TCLP	Water	1311	
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	1311	

### Prep Batch: 133489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	7470A	133362
LB 860-133184/1-F	Method Blank	TCLP	Water	7470A	133184
LB 860-133362/1-B	Method Blank	TCLP	Water	7470A	133362
MB 860-133489/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-133489/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-133489/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	7470A	133184
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	7470A	133184

### Prep Batch: 133556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3010A	133362
LB 860-133362/1-D	Method Blank	TCLP	Water	3010A	133362
MB 860-133556/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-133556/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-133556/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
560-114411-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	3010A	133362

### Analysis Batch: 133676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	7470A	133489
LB 860-133184/1-F	Method Blank	TCLP	Water	7470A	133489
LB 860-133362/1-B	Method Blank	TCLP	Water	7470A	133489
MB 860-133489/10-A	Method Blank	Total/NA	Water	7470A	133489
LCS 860-133489/11-A	Lab Control Sample	Total/NA	Water	7470A	133489
LCSD 860-133489/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	133489
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	7470A	133489
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	7470A	133489

### Analysis Batch: 134049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-133556/1-A	Method Blank	Total/NA	Water	6010D	133556
LCS 860-133556/2-A	Lab Control Sample	Total/NA	Water	6010D	133556
LCSD 860-133556/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	133556
560-114411-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	133556

Eurofins Houston



## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Metals

#### Analysis Batch: 134055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	6010D	133556
LB 860-133362/1-D	Method Blank	TCLP	Water	6010D	133556
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	6010D	133556

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Date Collected: 11/28/23 13:25

Matrix: Water

Date Received: 11/30/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	133351	12/01/23 14:00	JCM	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	133533	12/02/23 06:00 <sup>1</sup>	NA	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	1.00 mL	133494	12/02/23 05:00 <sup>1</sup>	DR	EET HOU
TCLP	Analysis	8270D		5			133584	12/04/23 06:37	PXS	EET HOU
TCLP	Leach	1311	DL		1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3511	DL		48.7 mL	5 mL	133535	12/02/23 05:00 <sup>1</sup>	TH	EET HOU
TCLP	Analysis	8081B	DL	10			133720	12/04/23 08:52	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3511			49.7 mL	4 mL	133832	12/02/23 05:00 <sup>1</sup>	JN	EET HOU
TCLP	Analysis	8151A		1			134118	12/05/23 14:58	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3010A			10 mL	50 mL	133556	12/02/23 05:00 <sup>1</sup>	MD	EET HOU
TCLP	Analysis	8010D		1			134055	12/04/23 10:00	DP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/06/23 11:23	EMC	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	133489	12/01/23 13:00	EMC	EET HOU
TCLP	Analysis	7470A		1			133489	12/02/23 05:00 <sup>1</sup>	AGR	EET HOU
							133676	12/03/23 21:45	SHZ	EET HOU
								12/04/23 17:10		

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

Eurofins Houston

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## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

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



## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62517-1	Waller Digester c Digester	Water	11/28/23 13:25	11/30/23 09:58

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## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone: 936-653-3249  
eastexlab@eastex.net  
Project Manager: Daniel Bowen  
dbowen@eastexlabs.com

### Subcontracted Laboratory:

#### Eurofins Xenco LLC

4147 Greenbriar Dr.  
Stafford, TX 77477

Phone: 713-690-4444  
Fax: 713-690-5646

PO 113023D

Requested Turnaround / Days

Sample ID: Waller Digester c Digester

Sample No: C3K6938-01

Waste Sampled: 11/28/2023 13:25

2 TCLP SUBCONTRACT

Containers Supplied: 2

Special Instructions. FULL TCLP REPORT



860-62517 Chain of Custody

Temp: 0.9 (IR ID HOU-369)  
C/F -0.0  
Corrected Temp: 0.9

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller, City of

Released By \_\_\_\_\_

11/30/23 0917  
Date & Time

Received By \_\_\_\_\_  
Date & Time

11/30/23 958  
Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62517-1

Login Number: 62517

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	



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December 21, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

RE: **Waller Digester**

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K6939. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager





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Waller, City of  
1218 Farr St  
Waller TX, 77484

## LABORATORY ANALYTICAL REPORT

Project: Waller Digester a  
Client Matrix: Waste

Sample Date & Time: 11/28/2023 13:25

Collector: JMY

Sample Type: Grab

Print Date: 12/21/2023

### Digester C3K6939-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Metals</u></b>								
Arsenic	7.87	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Cadmium	<6.67	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Chromium	43.4	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Copper	887	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Lead	115	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Mercury, Total	0.321	0.133	mg/Kg dry	A	B3L1437	12/12/2023 13:24	EPA SW 846-7471B	
Molybdenum	10.8	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Nickel	29.5	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Phosphorus, %	1.45	1.00	% dry	A	B3L0304	12/06/2023 16:14	EPA SW 846-6010, 3050	
Potassium, %	0.420	0.333	% dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Selenium	<6.67	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Zinc	953	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	

### Wet Lab

NH3N %	<0.667	0.667	% dry	A	B3K3632	12/07/2023 12:17	EPA 350.2	
Nitrate-N, %	0.664	0.000133	% dry	N	B3K4988	11/30/2023 17:27	SM 4500 NO3 D	
Percent Solid	1.5	0.1	%	A	B3K4607	11/29/2023 16:03	SM 2540G	
pH-Sludge	5.59		std unit	A	B3L0021	12/01/2023 08:15	EPA SW 846-9040	
TKN %	<1.0	0.0667	% dry	N	B3L3576	12/13/2023 13:33	EPA 351.2	S



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**EPA 350.2 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3K3632 - No Prep</b> <b>Prepared: 12/07/23 12:17</b>										
<b>Blank (B3K3632-BLK1)</b>					<b>Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	ND	0.0100	% wet							
<b>LCS (B3K3632-BS1)</b>					<b>Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	2.02		mg/L	2.00		101	80-120			
<b>Matrix Spike (B3K3632-MS1)</b>					<b>Source: C3K3103-01      Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	0.829	1.25	% dry	0.500	0.345	96.8	80-120			
<b>Matrix Spike Dup (B3K3632-MSD1)</b>					<b>Source: C3K3103-01      Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	0.827	1.25	% dry	0.500	0.345	96.5	80-120	0.181	20	
<b>Batch B3K4607 - No Prep</b> <b>Prepared: 11/29/23 16:03</b>										
<b>Blank (B3K4607-BLK1)</b>					<b>Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4607-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	1.30	0.1	%		1.30			0.00	20	
<b>Batch B3K4988 - No Prep</b> <b>Prepared: 11/30/23 17:27</b>										
<b>Blank (B3K4988-BLK1)</b>					<b>Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3K4988-BS1)</b>					<b>Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	1.0123		mg/L	1.00		101	80-120			
<b>Matrix Spike (B3K4988-MS1)</b>					<b>Source: C3K3103-01      Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	0.7318749	0.000250	% dry	0.625	0.02125	114	80-120			
<b>Matrix Spike Dup (B3K4988-MSD1)</b>					<b>Source: C3K3103-01      Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	0.7287499	0.000250	% dry	0.625	0.02125	113	80-120	0.428	20	
<b>Batch B3L0021 - No Prep</b> <b>Prepared: 12/01/23 08:15</b>										
<b>LCS (B3L0021-BS1)</b>					<b>Analyzed: 12/1/2023 8:15:00AM</b>					
pH-Sludge	6.88		std unit	6.86		100	0-200			
<b>Duplicate (B3L0021-DUP1)</b>					<b>Source: C3K6939-01      Analyzed: 12/1/2023 8:15:00AM</b>					
pH-Sludge	5.59		std unit		5.59			0.00	20	

Eastex Environmental Laboratory - Coldspring

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PremiumforCold.v5 W&O ; revision date 11/19/2021



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Waller, City of  
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 Waller TX, 77484

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L0303 - SW846-3050</b>		<b>Prepared: 12/04/23 15:28</b>								
<b>Blank (B3L0303-BLK1)</b>		<b>Analyzed: 12/6/2023 11:32:54AM</b>								
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3L0303-BS1)</b>		<b>Analyzed: 12/6/2023 11:36:21AM</b>								
Molybdenum	2.66	0.100	mg/Kg wet	2.50		106	80-120			
Arsenic	2.45	0.100	mg/Kg wet	2.50		98.0	80-120			
Cadmium	2.4	0.100	mg/Kg wet	2.50		95.6	80-120			
Chromium	2.62	0.100	mg/Kg wet	2.50		105	80-120			
Copper	2.68	0.100	mg/Kg wet	2.50		107	80-120			
Lead	2.55	0.100	mg/Kg wet	2.50		102	80-120			
Nickel	2.47	0.100	mg/Kg wet	2.50		98.8	80-120			
Potassium, %	0.0208	0.00500	% wet	0.0250		83.2	80-120			
Selenium	2.25	0.100	mg/Kg wet	2.50		90.0	80-120			
Zinc	2.51	0.100	mg/Kg wet	2.50		100	80-120			
<b>Matrix Spike (B3L0303-MS1)</b>		<b>Source: C3K3860-01</b>		<b>Analyzed: 12/6/2023 11:46:41AM</b>						
Molybdenum	255	10.0	mg/Kg dry	250	6.5	99.4	75-125			
Arsenic	244	10.0	mg/Kg dry	250	9.12	94.0	75-125			
Cadmium	230	10.0	mg/Kg dry	250	ND	92.8	75-125			
Chromium	270	10.0	mg/Kg dry	250	20.8	99.7	75-125			
Copper	509	10.0	mg/Kg dry	250	236	109	75-125			
Lead	250	10.0	mg/Kg dry	250	7.35	97.1	75-125			
Nickel	253	10.0	mg/Kg dry	250	17.9	94.0	75-125			
Potassium, %	3.40	0.500	% dry	2.50	0.877	101	75-125			
Selenium	222	10.0	mg/Kg dry	250	9.39	85.0	75-125			
Zinc	1680	10.0	mg/Kg dry	250	1460	88.0	75-125			
<b>Matrix Spike Dup (B3L0303-MSD1)</b>		<b>Source: C3K3860-01</b>		<b>Analyzed: 12/6/2023 11:50:10AM</b>						
Molybdenum	265	10.0	mg/Kg dry	250	6.5	103	75-125	3.85	20	

Eastex Environmental Laboratory - Coldspring

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**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L0303 - SW846-3050 Prepared: 12/04/23 15:28</b>										
<b>Matrix Spike Dup (B3L0303-MSD1) Source: C3K3860-01 Analyzed: 12/6/2023 11:50:10AM</b>										
Arsenic	250	10.0	mg/Kg dry	250	9.12	96.4	75-125	2.43	20	
Cadmium	240	10.0	mg/Kg dry	250	ND	96.0	75-125	3.39	20	
Chromium	277	10.0	mg/Kg dry	250	20.8	102	75-125	2.56	20	
Copper	522	10.0	mg/Kg dry	250	236	114	75-125	2.52	20	
Lead	260	10.0	mg/Kg dry	250	7.35	101	75-125	3.92	20	
Nickel	261	10.0	mg/Kg dry	250	17.9	97.2	75-125	3.11	20	
Potassium, %	3.40	0.500	% dry	2.50	0.877	101	75-125	0.00	20	
Selenium	227	10.0	mg/Kg dry	250	9.39	87.0	75-125	2.23	20	
Zinc	1700	10.0	mg/Kg dry	250	1460	96.0	75-125	1.18	20	
<b>Batch B3L0304 - SW846-3050 Prepared: 12/06/23 15:58</b>										
<b>Blank (B3L0304-BLK1) Analyzed: 12/6/2023 3:58:35PM</b>										
Phosphorus, %	ND	1.00	% wet							
<b>LCS (B3L0304-BS1) Analyzed: 12/6/2023 4:00:11PM</b>										
Phosphorus, %	0.00232	1.00	% wet	0.00252		91.9	80-120			
<b>Matrix Spike (B3L0304-MS1) Source: C3K3860-01 Analyzed: 12/6/2023 4:04:59PM</b>										
Phosphorus, %	2.73	1.00	% dry	0.252	2.48	99.1	75-125			
<b>Matrix Spike Dup (B3L0304-MSD1) Source: C3K3860-01 Analyzed: 12/6/2023 4:06:35PM</b>										
Phosphorus, %	2.70	1.00	% dry	0.252	2.48	88.3	75-125	1.00	20	
<b>Batch B3L1437 - SW 846-7471B Prepared: 12/11/23 10:14</b>										
<b>Blank (B3L1437-BLK1) Analyzed: 12/12/2023 12:56:37PM</b>										
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3L1437-BS1) Analyzed: 12/12/2023 12:59:08PM</b>										
Mercury, Total	0.0255	0.00200	mg/Kg wet	0.0250		102	80-120			
<b>Matrix Spike (B3L1437-MS1) Source: C3K3860-01 Analyzed: 12/12/2023 1:07:37PM</b>										
Mercury, Total	2.64	0.200	mg/Kg dry	2.50	0.240	96.0	75-125			
<b>Matrix Spike Dup (B3L1437-MSD1) Source: C3K3860-01 Analyzed: 12/12/2023 1:11:06PM</b>										
Mercury, Total	2.72	0.200	mg/Kg dry	2.50	0.240	99.2	75-125	2.99	20	

Eastex Environmental Laboratory - Coldspring

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Waller TX, 77484

#### Notes and Definitions

S	Analysis performed by subcontract lab. Report available upon request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 12/8/2023 4:04:02 PM

## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62514-1

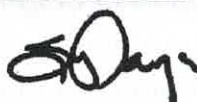
# Eurofins Houston

## 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



Generated  
12/8/2023 4:04:02 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

**Job ID: 860-62514-1**

**Laboratory: Eurofins Houston**

### Narrative

#### Job Narrative 860-62514-1

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.

#### Receipt

The sample was received on 11/30/2023 9:58 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

#### PCBs

Method 8082A: liquid sludge, weighed to 5 grams

Waller Digester a Digester (860-62514-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

☐ No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Percent Solids: 1.3

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1221	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1232	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1242	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1248	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1254	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1260	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		35 - 140	12/06/23 16:18	12/07/23 18:44	1
DCB Decachlorobiphenyl (Surr)	131		37 - 142	12/06/23 16:18	12/07/23 18:44	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.7				%			12/04/23 17:38	1
Percent Solids (EPA Moisture)	1.3				%			12/04/23 17:38	1

Eurofins Houston





## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (35-140)	DCB1 (37-142)
860-62514-1	Waller Digester a Digester	69	131
860-63062-D-1-I MS	Matrix Spike	85	126
860-63062-D-1-J MSD	Matrix Spike Duplicate	82	130
LCS 860-134047/4-A	Lab Control Sample	96	120
LCSD 860-134047/5-A	Lab Control Sample Dup	95	120
MB 860-134047/1-A	Method Blank	82	112
<b>Surrogate Legend</b>			
TCX = Tetrachloro-m-xylene			
DCB = DCB Decachlorobiphenyl (Surr)			

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-134047/1-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1221	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1232	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1242	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1248	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1254	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1260	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		35 - 140				12/06/23 16:18	12/07/23 13:46	1
DCB Decachlorobiphenyl (Surr)	112		37 - 142				12/06/23 16:18	12/07/23 13:46	1

Lab Sample ID: LCS 860-134047/4-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.159		mg/Kg		95	27 - 121
PCB-1260	0.167	0.166		mg/Kg		99	27 - 139
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene	96		35 - 140				
DCB Decachlorobiphenyl (Surr)	120		37 - 142				

Lab Sample ID: LCSD 860-134047/5-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.164		mg/Kg		98	27 - 121	3	20
PCB-1260	0.167	0.182		mg/Kg		109	27 - 139	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Tetrachloro-m-xylene	95		35 - 140						
DCB Decachlorobiphenyl (Surr)	120		37 - 142						

Lab Sample ID: 860-63062-D-1-I MS  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	ND		0.200	0.154		mg/Kg	□	77	27 - 121
PCB-1260	ND		0.200	0.184		mg/Kg	□	92	27 - 139
Surrogate	MS %Recovery	MS Qualifier	Limits						
Tetrachloro-m-xylene	85		35 - 140						
DCB Decachlorobiphenyl (Surr)	126		37 - 142						

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 860-63062-D-1-J MSD

Matrix: Solid

Analysis Batch: 134121

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 134047

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
PCB-1016	ND		0.200	0.150		mg/Kg	□	75	27 - 121	3	20
PCB-1260	ND		0.200	0.188		mg/Kg	□	94	27 - 139	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	82		35 - 140
DCB Decachlorobiphenyl (Surr)	130		37 - 142

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-133677/1

Matrix: Solid

Analysis Batch: 133677

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.08				%			12/04/23 17:38	1
Percent Solids	100.1				%			12/04/23 17:38	1

Lab Sample ID: 860-62669-C-15 DU

Matrix: Solid

Analysis Batch: 133677

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	5.4		5.2		%		3	20
Percent Solids	94.6		94.8		%		0.2	20

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

## GC Semi VOA

### Prep Batch: 134047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	3550C	
MB 860-134047/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-134047/4-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-134047/5-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
860-63062-D-1-I MS	Matrix Spike	Total/NA	Solid	3550C	
860-63062-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

### Analysis Batch: 134121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	8082A	134047
MB 860-134047/1-A	Method Blank	Total/NA	Solid	8082A	134047
LCS 860-134047/4-A	Lab Control Sample	Total/NA	Solid	8082A	134047
LCSD 860-134047/5-A	Lab Control Sample Dup	Total/NA	Solid	8082A	134047
860-63062-D-1-I MS	Matrix Spike	Total/NA	Solid	8082A	134047
860-63062-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	134047

## General Chemistry

### Analysis Batch: 133677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	Moisture	
MB 860-133677/1	Method Blank	Total/NA	Solid	Moisture	
860-82669-C-15 DU	Duplicate	Total/NA	Solid	Moisture	

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			133677	12/04/23 17:38	JM	EET HOU

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Percent Solids: 1.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.03 g	5 mL	134047	12/06/23 16:18	BH	EET HOU
Total/NA	Analysis	8082A		1			134121	12/07/23 18:44	WP	EET HOU

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Method	Method Description	Protocol	Laboratory
a xA	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62514-1	Waller Digester a Digester	Solid	11/28/23 13:25	11/30/23 09:58

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## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone. 936-653-3249  
eastexlab@eastex.net  
Project Manager Daniel Bowen  
dbowen@eastexlabs.com

### Subcontracted Laboratory:

#### Eurofins Xenco LLC

4147 Greenbriar Dr.  
Stafford, TX 77477

Phone 713-690-4444  
Fax. 713-690-5646

PO 113023B

Requested Turnaround 10 Days

Sample ID: Waller Digester a Digester Sample No: C3K6939-01 Waste Sampled: 11/28/2023 13:25

PCB 8082

Containers Supplied: 1

Special Instructions PCB MG/KG & SOLIDS



860-62514 Chain of Custody

Temp: 0.9 IR ID HOU-369  
C/F: -0.0  
Corrected Temp: 0.9

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller City of

Released By [Signature]

11/30/23 0958  
Date & Time

[Signature]  
Received By

11/30/23 0958  
Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62514-1

Login Number: 62514

List Number: 1

Creator: Rublo, Yuri

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	
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	

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.

PO BOX 1089

Coldspring, Texas 77331

Generated 12/13/2023 5:40:43 PM

## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62703-1

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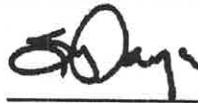
# Eurofins Houston

## 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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Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004



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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### Qualifiers

#### General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

**Job ID: 860-62703-1**

**Laboratory: Eurofins Houston**

### Narrative

#### Job Narrative 860-62703-1

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.

### Receipt

The sample was received on 12/1/2023 9:11 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

### General Chemistry

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-134764 and analytical batch 860-135028 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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## Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Client Sample ID: Waller Digester

Lab Sample ID: 860-62703-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Kjeldahl	494		49.0	24.1	mg/Kg	5.882		351.2	Total/NA

This Detection Summary does not include radiochemical test results.

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## Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Client Sample ID: Waller Digester

Lab Sample ID: 860-62703-1

Date Collected: 11/28/23 13:25

Matrix: Waste

Date Received: 12/01/23 09:11

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl (EPA 351.2)	494		49.0	2N.1	mg/Kg		12/12/23 11:12	12/13/23 13:33	5.882

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

## Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 860-134764/4-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<3.93	U	8.00	3.93	mg/Kg		12/12/23 11:12	12/13/23 13:04	1

Lab Sample ID: LCS 860-134764/6-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	83.3	83.52		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 860-134764/7-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	83.3	85.77		mg/Kg		103	90 - 110	3	20

Lab Sample ID: LLCS 860-134764/5-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	8.16	4.518	J	mg/Kg		55	50 - 150

Lab Sample ID: 860-62478-A-1-B MS  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	6750		78.4	6753	4	mg/Kg		-0.8	90 - 110

Lab Sample ID: 860-62478-A-1-C MSD  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	6750		78.4	7194	4	mg/Kg		561	90 - 110	6	20

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### General Chemistry

#### Prep Batch: 134764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62703-1	Waller Digester	Total/NA	Waste	351.2	
MB 860-134764/4-A	Method Blank	Total/NA	Solid	351.2	
LCS 860-134764/6-A	Lab Control Sample	Total/NA	Solid	351.2	
LCSD 860-134764/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	
LLCS 860-134764/5-A	Lab Control Sample	Total/NA	Solid	351.2	
860-62478-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	
860-62478-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	

#### Analysis Batch: 135028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62703-1	Waller Digester	Total/NA	Waste	351.2	134764
MB 860-134764/4-A	Method Blank	Total/NA	Solid	351.2	134764
LCS 860-134764/6-A	Lab Control Sample	Total/NA	Solid	351.2	134764
LCSD 860-134764/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	134764
LLCS 860-134764/5-A	Lab Control Sample	Total/NA	Solid	351.2	134764
860-62478-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	134764
860-62478-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	134764

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

**Client Sample ID: Waller Digester**

**Lab Sample ID: 860-62703-1**

Date Collected: 11/28/23 13:25

Matrix: Waste

Date Received: 12/01/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			0.48 mL	20 mL	134764	12/12/23 11:12	LD	EET HOU
Total/NA	Analysis	351.2		5.882			135028	12/13/23 13:33	AA	EET HOU

## Laboratory References:

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

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## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	Slate	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Method	Method Description	Protocol	Laboratory
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

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

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## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62703-1	Waller Digester	Waste	11/28/23 13:25	12/01/23 09:11

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## SUBCONTRACT ORDER

**Sending Laboratory:**

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone 936-653-3249  
eastexlab@eastex.net  
Project Manager: Daniel Bowen  
dbowen@eastexlabs.com

**Subcontracted Laboratory:****Eurofins Xenco LLC**

4147 Greenbriar Dr  
Stafford, TX 77477

Phone: 713-690-4444  
Fax: 713-690-5646

PO 120123D

Requested Turnaround 10 Days

Sample ID: Waller Digester a Digester Sample No: C3K6939-01 Waste Sampled: 11/28/2023 13:25

TKN %

Containers Supplied: 1

Special Instructions



860-62703 Chain of Custody

Temp: 1.4 IR ID HOU-369  
C/F: -0.0  
Corrected Temp: 1.4

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller City of

C  
Released By

12/11/23 09:56  
Date & Time

Mucanoy  
Received By

12/11/23 9:11  
Date & Time



## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62703-1

Login Number: 62703

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	

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**EASTEX ENVIRONMENTAL LABORATORY, INC.**

P.O. Box 1089 • Coldspring, TX 77331 P.O. Box 631375 • Nacogdoches, TX 75963-1375  
(936) 653-3249 • (800) 525-0508 (936) 569-8879 • FAX (936) 569-8951

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

REPORT TO: City of Weller INVOICE TO: City of Weller

Company: City of Weller Address: SAME Remarks:

Attn: DA Fle Attn:

Phone#:  Phone#:

Email:  INSTRUCTIONS:

P.O. #:  C or G:  G= Composite G= Grab

Sampler's Name (print): Sam V. Good Matrix: DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT=Other

Sampler's Signature: [Signature] Container Size: 1=Gallon 2=1/2 Gallon 3=Quart/Liter 4=500mL 5=250mL

Project Name: Weller Type: P= Plastic G= Glass T= Teflon S= Sterile

Work Order ID: 3R6938 Date: 11-23 Time: 11:30 AM Field Data:  Containers: 439C

Sample ID: le938 Date: 11-23 Time: 11:30 AM pH:  Cl2:  Flow:  Temp:  # Size Type Pres

Sample ID: le938 Date: 11-23 Time: 11:30 AM pH:  Cl2:  Flow:  Temp:  # Size Type Pres

Sample ID: le938 Date: 11-23 Time: 11:30 AM pH:  Cl2:  Flow:  Temp:  # Size Type Pres

Sample ID: le938 Date: 11-23 Time: 11:30 AM pH:  Cl2:  Flow:  Temp:  # Size Type Pres

Relinquished By:  Received By:  Date:  Time:

Relinquished By:  Received By:  Date:  Time:

LAB USE ONLY: Smile Good Received By and/or Checked in By: CS Date: 11-23 Time: 5:40

Alternate Check In:  Sample Condition Acceptable: YES / NO Temp: 26 C \*Therm ID: CT Logged in By: CT Date: 11-28-23 Time: 11:33

\*Thermometer has 0.0 factor and recorded temperature is actual temperature

ANALYSIS REQUESTED  
TCLP PCB  
LAND APP  
PVC



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

02 January 2024

Water District Management (WDM)  
c/o Myrtle Cruz, Inc. - Mary Jarmon  
1621 Milam, (3rd Floor)  
Houston, TX 77002

**WHCMUD #7**

Enclosed are the results of analyses for samples received by the laboratory on 14-Dec-23 15:15. 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 14

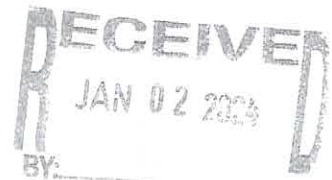
Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

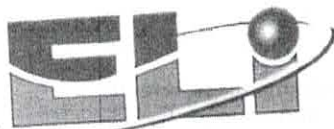
Laura Bonjonia For Brooke Milton  
Customer Service Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ % Solid



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent	23L1356-01	Water	14-Dec-23 07:00	14-Dec-23 15:15
Effluent (pH, DO)	23L1356-02	Water	14-Dec-23 07:00	14-Dec-23 15:15
Influent	23L1356-03	Water	14-Dec-23 06:50	14-Dec-23 15:15
Aeration #1	23L1356-04	Solids	14-Dec-23 06:52	14-Dec-23 15:15
Digester	23L1356-05	Solids	14-Dec-23 06:56	14-Dec-23 15:15
Aeration #2	23L1356-06	Solids	14-Dec-23 06:54	14-Dec-23 15:15

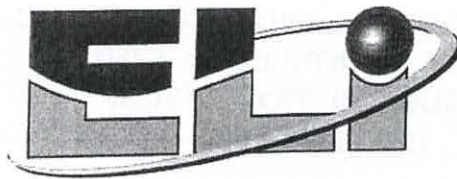
Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Brooke Milton, Customer Service Representative

*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.*





# ENVIRODYNE LABORATORIES, INC.

CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
DATE ANALYZED: 30-Dec-23

LAB NUMBER: 23L1356A  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION:	DIGESTER @ 0656	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	Ceiling (mg/kg)	
PARAMETERS:					
pH (UNITS)	6.85	9045		> 6.00	
TOT.NITROGEN-N * (%)	1.02	Calc		N.A.	0.01
TKN-N * (%)	0.51	EPA 351.2		N.A.	0.01
NO3-N * (%)	0.51	SM 4500-NO3 E		N.A.	0.01
NH3-N * (%)	0.10	SM 4500-NH3 F		N.A.	0.01
NH4-N * (%)	0.11	Calc		N.A.	0.01
TOTAL PHOSPHORUS* (%)	0.61	SM 4500-P E		N.A.	0.01
PHOSPHORUS PENTOXIDE * (%)	0.27	Calc		N.A.	0.01
POTASSIUM * (%)	0.41	6010B		N.A.	0.002
ARSENIC * (mg/kg)	<10.20	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	<10.20	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	551.02	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	<10.20	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	40.82	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	20.41	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	51.02	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.20	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<10.20	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	969.39	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	0.98	SM 2540 B		N.A.	
VOLATILE SOLIDS (%)	0.79			N.A.	
Org.CONC. (%)	80.6			N.A.	

Ref. SW-846  
\*EPA CHEMICAL ANALYSIS

*[Signature]*  
Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

CERTIFICATE OF ANALYSIS

CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
LAB NUMBER: 23L1356B  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

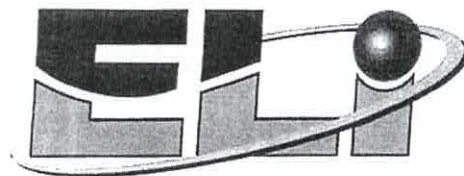
SAMPLE TYPE: Processes to Significantly Reduce Pathogens (PSRP)

LOCATION:	DIGESTER @ 0656	LIMITS
PARAMETERS:		
Microbial Populations		
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	35,000	2,000,000 CFU/g/TS
Vector Attraction Pontential		
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.80	1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics		
Total Solids (%)	0.98	N/A
Volatile Solids (%)	0.79	N/A
Organic Conc. (%)	80.6	
Soil pH - Measured in Water (Units)	6.85	> 5.50
Sample Temp. (C/F)	N/A	20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A	N/A
Test Temp. - Start / Stop (C)	22/22	(+/- 1C) - Var.

SOUR diluted to TS <2.0%

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH

  
\_\_\_\_\_  
CERTIFIED BY



# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
Toxicity Characteristic Leaching Procedure  
EXTRACTION DATE: 15-Dec-23  
TESTING DATE: 30-Dec-23  
SAMPLE TYPE:

LAB NUMBER: 23L1356C  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

LOCATION:	DIGESTER	T.C.L.P.
PARAMETERS:	@ 0656	MAXIMUM LIMIT
		(mg/l)
SW 846 1311 EPA 6010B		
ANTIMONY (mg/l)	<0.10	
ARSENIC (mg/l)	<0.05	5.0
BARIUM (mg/l)	0.18	100.0
BERYLLIUM (mg/l)	<0.02	0.080
CADMIUM (mg/l)	<0.025	1.0
CHROMIUM (mg/l)	<0.05	5.0
LEAD (mg/l)	<0.05	5.0
NICKEL (mg/l)	<0.05	70.0
SELENIUM (mg/l)	<0.150	1.0
SILVER (mg/l)	<0.100	5.0
SW 846 1311 EPA 7470		
MERCURY (mg/l)	<0.002	0.2
SW 846 1311 EPA 8260		
BENZENE (mg/l)	<0.05	0.5
CARBON TETRACHLORIDE (mg/l)	<0.25	0.5
CHLOROBENZENE (mg/l)	<0.05	100.0
CHLOROFORM (mg/l)	<0.05	6.0
METHYL ETHYL KETONE (mg/l)	<2.50	200.0
1,2-DICHLOROETHANE (mg/l)	<0.05	0.5
1,1-DICHLOROETHENE (mg/l)	<0.05	0.7
TETRACHLOROETHENE (mg/l)	<0.05	0.7
TRICHLOROETHENE (mg/l)	<0.250	0.5
VINYL CHLORIDE (mg/l)	<0.10	0.2
SW 846 1311 EPA 8270		
Total Cresol (mg/l)	<0.250	200.0
1,4-DICHLOROBENZENE (mg/l)	<0.125	7.5
2,4-DINITROTOLUENE (mg/l)	<0.125	0.13
HEXACHLOROBENZENE (mg/l)	<0.125	0.13
HEXACHLOROBUTADIENE (mg/l)	<0.125	0.5
HEXACHLOROETHANE (mg/l)	<0.125	3.0
NITROBENZENE (mg/l)	<0.125	2.0
PENTACHLOROPHENOL (mg/l)	<0.250	100.0
2,4,5-TRICHLOROPHENOL (mg/l)	<0.125	400.0
2,4,6-TRICHLOROPHENOL (mg/l)	<0.125	2.0
PYRIDINE (mg/l)	<0.250	5.0
2-Methylphenol (mg/l)	<0.250	200.0
3&4 Methylphenol (mg/l)	<0.250	200.0
SW 846 1311 EPA 8081		
CHLORDANE (mg/l)	<0.00102	0.03
ENDRIN (mg/l)	<0.00005	0.02
HEPTACHLOR (mg/l)	<0.00005	0.008
HEPTACHLOR EPOXIDE (mg/l)	<0.00005	0.008
LINDANE (mg/l)	<0.00005	0.4
METHOXYCHLOR (mg/l)	<0.00005	10.0
TOXAPHENE (mg/l)	<0.00102	0.5
PCBs (mg/l)	<0.0005	
SW 846 1311 EPA 8150		
2,4-D (mg/l)	<0.000201	10.0
2,4,5-TP (Silvex) (mg/l)	<0.000201	1.0

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5088 - Inorganics</b>										
<b>Duplicate (B3L5088-DUP1)</b>		<b>Source: 23L1518-08</b>		<b>Prepared &amp; Analyzed: 18-Dec-23</b>						
Total Solids	0.740	0.01	%		0.730			1.36	20	
Volatile Solids	0.570	0.01	"		0.370			0.00	20	
<b>Batch B3L5098 - Inorganics</b>										
<b>Blank (B3L5098-BLK1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	<2.0	2.0	mg/L							Q
VSS	<2.0	2.0	"							Q
<b>LCS (B3L5098-BS1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	95.0		mg/L	100		95.0	80-120			Q
<b>Duplicate (B3L5098-DUP1)</b>		<b>Source: 23L1284-03</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>						
TSS	160	2.0	mg/L		198			21.2	20	Q
VSS	153	2.0	"		156			1.94	20	Q
<b>Batch B3L5100 - Inorganics</b>										
<b>Blank (B3L5100-BLK1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	<2.00	2.00	mg/L							
VSS	<2.0	2.0	"							
<b>LCS (B3L5100-BS1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	86.0		mg/L	100		86.0	80-120			
<b>Duplicate (B3L5100-DUP1)</b>		<b>Source: 23L0986-02</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>						
VSS	4710	2.0	mg/L		4110			13.6	20	
TSS	5540	2.00	"		5190			6.52	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Brooke Milton, Customer Service Representative

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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5167 - Inorganics</b>										
Blank (B3L5167-BLK1)				Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	<0.20	0.20	mg/L							
I.CS (B3L5167-BS1)				Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.06		mg/L	1.00		106	90-110			
Matrix Spike (B3L5167-MS1)				Source: 23L1342-01 Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.05	0.20	mg/L	1.00	ND	105	90-110			
Matrix Spike Dup (B3L5167-MSD1)				Source: 23L1342-01 Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.04	0.20	mg/L	1.00	ND	104	90-110	0.957	20	
<b>Batch B3L5194 - Inorganics</b>										
Blank (B3L5194-BLK1)				Prepared & Analyzed: 19-Dec-23						
TSS	<2.0	2.0	mg/L							Q
I.CS (B3L5194-BS1)				Prepared & Analyzed: 19-Dec-23						
TSS	87.0		mg/L	100		87.0	80-120			Q
Duplicate (B3L5194-DUP1)				Source: 23L1268-01 Prepared & Analyzed: 19-Dec-23						
TSS	216	2.0	mg/L		142			41.3	20	Q
<b>Batch B3L5261 - Inorganics</b>										
Blank (B3L5261-BLK1)				Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	<10.0	10.0	mg/L							

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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Laura Bonjonia For Brooke Milton, Customer Service Representative



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5261 - Inorganics</b>										
<b>LCS (B3L5261-BS1)</b>				Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	19.1		mg/L	20.0		95.5	90-110			
<b>Matrix Spike (B3L5261-MS1)</b>				Source: 23L1457-03 Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	65.6	20.0	mg/L	32.8	33.4	98.2	80-120			
<b>Matrix Spike Dup (B3L5261-MSD1)</b>				Source: 23L1457-03 Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	65.4	20.0	mg/L	32.8	33.4	97.6	80-120	0.305	20	
<b>Batch B3L5272 - Inorganics</b>										
<b>Blank (B3L5272-BLK1)</b>				Prepared & Analyzed: 14-Dec-23						
BOD-5	<2.0	2.0	mg/L							
<b>LCS (B3L5272-BS1)</b>				Prepared & Analyzed: 14-Dec-23						
BOD-5	195		mg/L	198		98.6	84.6-115.4			
<b>Duplicate (B3L5272-DUP1)</b>				Source: 23L1374-02 Prepared & Analyzed: 14-Dec-23						
BOD-5	311	2.0	mg/L		306			1.62	20	
<b>Batch B3L5640 - Inorganics</b>										
<b>Blank (B3L5640-BLK1)</b>				Prepared & Analyzed: 15-Dec-23						
CBOD-5	<2.0	2.0	mg/L							
<b>LCS (B3L5640-BS1)</b>				Prepared & Analyzed: 15-Dec-23						
CBOD-5	195		mg/L	198		98.4	84.6-115.4			

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Brooke Milton, Customer Service Representative

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.



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5640 - Inorganics</b>										
Duplicate (B3L5640-DUP1)				Source: 23L1339-01		Prepared & Analyzed: 15-Dec-23				
CBOD-5	2.90	2.0	mg/L		2.50			14.8	20	
<b>Batch B3L6074 - Inorganics</b>										
Blank (B3L6074-BLK1)				Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	<0.10	0.10	mg/L							
LCS (B3L6074-BS1)				Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.10		mg/L	1.00		110	80-120			
Matrix Spike (B3L6074-MS1)				Source: 23L1062-01 Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.38	0.10	mg/L	1.00	0.290	109	80-120			
Matrix Spike Dup (B3L6074-MSD1)				Source: 23L1062-01 Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.34	0.10	mg/L	1.00	0.290	105	80-120	2.94	20	
<b>Batch B3L6075 - Inorganics</b>										
Blank (B3L6075-BLK1)				Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	<0.10	0.10	mg/L							
LCS (B3L6075-BS1)				Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	1.01		mg/L	1.00		101	80-120			
Matrix Spike (B3L6075-MS1)				Source: 23L1356-01 Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	1.09	0.10	mg/L	1.00	ND	109	80-120			

Envirodyne Laboratories, Inc.

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Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L6075 - Inorganics</b>										
<b>Matrix Spike Dup (B3L6075-MSD1)</b>										
<b>Source: 23L1356-01</b>										
<b>Prepared: 28-Dec-23 Analyzed: 29-Dec-23</b>										
Phosphorus, Total	1.12	0.10	mg/L	1.00	ND	112	80-120	2.71	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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#### Notes and Definitions

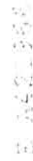
Q QC did not meet ELI acceptance criteria  
I Greater than 30% difference between highest and lowest values  
ND Analyte NOT DETECTED at or above the reporting limit  
< Result is less than the RL  
a Analyte not available for TNI/NELAP accreditation  
n Not accredited

Envirodyne Laboratories, Inc.

A handwritten signature in cursive script, reading 'Laura Bonjonia', is written over a horizontal line.

Laura Bonjonia For Brooke Milton, Customer Service Representative

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**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC 26

TCEQ Authorization Number: WQ0011406001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg  dry weight	Test Results, mg/kg  dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.23	11/17/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.969	11/17/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	30.7	11/17/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	240	11/17/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	14.3	11/17/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.299	11/17/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	7.74	11/17/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	15.1	11/17/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	13.3	11/17/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	1160	11/17/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00121	11/17/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.31	11/17/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.28	11/17/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.00655	11/17/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.52	11/17/2023	0.01	SM 4500-P E
Total Potassium (K)	0.289	11/17/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC WCID 92

TCEQ Authorization Number: WQ0010908001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	11.1	7/7/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	11.1	7/7/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	14.2	7/7/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	240	7/7/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	11.1	7/7/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.373	7/7/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	11.1	7/7/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	11.1	7/7/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	11.1	7/7/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	838	7/7/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	7/7/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	4.87	7/7/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH4-N)	0.457	7/7/2023	0.01	NH3-N T
Nitrate Nitrogen (NO3-N)	4.44	7/7/2023	0.01	EPA 300.0 SM4500-NO3 E
Total Phosphorus (P)	1.54	7/7/2023	0.01	SM 4500-P E
Total Potassium (K)	0.556	7/7/2023	0.002	SW-3050- 6010B



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Allens Creek - Sealy WWTP

TCEQ Authorization Number: WQ0010276001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	5	10/11/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	2.5	10/11/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	34	10/11/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	308	10/11/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	37.4	10/11/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	1.52	10/11/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	6.1	10/11/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	16.4	10/11/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	8.4	10/11/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	6737.4	10/11/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	1	10/11/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	1.6702	10/11/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH4-N)	0.1032	10/11/2023	0.01	NH3-N T
Nitrate Nitrogen (NO3-N)	0.0151	10/11/2023	0.01	EPA 300.0 SM4500-NO3 E
Total Phosphorus (P)	1.0068	10/11/2023	0.01	SM 4500-P E
Total Potassium (K)	0.1391	10/11/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Rosenberg #1A WWTP

TCEQ Authorization Number: WQ0010607003

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	0.25	8/28/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.25	8/28/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	24.6	8/28/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	303	8/28/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	34.9	8/28/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.02	8/28/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	0.25	8/28/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	0.25	8/28/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	0.25	8/28/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	846	8/28/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	8/28/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.1	8/28/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.01	8/28/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.01	8/28/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	0.08	8/28/2023	0.01	SM 4500-P E
Total Potassium (K)	0.46	8/28/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Treschwig Central D1 WWTF

TCEQ Authorization Number: WQ0011141001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.32	7/25/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.922	7/25/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	26.5	7/25/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	245	7/25/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	18.8	7/25/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.366	7/25/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	5.01	7/25/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	13.8	7/25/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	10.1	7/25/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	1060	7/25/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00184	7/25/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	4.53	7/25/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.354	7/25/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.388	7/25/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.6	7/25/2023	0.01	SM 4500-P E
Total Potassium (K)	0.48	7/25/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: FB 30

TCEQ Authorization Number: WQ0012068001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.14	6/9/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	7.14	6/9/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	15.5	6/9/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	194	6/9/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	7.14	6/9/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.28	6/9/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	8.07	6/9/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	15.1	6/9/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	8.14	6/9/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	786	6/9/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.0062	6/9/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	3.32	6/9/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	2.86	6/9/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	1.07	6/9/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.63	6/9/2023	0.01	SM 4500-P E
Total Potassium (K)	0.525	6/9/2023	0.002	SW-3050- 6010B



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Pecan Grove WWTF

TCEQ Authorization Number: WQ0011655001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	2.39	8/28/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.42	8/28/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	13.02	8/28/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	193.78	8/28/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	7.46	8/28/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.02	8/28/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	3	8/28/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	7.28	8/28/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	0.25	8/28/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	347.34	8/28/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	8/28/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.25	8/28/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.01	8/28/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.2	8/28/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	2.8	8/28/2023	0.01	SM 4500-P E
Total Potassium (K)	0.16	8/28/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Tomball South

TCEQ Authorization Number: WQ0010616002

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	4.44	8/1/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.54	8/1/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	17.6	8/1/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	316	8/1/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	11.7	8/1/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.491	8/1/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	4.87	8/1/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	11.3	8/1/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	4.47	8/1/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	737	8/1/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00015	8/1/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.08	8/1/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH4-N)	0.588	8/1/2023	0.01	NH3-N T
Nitrate Nitrogen (NO3-N)	0.00888	8/1/2023	0.01	EPA 300.0 SM4500-NO3 E
Total Phosphorus (P)	0.895	8/1/2023	0.01	SM 4500-P E
Total Potassium (K)	0.17	8/1/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Waller WWTP

TCEQ Authorization Number: WQ0010310001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.87	12/21/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	6.67	12/21/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	43.4	12/21/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	887	12/21/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	115	12/21/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.321	12/21/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	10.8	12/21/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	29.5	12/21/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	6.67	12/21/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	953	12/21/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	12/21/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	1	12/21/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.667	12/21/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.664	12/21/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.45	12/21/2023	0.01	SM 4500-P E
Total Potassium (K)	0.42	12/21/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC 200

TCEQ Authorization Number: WQ0012294001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.3	5/24/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.717	5/24/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	9.47	5/24/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	264	5/24/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	5.37	5/24/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.211	5/24/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	5.95	5/24/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	13.4	5/24/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	4.12	5/24/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	744	5/24/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	2.25	5/24/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	8.6	5/24/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.85	5/24/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.0014	5/24/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.81	5/24/2023	0.01	SM 4500-P E
Total Potassium (K)	0.612	5/24/2023	0.002	SW-3050- 6010B



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: WHC 7

TCEQ Authorization Number: WQ0012140001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	10.2	12/30/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	10.2	12/30/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	51.02	12/30/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	551.02	12/30/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	20.41	12/30/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.2	12/30/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	10.2	12/30/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	40.82	12/30/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	10.2	12/30/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	969.39	12/30/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	12/30/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.51	12/30/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.11	12/30/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.51	12/30/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	0.61	12/30/2023	0.01	SM 4500-P E
Total Potassium (K)	0.41	12/30/2023	0.002	SW-3050- 6010B

Source  Facility  Name	TCEQ  Authorization  Number	Pollutant Concentration mg/kg										Nutrient Concentration %				
		As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH <sub>4</sub> -N	NO <sub>3</sub> -N	P	K
HC 26	WQ0011406001	6.23	0.969	30.7	240	14.3	0.299	7.74	15.1	13.3	1160	5.31	1.28	0.00655	1.52	0.289
HC WCID 92	WQ0010908001	11.1	11.1	14.2	240	11.1	0.373	11.1	11.1	11.1	838	4.87	0.457	4.44	1.54	0.556
Allens Creek - Sealy WWTP	WQ0010276001	5	2.5	34	308	37.4	1.52	6.1	16.4	8.4	6737.4	1.6702	0.1032	0.0151	1.0068	0.1391
Rosenberg #1A WWTP	WQ0010607003	0.25	0.25	24.6	303	34.9	0.02	0.25	0.25	0.25	846	0.1	0.01	0.01	0.08	0.46
Treschwig Central D1 WWTF	WQ0011141001	6.32	0.922	26.5	245	18.8	0.366	5.01	13.8	10.1	1060	4.53	0.354	0.388	1.6	0.48
FB 30	WQ0012068001	7.14	7.14	15.5	194	7.14	0.28	8.07	15.1	8.14	786	3.32	2.86	1.07	1.63	0.525
Pecan Grove WWTF	WQ0011655001	2.39	0.42	13.02	193.78	7.46	0.02	3	7.28	0.25	347.34	0.25	0.01	0.2	2.8	0.16
Tomball South	WQ0010616002	4.44	0.54	17.6	316	11.7	0.491	4.87	11.3	4.47	737	5.08	0.588	0.00888	0.895	0.17
Waller WWTP	WQ0010310001	7.87	6.67	43.4	887	115	0.321	10.8	29.5	6.67	953	1	0.667	0.664	1.45	0.42
HC 200	WQ0012294001	7.3	0.717	9.47	264	5.37	0.211	5.95	13.4	4.12	744	8.6	1.85	0.0014	1.81	0.612
WHC 7	WQ0012140001	10.2	10.2	51.02	551.02	20.41	0.2	10.2	40.82	10.2	969.39	0.51	0.11	0.51	0.61	0.41

TCEQ Authorization Number	Estimated Dry Metric Tons	Pollutant Concentrations mg/kg X Estimated Dry Metric Tons									
		As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn
WQ0011406001	46.883	292.078	45.429	1439.294	11251.812	670.420	14.018	362.871	707.927	623.538	54383.758
WQ0010908001	14.679	162.942	162.942	208.448	3523.072	162.942	5.475	162.942	162.942	162.942	12301.394
WQ0010276001	2.783	13.915	6.957	94.621	857.159	104.084	4.230	16.976	45.641	23.377	18750.066
WQ0010607003	27.915	6.979	6.979	686.720	8458.383	974.249	0.558	6.979	6.979	6.979	23616.475
WQ0011141001	29.359	185.548	27.069	778.012	7192.939	551.948	10.745	147.088	405.153	296.525	31120.472
WQ0012068001	25.307	180.690	180.690	392.255	4909.517	180.690	7.086	204.226	382.133	205.997	19891.138
WQ0011655001	39.359	94.069	16.531	512.458	7627.050	293.621	0.787	118.078	286.536	9.840	13671.067
WQ0010616002	20.093	89.211	10.850	353.628	6349.237	235.083	9.865	97.851	227.045	89.814	14808.188
WQ0010310001	34.864	274.378	232.541	1513.086	30924.134	4009.330	11.191	376.528	1028.480	232.541	33225.140
WQ0012294001	98.425	718.502	70.571	932.085	25984.200	528.542	20.768	585.629	1318.895	405.511	73228.199
WQ0012140001	7.340	74.865	74.865	374.473	4044.340	149.804	1.468	74.865	299.608	74.865	7115.065
<b>Total</b>	347.01	2093.18	835.43	7285.08	111121.84	7860.71	86.19	2154.03	4871.34	2131.93	302110.96
<b>Units</b>		mg/kg									
<b>Metal</b>		<b>As</b>	<b>Cd</b>	<b>Cr</b>	<b>Cu</b>	<b>Pb</b>	<b>Hg</b>	<b>Mo</b>	<b>Ni</b>	<b>Se</b>	<b>Zn</b>
<b>Volume Weighted Means</b>		<b>6.032</b>	<b>2.408</b>	<b>20.994</b>	<b>320.230</b>	<b>22.653</b>	<b>0.248</b>	<b>6.207</b>	<b>14.038</b>	<b>6.144</b>	<b>870.620</b>
<b>Pounds Per Ton</b>		<b>0.0121</b>	<b>0.0048</b>	<b>0.0420</b>	<b>0.6405</b>	<b>0.0453</b>	<b>0.0005</b>	<b>0.0124</b>	<b>0.0281</b>	<b>0.0123</b>	<b>1.7412</b>

TCEQ Authorization Number	Estimated Dry Metric Tons	Nutrient Concentrations % X Estimated Dry Metric Tons				
		TKN	NH <sub>4</sub> -N	NO <sub>3</sub> -N	P	K
WQ0011406001	46.883	248.946	60.010	0.307	71.261	13.549
WQ0010908001	14.679	71.489	6.709	65.177	22.606	8.162
WQ0010276001	2.783	4.648	0.287	0.042	2.802	0.387
WQ0010607003	27.915	2.792	0.279	0.279	2.233	12.841
WQ0011141001	29.359	132.996	10.393	11.391	46.974	14.092
WQ0012068001	25.307	84.019	72.377	27.078	41.250	13.286
WQ0011655001	39.359	9.840	0.394	7.872	110.206	6.297
WQ0010616002	20.093	102.070	11.814	0.178	17.983	3.416
WQ0010310001	34.864	34.864	23.254	23.150	50.552	14.643
WQ0012294001	98.425	846.455	182.086	0.138	178.149	60.236
WQ0012140001	7.340	3.743	0.807	3.743	4.477	3.009
<b>Total</b>	347.01	1541.86	368.41	139.36	548.50	149.92
<b>Units</b>		<b>%</b>				
<b>Nutrient</b>		<b>TKN</b>	<b>NH4-N</b>	<b>NO3-N</b>	<b>P</b>	<b>K</b>
<b>Volume Weighted Means</b>		<b>4.443</b>	<b>1.062</b>	<b>0.402</b>	<b>1.581</b>	<b>0.432</b>
<b>Pounds Per Ton</b>		<b>88.866</b>	<b>21.234</b>	<b>8.032</b>	<b>31.613</b>	<b>8.641</b>



If more than one source of biosolids or residuals are land applied, complete Table 2.

**K. Agronomic Rate Calculations (Appendix A)**

Determine the agronomic application rate by completing and attaching Appendix A.

**L. Pathogen Reduction Options (Appendix B)**

Identify the pathogen reduction options by completing and attaching Appendix B.

**M. Vector Attraction Reduction Options (Appendix C)**

Identify the vector attraction reduction options by completing and attaching Appendix C.

**N. On-Site Storage (Appendix D)**

If on-site storage will occur at this site, complete and attach Appendix D.

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb.N/ton of forage, Texas Agricultural Extension Service,Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 502.52

2C. Nitrogen amount still needed

Line 2A - Line 2B 37.48

\*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 * \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth)} + 6 * \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth)}$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 37.48

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 1.03



## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	<b>0.012064201</b>	0.0124	N/A	<b>2984.04</b>
Cadmium	35	1.7	<b>0.00481504</b>	0.0049	N/A	<b>7268.89</b>
Chromium	2677	134	<b>0.041988161</b>	0.0431	N/A	<b>63756.07</b>
Copper	1339	67	<b>0.640459727</b>	0.6571	N/A	<b>2090.69</b>
Lead	268	13	<b>0.045305854</b>	0.0465	N/A	<b>5915.35</b>
Mercury	15	0.76	<b>0.000496778</b>	0.0005	N/A	<b>30194.60</b>
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	<b>0.028076355</b>	0.0288	N/A	<b>13356.43</b>
Selenium	89	4.5	<b>0.012287547</b>	0.0126	N/A	<b>7243.11</b>
Zinc	2500	125	<b>1.741240965</b>	1.7866	N/A	<b>1435.76</b>
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{BAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 12.43

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.33

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)  
1.03

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 1387

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\*

N/A

1B. Nitrogen available in soil\*\*

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B = 2\*NO<sub>3</sub>-N (ppm)(in the 0-6" soil depth) + 6\*NO<sub>3</sub>-N(ppm)(in the 6-24" soil depth)

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$AAR = N \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B

N/A

## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### **Biosolids:**

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### **Domestic Septage:**

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$



## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb.N/ton of forage, Texas Agricultural Extension Service,Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 407.72

2C. Nitrogen amount still needed

Line 2A - Line 2B 132.28

\*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 * \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth)} + 6 * \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth)}$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 132.28

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 3.62

## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	<b>0.012064201</b>	0.0437	<b>N/A</b>	<b>2984.04</b>
Cadmium	35	1.7	<b>0.00481504</b>	0.0174	<b>N/A</b>	<b>7268.89</b>
Chromium	2677	134	<b>0.041988161</b>	0.1520	<b>N/A</b>	<b>63756.07</b>
Copper	1339	67	<b>0.640459727</b>	2.3193	<b>N/A</b>	<b>2090.69</b>
Lead	268	13	<b>0.045305854</b>	0.1641	<b>N/A</b>	<b>5915.35</b>
Mercury	15	0.76	<b>0.000496778</b>	0.0018	<b>N/A</b>	<b>30194.60</b>
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	<b>0.028076355</b>	0.1017	<b>N/A</b>	<b>13356.43</b>
Selenium	89	4.5	<b>0.012287547</b>	0.0445	<b>N/A</b>	<b>7243.11</b>
Zinc	2500	125	<b>1.741240965</b>	6.3054	<b>N/A</b>	<b>1435.76</b>
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{BAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 11.97

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.79

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year) 3.62

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 393

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\*

N/A

1B. Nitrogen available in soil\*\*

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B = 2\*NO<sub>3</sub>-N (ppm)(in the 0-6" soil depth) + 6\*NO<sub>3</sub>-N(ppm)(in the 6-24" soil depth)

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$AAR = N \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B

N/A



## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb.N/ton of forage, Texas Agricultural Extension Service,Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 366.7

2C. Nitrogen amount still needed

Line 2A - Line 2B 173.3

\*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 \times \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth}) + 6 \times \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 173.3

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 4.74



## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	<b>0.012064201</b>	0.0572	N/A	<b>2984.04</b>
Cadmium	35	1.7	<b>0.00481504</b>	0.0228	N/A	<b>7268.89</b>
Chromium	2677	134	<b>0.041988161</b>	0.1992	N/A	<b>63756.07</b>
Copper	1339	67	<b>0.640459727</b>	3.0385	N/A	<b>2090.69</b>
Lead	268	13	<b>0.045305854</b>	0.2149	N/A	<b>5915.35</b>
Mercury	15	0.76	<b>0.000496778</b>	0.0024	N/A	<b>30194.60</b>
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	<b>0.028076355</b>	0.1332	N/A	<b>13356.43</b>
Selenium	89	4.5	<b>0.012287547</b>	0.0583	N/A	<b>7243.11</b>
Zinc	2500	125	<b>1.741240965</b>	8.2608	N/A	<b>1435.76</b>
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{BAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 11.97

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.79

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)  
4.74

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 300

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\*

N/A

1B. Nitrogen available in soil\*\*

N/A

1C. Nitrogen amount still needed

N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B = 2\*NO<sub>3</sub>-N (ppm)(in the 0-6" soil depth) + 6\*NO<sub>3</sub>-N(ppm)(in the 6-24" soil depth)

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$AAR = N \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C

N/A

2B. Conversion Factor

0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B

N/A

## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### **Biosolids:**

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### **Domestic Septage:**

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

$$= \frac{100}{100} \div 100$$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

**For each source**, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

[illegible]



## APPENDIX C

## VECTOR ATTRACTION REDUCTION REQUIREMENTS

**For each source**, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

[illegible]

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

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**For each source**, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

<b>TCEQ Permit Number</b>	<b>Vector Attraction Reduction Alternative Used*</b>	<b>Monitoring Criteria and results needed for alternative</b>

\*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

## LABORATORY ACCREDITATION

All laboratory tests performed must meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*, unless the laboratory meets the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements.

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ;
  - located in another state and is accredited or inspected by that state;
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application.

## CERTIFICATION

I certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Andy Drennan

Title: COO/VP

Signature:  Date: 5-8-2024

## SITE OPERATOR SIGNATURE PAGE

If co-applicants are necessary, each co-applicant must submit an original, separate signature page.

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP


I understand that I am responsible for operating the site described in this permit application in accordance with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the Texas Commission on Environmental Quality.

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory Name: Andy Drennan

Title: COO/VP

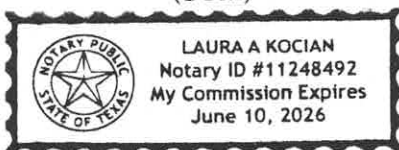
Signature (use blue ink):  Date: 5-8-2024

SUBSCRIBED AND SWORN to before me by the said Andy Drennan on  
this 8<sup>th</sup> day of May, 20 24

My commission expires on the 10<sup>th</sup> day of June, 20 26



(Seal)



Notary Public

Waller

County, Texas



## LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Ruth Miller Smith

Title: Landowner

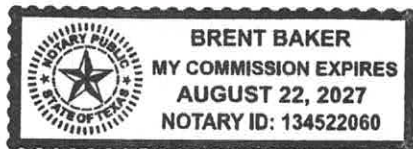
Signature (use blue ink): Ruth Miller Smith Date: 4-17-24

SUBSCRIBED AND SWORN to before me by the said Ruth Miller Smith on

this 17<sup>th</sup> day of April, 2024

My commission expires on the 22<sup>nd</sup> day of August, 2027

(Seal)



[Signature]  
Notary Public

Travis  
County, Texas

## LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: W00004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Terry Pinkering

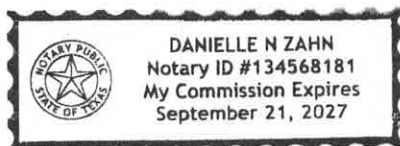
Title: Landowner

Signature (use blue ink): Terry Pinkering Date: 4/18/24

SUBSCRIBED AND SWORN to before me by the said Terry Pinkering on this 18th day of April, 20 24

My commission expires on the 21st day of September, 20 27

(Seal)



Danielle N Zahn  
Notary Public

Waller  
County, Texas



LANDOWNER SIGNATURE PAGE

**Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.**

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Miller, Wanda White

Title: Landowner

Signature (use blue ink):  Date: Feb. 16, 2024

SUBSCRIBED AND SWORN to before me by the said Wanda White on  
this 16<sup>th</sup> day of February, 20 24

My commission expires on the 16<sup>th</sup> day of September, 20 24



Renee D Torn

Notary Public

Waller County

County, Texas

## Attachment 1 Individual Information

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Complete this attachment if the applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): N/A

Full Legal Name, including middle name: N/A

Driver's License or State Identification Number: N/A

State that Issued the License or Identification Number: N/A

Date of Birth: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

For TCEQ Use Only

Customer Number \_\_\_\_\_

Regulated Entity Number \_\_\_\_\_

Permit Number \_\_\_\_\_



## TECHNICAL REPORT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

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Note: The term “biosolids” also includes the combination of water treatment plant residuals with Class B Biosolids material.

### SECTION 1. SITE HISTORY

Have biosolids or septage been previously land applied at this site?

☒ Yes      ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous biosolids application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Sewage sludge has been applied to all three fields for many years. The current crops that are being grown on the fields are Coastal Bermuda grass and a winter grass. The three fields are currently being used for hay cuttings and cattle grazing. The fields are tilled every couple of years as needed, to make sure all the nutrients are used as much as possible. Septage has not and will not be applied to any of the three fields. The average sludge application amount over the last five years for the entire three fields is approximately 1038.1 tons a year and the average rate is 6.32 tons an acre.

### SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

No Crops. Hay and Grazing only. Coastal Bermuda grass and winter rye grass are dominate. The rye grass will be seeded during the fall. Coastal Bermuda grass will be cut and bailed for hay during the summer months. The fields will be used for grazing when hay is not being cut and bailed and when sludge is not being applied. Application on all three fields may be applied all year around. Perched water may become present from December to March according the soil map in Field 1. Therefore, to apply in field 1 during those months we will check the monitoring station location in the field for perched water. In fields adjacent to surface water, sludge will be incorporated into the soil as it is applied. Additional tillage will occur as needed.

## SECTION 3. SOIL INFORMATION

### A. Soil Properties

Complete the table below using the Physical and Chemical Properties and the Engineering Tables found in the USDA Natural Resources Conservation Service (NRCS) soils descriptions.

Map Symbol	Soil Type	Slope	pH	Depth to Bedrock* (inches)	Depth to Groundwater (feet)	Permeability (inches/hour)	Soil Depth** (inches)
HoB	Hockley Loamy Fine Sand	1-3		>80	3-5	.20-.57	80
KaB	Katy Fine Sandy Loam	1-3		>80	1.5-3	.06-.20	80
LaD	Lake Charles Clay	3-8		>80	>6	0-0.01	80
MdB	Verland Clay Loam	1-3		>80	0.5-1.5	0-0.06	80
TefA	Telf Fine Sandy Loam	0-1		>80	>6	0-0.06	80
TefB	Telf Fine Sandy Loam	1-3		>80	>6	0-0.06	80

\* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.

\*\* If soil depth is less than two feet, provide rationale for using these shallow soils. The rationale should include site specific investigation results.

### B. Restrictive Soil Characteristics

In the table below, identify all soils that have the following restrictive characteristics and the management practices to be used.

- Soils with at least an “occasional flooding” classification may flood between 5 to 50 times in 100 years;
- Soil permeability of >6 inches per hour; and
- Seasonal groundwater or groundwater table below the treatment zone at least:
  - 3 feet for soil with permeability of <2 inches per hour
  - 4 feet for soil with permeability of 2-6 inches per hour.

Soil Type	Restrictive Characteristic	Best Management Practices

Soil Type	Restrictive Characteristic	Best Management Practices
Hockley Loamy Fine Sand	Perched Water	Monitoring Stations Seasonal
Katy Fine Sandy Loam	Perched Water	Monitoring Stations Seasonal

## SECTION 4. WELL INFORMATION

In the table below, provide information about each well located on-site and within 500 feet of the application area. Water well information is available from the Texas Water Development Board, 512-936-0837. Oil and gas well information is available from the Texas Railroad Commission, 512-463-6851.

Well Type (Water Well, Oil Well, Injection Well)	Producing or Non-Producing	Open, Cased, or Capped*	Protective Measures**
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer

\* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.

\*\* The following protective measures are required prior to initial biosolids/septage application:

- If the well is producing and cased, no action is needed.
- If the well is producing and not cased, the well must be cased or describe other protective measures.
- If the well is non-producing and cased, the well must be plugged or capped.
- If the well is non-producing and not cased, the well must be plugged.

## SECTION 5. HYDROLOGIC CHARACTERISTICS

Submit information listed below, or equivalent documentation, regarding the hydrologic characteristics of the surface and groundwater at the application site and within one-quarter mile of the site.

- Aquifer identification per Texas Water Development Board Report 345
- Location of the area according to the Geologic Atlas of Texas, published by the University of Texas, Bureau of Economic Geology.
- Any feature that exhibits a direct hydrologic connection between surface and subsurface water.
- List periods of seasonal perched and/or high water table, if any.

Attachment Number: 21

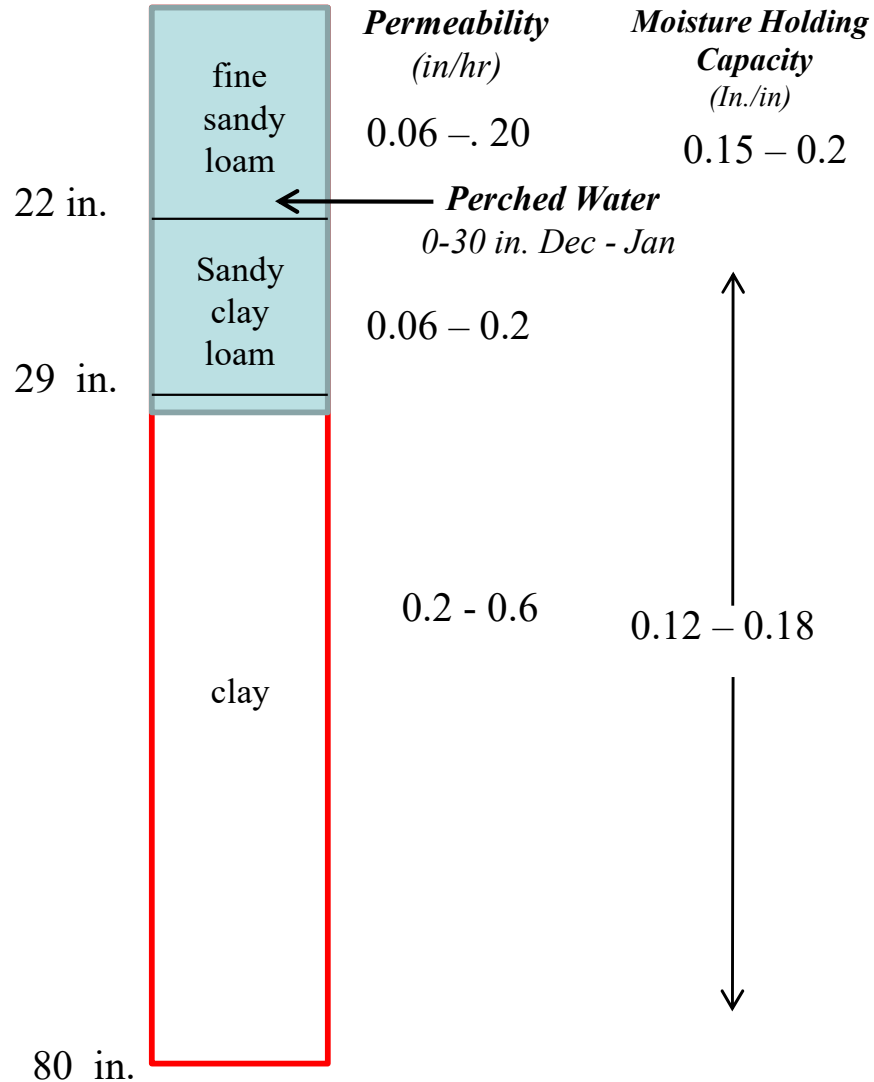
## **8. Hydrologic Characteristics Information.**

- a. According to the TWDB Report 345, the site is located in the area of the Gulf Coast Aquifer as it was in the last permit renewal. (See attached Description and Map from TWDB Report 345).
- b. According to the Geologic Atlas of Texas, the site is still located in the area of the Lissie formation and has not changed since the last permit renewal.
- c. Other than the three wells listed on page 19 of there is no direct hydrologic connection between the surface and subsurface within  $\frac{1}{4}$  mile of the site.
- d. As stated page 18, the Verland soil series has a seasonal perched water table a 1.0 foot depth.

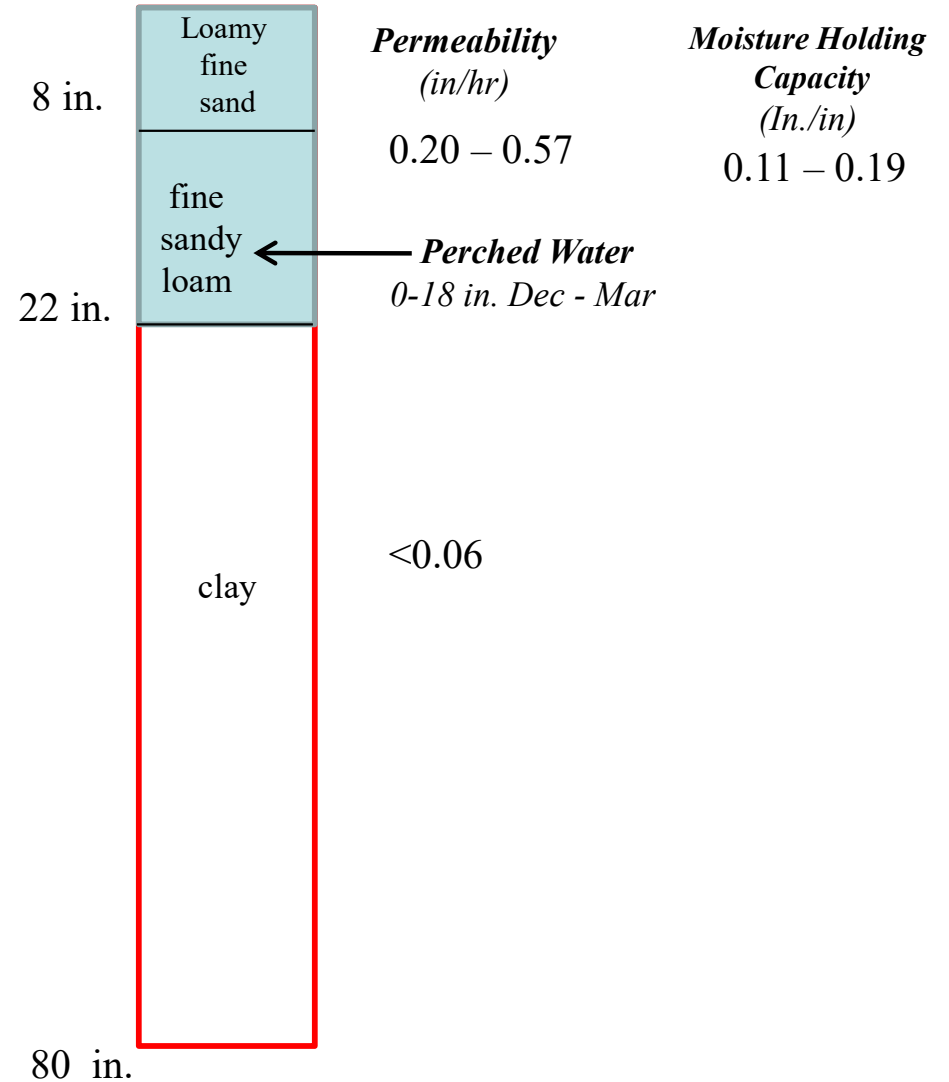


# Seasonally perched water, Carl Miller Farms 710084

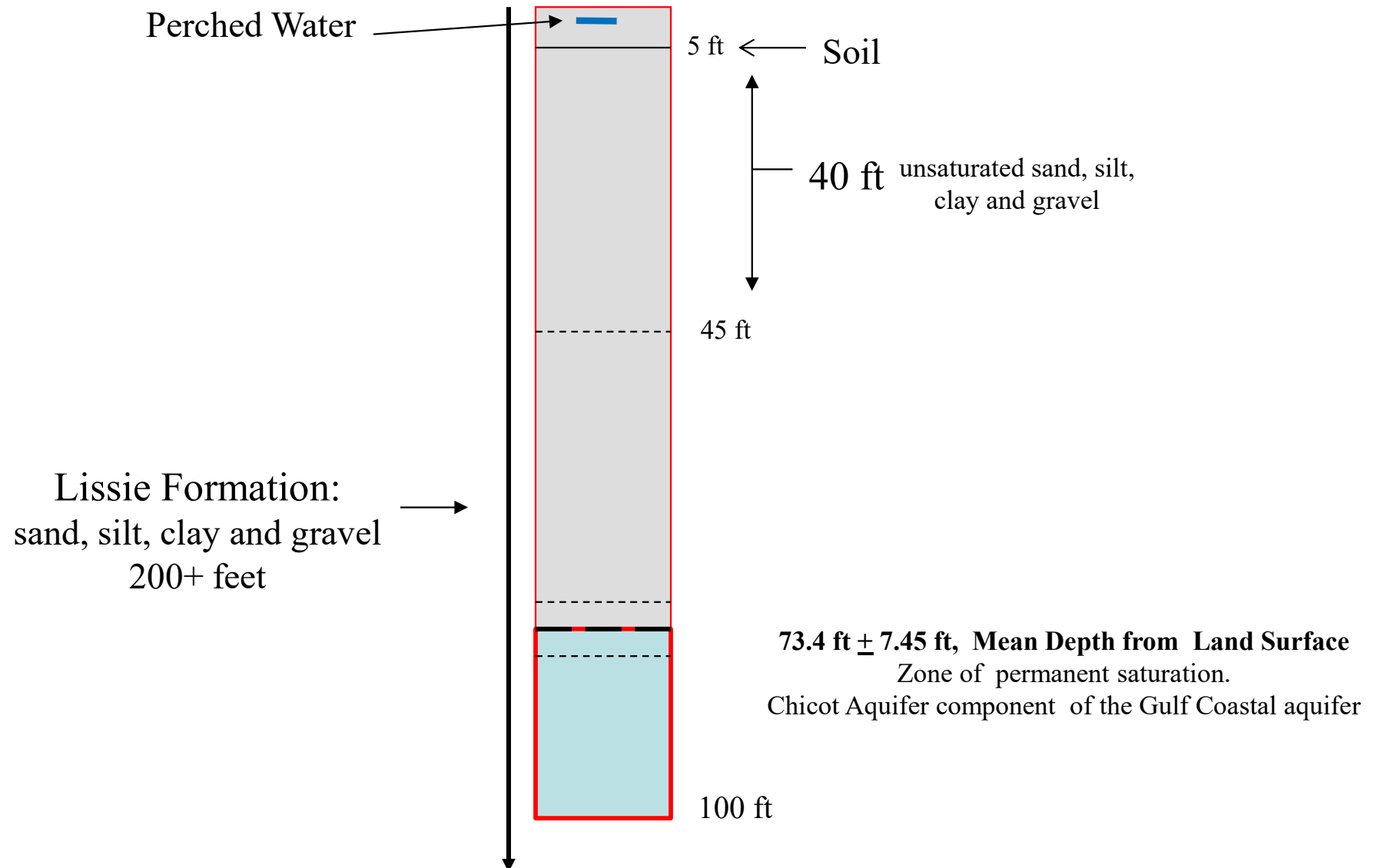
## Katy (4.1% of site soils)



## Hockey (14.7% of site soils)



**Figure 2. Hydro geologic conditions, Carl Miller Farms 710084  
Waller, County, TX**



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: [Click here to enter text.](#)

TCEQ Authorization Number: [Click here to enter text.](#)

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75				
Cadmium (Cd)	85				
Chromium (Cr)	3000				
Copper (Cu)	4300				
Lead (Pb)	840				
Mercury (Hg)	57				
Molybdenum (Mo)	75				
Nickel (Ni)	420				
Selenium (Se)	100				
Zinc (Zn)	7500				
PCB (ppm)	50.0 ppm				

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)				
Ammonium Nitrogen (NH <sub>4</sub> -N)				
Nitrate Nitrogen (NO <sub>3</sub> -N)				
Total Phosphorus (P)				
Total Potassium (K)				

**TABLE 2**  
**Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration**

Complete this table if more than one source is land applied at the site.

**Directions:**

1. For each pollutant, multiply the Pollutant Concentrations from Table 1 by the estimated number of dry tons you expect to apply from each facility.
2. Sum the individual columns. Enter results in last row of the table.
3. Divide the sum of each column by the dry tons sum (bottom of second column). Enter number in the appropriate Volume Weighted Average Box (row below table).
4. Use these final results to complete Appendix A, Step 1.

TCEQ Auth. Number	Est. Dry Tons*	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH <sub>4</sub> <sup>-</sup> N	NO <sub>3</sub> <sup>-</sup> N	P	K
Sum																
Volume Weighted Average																

\*Total estimated dry tons to be land applied from the source facility.



## APPENDIX A AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/acre/year.**

### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS IN LBS/TON

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)		x 20	
Ammonium Nitrogen (NH <sub>4</sub> -N)		x 20	
Nitrate Nitrogen (NO <sub>3</sub> -N)		x 20	
Total Phosphorus (P)		x 20	
Total Potassium (K)		x 20	

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)		x 0.002	
Total Cadmium (Cd)		x 0.002	
Total Chromium (Cr)		x 0.002	
Total Copper (Cu)		x 0.002	
Total Lead (Pb)		x 0.002	
Total Mercury (Hg)		x 0.002	
Total Molybdenum (Mo)		x 0.002	
Total Nickel (Ni)		x 0.002	
Total Selenium (Se)		x 0.002	
Total Zinc (Zn)		x 0.002	

\*\*Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Cool Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Provide the data source for the nitrogen requirements above.

[Click here to enter text.](#)

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* [Click here to enter text.](#)

2B. Nitrogen available in soil\*\* [Click here to enter text.](#)

2C. Nitrogen amount still needed

Line 2A - Line 2B [Click here to enter text.](#)

\*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 2B =  $2 \times \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 \times \text{NO}_3\text{-N(ppm)(in the 6-24" soil depth)}$

### STEP 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN) PROVIDED BY THE BIOSOLIDS AND RESIDUALS

Use the TKN,  $\text{NH}_4\text{-N}$ , and  $\text{NO}_3\text{-N}$  from Step 1.

$$\text{Organic Nitrogen} = \text{TKN} - (\text{NH}_4\text{-N}) - (\text{NO}_3\text{-N})$$

[Click here to enter text.](#)

$$\text{Mineralization Rate (\%)} *$$

[Click here to enter text.](#)

3A. Organic Nitrogen x Mineralization Rate

[Click here to enter text.](#)

3B. Ammonium Nitrogen =  $(\text{NH}_4\text{-N}) \times V$

[Click here to enter text.](#)

$$V = 0.5 \text{ if biosolids are left on soil surface}$$

$$V = 1.0 \text{ if biosolids are worked into the soil}$$

3C. Nitrate Nitrogen ( $\text{NO}_3\text{-N}$ )

[Click here to enter text.](#)

3D. Total PAN = (Line 3A + Line 3B + Line 3C)=

[Click here to enter text.](#)

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Biosolids	40 %
Aerobically Digested Biosolids	30 %
Anaerobically Digested Biosolids	20 %
Composted Biosolids	10 %

### STEP 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED ON CROP NITROGEN NEEDS ( $\text{SAR}_N$ )

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C.

[Click here to enter text.](#)

4B. Total PAN (lbs/ton)

Enter amount from Step 3D.

[Click here to enter text.](#)

4C. Biosolids Application Rate ( $\text{BAR}_N$ ) (tons/acre/year)

$$\text{Line 4A} \div \text{Line 4B}$$

[Click here to enter text.](#)

## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals In Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/acre/yr) (C x SAR <sub>N</sub> )	E Biosolids Applied Yearly at $\overline{BAR}_M$ (tons/acre/yr) (B ÷ C)	F Max Loading Rate (tons/acre) (A ÷ C)
Arsenic	36	1.8				
Cadmium	35	1.7				
Chromium	2677	134				
Copper	1339	67				
Lead	268	13				
Mercury	15	0.76				
Molybdenum	Monitor	Monitor				
Nickel	375	18.7				
Selenium	89	4.5				
Zinc	2500	125				
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than the value in column D ( $B < D$ ), then the  $\overline{BAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre)

[Click here to enter text.](#)

### 6B. Previous applications of biosolids (tons/acre)

[Click here to enter text.](#)

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A – Line 6B (tons/acre)

[Click here to enter text.](#)

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)

[Click here to enter text.](#)

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C ÷ Line 6D (years)

[Click here to enter text.](#)



## APPENDIX A, PART 2: SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Cool Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Provide the data source for the nitrogen requirements.

[Click here to enter text.](#)

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\* [Click here to enter text.](#)

1B. Nitrogen available in soil\*\* [Click here to enter text.](#)

1C. Nitrogen amount still needed

Line A - Line B [Click here to enter text.](#)

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B =  $2 * \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 * \text{NO}_3\text{-N (ppm)(in the 6-24" soil depth)}$

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C [Click here to enter text.](#)

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A  $\div$  Line 2B [Click here to enter text.](#)

## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### **Biosolids:**

A. Biosolids Application Rate (tons/acre/year) [Click here to enter text.](#)

B. Percentage of plant nutrient supplied by the biosolids  
= [Click here to enter text.](#) ÷ 100 [Click here to enter text.](#)

C. Multiple Line A by Line B (tons/acre/year) [Click here to enter text.](#)

### **Domestic Septage:**

A. Biosolids Application Rate (tons/acre/year) [Click here to enter text.](#)

B. Percentage of plant nutrient supplied by the biosolids  
= [Click here to enter text.](#) ÷ 100 [Click here to enter text.](#)

C. Multiple Line A by Line B (tons/acre/year) [Click here to enter text.](#)

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

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For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?** (Yes/No/NA)
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A

\*Applicable to Option 1 only.

\*\*Applicable to Option 2a – f.

If Other is selected as the Alternative Used, please explain:

---

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

---

**For each source**, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?** (Yes/No/NA)
Example WQ11280-001	Option 1: Density of Fecal Coliform	300,000 cfu/g	12/2/98	NA
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			

\*Applicable to Option 1 only.

\*\*Applicable to Option 2a - f.

If Other is selected as the Alternative Used, please explain: [Click here to enter text.](#)



## APPENDIX C

### VECTOR ATTRACTION REDUCTION REQUIREMENTS

---

**For each source**, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

<b>TCEQ Permit Number</b>	<b>Vector Attraction Reduction Alternative Used*</b>	<b>Monitoring Criteria and results needed for alternative</b>
Example WQ11280-001	Option 10: Incorporate within 6 hrs	Visual inspection of area after tilling
Example WQ13450-003	Option 4: SOUR ≤1.5 mg O <sub>2</sub> /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	

\*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

## APPENDIX D ON-SITE STORAGE

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If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of biosolids or septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per 30 TAC §312.50 unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. Materials cannot be treated without proper authorization from the TCEQ.

- A. Provide a complete description of operational plans for the temporary storage, including all steps to be taken to control odors, vectors and other nuisance conditions.  
[Click here to enter text.](#)
- B. The location of the temporary storage area(s) must be accurately shown on the USGS topographic map submitted with the application, including all main features of the storage area(s) (e.g. berms, tanks, pads, liners, storm water retention, etc.).
- C. Provide a copy of the liner and storage tank certification as per 30 TAC §312.50(a)(4) or 312.50(a)(8).  
Attachment Number: [Click here to enter text.](#)
- D. Describe the proposed spill prevention and cleanup methods.  
[Click here to enter text.](#)
- E. Provide a certification that the berm(s) will hold the required volume(s) without discharging as per 30 TAC §312.50 (a)(7).  
Attachment Number: [Click here to enter text.](#)
- F. Describe the method for stormwater runoff collection and disposal.  
[Click here to enter text.](#)
- G. Describe methods to be used to ensure no loads of biosolids remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by 30 TAC §312.50), when needed.  
[Click here to enter text.](#)

# INSTRUCTIONS FOR PERMIT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

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## GENERAL INFORMATION

### Purpose of the Application

This form is to be used to:

- Permit a new site for beneficial land use of Class B biosolids;
- Submit a Major Amendment to change acreage or to make any other substantive change to a permitted site for beneficial land use of Class B biosolids; or
- Renew an existing permitted site for beneficial land use of Class B biosolids.

**NOTE:** If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of Class B biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

### Who Should Apply?

This application must be submitted by the site operator. If there is more than one operator, then a co-applicant is required.

### When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

### Where to Send the Application Form

**One original and three copies** of the application, including attachments, must be provided to the address below:

#### Regular U.S. Mail:

TCEQ  
ARP Team, MC 148  
PO Box 13087  
Austin TX 78711-3087

#### Express Mail or Hand Delivery:

TCEQ  
ARP Team, MC 148  
Building F Room 2101

12100 Park 35 Circle  
Austin TX 78753

## **TCEQ Contact List**

Permit Information and Application Forms: 512-239-4671  
Technical Information, Land Application Team,  
Attn: Biosolids Group: 512-239-4671  
Environmental Law Division: 512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

## **INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM**

### **Section 1. Type of Application**

Select the appropriate type of application.

For amendment applications, describe the proposed changes.

For existing permits, provide the TCEQ permit number.

### **Section 2. Application Fee**

The permit application fee varies from \$1,000 to \$5,000, based on the quantity of biosolids to be applied annually under the permit.

<b>Quantity of Biosolids Applied Annually</b>	<b>Application Fee</b>
2,000 dry tons or less	\$1,000
2,001 to 5,000 dry tons	\$2,000
5,001 to 10,000 dry tons	\$3,000
10,001 to 20,000 dry tons	\$4,000
20,001 dry tons or more	\$5,000

Application fees must be paid by check or money order made payable to the Texas Commission on Environmental Quality. Fees are to be sent under separate cover making reference to the type of application, name of applicant, and permit number of existing permit, and mailed to:

TCEQ  
Revenues Section (MC 214)  
P.O. Box 13088  
Austin, Texas 78711-3088

To verify receipt of payment or any other questions you may have regarding payment of fees to the TCEQ, you may call the Revenues Section, Cashiers Office at (512) 239-0357.



### **Section 3. Applicant Information**

Provide the full legal name of the site operator.

If the site operator is an existing TCEQ customer, provide the customer number (CN) for the site operator. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the site operator is not an existing TCEQ customer, leave blank.

Provide the following contact information for the site operator: mailing address, phone number, fax number, and email address.

### **Section 4. Co-Applicant Information**

If there is more than one operator, then a co-applicant is required. Provide the full legal name of the co-applicant.

If the co-applicant is an existing TCEQ customer, provide the customer number (CN) for the co-applicant. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the co-applicant is not an existing TCEQ customer, leave blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number, and email address.

Explain the need for a co-applicant.

### **Section 5. Application Contact Information**

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner.

### **Section 6. Permit Contact Information**

Provide the name and contact information for two individuals that TCEQ can contact if additional information is needed during the term of the permit.

### **Section 7. Billing Contact Information**

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices.

### **Section 8. Reporting Contact Information**

Provide the name and contact information for the person that TCEQ can contact regarding the annual biosolids land application reports.

## **Section 9. Notice Information**

### **A. Individual publishing the notices**

Provide the name, company name, mailing address, telephone number and fax number of the person that will publish the public notices required during the processing of the application. Only one name can be provided. This individual will be contacted to publish the required public notices in a newspaper of the largest general circulation in the county where the facility is/will be located. This person must be available during the application processing since the first public notice. The "Notice of Receipt of Application and Intent to Obtain a Water Quality Permit" must be published within 30 days of the application being declared Administratively Complete.

### **B. Method of Receiving Notice Package**

Provide the method of receiving the required public notice information. When the application is declared Administratively Complete, the notice package will be sent via the method selected. The notice package includes the TCEQ declaration of completeness, a notice ready for publication, instructions for publishing the notice, a publication affidavit, and a public notice verification form.

### **C. Contact Person in the Notice**

Provide the person's name, company name, mailing address, telephone number and fax number of the one individual that will be identified as the notice contact in the two public notices that are published as part of the permitting process. This individual may be contacted by the public to answer questions about all aspects of the permit application.

### **D. Public Viewing Location**

Provide the name and physical address for the public place where the complete application, draft permit, and Technical Summary/Fact Sheet will be made available for viewing and copying by the general public. Please verify with the proper authority they will make the application available for public viewing and copying. The address must be a physical address. Post office box addresses are not acceptable. The public place must be located within the county in which the facility is/will be located. If the facility is located in more than one county, a public viewing place for each county must be provided.

### **E. Bilingual Notice Requirement**

Bilingual notice may be required for new, major amendment, and renewal applications if an elementary school or middle school nearest to the facility is required to make a bilingual education program available to qualifying students.

The applicant is required to call the bilingual/ESL coordinator at the nearest elementary and middle schools to obtain answers to questions 1. – 4. These questions will determine if an alternative language notice is required.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

## **F. Public Involvement Plan Form**

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit. This form is not required for renewal or minor amendment applications.

## **Section 10. Regulated Entity (Site) Information**

- A. Provide the name of the site as known by the public in the area where the site is located.
- B. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the site is not currently regulated by TCEQ, leave blank.
- C. If the location in the existing permit is not correct or if this is a new site, provide the physical address of the site. If a physical address is not available, provide a location description.
- D. Provide the county in which the site is located.
- E. Provide the latitude and longitude for the site.
- F. Provide the name and contact information for the landowner of the application site.
- G. Provide the name and contact information for the county judge in each county where the site is located. Attach an additional sheet if the site is located in more than one county.

## **Section 11. Land Application Information**

If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

- A. Provide the anticipated date that you plan to start applications on this site. This date must be at least 330 days from the date TCEQ receives this application form.
- B. Indicate by a checkmark if the beneficial land use area is within the city limits, within the extraterritorial jurisdiction, or outside the extraterritorial jurisdiction of a city. Provide the city or municipality name in the space provided.
- C. Identify the types of wastes that will be land applied at this site.
- D. For each source, provide the facility name, TCEQ authorization number, and the location. Add additional rows to the table, if necessary.
- E. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.
- F. Provide the total acreage where biosolids may be applied. Do not include buffer zones.

NOTE: A minimum buffer of 500 feet is required for water wells and surface water

when land application of Class B Biosolids occurs in a county that borders the Gulf of Mexico (Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties).

## **Section 12. Miscellaneous Information**

- A. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.
- B. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the Land Application Team, Attn: Biosolids Group at 512-239-4671.
- C. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.
- D. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties.

The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment:

<https://www.tceq.texas.gov/agency/fees/delin/index.html>. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

**NOTE: TCEQ will not declare any application administratively complete or issue a permit if the applicant or co-applicant is delinquent on a fee or penalty.**

## **Section 13. Affected Landowner Information**

- A. Attach a landowner map or drawing that includes a scale, the applicant's property boundaries, the application area boundaries, the approximate property boundaries of all landowners located within 1/4 mile of the property boundaries. Assign a letter or number to each landowner.
- B. Attach a list of landowners that live on land within 1/4 mile of the property boundaries. The list must include the landowner's name and address, and include a cross-reference to the letter or number identified on the landowner map. The applicant may choose to attach a list of all landowners within 1/4 mile of the property boundary, regardless of whether the landowner lives on the land.
- C. Identify the format of the landowners list.
- D. Provide the source of the landowner's names and mailing addresses. Sources may include City or County Tax Records.

## **Section 14. Insurance Information**

**This information is not required for an applicant that is a political subdivision (e.g., city, county, state agency, water district, etc.).**

Note: The insurance policies required by this section must be maintained for the duration of the permit which is normally issued for a term of five years.



## **A. Commercial Liability Insurance**

Attach a copy of the certificate of insurance in regard to commercial liability, reflecting total coverage of not less than \$3 million per occurrence with an annual aggregate of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9145 (relating to Certificate of Insurance for Commercial Liability) or an endorsement worded identically to the wording specified in 30 TAC §37.9150 (relating to Endorsement for Commercial Liability). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

## **B. Environmental Impairment Insurance**

Attach a copy of the certificate of insurance in regard to environmental impairment, reflecting total coverage of not less than \$3 million per occurrence with a policy limit of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

## **Section 15. Maps and Attachments**

- A.** Complete and submit the TCEQ Core Data Form (TCEQ-10400).
- B.** Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.
- C.** Submit an original General Highway (County) Map showing all boundaries of the site area and all areas within 1000 feet of the area boundaries. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: [http://www.txdot.gov/travel/county\\_grid\\_search.htm](http://www.txdot.gov/travel/county_grid_search.htm)
- D.** Submit a full-sized USGS topographic map (1:24,000 scale). These are available by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:
  - the boundaries of the property(s) being permitted;
  - the boundaries of the application area within the property boundaries;
  - all areas within ¼ mile of the site (if the site is on the border of the USGS map, the adjoining map is also required); and
  - the location of all wells, springs, public water supply intakes, water treatment plants, potable water storage facilities, and wastewater treatment plants on-site and within ¼ mile of the application area (including off-site).

If the land application unit boundaries cannot fit or are too small to depict on the required USGS topographic map, a zoomed-in version must be submitted on a separate 8 1/2 X 12 map or larger. This map may be a zoomed-in version of the topographic map or an accurately self-generated map.

- E.** Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries, the soil legend,

necessary interpretative information, and the location of each grab sample of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.

- F. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries, the surrounding area within ¼ mile of the property boundaries, and the appropriate legend.
- G. Submit a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the practice standards of the USDA-NRCS.
- H. Submit a copy of the TCEQ transporters registration approval documents.
- I. Attach the soil laboratory analysis for the application area. Additional information about collecting and analyzing the soil samples is available at the end of these instructions.
- J. Attach a laboratory analysis for each source. Additional information about testing is available at the end of these instructions.
- K. Metal and Nutrient Concentrations (Table 1). Use the laboratory analyses to complete Table 1 for each source.
- L. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2). If more than one source of is land applied, complete Table 2.
- M. Agronomic Rate Calculations (Appendix A). Determine the agronomic application rate by completing and attaching Appendix A.
- N. Pathogen Reduction Requirements (Appendix B). Identify the pathogen reduction alternative for each source by completing and attaching Appendix B.
- O. Vector Attraction Reduction Requirements (Appendix C). Identify the vector attraction reduction alternative for each source by completing and attaching Appendix C.
- P. On-Site Storage (Appendix D). If on-site storage will occur at the site, complete and attach Appendix D.

## Signature Page

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making

functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

## SOIL TESTING INFORMATION

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

Parameter (7)		0- 6 "	6 -24"
Nitrate Nitrogen (NO <sub>3</sub> -N, mg/kg)	(1)	x	x
Ammonium Nitrogen (NH <sub>4</sub> -N, mg/kg)	(1)	x	x
Total Kjeldahl Nitrogen (TKN, mg/kg)	(2)	x	x
Phosphorus (plant available, mg/kg)	(3)	x	x
Potassium (plant available, mg/kg)	(3)	x	x
Sodium (plant available, mg/kg)	(3)	x	x
Magnesium (plant available, mg/kg)	(3)	x	x
Calcium (plant available, mg/kg)	(3)	x	x
Electrical Conductivity	(4)	x	x
Soil Water pH (S.U.)	(5)	x	x
Total Arsenic (mg/kg)	(6)	x	N/A
Total Cadmium (mg/kg)	(6)	x	N/A
Total Chromium (mg/kg)	(6)	x	N/A
Total Copper (mg/kg)	(6)	x	N/A
Total Lead (mg/kg)	(6)	x	N/A
Total Mercury (mg/kg)	(6)	x	N/A
Total Molybdenum (mg/kg)	(6)	x	N/A
Total Nickel (mg/kg)	(6)	x	N/A
Total Selenium (mg/kg)	(6)	x	N/A
Total Zinc (mg/kg)	(6)	x	N/A

1. Determined in a 1 N KCl soil extract (<http://soiltesting.tamu.edu/webpages/swftlmethods1209.html>).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.



Please be advised that the maximum acceptable soil concentrations of metals are listed below. These rates are based on the maximum cumulative loading rates found in 30 TAC §312.43 Table 2- Cumulative Metal Loading Rate.

<b>Metal</b>	<b>Soil Concentration Limit (mg/kg)</b>
Total Arsenic	20.5
Total Cadmium	19.5
Total Chromium	1500
Total Copper	750
Total Lead	150
Total Mercury	8.5
Total Molybdenum	Monitor
Total Nickel	210
Total Selenium	50
Total Zinc	1,400

## BIOSOLIDS AND RESIDUALS TESTING INFORMATION

Testing Parameters (dry weight basis) for  
Class B Biosolids and Water Treatment Plant Residuals

Nutrients (%)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen Ammonium-Nitrogen Nitrate-Nitrogen Total Phosphorus Total Potassium	Total Arsenic Total Cadmium Total Chromium Total Copper Total Lead Total Mercury Total Molybdenum Total Nickel Total Selenium Total Zinc	Total PCBs

1. If accepting from multiple sources,
  - a) perform a new analysis on the mixed material if blended before land application, or
  - b) use Table 2 of the application form to determine the volume weighted average (mass balance) which will accurately reflect the amount of metals contributed by each facility.
2. The metal and nutrient tests shall be used to calculate the Maximum Biosolids Application Rate and Site Life in Appendix A of the application form. These tests and calculations will also be required in an annual report for the permitted site.
3. Copies of all laboratory test data with Quality Control (QA/QC) and Chain of Custody sheets must be kept on file at the site operator's place of business for at least five (5) years and can be requested by TCEQ at any time.
4. Include the most recent full Toxicity Characteristic Leaching Procedure (TCLP) analysis for each wastewater treatment plant source (Appendix E).

### Maximum Metal Loadings & Concentrations

If background soil concentrations exceed the values listed below, then land application is only possible if biosolids concentrations are below the concentrations found in Table 3 of 30 TAC §312.43(b)(3).

If the concentration of any metal in the biosolids exceeds the metal ceiling concentration, then the land application of that biosolids is prohibited.

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Arsenic	36	41	75
Cadmium	35	39	85
Chromium	2,677	1,200	3,000

<b>Pollutant</b>	<b>Cumulative Loading (lbs/acre)</b>	<b>Table 3 §312.43(b)(3) (mg/kg)</b>	<b>Metal Ceiling Concentration (mg/kg)</b>
Copper	1,339	1,500	4,300
Lead	268	300	840
Mercury	15	17	57
Molybdenum	Monitor	Monitor	75
Nickel	375	420	420
Selenium	89	36	100
Zinc	2,500	2,800	7,500

## APPENDIX E

### Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels

METALS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Arsenic	5.0	D004	7061
Barium	100.0	D005	7080
Cadmium	1.0	D006	7130
Chromium	5.0	D007	7190
Lead	5.0	D008	7420
Mercury	0.2	D009	7471
Selenium	1.0	D010	7741
Silver	5.0	D011	7760

VOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Benzene	0.5	D018	8260B
Carbon Tetrachloride	0.5	D019	8260B
Chlorobenzene	100.0	D021	8260B
Chloroform	6.0	D022	8260B
1,4-Dichlorobenzene	7.5	D027	8260B
1,2-Dichloroethane	0.5	D028	8260B
1,1-Dichloroethylene	0.7	D029	8260B
Methyl Ethyl Ketone	200.0	D035	8260B
Tetrachloroethylene	0.7	D039	8260B
Trichloroethylene	0.5	D040	8260B
Vinyl Chloride	0.2	D043	8260B



<b>SEMIVOLATILE ORGANICS</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
o-Cresol *	200	D023	8270C
m-Cresol *	200	D024	8270C
p-Cresol *	200	D025	8270C
Cresol *	200	D026	8270C
2,4-Dinitrotoluene	0.13	D030	8270C
Hexachlorobenzene	0.13	D032	8270C
Hexachlorobutadiene	0.5	D033	8270C
Hexachloroethane	3.0	D034	8270C
Nitrobenzene	2.0	D036	8270C
Pentachlorophenol	100.0	D037	8270C
Pyridine	5.0	D038	8270C
2,4,5-Trichlorophenol	400.0	D041	8270C
2,4,6-Trichlorophenol	2.0	D042	8270C

<b>ORGANOCHLORINE PESTICIDES</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
Chlordane	0.03	D020	8081A
Endrin	0.02	D012	8081A
Heptachlor (and its Epoxide)	0.008	D031	8081A
Lindane	0.4	D013	8081A
Methoxychlor	10.0	D014	8081A
Toxaphene	0.5	D015	8081A

<b>CHLOROPHENOXY ACID HERBICIDES</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
2,4-D	10.0	D016	8150
2,4,5-TP (Silvex)	1.0	D017	8150

\* If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used.

Reference: 40 CFR 261, Appendix II, 1993 ed., as amended by 58 FR 46040, August 31, 1993.

## Leah Whallon

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**From:** Compliance K3BMI <compliance@k3bmi.com>  
**Sent:** Friday, May 24, 2024 11:19 AM  
**To:** Leah Whallon  
**Subject:** RE: Application to Renew Permit No. WQ0004450000; K-3 Resources, L.P.; Carl Miller Farms  
**Attachments:** 4450 CMF application- land owners list.pdf; WQ Sludge NORI beneficial use (Spanish) (003)- draft.docx; Check # 37130 TCEQ 5.10.2024.pdf  
**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Leah,

Good morning,

1. WQ0004450000 check # 37130 was mailed. I hand wrote the check number on the hard copies and then mailed. It was not on the electronic, however I will be happy to get you the check number and a copy of the check that was mailed.
2. Land owner list is attached.- I will attach the paper with the application on the FTP website and resend a link back to you when complete.
3. No errors on the NORI paragraph.
4. Spanish copy is attached.

Anything else, let me know.

Kevin Seawright  
Erthra Consulting, LLC

For

[www.k3bmi.com](http://www.k3bmi.com)



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**From:** Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>  
**Sent:** Thursday, May 23, 2024 4:50 PM  
**To:** Compliance K3BMI <compliance@k3bmi.com>  
**Subject:** Application to Renew Permit No. WQ0004450000; K-3 Resources, L.P.; Carl Miller Farms

Good Afternoon,

Please see the attached Notice of Deficiency letter dated May 23, 2024 requesting additional information needed to declare the application administratively complete. Please send the complete response by June 6, 2024.

Please let me know if you have any questions.

Thank you,



**Leah Whallon**

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

[leah.whallon@tceq.texas.gov](mailto:leah.whallon@tceq.texas.gov)

How is our customer service? Fill out our online customer satisfaction survey at [www.tceq.texas.gov/customersurvey](http://www.tceq.texas.gov/customersurvey)

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37130



**K-3 SERVICES**  
9458 FM 362 RD  
BROOKSHIRE, TX 77423  
(281) 375-5778

TEXAS ADVANTAGE COMMUNITY BANK  
1701 FAIRWAY PLAZA, STE 12  
ALVIN, TX 77511  
88-2544/1131



5/10/2024

PAY TO THE ORDER OF Texas Commission on Environmental Quality

\$ \*\*2,000.00

Two Thousand and 00/100

DOLLARS

Texas Commission on Environmental Quality  
Revenues Section (MC 214)  
P.O. Box 13088  
Austin, TX 78711-3088



*[Signature]*  
AUTHORIZED SIGNATURE

MEMO Renewal WQ0004450000 class B, BioSolids

Security features. Details on back



000324135389260004

ENDORSE HERE

CHECK HERE TO PAY TO THE ORDER OF STATE CONTROLLER

AT \_\_\_\_\_ DATE \_\_\_\_\_  
NAME OF FINANCIAL INSTITUTION  
DO NOT WRITE STAMP OR SIGN  
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17 2024  
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DLN: 000324135389260004

DATE: 20240514

TX State Comptroller of Public Accounts

0920487677  
2024-05-15

FOR DEPOSIT ONLY

## Security Features:

The security features of this check are those of the Federal Reserve.

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## Headlines

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# COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



## AVISO DE RECIBIMIENTO DE LA SOLICITUD E INTENCIÓN DE OBTENER UN PERMISO DE USO BENÉFICO DEL SUELO (RENOVACIÓN)

### PROPUESTA DE PERMISO N.º WQ0004450000

**SOLICITUD.** *K-3 Resources, L.P. 9458 Farm to Market Road 362, Pattison, Texas 77423*, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) *para renovar* permiso de uso benéfico del suelo N.º WQ0004450000 para autorizar la solicitud de tierra de *planta de tratamiento de aguas residuales clase B biosólidos, residuos de plantas de tratamiento de aguas residuales* para uso benéfico en aproximadamente 164.2 acres. El sitio de uso benéfico del suelo se encuentra 1.4 millas al oeste de la intersección de Farm-to-Market Road 529 y Farm-to-Market Road 362, cerca de la ciudad de Brookshire, en Waller

Condado, Texas 77423. *Si corresponde: la autorización para la aplicación de suelos se permitió previamente mediante el permiso vencido N.º WQ004450000.* La TCEQ recibió esta solicitud el *fecha en que se recibió la solicitud*. *Para solicitudes de nuevos permisos: La fecha anticipada de la primera aplicación de biosólidos Clase B, sujeto a la emisión del permiso es fecha prevista para la primera aplicación de biosólidos Clase B que se indica en la solicitud.* La solicitud de permiso estará disponible para ver y copiar en Palacio de Justicia del Condado de Waller, Anexo Joe Kuciemba, 425 Farm-to-Market Road 1488, Hempstead, en el condado de Waller, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no como parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.98432,29.918021&level=18>

**AVISO DE IDIOMA ALTERNATIVO.** Aviso de idioma alternativo en **espano** está disponible en [<https://www.tceq.texas.gov/LocationMapper/?marker=-95.98432,29.918021&level=18>]**Repita la oración en idioma alt.**

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud está administrativamente completa y llevará a cabo una revisión técnica de la solicitud. Una vez completada la revisión técnica de la solicitud, el Director Ejecutivo puede preparar un bosquejo del permiso y emitirá una decisión preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar se publicarán y enviarán por correo a aquellos que están en la lista de correo de todo el condado y a aquellos que están en la lista de correo para esta solicitud. Ese aviso contendrá la fecha límite para enviar comentarios públicos.**

**COMENTARIO PÚBLICO / REUNIÓN PÚBLICA.** Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una

reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ convocará una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado.

**OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO.** Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **A menos que la solicitud se remita directamente para una audiencia de caso impugnado, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud se enviarán por correo a todos los que hayan presentado comentarios públicos y a las personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar la reconsideración de la decisión del Director Ejecutivo y para solicitar una audiencia de caso impugnado. Una persona que pueda verse afectada por la solicitud puede solicitar una audiencia.** Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, DEBE INCLUIR LOS SIGUIENTES ELEMENTOS EN SU SOLICITUD:** su nombre, dirección, número de teléfono; nombre del solicitante y número de permiso propuesto; la ubicación y distancia de su propiedad/actividades en relación con la instalación propuesta; una descripción específica de cómo se vería afectado negativamente por la instalación de una manera que no es común para el público en general; una lista de todas las cuestiones de hecho controvertidas que presente durante el periodo de comentarios y la declaración "[Yo/nosotros] solicito/amos una audiencia de caso impugnado". Si la solicitud de audiencia de caso impugnado se presenta en nombre de un grupo o asociación, la solicitud debe designar al representante del grupo para recibir correspondencia futura; identificar por nombre y dirección física a un miembro individual del grupo que se vería afectado negativamente por la instalación o actividad propuesta; proporcionar la información discutida anteriormente con respecto a la ubicación y distancia del miembro afectado de la instalación o actividad; explicar cómo y por qué el miembro se vería afectado; y explicar cómo los intereses que el grupo busca proteger están relacionados con el propósito del grupo.

Tras el cierre de todos los periodos de comentarios y solicitudes aplicables, el Director Ejecutivo remitirá la solicitud y cualquier solicitud de reconsideración o de una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

La Comisión sólo podrá conceder una solicitud de audiencia de un asunto impugnado sobre cuestiones que el solicitante haya presentado en sus observaciones oportunas que no hayan sido retiradas posteriormente. **Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios.** [Para las solicitudes de renovación que no incluyen una enmienda importante, incluya:](#) La TCEQ puede actuar sobre una solicitud para renovar un permiso sin brindar la oportunidad de una audiencia de caso impugnado si se cumplen ciertos criterios.

**LISTA DE CORREO.** Si envían comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo de esta solicitud específica para recibir futuros avisos públicos enviados por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Si desea ser colocado en la lista de correo permanente y/o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

**INFORMACIÓN DISPONIBLE EN LÍNEA.** Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en [www.tceq.texas.gov/goto/cid](http://www.tceq.texas.gov/goto/cid). Busque en la base de datos utilizando el número de permiso para esta aplicación, que se proporciona en la parte superior de este aviso.

**CONTACTOS E INFORMACIÓN DE LA AGENCIA.** Todos los comentarios y solicitudes públicas deben enviarse electrónicamente a <http://www14.tceq.texas.gov/epic/eComment/>, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, se convertirá en parte del registro público de la agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en [www.tceq.texas.gov/goto/pep](http://www.tceq.texas.gov/goto/pep). Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener más información de *K-3 Resources, L.P.* en la dirección indicada anteriormente o llamando a Andy Drennan al 281-375-5778.

Fecha de emisión: *fecha de emisión*



Andy Drennan  
K-3 Resources, LP  
9458 FM 362  
Brookshire, TX 77423  
Email: andy@k3bmi.com  
Office: (281) 375-5778

2/16/24

Land Application Team MC150  
Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

**Re: Renewal**

Water Quality Division,

K-3 Resources LP CN603843426 is applying for a renewal for a previously permitted land application site for Class B Municipal Biosolids and Water Treatment Residuals on approximately 164.2 acres of 236.9 acres total. The site is located 1.4 miles West of the intersection of Farm-to-Market Road 362 and Farm-to-Market Road 529, on the north side of Farm-to-Market Road 529, in Brookshire, Texas Waller County, Texas 77423. This letter contains the application for beneficial use of sewage sludge completed with requested attachments.

To clarify, the purpose of this application is to renew Permit No. WQ0004450000 associated with RN102911898. The site will be 3 reporting fields with boundaries described in further detail in this application.

I will be the primary administrative and technical contact for the application, and the primary contact for the operational processes of this permit. Feel free to contact me at any time.

Sincerely,

Andy Drennan



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



### APPLICATION FOR A PERMIT FOR BENEFICIAL LAND USE OF BIOSOLIDS

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

#### SECTION 1. TYPE OF APPLICATION

- ☐ New (original, site not permitted)
- ☐ New (previously permitted but allowed to expire or canceled)
- ☐ Major Amendment (including renewals with changes to substantive provisions of the permit)
- ☐ Minor Amendment (including non-substantive provisions of the registration, expiration date remains the same)
- ☒ Renewal
- ☐ Renewal with Minor Amendment

For amendments, describe the proposed changes:

No amendments.

For existing permits:

What is the permit number? WQ000445000

#### SECTION 2. APPLICATION FEE

The application fee varies from \$1,000 to \$5,000 based on the quantity of biosolids to be applied annually. See instructions to determine the appropriate fee.

**Provide your payment information below, for verification of payment**

Check/Money Order Number:

Check/Money Order Amount: 2000

Name Printed on Check: K-3 Resources LP

### SECTION 3. APPLICANT INFORMATION

- A. The **site operator** must apply for the permit. What is the legal name of the site operator (applicant)? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

K-3 Resources LP

- B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN 603843426

- C. What is the contact information for this applicant?

Contact Name: Andy Drennan

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3bmi.com

### SECTION 4. CO-APPLICANT INFORMATION

Complete this section only if more than one person or entity is a site operator.

- A. What is the legal name of the co-applicant? The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.

- B. If the co-applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity. CN

- C. What is the contact information for this applicant?

Contact Name:

Mailing Address:

City, State, and Zip Code:

Phone Number: \_ Fax Number:

E-mail Address:

### SECTION 5. APPLICATION CONTACT INFORMATION

These are the individuals that TCEQ will contact if additional information is needed about this application.

A. Prefix (Mr., Ms., Miss): Mr.

Application Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3bmi.com

B. Prefix (Mr., Ms., Miss): N/A

Application Contact First and Last Name: N/A

Title: N/A Credentials: N/A

Organization Name: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

## SECTION 6. PERMIT CONTACT INFORMATION

These are the individuals that TCEQ can contact during the term of the permit.

A. Prefix (Mr., Ms., Miss): Mr.

Permit Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: Compliance@k3BMI.com

B. Prefix (Mr., Ms., Miss): Mr.

Permit Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: andy@k3bmi.com

## **SECTION 7. BILLING CONTACT INFORMATION**

This is the person that TCEQ will contact if additional information is needed about the annual fee invoices.

Prefix (Mr., Ms., Miss): Mr.

Billing Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

## **SECTION 8. REPORTING CONTACT INFORMATION**

This is the person that TCEQ will contact if additional information is needed about the annual biosolids land application reports.

Prefix (Mr., Ms., Miss): Mr.

Reporting Contact First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Organization Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

## **SECTION 9. NOTICE INFORMATION**

### **A. Individual responsible for publishing the notices in the newspaper**

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A



Company Name: K-3 Resources, LP

Mailing Address: 9458 FM 362

City, State, and Zip Code: Brookshire, TX 77423

Phone Number: 281-375-5778 Fax Number: 281-585-4262

E-mail Address: compliance@k3bmi.com

**B. Method for receiving the notice package for the Notice of Receipt and Intent**

☒ E-mail: compliance@k3bmi.com

☐ Fax Number:

☐ Regular Mail:

Mailing Address:

City, State, and Zip Code:

**C. Contact person to be listed in the notice**

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Andy Drennan

Title: COO/VP Credentials: N/A

Company Name: K-3 Resource, LP

Phone Number: 281-375-5778

**D. Public viewing location**

If the facility is located in more than one county, a public viewing location for each county must be provided.

Public Building Name: Waller County Courthouse

Physical Address of Building: 425 FM 1488, Suite 112

City: Hempstead County: Waller

Phone Number: 979-826-7711

**E. Bilingual Notice Requirement**

**For new, major amendment, and renewal applications.** This information can be obtained by contacting the bilingual/ESL coordinator at the nearest elementary or middle school.

1. Is a bilingual education program required by the Texas Education Code at the nearest elementary or middle school to the facility or proposed facility?

Yes ☒ No ☐

(If **No**, alternative language notice publication is not required; skip to Section 10. Regulated Entity (Site) Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?  
Yes ☒ No ☐
3. Do the students at these schools attend a bilingual education program at another location?  
Yes ☐ No ☒
4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?  
Yes ☐ No ☒
5. If the answer is yes to 1, 2, 3, or 4, public notice in an alternative language is required. Which language is required by the bilingual program? Spanish

#### F. Public Involvement Plan

Complete the Public Involvement Plan (PIP) Form (TCEQ-20960) for each application for a **new permit** or **major amendment to a permit** and include as an attachment.

Attachment Number: N/A

### SECTION 10. REGULATED ENTITY (SITE) INFORMATION

A. Site Name: Carl Miller Farms 710084

B. If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site. RN 102911898

C. Site Address/Location:

Is the location of the application site used in the existing permit accurate?

☒ Yes ☐ No

If **YES**, skip to D. If **NO**, or if this application is for a new site, provide the physical address of the site such as: 12100 Park 35 Circle, Austin, TX 78753. If the site does not have a physical address, provide a location description such as: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

N/A

D. County where the site is located: Waller

E. Latitude: N 29 55' 02" Longitude: W 95 59' 07"

F. Landowner Information:

Attach an additional sheet if more than one landowner.

Prefix (Mr., Ms., Miss): See attached

First and Last Name:

Organization Name:

Mailing Address:

City, State, and Zip Code:

Phone Number:

**G. County Judge**

Provide the name of the county judge in each county where the site is located. Attach an additional sheet if more than one county.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Carbett "Trey" Duhon III

Mailing Address: 425 FM 1488 Suite 112

City, State, and Zip Code: Hempstead, TX 77445

Phone Number: 979-826-7700

Name of County: Waller

**SECTION 11. LAND APPLICATION INFORMATION**

**A.** Provide the anticipated date (MM/DD/YY) of the first application of biosolids after issuance or re-issuance of the permit. NOTE: This date must be at least 330 days after the date TCEQ receives this application. 2/1/2025

**B.** The application area is:

☐ within the city limit of:

☐ within the extraterritorial jurisdiction of:

☒ outside the extraterritorial jurisdiction of: Brookshire

**C. Types of Waste**

Identify the types of waste that will be land applied at this site.

☒ Wastewater Treatment Plant Class B Biosolids

☒ Water Treatment Plant Residuals

☐ Domestic Septage

**D. Sources of Biosolids or Residuals**

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

## A. Sources of Biosolids or Residuals

Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the location of the sources. Complete Table 1 for each source identified below.

Facility Name	Permit Number	Location
HC 26	WQ0011406001	Harris County
HC WCID 92	WQ0010908001	Harris County
Allens Creek - Sealy WWTP	WQ0010276001	Austin County
Rosenberg #1A WWTP	WQ0010607003	Fort Bend County
Treschwig Central D1 WWTF	WQ0011141001	Harris County
FB 30	WQ0012068001	Fort Bend County
Pecan Grove WWTF	WQ0011655001	Fort Bend County
Tomball South	WQ0010616002	Harris County
Waller WWTP	WQ0010310001	Waller County
HC 200	WQ0012294001	Harris County
WHC 7	WQ0012140001	Harris County

Facility Name	Permit Number	Location

**E. Property Acreage**

Total acreage of the entire property, including the application area and buffer zones: 236.9

**F. Application Area Acreage**

Total acreage where the biosolids may be applied, excluding the buffer zones: 164.2

**SECTION 12. MISCELLANEOUS INFORMATION**

**A.** Did any person who was formerly employed by the TCEQ represent your company and get paid for service regarding this application?

Yes ☐ No ☒

If yes, provide the name(s) of the former TCEQ employee(s):

**B.** Is the site located on Indian Lands?

Yes ☐ No ☒

**C.** Is any permanent school fund land affected by this application?

Yes ☐ No ☒

If yes, provide the location, foreseeable impacts, and effects this application has on the land(s).

**D.** Delinquent Fees and Penalties:

Do you owe fees to the TCEQ? Yes ☐ No ☒

Do you owe any penalties to the TCEQ? Yes ☐ No ☒

If you answered yes to either of the above questions, provide the amount owed, the type of fee or penalty, and an identifying number.

**SECTION 13. AFFECTED LANDOWNER INFORMATION**

**A.** Landowner map. Attach a landowner map or drawing. See instructions for information that must be displayed on the map.



### Legend

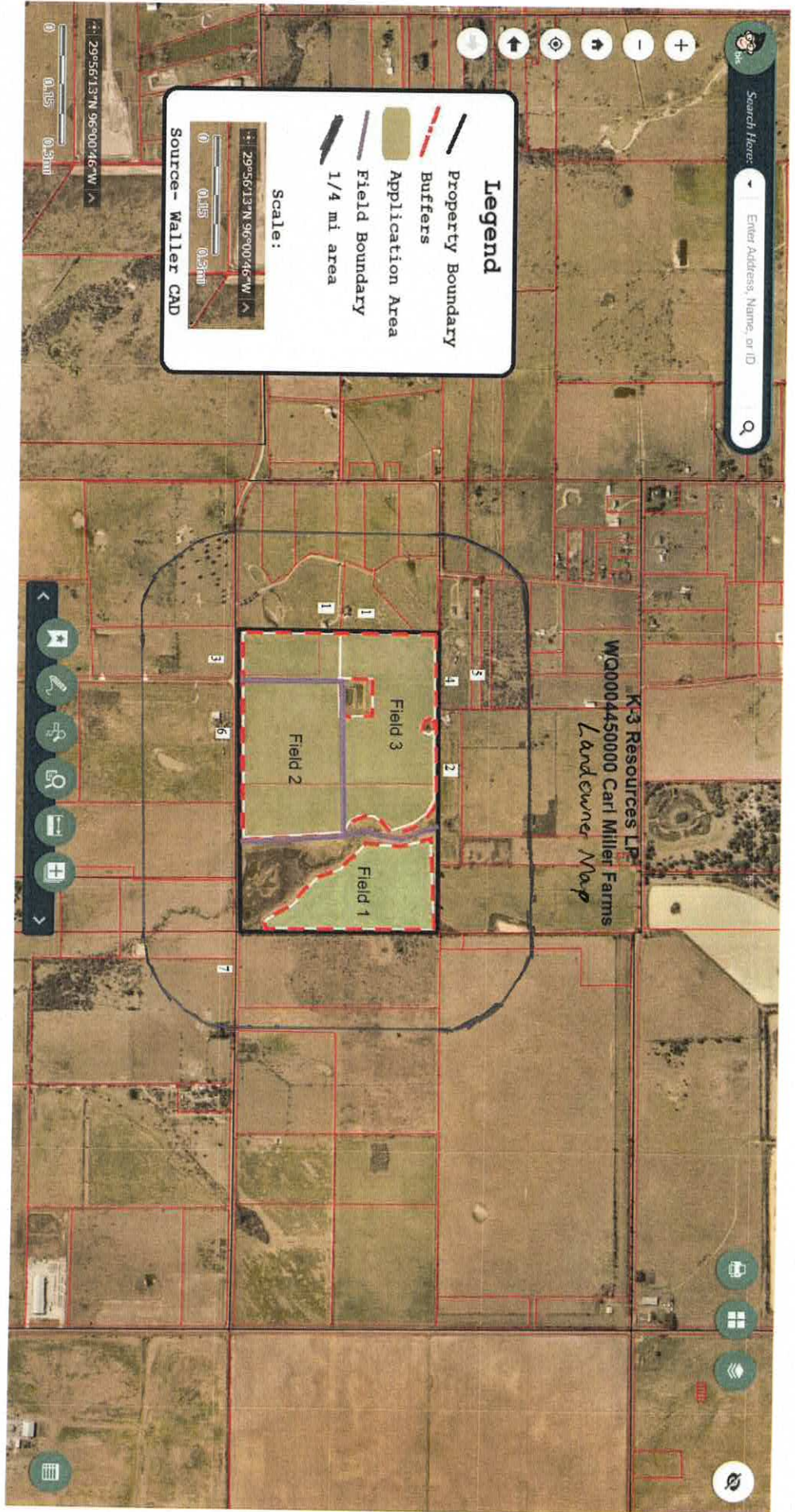
- Property Boundary
- Buffers
- Application Area
- Field Boundary
- 1/4 mi area

Scale:

0 0.15 0.3mi

29°56'13"N 96°00'46"W

Source- Waller CAD



WQ0004450000 Carl Miller Farms 710084  
¼ Mi Living Landowners Mailing List:

- 1 Stone Keith & Stacy D  
36076 FM 529 RD Brookshire, TX 77423
- 2 White Wanda Miller  
10720 Bonner Rd Brookshire, TX 77423
- 3 Accurate Inc.  
PO BOX 1296 Taylor, TX 76574-6574
- 4 Garcia Manuel  
4914 Westerdale Dr. Fulshear, TX 77441
- 5 Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln. Katy, TX 77494
- 6 MRO Ventures LP  
4603 Joyce Blvd. Houston, TX 77084
- 7 Miller W A  
34861 FM 529 Brookshire, TX 77423

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

Stone, Keith & Stacy D  
36076 FM 529 Rd  
Brookshire, TX 77423

Miller W A  
34861 FM 529  
Brookshire, TX 77423

Accurate Inc.  
PO BOX 1296  
Taylor, TX 76574-6574

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

Trevino Real Estate Holdings LLC  
5415 Arcadia Glen Ln.  
Katy, TX 77494

White Wanda Miller  
10720 Bonner Rd  
Brookshire, TX 77423

Garcia Manuel  
4914 Westerdale Dr.  
Fulshear, TX 77441

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Trevino Real Estate Holdings LLC  
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Katy, TX 77494

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Houston, TX 77084

MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

MRO Ventures LP  
4603 Joyce Blvd.  
Houston, TX 77084

Attachment Number: 2

- B. Landowner list.** Attach a list of the landowners' names and mailing addresses. The list must be cross-referenced to the letter or number identified on the landowner map.

Attachment Number: 3

- C. Landowner list media.** Indicate the format of the landowners list.

- ☐ Read/Writeable CD  
☒ 4 sets of mailing labels

- D. Landowner data source.** Provide the source of the landowners' names and mailing addresses. Waller CAD

## **SECTION 14. INSURANCE INFORMATION**

This information is not required for an applicant that is a political subdivision (e.g. city, county, state agency, water district, etc.).

### **A. Commercial Liability Insurance**

Attach a copy of the certificate of insurance in regard to commercial liability.

Attachment Number: 4

### **B. Environmental Impairment Insurance**

Attach a copy of the certificate of insurance in regard to environmental impairment.

Attachment Number: 5

## **SECTION 15. MAPS AND ATTACHMENTS**

### **A. TCEQ Core Data Form**

Complete and submit a TCEQ Core Data Form (TCEQ-10400).

Attachment Number: 6

### **B. TCEQ Public Involvement Plan Form**

Complete and submit a TCEQ Public Involvement Plan Form (TCEQ-20960) for new and major amendment applications.

Attachment Number: 7

### **C. General Highway (County) Map**

Submit an ORIGINAL General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: 8

# CERTIFICATE OF INSURANCE FOR COMMERCIAL LIABILITY

*Name and address of insurer (herein called the "Insurer"):*

Highpoint Insurance Group, LLC

Nautilus Insurance Company

Lloyds of London/Pantheon Specialty

4300 FM 2351 Road

7233 East Butherus Drive

2 India Street

Friendswood, TX 77546

Scottsdale, AZ 85260

London EC3N2PX, UK

*Name, physical addresses and mailing address of Insured (herein called the "Insured"):*

K-3 Resources, LP

9458 FM 362

Brookshire, TX 77423

## Additional Insured:

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

## Facilities Covered:

(1) #WQ0004450000, Carl Miller Farms 710084: 1.4 miles west of the intersection of FM 529 and FM 362

- Facility address: 34719 FM 529 Road, Brookshire, Texas 77423
- Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

**Nautilus Per Occurrence Limit:** \$3,000,000      **Annual Aggregate Limit:** \$3,000,000

**Policy Number:** SSP-2025469-16      **Effective Date:** 02/26/2024

**Lloyds Per Occurrence Limit:** \$3,000,000      **Annual Aggregate Limit:** \$3,000,000

**Policy Number:** B1881S240420      **Effective Date:** 02/26/2024

The Insurer hereby certifies that it has issued to the Insured a Commercial Liability and Excess Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Commercial Liability and Excess Liability Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Commercial Liability and Excess Liability Insurance) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

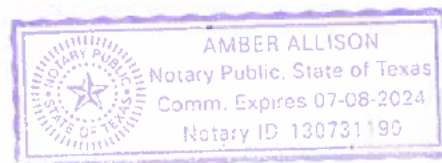
**Authorized Signature of Insurer:**



**Name and Title of Person Signing:**

M. Brandon Smyrl, President

**Signature of Witness or Notary:**



Signed this 22nd day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.



# CERTIFICATE OF INSURANCE FOR ENVIRONMENTAL IMPAIRMENT

*Name and address of insurer (herein called the "Insurer"):*

Highpoint Insurance Group, LLC  
4300 FM 2351 Road  
Friendswood, TX 77546

Nautilus Insurance Company  
7233 East Butherus Drive  
Scottsdale, AZ 85260

*Name, physical addresses and mailing address of Insured (herein called the "Insured"):*

K-3 Resources, LP  
9458 FM 362  
Brookshire, TX 77423

## Additional Insured:

Texas Commission on Environmental Quality

Physical Address: 12100 Park 35 Circle, MC 1-84, Austin, TX 78753

Mailing Address: MC 184, PO Box 13087, Austin, TX 78711

## Facilities Covered:

- (1) #WQ0004450000, Carl Miller Farms 710084: 1.4 miles west of the intersection of FM 529 and FM 362.
- Facility Address: 34719 FM 529 Road, Brookshire, Texas 77423
  - Mailing address: 34719 FM 529 Road, Brookshire, Texas 77423

<b>Per Occurrence Limit:</b>	<b>\$3,000,000</b>	<b>Annual Aggregate Limit:</b>	<b>\$3,000,000</b>
<b>Policy Number:</b>	<b>SSP-2025469-16</b>	<b>Effective Date:</b>	<b>02/26/2024</b>

The Insurer hereby certifies that it has issued to the Insured an Environmental Impairment Policy of Insurance identified above to provide financial assurance for corrective action related to the facilities identified above. The Insurer further warrants that such policy confirms in all respects with the requirements of 30 Texas Administrative Code (TAC) §37.9105 (relating to Environmental Impairment Insurance), as applicable and as such regulation were constituted on the date show immediately below.

It is agreed that any provision of the policy inconsistent with such regulation is hereby amended to eliminate such inconsistency.

Whenever requested by the Executive Director of the Texas Commission on Environmental Quality, the Insurer agrees to furnish to the Executive Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment) such as regulations were constituted on the date shown immediately below. The undersigned Insurer certifies that it is authorized to transact or be a surplus lines insurer eligible to engage in the business of insurance in Texas and it has a minimum financial strength rating of A- as assigned by the A.M. Best Company.

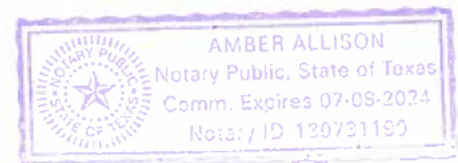
**Authorized Signature of Insurer:**



**Name and Title of Person Signing:**

M. Brandon Smyrl, President

**Signature of Witness or Notary:**



**Signed this 22<sup>nd</sup> day of March 2024 in Harris County, Texas. My commission expires 07/08/2024.**



TCEQ Use Only

# TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

## SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)	
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)	
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)	<input type="checkbox"/> Other
2. Customer Reference Number (if issued)	3. Regulated Entity Reference Number (if issued)
CN 603843426	RN 102911898

Follow this link to search  
for CN or RN numbers in  
Central Registry\*\*

## SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	9/29/2023	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership			
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)			
<b>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</b>			
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)		If new Customer, enter previous Customer below:	
K-3 Resources, LP			
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)
0800593713	17603210539	76-0321053	N/A
11. Type of Customer:	<input checked="" type="checkbox"/> Corporation	<input type="checkbox"/> Individual	Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Other	<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Other:	
12. Number of Employees		13. Independently Owned and Operated?	
<input type="checkbox"/> 0-20 <input type="checkbox"/> 21-100 <input checked="" type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following			
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Owner & Operator			
<input type="checkbox"/> Occupational Licensee <input checked="" type="checkbox"/> Responsible Party <input type="checkbox"/> Voluntary Cleanup Applicant <input type="checkbox"/> Other:			
15. Mailing Address:			
9458 FM 362			
City	Brookshire	State	TX
ZIP	77423	ZIP + 4	
16. Country Mailing Information (if outside USA)		17. E-Mail Address (if applicable)	
		Compliance@k3bmi.com	
18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)	
( 281 ) 375-5778		( ) -	

## SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected below this form should be accompanied by a permit application)	
<input type="checkbox"/> New Regulated Entity <input type="checkbox"/> Update to Regulated Entity Name <input checked="" type="checkbox"/> Update to Regulated Entity Information	
<b>The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).</b>	
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)	
Carl Miller Farms 710084	



23. Street Address of the Regulated Entity: (No PO Boxes)							
	City	Brookshire	State	TX	ZIP	77423	ZIP + 4
24. County	Waller						

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	1.4 miles West of the intersection of FM529 and FM 362 on the North side of FM 529						
26. Nearest City	Brookshire				State	TX	Nearest ZIP Code
							77423
27. Latitude (N) In Decimal:	29.918021			28. Longitude (W) In Decimal:	-95.984322		
Degrees	Minutes	Seconds		Degrees	Minutes	Seconds	
29	55	02		95	59	07	
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)		32. Secondary NAICS Code (5 or 6 digits)		
139	212		111940		112111		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)							
Hay and Forageproduction; cattle production							
34. Mailing Address:	34719 FM 529						
	City	Brookshire	State	TX	ZIP	77423	ZIP + 4
35. E-Mail Address:		compliance@k3bmi					
36. Telephone Number		37. Extension or Code		38. Fax Number (if applicable)			
( 281 ) 375-5778				( ) -			

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

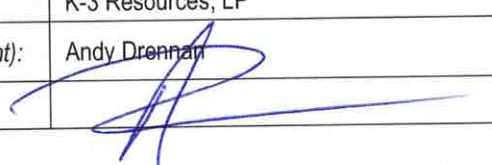
<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input checked="" type="checkbox"/> Sludge	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
<input type="checkbox"/> Voluntary Cleanup	<input type="checkbox"/> Waste Water	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:

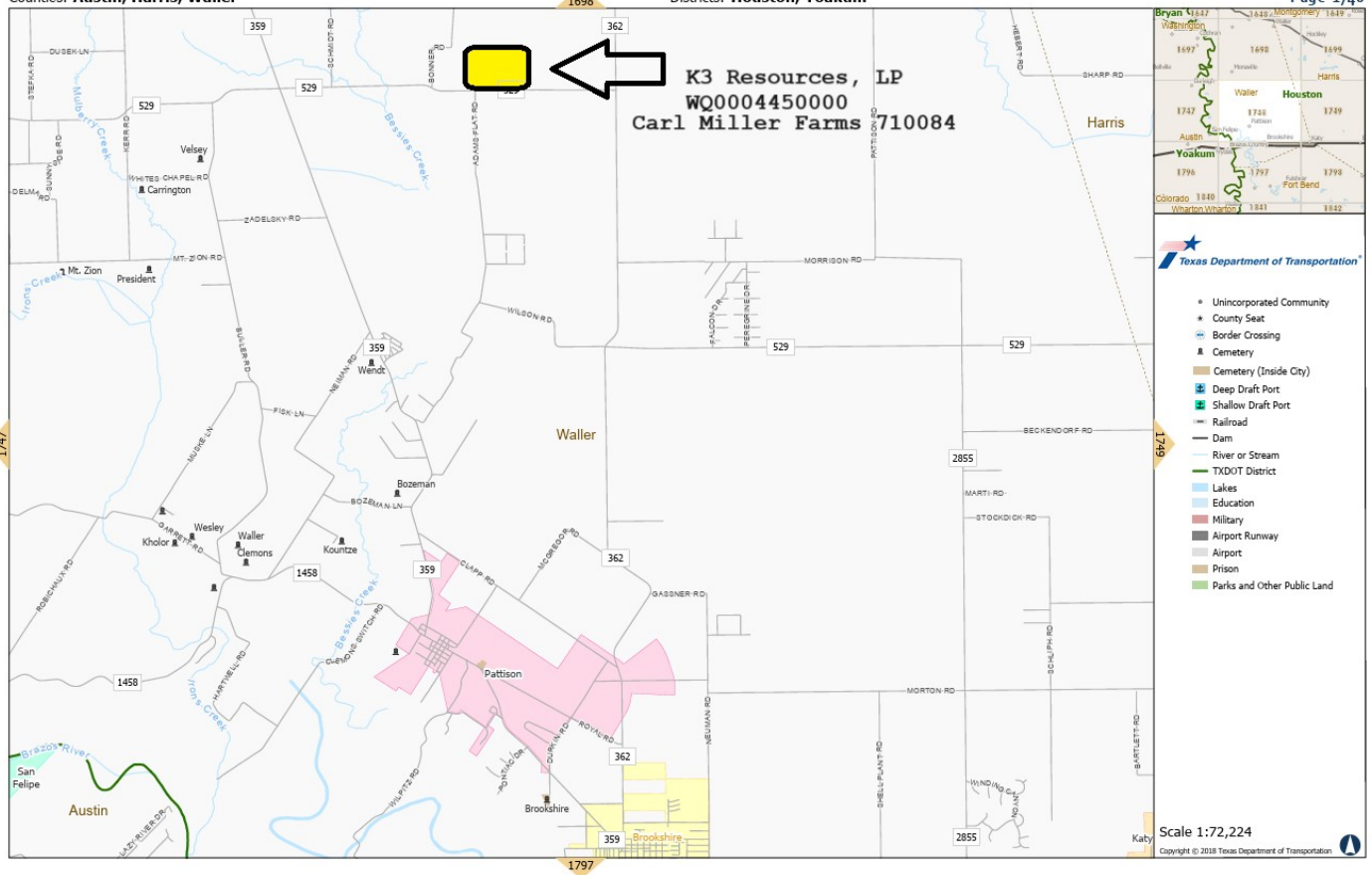
#### SECTION IV: Preparer Information

40. Name:	Andy Drennan	41. Title:	COO
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
( 281 ) 375-5778		( ) -	compliance@k3bmi.com

#### SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	K-3 Resources, LP	Job Title:	Owner
Name (In Print):	Andy Drennan	Phone:	( 281 ) 375- 5778
Signature:		Date:	5-8-2024



**D. United States Geological Survey (USGS) Topographic Map**

Submit an ORIGINAL United States Geological Survey (USGS) Topographic Map (1:24,000 scale). See instructions for information that must be displayed on the map.

Attachment Number: 9

**E. USDA-NRCS Soil Map**

Submit a legible copy of a USDA-NRCS Soil Map. See instructions for information that must be displayed on the map.

Attachment Number: 10

**F. Federal Emergency Management Agency (FEMA) Map**

Submit a copy of the FEMA map that shows the approximate application area boundaries, the surrounding area within one-quarter mile of the application area, and the appropriate legend.

Attachment Number: 11

**G. Nutrient Management Plan**

Attach a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the NRCS.

Attachment Number: 12

**H. TCEQ Transporters Registration Approval Documents**

Attach a copy of the TCEQ Transporters Registration approval documents.

Attachment Number: 13

**I. Soil Analysis**

Attach a copy of the soil laboratory analysis for the application area.

Attachment Number: 14

**H. Biosolids or Residuals Analyses**

Attach a laboratory analysis for each source.

Attachment Number: 15

**I. Metal and Nutrient Concentrations (Table 1)**

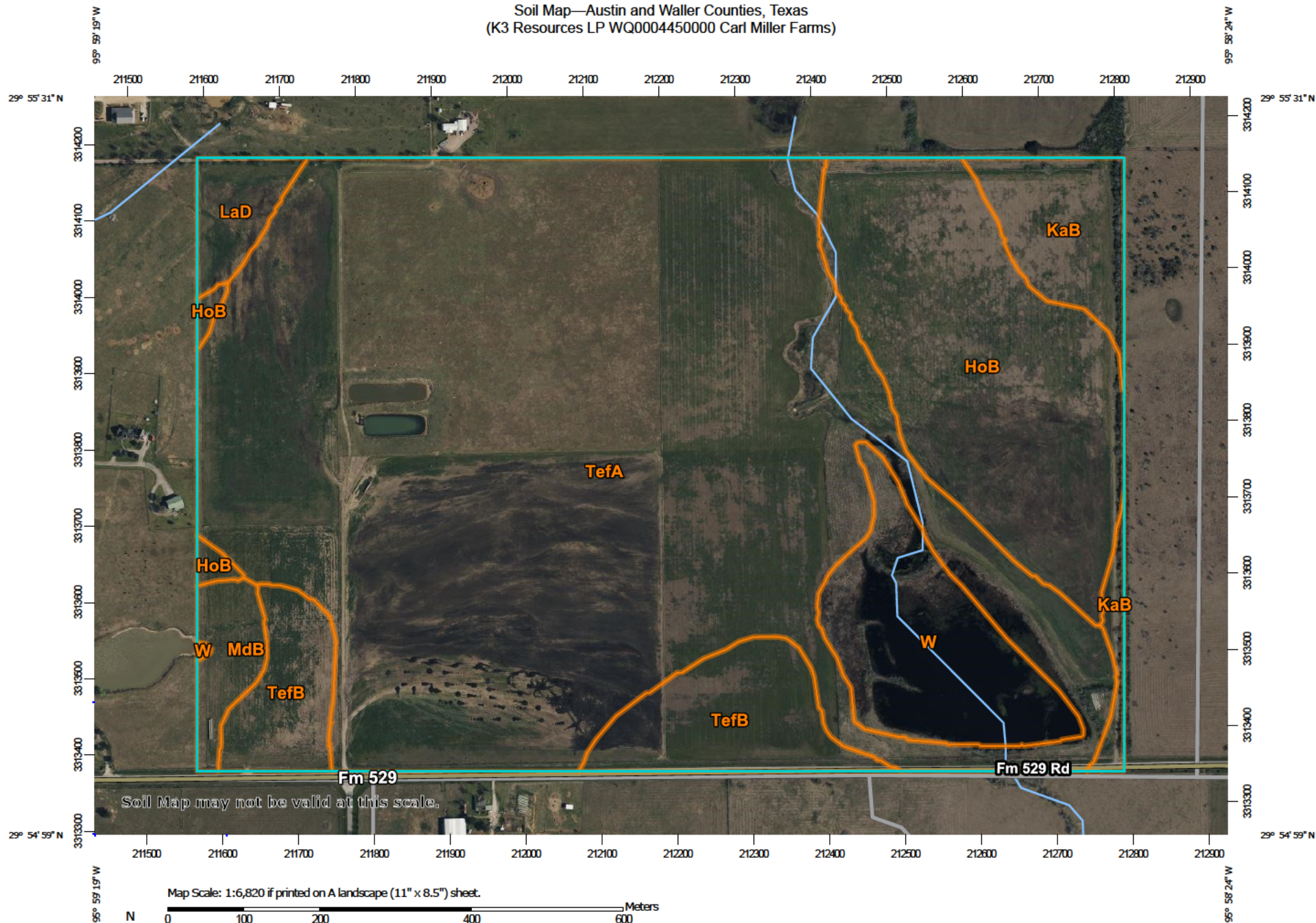
Use the laboratory analyses to complete Table 1 for each source.

**J. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2)**





Soil Map—Austin and Waller Counties, Texas  
(K3 Resources LP WQ0004450000 Carl Miller Farms)



Soil Map may not be valid at this scale.

Map Scale: 1:6,820 if printed on A landscape (11" x 8.5") sheet.

0 100 200 400 600 Meters

0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

2/12/2024  
Page 1 of 3

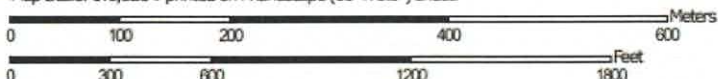


Soil Map—Austin and Waller Counties, Texas  
(K3 Resources LP WQ0004450000 Carl Miller Farms)



Soil Map may not be valid at this scale.

Map Scale: 1:6,820 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84



Natural Resources  
Conservation Service


Web Soil Survey  
National Cooperative Soil Survey

2/12/2024  
Page 1 of 3


Soil Map—Austin and Waller Counties, Texas  
(K3 Resources LP WQ0004450000 Carl Miller Farms)


## MAP LEGEND


### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Austin and Waller Counties, Texas

Survey Area Data: Version 21, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 13, 2022—Mar 25, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HoB	Hockley loamy fine sand, 1 to 3 percent slopes	35.9	14.7%
KaB	Katy fine sandy loam, 1 to 3 percent slopes	9.9	4.1%
LaD	Lake Charles clay, 3 to 8 percent slopes	4.0	1.6%
MdB	Midfield loam, 0 to 2 percent slopes	4.0	1.6%
TefA	Telf fine sandy loam, 0 to 1 percent slopes	156.2	64.2%
TefB	Telf fine sandy loam, 1 to 3 percent slopes	17.2	7.0%
W	Water	16.3	6.7%
<b>Totals for Area of Interest</b>		<b>243.4</b>	<b>100.0%</b>



## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly structural drainage sources of small size. The community map repository should be consulted for possible updates or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Flood Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only to landward of 0.57 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Flood Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Flood Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic computations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Texas State Plane South Central zone (FIPS ZONE 4204). The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov/> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NCEA, NCEIS  
National Geodetic Survey  
OSMC-1, 8202  
1315 East West Highway  
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov/>.

**Base map** information shown on this FIRM was provided in digital format by Waller County and Houston-Galveston Area Council (HGAC). This dataset was digitized at a scale of at least 1:24,000 from 1:40,000 aerial photography dated 2002 and 2004.

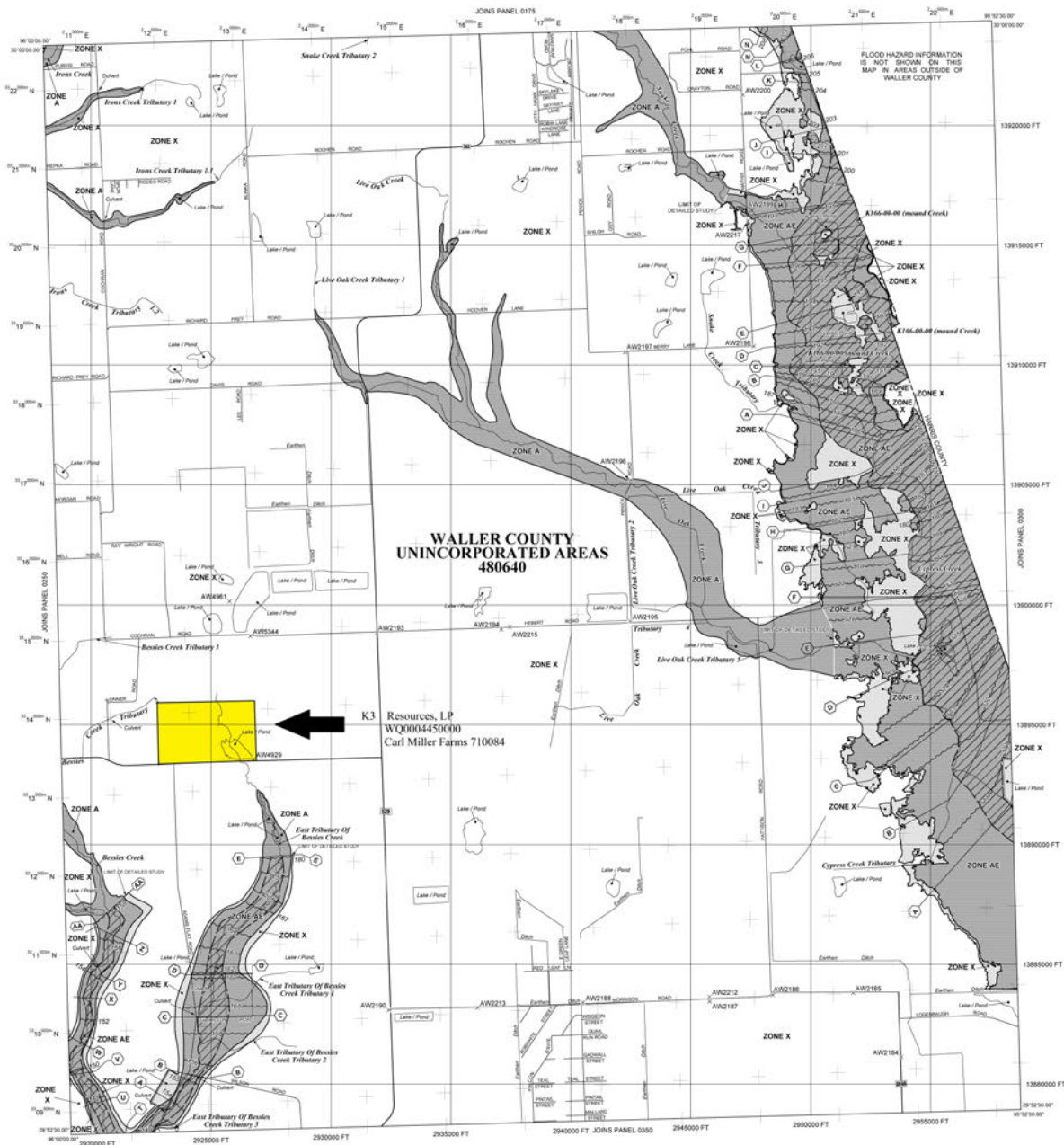
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodways and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses, and a listing of Communities with National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov/>.

If you have **questions** about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/>.



**WALLER COUNTY  
UNINCORPORATED AREAS  
480640**

K3 Resources, LP  
WQ0004450000  
Carl Miller Farms 710084

## LEGEND

**SPECIAL FLOOD HAZARD AREAS (SFHA), SUBJECT TO FLOODING BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AR, AV, VE, V, D, O, Z, S, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.

**Zone A** No Base Flood Elevation determined.

**Zone AE** Base Flood Elevation determined.

**Zone AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevation determined.

**Zone AR** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevation determined.

**Zone AV** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently removed; flood depths are indicated by the former flood control system being removed to provide protection from the 1% annual chance or greater flood.

**Zone A99** Area to be protected from 1% annual chance flood by a Federal Flood Insurance Study under construction; no Base Flood Elevation determined.

**Zone V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevation determined.

**Zone VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevation determined.

**Zone D** Floodway.

**Zone O** Floodway.

**Zone S** Floodway.

**Zone B** Floodway.

**Zone C** Floodway.

**Zone D** Floodway.

**Zone E** Floodway.

**Zone F** Floodway.

**Zone G** Floodway.

**Zone H** Floodway.

**Zone I** Floodway.

**Zone J** Floodway.

**Zone K** Floodway.

**Zone L** Floodway.

**Zone M** Floodway.

**Zone N** Floodway.

**Zone O** Floodway.

**Zone P** Floodway.

**Zone Q** Floodway.

**Zone R** Floodway.

**Zone S** Floodway.

**Zone T** Floodway.

**Zone U** Floodway.

**Zone V** Floodway.

**Zone W** Floodway.

**Zone X** Floodway.

**Zone Y** Floodway.

**Zone Z** Floodway.

**Zone AA** Floodway.

**Zone AB** Floodway.

**Zone AC** Floodway.

**Zone AD** Floodway.

**Zone AE** Floodway.

**Zone AF** Floodway.

**Zone AG** Floodway.

**Zone AH** Floodway.

**Zone AI** Floodway.

**Zone AJ** Floodway.

**Zone AK** Floodway.

**Zone AL** Floodway.

**Zone AM** Floodway.

**Zone AN** Floodway.

**Zone AO** Floodway.

**Zone AP** Floodway.

**Zone AQ** Floodway.

**Zone AR** Floodway.

**Zone AS** Floodway.

**Zone AT** Floodway.

**Zone AU** Floodway.

**Zone AV** Floodway.

**Zone AW** Floodway.

**Zone AX** Floodway.

**Zone AY** Floodway.

**Zone AZ** Floodway.

**Zone BA** Floodway.

**Zone BB** Floodway.

**Zone BC** Floodway.

**Zone BD** Floodway.

**Zone BE** Floodway.

**Zone BF** Floodway.

**Zone BG** Floodway.

**Zone BH** Floodway.

**Zone BI** Floodway.

**Zone BJ** Floodway.

**Zone BK** Floodway.

**Zone BL** Floodway.

**Zone BM** Floodway.

**Zone BN** Floodway.

**Zone BO** Floodway.

**Zone BP** Floodway.

**Zone BQ** Floodway.

**Zone BR** Floodway.

**Zone BS** Floodway.

**Zone BT** Floodway.

**Zone BU** Floodway.

**Zone BV** Floodway.

**Zone BW** Floodway.

**Zone BX** Floodway.

**Zone BY** Floodway.

**Zone BZ** Floodway.

# Waste Utilization and Nutrient Management Plan

**Carl Miller Farms 710084**

1.4 Mi W of X FM529 & FM362

Brookshire, TX

979-826-2127

**TCEQ Permit Number:**

WQ0004450000

**Owner**

Multiple- Wanda White, Millers

35600 FM 529

Brookshire, TX 77423

979-826-2127

**Operator**

K-3 Resources, LP

9458 FM 362

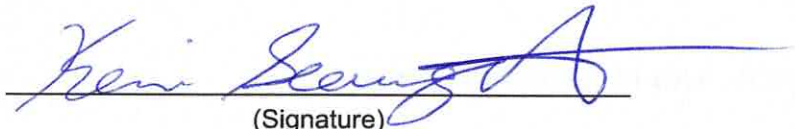
Brookshire, TX 77423

281-375-5778

**Type of Organic Nutrient Management Plan:**

**Biosolids**

located in Waller County

**Prepared By:**

(Signature)

Kevin Seawright

Consultant

Certificate Number = TX202311

Expiration Date = January 31, 2025

Erthra Consulting, LLC

3880 FM 3318 Rd

Pattison, TX 77423

832-504-2757

This plan is based on:

590 Organic Nutrient Management Plan V 5.0

5/1/24 11:38 AM

# Waste Utilization and Nutrient Management Plan

## EXECUTIVE SUMMARY:

Permit #:

WQ0004450000

**This Nutrient Management Plan has fields that meet NUPs requirements.**

Based on a the 2023 soil samples from permit WQ000445000 the following are allowed to be applied for the Coastal Bermuda grass with with cool season grazing at 1AU/acre (1000 lbs average) and having 14,100 lbs of dry matter total of hay production:

Field 1- 3.2 Tons/acre

Field 2 - 3.2 Tons/Acre

Field 3 - 3.2 Tons/ Acre

The above amounts are the total Tons/ Acre that can be applied for the 2024 growing season.

These totals are based on the 2023 soil samples and the P index and crop removal of P.

## LOCATION AND PURPOSE OF THE PLAN

Located in :            Waller            County

See plan map for location. The purpose of this plan is to outline the details of land application of biosolids on this land. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Nutrient Management Standard (590) and Waste Utilization Standard (633). When the appropriate land treatment practices needed to reduce runoff are fully implemented and maintained in each field the plan will provide the more comprehensive benefits of minimizing the affects of the land application of biosolids on the air, soil, water, and animal resources in and around the application area. Annual maximum application rates are determined using **Table 2 & 2a** depending on the current soil test P level and P index result for each field receiving biosolids.

**Table 3** provides an estimate of the nutrients removed in the harvested portion of the crop at the planned yield goal for hay, grain, and fiber crops. The values used for grazed crops are the estimated amount of nutrients taken up in the above ground portion of the plants.



# Waste Utilization and Nutrient Management Plan

SIGNATURE PAGE

WQ0004450000

Plan Prepared by:

Kevin Seawright

Date: 5/1/2024

Plan Approved by:

Kevin Seawright

Date: 5/8/24

Producer Signature:

[Signature]

Date: 5-8-2024

The producer's signature indicates that this plan has been discussed with him/her.

If this plan is not signed by the producer, indicate how the plan was provided to the producer.



# Waste Utilization and Nutrient Management Plan

## BIOSOLIDS STORAGE

Permit #:

WQ0004450000

Biosolids may be temporarily stockpiled and covered with durable plastic or other suitable tarp material. Stockpiled biosolids must be sited on suitable soil, geology, and topography to prevent contamination of waterways. Runoff from stockpiled biosolids must be retained on-site by use of berms or other adequate structures where there is potential transport of biosolids into waterways.

## COLLECTING SOIL SAMPLES FOR ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

Collect a composite sample for each field (or area of similar soils and management not more than about 40 acres) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface. Thoroughly mix each set of core samples, and select about a pint of the mixture as the sample for analysis. Label each sample for the field that it represents. Request that the samples be analyzed for nitrate nitrogen, available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity, and pH. Also note on the samples that they are from a biosolids application area.

## SOIL ANALYSIS

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling requirements of your permit. If application area is not regulated by TCEQ:

A base line soil analysis will be completed for all areas to be used for biosolids application. The area will be tested every year that biosolids are applied to monitor P build up. If soil test values rise to a higher category, i.e., Low to Medium, contact the local Soil and Water Conservation District or USDA/NRCS office to revise the Waste Utilization Plan and to assist in development of a plan to reduce P in the field(s).

## RECORD KEEPING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the record keeping requirements of your permit. If application area is not regulated by TCEQ:

Detailed records should be maintained for all applications of biosolids for a period of at least 5 years. Records should include date, time, location, and amount of application; they could also include weather conditions, estimated wind speed and direction, etc. Keep all soil and biosolids analyses for the same period.

## OPERATION AND MAINTENANCE

Application equipment should be maintained in good working order, and it should be calibrated at least once a year, so that the desired rate and amount of biosolids will be applied. Any changes in this system must be discussed with Texas Commission on Environmental Quality (TCEQ) prior to their initiation on permitted sites. If your site is not permitted by TCEQ, contact your local NRCS office for updates and assistance.

# Waste Utilization and Nutrient Management Plan

## FILTER STRIPS, ETC

Permit #:

WQ0004450000

Acres of biosolids exclusion zones are noted in **Table 8**. Location of buffers and other exclusion zones are found on the application area map.

Filter Strips will meet the Texas USDA/NRCS standard (393). A minimum 100 foot wide grassed and/or wooded buffer providing at least 70% ground cover will be maintained between the application area and all water courses, ponds, lakes, wetlands, etc.

Riparian Forested Buffers (if used) will meet the Texas USDA/NRCS Standard (391). When planned, a minimum 50 foot wide wooded buffer will be maintained between the application area and the edge of streams, creeks, rivers, etc. to protect water quality, decrease water temperatures, improve aquatic organism habitat, reduce sediment and nutrient loading and reduce bank erosion. Select harvesting within this zone may be done in accordance with guidelines of the Texas Forest Service. If the wooded buffer is only 50 feet wide, there still must be a minimum 100 feet between biosolids application area and stream bank. Another vegetated buffer will be established or maintained to account for the remaining distance. Biosolids will not be applied within 100 feet of any waterway, stream, creek, pond, lake, or wetlands.

The minimum application distance from private or public wells will be 150 feet and 500 feet respectively. Private wells that are located within a field where biosolids are applied and are part of a center pivot irrigation system are exempt from the set-back requirement. The minimum suggested application distance from schools, institutions, and densely populated residential, business, or similar development is 1000 feet.

*Biosolids will not be applied to any buffer areas or any frequently flooded areas, as designated by county soil survey.*

## PLANNED METHOD OF APPLICATION

Biosolids may be surface applied uniformly, injected, or incorporated below the surface of the soil within the root zone of the planned crop. To reduce soil compaction, applications should only be made when soil conditions are favorable. Biosolids should not be spread if heavy rains are forecast to occur within 1 day of a proposed application date.

## ODOR MANAGEMENT

The following steps should be taken when spreading biosolids to reduce problems associated with odor.

1. Avoid spreading biosolids when wind will blow odors toward populated areas.
2. Avoid spreading biosolids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
3. Avoid spreading biosolids near heavily traveled highways.
4. Make biosolids applications in the morning when the air is warming, rather than in the late afternoon.

## BIOSOLIDS TESTING

If your biosolids application area is permitted by the Texas Commission on Environmental Quality (TCEQ), follow the sampling and testing requirements of your permit. For applications not permitted by TCEQ, the biosolids need to be analyzed for percent moisture, total nitrogen, total phosphorus, and total potassium.



# Waste Utilization and Nutrient Management Plan

## ESTIMATED NUTRIENT AVAILABILITY

Permit #:

WQ0004450000

Refer to **Table 4** for field specific maximum biosolids application rates. Values in **Table 4** are based on the data in **Table 1**. Application will be based on biosolids analysis. Applying biosolids at **MAXIMUM** rates shown in **Table 4** will result in a more rapid build-up of phosphorus than if applied at lower rates. Phosphorus will build up more rapidly on pastureland than on hayland or cropland, since a much small amount of nutrients are actually removed from the farm by grazing animals. Biosolids may be applied to the same acreage every year, but if the soil test P level exceeds the critical level, or the Texas P Index result changes the rates of application will have to be reduced in accordance with Texas NRCS Nutrient Management Standard (590). This plan is valid only if the annual application of biosolids to the crops listed in **Table 4** does not exceed the per acre rates by more than 10%. If the yield of a crop does not meet the expected goal, the application rate should be adjusted accordingly the following year.

Recommended annual application amounts that are smaller than can physically be applied due to limitation of the application equipment should be doubled and applied to the field every other year. No other P fertilizer may be used the second year, but supplemental N and K<sub>2</sub>O should be applied, if needed. If the P index critical P level is exceeded, it is recommended that no additional biosolids be applied to those fields until the level is reduced. Biosolids applications should be made at appropriate times to meet crop needs, but may be applied at any time as long as soils are not saturated, snow covered, or frozen, and the annual maximum is not exceeded.

## SUPPLEMENTAL NUTRIENTS TO MEET YIELD GOAL

**Table 5** shows the estimated amount of nutrients that are applied in pounds per acre for each field where biosolids are applied using per acre amounts shown in **Table 4**. Supplemental nitrogen (N) and potassium (K<sub>2</sub>O) will be applied to achieve the yield goals noted in **Table 5**, when recommended based on soil analysis and the annual biosolids application does not meet the requirements as detailed in **Table 5**.

Deep soil sampling is recommended on application areas where loamy to clayey soils are present and biosolids have been applied previously. If this deep testing reveals accumulated nitrate N in the root zone, it should be deducted from any supplemental N to be applied to meet the planned yield goal. Sampling in 6 inch increments to a depth of 3 feet is sufficient for most crops.

## ADJUSTMENTS TO APPLY LESS THAN THE MAXIMUM RATES

In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in **Table 6** can be reduced down to the level that does not exceed the amount of solids available. **Table 7** indicates the amount of nutrients provided and, if needed, the supplemental nutrients which must be applied when the application is based on these reduced rates. The amount of supplemental nutrients in **Table 7** are based on the actual amount of waste available rather than the maximum rate that "could" be applied.

The second line from the bottom of **Table 6** on the right has a box that will be "YES" or "NO". When the reduced rates uses all solids to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No", either more acreage is needed on which to apply the solids or the solids will need to be transported off-site.

# PI Index by Field

Printed on: 5/1/24 11:39 AM      This plan is based on: Nutrient Management Plan V 5.0      Permit #: WQ0004450000  
 Client Name: Carl Miller Farms 710084  
 Planner: Kevin Seawright      Date: 5/1/2024  
 Location: Waller      Rainfall: >25.0 inches

LMU or Fields	Crop	Slope	Runoff Curve	Soil Test P Level	Inorganic P <sub>2</sub> O <sub>5</sub> Appl Rate	Organic P <sub>2</sub> O <sub>5</sub> Appl Rate	Inorganic Method & Timing	Organic Method & Timing	Proximity of Appl to Named Stream	Runoff Class	Soil Erosion	Total Index Points	P Runoff Potential	Soil Test Date:
1	Common graze 1 AU/1 ac, RG mod Graze	1-3%	61-L	2	0	6	0	4	0	1	6	19	Medium	12/21/23
2	Common graze 1 AU/1 ac, RG mod Graze	0-1%	74-L	1	0	6	0	4	0	1	6	18	Medium	12/21/23
3	Common graze 1 AU/1 ac, RG mod Graze	0-1%	74-L	1	0	6	0	4	0	1	6	18	Medium	12/21/23



# Waste Utilization and Nutrient Management Plan

**Table 1 - Est. Amount of Waste Allowed for Land Application**

Permit #: **WQ0004450000**

Biosolids Type	Est. Max DRY tons applied annually
<b>Other</b>	<b>708.2</b>

Contact your agronomic consultant, TCEQ or local USDA Natural Resources Conservation Service office, if the application quantities change by more than 10 percent so your plan can be revised.

## Estimated Nutrient Availability Solids

	pounds / yr	pounds / ton	
** N	<b>3,644</b>	<b>5.1</b>	**
P2O5	<b>41,025</b>	<b>57.9</b>	
K2O	<b>5,874</b>	<b>8.3</b>	

**\*\* Effluent Values Based on Analysis**

**\*\* Solids Values Based on Analysis**

## Explanation of Other Biosolids Type:

Class B- aerobically digested meeting Pathogen and Vector requirements

**Default values were used on all fields for plant removal of nutrients and yield levels.**

# Waste Utilization and Nutrient Management Plan

**TABLE 2. A Nutrient Management Plan (NMP) is required where Soil Test P Level <sup>1/</sup> is:**

- less than 200 ppm statewide or
- or < 350 ppm in arid areas <sup>2/</sup> with a named stream > one mile.

<b>P – Index Rating</b>	<b>Maximum TMDL Annual P Application Rate <sup>5/</sup></b>	<b>Maximum Annual P Application</b>	<b>Maximum Biennial Application Rate</b>
<b>Very Low, Low</b>	Annual Nitrogen (N) Requirement	Annual Nitrogen (N) Requirement	2.0 Times Annual N Requirement
<b>Medium</b>	2.0 Times Annual Crop P Requirement <sup>3/</sup>	2.0 Times Annual Crop P Requirement <sup>3/</sup>	2.0 Times Annual N Requirement
<b>High <sup>5</sup></b>	1.5 Times Annual Crop P Requirement <sup>3/</sup>	1.5 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement
<b>Very High <sup>5</sup></b>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	1.0 Times Annual Crop P Requirement <sup>3/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Requirement

**TABLE 2a. A Nutrient Utilization Plan (NUP) is required by TCEQ where Soil Test P Level <sup>1/</sup> is:**

- equal to or greater than 200 ppm in non-arid areas <sup>2/</sup> or
- equal to or greater than 350 ppm in arid areas <sup>2/</sup> with a named stream greater than one mile or
- equal to or greater than 200 ppm in arid areas <sup>2/</sup> with a named stream less than one mile.

<b>P – Index Rating</b>	<b>Maximum TMDL Annual P Application Rate <sup>5/</sup></b>	<b>Maximum Annual P Application</b>	<b>Maximum Biennial Application Rate</b>
<b>Very Low, Low</b>	1.0 Times Annual Crop P Removal <sup>4/</sup>	Annual N Crop Removal	2.0 Times Annual N Removal
<b>Medium</b>	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
<b>High <sup>5</sup></b>	1.0 Times Annual Crop P Removal <sup>4/</sup>	1.0 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal
<b>Very High <sup>5</sup></b>	0.5 Times Annual Crop P Removal <sup>4/</sup>	0.5 Times Annual Crop P Removal <sup>4/</sup>	Double the Maximum Annual P Application Not to Exceed 2 times the Annual N Crop Removal

## Footnotes Applicable to both Tables

- 1/ Soil test P will be Mehlich III by inductively coupled plasma (ICP).
- 2/ Non-arid areas, counties receiving => 25 inches annual rainfall, will use the 200 ppm P level while arid areas, counties receiving < 25 inches of annual rainfall, will use the 350 ppm P level. See map in TX Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, for county designations.
- 3/ Not to exceed the annual nitrogen requirement rate.
- 4/ Not to exceed the annual nitrogen removal rate.
- 5/ When soil test phosphorus levels are ≥ 500 ppm, with a P-Index rating of “High” or “Very High”, there will be no additional application of phosphorus to a CMU or field.

# Waste Utilization and Nutrient Management Plan

**Table 3 - Crop Removal Rates (For Information Only)**

Permit #: **WQ0004450000**

LMU or Field No.	Acres	Crop and P Index Level	TCEQ Plan Type	Actual Crop Analysis or Default	Total Est. N Removal lbs/Ac/Yr	Total Est. P <sub>2</sub> O <sub>5</sub> Removal lbs/Ac/Yr	Total Est. K <sub>2</sub> O Removal lbs/Ac/Yr
1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239
2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239
3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	NMP	Default	268	87	239

**NOTE:** When crops are used for grazing, only a portion of the nutrients used by the crop are removed from the field in the live weight gain of the livestock, the remainder is returned to the land in manure and urine. The book "Southern Forages" estimates the N, P, & K removed in 100 pounds live weight gain as follows: **2.5 lbs N, 0.68 lbs P, 0.15 lbs K**

# Waste Utilization and Nutrient Management Plan

**Table 4 - Maximum Solids Application per Field**

Permit #:

WQ0004450000

Est. Solids Produced Annually (wet tons)	LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P Level (ppm)	Max Annual P2O5 lbs/acre	Annual/Biennial	Maximum Solids Allowable Tons/Acre	Maximum Allowable Application Per field (Tons)
0	1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	250	A	4.3	160
	2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	250	A	4.3	237
	3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	250	A	4.3	311



**Table 5 - Nutrients Applied/Needs at Maximum Solids Rates**

WQ0004450000

		Nutrients Applied When Application is at Maximum Rates		Supplemental Nutrients Needed When Application is at Maximum Rates			
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac	Lime T/Ac
1	22	250	36	285	0	0	0
2	22	250	36	275	0	0	0
3	22	250	36	280	0	0	0

# Waste Utilization and Nutrient Management Plan

**Table 6 - Planned Solids Application Rates**

Permit #: **WQ0004450000**

LMU or Field No.	Double crop	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Max Rate tons/ac	% of Maximum to apply	Planned Solids tons/ac	Planned Solids per field (tons)
1		37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	A	4.3	75	3.2	120.1
2		55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	A	4.3	75	3.2	178.0
3		72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	A	4.3	75	3.2	233.0

## Permit #: WQ0004450000

Nutrients Applied at Planned Rates			
LMU / Field #	N Lb/ac	P <sub>2</sub> O <sub>5</sub> Lb/ac	K <sub>2</sub> O Lb/ac
1	17	188	27
2	17	188	27
3	17	188	27

[illegible]

## Waste Utilization and Nutrient Management Plan

### Table 8 - Non Application Areas by Field

Permit #:

WQ0004450000

**FS** = 393-Filter Strip; **FB** = 386-Field Border, **RFB** = 391-Riparian Forest Buffer; **OLEA** = Other Land Excluded Ar

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded
1	0.0	0.0			
2	0.0	0.0			
3	0.0	0.0			

**See Application Map for location of buffers**

**Total 590-633 application acres: 164.1**

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded

<b>Totals</b>	0.0	0.0	0.0	0.0	0.0
---------------	-----	-----	-----	-----	-----

**Total 590-633 Field Acres: ERROR**



### Table 8 - Non Application Areas by Field

**FS** = 393-Filter Strip; **FB** = 386-Field Border, **RFB** = 391-Riparian Forest Buffer; **OLEA** = Other Land Excluded Area

LMU / Field #	FS Acres	FB Acres	RFB Acres	OLEA Acres	Total Excluded

**Total 590-633 Field Acres: ERROR**

# Waste Utilization and Nutrient Management Data Entries

## General Data

Date : 5/1/2024  
Farmer Name : Carl Miller Farms 710084  
County in which the Land is located : Waller  
Type of Waste Plan : Biosolids  
Is this plan in a TMDL watershed for nutrients?  
Yes or No : No  
Is any field PERMITTED by TCEQ?  
Yes or No : Yes  
Permit # : WQ0004450000

All other entries on General Page appear on the Cover Page

## Biosolids Information

Plan Year :	2024	Explain Other: Class B- aerobically digested meeting Pathogen and Vector requirements
Biosolid Type :	Other	
Analysis Date:	5/15/2023	
Nitrogen % From Biosolids Analysis:	0.40	
Phosphorus % From Biosolids Analysis:	1.58	
Potassium % From Biosolids Analysis:	0.43	
Moisture % From Biosolids Analysis:	20.00	
Does this site generate biosolids?	No	
If B11 = "Yes", How many dry tons/year?		

This plan is based on: rganic Nutrient Management Plan V 5.0

Printed on: 5/1/24 11:40 AM

Permit #: WQ0004450000

Printed on: 5/1/24 11:41 AM

Plan is based on: 590 Organic Nutrient Management Plan

**FS = 393-Filter Strip, FB = 386-Field Border, RFB = 391-Riparian Forest Buffer, OLEA = Other Land Exclusion Areas or non-application areas (i.e. headquarters, freq. flooded areas, wooded areas, water bodies, etc)**

**NOTE: Field Border (FB) is expressed in ACRES on this spreadsheet, but as LINEAR FEET on the CPO.**

[illegible]

Permit #: WQ0004450000

[illegible]



## Solids Application Rate Entries

Solids - Set the Planned Application Rates				Permit #:		WQ	
708		Maximum dry tons that may be applied.		Will the planned rates use the Maximum a			
				Dry Tons to be used on-site at plann			
LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Crop P <sub>2</sub> O <sub>5</sub> Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply
1	37.1	Common graze 1 AU/1 ac, RG mod Graze M	125	125	Annual	4.3	75.0
2	55.0	Common graze 1 AU/1 ac, RG mod Graze M	25	125	Annual	4.3	75.0
3	72.0	Common graze 1 AU/1 ac, RG mod Graze M	46	125	Annual	4.3	75.0

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Kelly Keel, *Interim Executive Director*



## Texas Commission on Environmental Quality

*Protecting Texas by Reducing and Preventing Pollution*

July 14, 2023

ANDY DRENNAN  
K-3 RESOURCES INC  
9458 FM 362 RD  
PATTISON, TX 77423-1706

**Re: Sludge Transportation Registration**  
**K3 RESOURCES EL CELOSO RANCH**  
**Registration Number: 22430**

CN603111196

RN111333043

Dear Andy Drennan:

The Section Manager of the Registration and Reporting Section has issued the enclosed registration in accordance with Title 30 of the Texas Administrative Code (30 TAC) Chapter 312 Subsection (§) 312.147 (b). This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Issuance of this authorization is not an acknowledgment that your operation is in full compliance with state and federal rules and regulations. Failure to comply with all rules and regulations may result in enforcement action and/or the revocation of your registration.

Your registration number is required to appear on all tanks and containers used for the collection and transportation of sewage sludge and similar waste. It should also be used on all correspondence regarding your sludge registration.

A copy of your sludge transporter registration, a copy of your application for registration and copies of all amendments to this registration must be available at all times and at all locations where business is being transacted under this registration, including all motorized vehicles operated under this registration.

If you have any questions or comments, please contact the Sludge Transporter Registration Program at (512) 239-6413.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon W. Frazier".

Shannon W. Frazier, Manager  
Registration & Reporting Section

Enclosures

CC: TCEQ Region 12, HOUSTON



Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

*K Keel*

Print Date: July 14, 2023

For the Commission

**Company:** K-3 RESOURCES INC

**Registered Since:** June 25, 2002

**Expiration Date:** August 31, 2024

**Status:** ACTIVE

**Regulated Entity:** K3 RESOURCES EL CELOSO RANCH

**Organization Type:** PARTNERSHIP

**County:** WALLER

**TCEQ Region:** 12

**Transport Waste into Texas:** NO

**Transport Waste out of Texas:** NO

**Physical Address:**

9458 FM 362 RD  
PATTISON, TX 77423-1706

**Contact Information**

**Contact:** ANDY DRENNAN

**Phone:** 281-375-5778

**Fax:**

**E-Mail:** COMPLIANCE@K3BMI.COM

**Mailing Address:**

9458 FM 362 RD  
PATTISON, TX 77423-1706

**Sticker Numbers Issued and Listed below will expire on August 31, 2024:**

05351	05352	05353	05354	05355	05356	05357	05359	05360
05361	05362	05363	05364	05365	05366	05367	05368	05369
05370	05371	05372	05374	05375	05376	05378	05379	05380
05381	05382	05383	05384	05385	05386	05387	05388	05389
05390	05391	05392	05393	05394	05395	05396	05397	05398
05399	05400	05401	05402	06299	06300	06301	06302	06303
06304	06305	01935	01936	01937	01938	01939	01940	01941

**This is your registration** which reflects the information submitted on your application to the Register or Renew as a Transporter of Municipal Sludge(s) and Similar Wastes. Requirements for transportation are provided in accordance with 30 TAC Chapter 312. Issuance of this registration is not acknowledgement by the TCEQ that your operation is in full compliance with the rules and regulations of the TCEQ. Changes or additions referred to this notice require written notification to the TCEQ. Please keep a copy of this registration in every vehicle transporting sludge and all locations where business is being transacted under this registration.





Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

*K. Keel*

Print Date: July 14, 2023

For the Commission

**Disposal Facility Information**

<u>Facility ID</u>	<u>Waste Type</u>	<u>Facility Name</u>	<u>Program</u>
2234D	DS; GS; PP; WW	LIQUID ENVIRONMENTAL SOLUTIONS	SLUDGETR
2270	WT; WW	FORT BEND REGIONAL LANDFILL	MSWDISP
720056	WT; WW	K-3 RESOURCES	SLUDGETR
WQ0004445000	WT; WW	CARL MILLER FARMS	SLUDGE
WQ0004448000	WT; WW	CARL MILLER FARMS 4	SLUDGE
WQ0004450000	WT; WW	CARL MILLER FARMS	SLUDGETR
WQ0004454000	WT; WW	JEFFRIES RANCH	SLUDGE
WQ0004518000	DS; WT; WW	EL CELOSO RANCH	SLUDGE
WQ0004538000	DS; WT; WW	WALLER LIME STABILIZATION FACILITY	SLUDGE
WQ0005222000	WT; WW	ORTEGA RANCH	SLUDGETR
WQ0005248000	WT; WW	CARL MILLER FARMS SOUTH	SLUDGETR
WQ0010137033	DS; PP	STEVEN M CLOUSE WATER RECYCLING CENTER	WWPERMIT
WQ0010543011	DS; PP; WT; WW	WALNUT CREEK WWTP	WWPERMIT

**Waste Types**

DS - Septic Tank Waste  
GS - Grease Trap Waste

GT - Grit Trap Waste  
PP - Chemical Toilet Waste

WT - Water Treatment Residuals  
WW - Sewage Sludge/Biosolids



**SLUDGE TRANSPORTER**

Registration Number: 22430

CN603111196

RN111333043

*K. Keel*

Print Date: July 14, 2023

For the Commission

**Vehicle Information**

<u>License Plate</u>	<u>Year</u>	<u>Vehicle Make</u>	<u>Sticker Issued</u>	<u>Vehicle Capacity</u>
KBP0146	2012	KENWORTH-T800	07/20/2012	30 CY
R091387	2013	KENWORTH-T800 DC	02/18/2013	7000 GAL
R091378	2012	KENWORTH-T800 DC	06/30/2016	7000 GAL
R181153	2015	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251143	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R251144	2016	KENWORTH-T800 DC	06/30/2016	7000 GAL
R091412	2013	KENWORTH-T800 DC	08/10/2018	7000 GAL
R337867	2018	KENWORTH-T800 DC	08/10/2018	7000 GAL
LPP7627	2018	KENWORTH-T800	08/10/2018	30 CY
R374785	2019	KENWORTH-T800 DC	08/10/2018	7000 GAL
R439393	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439394	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439395	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439396	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439397	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R439398	2019	567 DC PETERBILT	10/29/2019	7000 GAL
R411512	2019	389 PETERBILT	10/29/2019	7000 GAL
R091413	2013	KENWORTH-T800 DC	10/29/2019	7000 GAL
R091433	2015	KENWORTH-T800 DC	10/29/2019	7000 GAL
R379075	2019	KENWORTH-T880 DC	10/29/2019	7000 GAL
R438741	2019	567 PETERBILT	06/11/2020	7000 GAL
R453415	2020	KENWORTH T-880	06/11/2020	7000 GAL
R411923	2018	KENWORTH T800 DC	03/03/2021	7000 GAL
R419006	2019	389 PETERBILT	06/23/2021	7000 GAL
R091400	2013	KENWORTH-T800 DC	09/01/2021	7000 GAL
R091423	2014	KENWORTH T800 DC	09/01/2021	7000 GAL
R091432	2015	KENWORTH T800 DC	09/01/2021	7000 GAL
R337866	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R361379	2018	KENWORTH T880 DC	09/01/2021	7000 GAL
R374784	2019	KENWORTH-T880 DC	09/01/2021	7000 GAL
R391671	2018	KENWORTH-T800 DC	09/01/2021	7000 GAL
R411922	2018	KENWORTH T800 DC	09/01/2021	7000 GAL
R411513	2019	389 PETERBILT	09/01/2021	7000 GAL
R419007	2019	389 PETERBILT	09/27/2021	7000 GAL
R136782	2015	KENWORTH T880	09/27/2021	7000 GAL
BK10489	2005	INTERNATIONAL	06/16/2022	2100 GAL
MVW2388	2019	PETERBILT 348	06/16/2022	2100 GAL
R091422	2014	KENWORTH T800 DC	06/16/2022	7000 GAL
R356898	2018	KENWORTH-T800	06/16/2022	7000 GAL



Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

*K. Keel*

Print Date: July 14, 2023

For the Commission

R562815	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562816	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562817	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R562818	2022	KENWORTH DC T880	06/16/2022	7000 GAL
R574005	2022	KENWORTH T-880	06/16/2022	7000 GAL
R574006	2022	KENWORTH T-880	06/16/2022	7000 GAL
R582315	2022	KENWORTH W 900	06/16/2022	7000 GAL
R582316	2022	KENWORTH W 900	06/16/2022	7000 GAL
R594541	2022	KENWORTH W 900	06/16/2022	7000 GAL
R604431	2019	KENWORTH T-880	06/16/2022	2100 GAL
RCP1653	2020	KENWORTH T-880	06/16/2022	30 CY
RCP1654	2021	KENWORTH T880	06/16/2022	30 CY
RCP1655	2021	KENWORTH T880	06/16/2022	30 CY
PPP7885	2016	KENWORTH	02/24/2023	7000 GAL
R356897	2018	KENWORTH	02/24/2023	7000 GAL
R379076	2019	KENWORTH	02/24/2023	7000 GAL
R391670	2018	KENWORTH	02/24/2023	7000 GAL
2452J70	2024	PETERBUILT	07/13/2023	7000 GAL
2452J71	2024	PETERBUILT	07/13/2023	7000 GAL
2604R22	2024	PETERBUILT	07/13/2023	7000 GAL
2604T37	2024	PETERBUILT	07/13/2023	7000 GAL
2604U32	2023	PETERBUILT	07/13/2023	7000 GAL
R379077	2019	KENWORTH	07/13/2023	7000 GAL
R361380	2018	KENWORTH	07/13/2023	7000 GAL

\*UOM - Units of Measure



Texas Commission on Environmental Quality

**SLUDGE TRANSPORTER**

**Registration Number: 22430**

**CN603111196**

**RN111333043**

*K. Keel*

Print Date: July 14, 2023

---

For the Commission





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

10 April 2024

K-3 BMI  
Renee Tom  
P.O. Box 2236  
Alvin, TX 77511

### **K-3BMI**

Enclosed are the results of analyses for samples received by the laboratory on 21-Dec-23 15:00. 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 11

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

Sincerely,

A handwritten signature in blue ink that reads 'Laura Bonjonia'.

Laura Bonjonia For Sherry Walker  
Customer Service Representativ



Certificate No: T104704265-22-20





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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
4450 Field 1 0"-6"	23L2469-01	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 1 6"-24"	23L2469-02	Solids	19-Dec-23 12:22	21-Dec-23 15:00
4450 Field 2 0"-6"	23L2469-03	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 2 6"-24"	23L2469-04	Solids	19-Dec-23 11:17	21-Dec-23 15:00
4450 Field 3 0"-6"	23L2469-05	Solids	19-Dec-23 11:49	21-Dec-23 15:00
4450 Field 3 6"-24"	23L2469-06	Solids	19-Dec-23 11:49	21-Dec-23 15:00

Envirodyne Laboratories, Inc.

A handwritten signature in blue ink, reading 'Laura Bonjonia', is written over a horizontal line.

*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.*

Laura Bonjonia For Sherry Walker, Customer Service Representativ

Page 2 of 11



## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 1  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-01 and -02  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.35	6.51	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	221.37	226.60	Calc	0.01
TKN-N * (mg/kg)	175.25	158.20	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	46.12	68.38	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	46.12	48.84	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	48.85	51.73	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	124.52	112.34	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	248.11	300.00	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	978.78	1,420.00	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	255.83	609.00	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	184.47	195.37	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	219	253	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00219	0.00253	Calc	
ARSENIC * (mg/kg)	2.03	0.66	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	1.16	0.52	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	13.84	11.04	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	57.37	14.55	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	12.51	6.93	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.214	0.089	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	1.03	0.50	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	2.88	1.61	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	2.88	1.20	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	164.00	27.55	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	89.60	86.50	SM 2540 B	



## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 2  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-03 and -04  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.45	6.28	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	195.21	159.90	Calc	0.01
TKN-N * (mg/kg)	143.15	109.30	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	52.06	50.60	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	67.07	54.65	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	71.04	57.88	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	25.03	10.12	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	404.94	614.50	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	1,409.52	1,785.19	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	585.73	1,058.57	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	200.20	202.40	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	345	259	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00345	0.00259	Calc	
ARSENIC * (mg/kg)	6.87	5.04	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	0.97	0.64	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	28.53	15.99	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	2.89	6.72	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	14.42	26.41	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.0165	0.01	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	0.56	<0.25	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	11.41	6.60	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	<0.25	<0.25	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	32.33	36.53	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	88.40	87.60	SM 2540 B	





## ENVIRODYNE LABORATORIES, INC.

CLIENT: K-3BMI  
LOCATION: 4450 FIELD 3  
SAMPLED BY: K-3  
DATE COLLECTED: December 19, 2023

LAB NUMBER: 23L2469-05 and -06  
DATE RECEIVED: December 21, 2023  
DATE ANALYZED: March 20, 2024  
DATE COMPLETED: March 25, 2024

PARAMETERS:	SOIL	SOIL	METHOD	Reporting Limit
(*) DENOTES: DRY WEIGHT BASIS	0" - 6"	6" - 24"		
pH - Soil (UNITS)	6.12	6.37	EPA SW 846-9045C	0.10
TOT.NITROGEN-N * (mg/kg)	229.95	173.56	Calc	0.01
TKN-N * (mg/kg)	180.04	129.08	SM 4500 NH3 D	0.01
NO3-N * (mg/kg)	49.91	44.48	SM 4500-NO3 E 1 N KCl	0.01
NH3-N * (mg/kg)	53.48	50.58	SM 4500-NH3 F 1 N KCl	0.01
NH4-N * (mg/kg)	56.64	53.53	Calc	0.01
TOTAL PHOSPHORUS, Extractable * (mg/l)	46.30	43.61	SM 4500-P E	0.01
POTASSIUM, Extractable * (mg/kg)	442.69	480.99	EPA SW 846-6010B	0.002
CALCIUM, Extractable * (mg/kg)	2,209.45	2,318.16	EPA SW 846-6010B	0.001
MAGNESIUM, Extractable * (mg/kg)	637.61	825.75	EPA SW 846-6010B	0.001
SODIUM, Extractable * (mg/kg)	178.25	174.43	EPA SW 846-6010B	0.001
CONDUCTANCE at 25c (umhos/cm) 2:1 V/v (Water/Soil)	126	114	EPA SW 846-9050A	
CONDUCTANCE at 25c (dS/m) 2:1 V/v (Water/Soil)	0.00126	0.00114	Calc	
ARSENIC * (mg/kg)	0.53	2.31	EPA SW 846-6010B, 3050	0.001
CADMIUM * (mg/kg)	1.02	0.87	EPA SW 846-6010B, 3050	0.001
CHROMIUM * (mg/kg)	16.67	19.27	EPA SW 846-6010B, 3050	0.005
COPPER * (mg/kg)	52.23	31.92	EPA SW 846-6010B, 3050	0.002
LEAD * (mg/kg)	13.73	15.52	EPA SW 846-6010B, 3050	0.005
MERCURY * (mg/kg)	0.179	0.061	EPA SW 846-7471, 3050	0.0002
MOLYBDENUM * (mg/kg)	0.57	<0.25	EPA SW 846-6010B, 3050	0.001
NICKEL * (mg/kg)	3.91	5.19	EPA SW 846-6010B, 3050	0.008
SELENIUM * (mg/kg)	0.94	<0.25	EPA SW 846-6010B, 3050	0.002
ZINC * (mg/kg)	95.37	67.68	EPA SW 846-6010B, 3050	0.001
TOTAL SOLIDS (%)	85.00	88.20	SM 2540 B	





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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

### Wet Chemistry - Quality Control

### Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L6186 - Inorganics</b>										
<b>Duplicate (B3L6186-DUP1)</b>		<b>Source: 23L1494-05</b>		<b>Prepared &amp; Analyzed: 28-Dec-23</b>						
Total Solids	1.17	0.01	%		1.18			0.851	20	
Volatile Solids	0.910	0.01	"		0.920			1.09	20	
<b>Batch B3L6187 - Inorganics</b>										
<b>Duplicate (B3L6187-DUP1)</b>		<b>Source: 23L2110-08</b>		<b>Prepared &amp; Analyzed: 28-Dec-23</b>						
Total Solids	1.70	0.01	%		1.75			2.90	20	
Volatile Solids	1.28	0.01	"		1.32			3.08	20	
<b>Batch B4A3526 - Inorganics</b>										
<b>Blank (B4A3526-BLK1)</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>								
Conductivity at 25 C	<30	30	umho/cm							
<b>Duplicate (B4A3526-DUP1)</b>		<b>Source: 23L2339-07</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>						
Conductivity at 25 C	106	30	umho/cm		106			0.00	20	
<b>Reference (B4A3526-SRM1)</b>		<b>Prepared &amp; Analyzed: 04-Jan-24</b>								
Conductivity at 25 C	182		umho/cm	180		101	90-110			
<b>Batch B4B5494 - Inorganics</b>										
<b>Blank (B4B5494-BLK1)</b>		<b>Prepared &amp; Analyzed: 28-Feb-24</b>								
Phosphorus, Total	<0.10	0.10	mg/L							

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sherry Walker, Customer Service Representativ

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.



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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B4B5494 - Inorganics</b>										
<b>LCS (B4B5494-BS1)</b>				Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	0.990		mg/L	1.00		99.0	80-120			
<b>Matrix Spike (B4B5494-MS1)</b>				Source: 23L2341-01 Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	1.11	0.10	mg/L	1.00	0.100	101	80-120			
<b>Matrix Spike Dup (B4B5494-MSD1)</b>				Source: 23L2341-01 Prepared & Analyzed: 28-Feb-24						
Phosphorus, Total	1.09	0.10	mg/L	1.00	0.100	99.0	80-120	1.82	20	

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.

Laura Bonjonia For Sherry Walker, Customer Service Representative

Page 10 of 11



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

Client: K-3 BMI  
Project: K-3BMI  
Work Order: 23L2469

Reported:  
10-Apr-24 15:26

#### Notes and Definitions

P Sample preserved at bench  
H Hold time exceeded  
<a < 100  
< < 0.25  
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

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sherry Walker, Customer Service Representativ

*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.*



ENVIRODYNE  
LABORATORIES INC

Envirodyne Laboratories, Inc.  
11011 Brooklet Dr, Ste. 230  
Houston, Texas 77099-3543

Phone (281) 568-7880 - Fax (281) 568-8004

Analysis Request and Chain of Custody Record

Name: K-3 BMI

Address: 9458 FM 362

City: Brookshire

Contact: ~~Brookshire~~ Garrett Sinks

Project No. 4450

State: TX

Zip: 77423

Client/Project

Field Sample No. /

Identification

Field 1 0'-6"  
Field 1 0'-24"  
Field 2 0'-6"  
Field 2 0'-24"  
Field 3 0'-6"  
Field 3 0'-24"

Date & Time  
12/19/23 11:17am  
12/19/23 12:22pm  
12/19/23 11:17pm  
12/19/23 11:17pm  
12/19/23 11:49am  
12/19/23 11:49am

Sample Container (Size/Mat'l)

2 gallon Bag

Sample Type (Liquid, Sludge, etc.)

Soil

Preservative

N/A

ANALYSIS REQUESTED

- See Attached Email -  
Lead App  
1-20 ALH

pH  
D.O.  
Temp.  
Analysis Time

Samplers: (Signature)

Garrett Sinks  
Ruben Froebel

Affiliation

Inter Lab

Remarks:

Relinquished by: Garrett Sinks

(Signature)

Relinquished by: (Signature)

(Signature)

Relinquished by: (Signature)

Flow: Cl<sub>2</sub> Residual:

Meter Reading: Mn Correction:

H<sub>2</sub>S: Cl<sub>2</sub> Correction:

Date: 12/21/23

Time: 10:14am

Date: 12/21/23

Time: 1500

Date: 12/21/23

Time: 1500

Arrival Temp.

Act: 28

Corr: 2.6

Therm ID: 1811

Received by: (Signature)

Date: 12/21/23

Time: 10:14am

Received by: (Signature)

Date: 12/21/23

Time: 1500

Received by Lab: (Signature)

Date: 12/21/23

Time: 1500

Site Representative:

Comments:

Date: 12/21/23

Time: 10:14am

Date: 12/21/23

Time: 1500

Date: 12/21/23

Time: 1500

Seal Intact? Yes ☐ No ☐

Seal Intact? Yes ☐ No ☐

Seal Intact? Yes ☐ No ☐

Seal Intact? Yes ☐ No ☐







P.O. Box 1089 Coldspring Tx 77331

Website: eastexlabs.com

Email: eastexlab@eastex.net

Tel: 936 653 3249



Pollutants / Nutrients

June 09, 2023

Municipal District Services, LLC.  
Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy, TX 77494

RE: FBC 30 Digester

Enclosed are the results of analyses for samples received by the laboratory on 05/05/23 14:06, with Lab ID Number C3E0162. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Mark Bourgeois*

Mark Bourgeois  
Special Projects Manager

ENTERED NOV 21 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☒ Metals  
☒ PCB ☒ F/S ☐ & Solid

RECEIVED  
NOV 20 2023  
BY: \_\_\_\_\_



P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester a  
Client Matrix: Waste

Sample Date & Time: 05/05/2023 09:40

Collector: CSW

Sample Type: Grab

Print Date: 6/9/2023

#### Digester C3E0162-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b>Metals</b>								
Arsenic	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Cadmium	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Chromium	15.5	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Copper	194	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Lead	<7.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Mercury Total	0.280	0.143	mg/Kg dry	A	B3E4445	05/30/2023 09:55	EPA SW 846-7471B	
Molybdenum	8.07	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Nickel	15.1	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Phosphorus, %	1.63	1.00	% dry	A	B3F0520	06/08/2023 11:22	EPA SW 846-6010, 3050	
Potassium, %	0.525	0.357	% dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Selenium	8.14	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	
Zinc	786	7.14	mg/Kg dry	A	B3F0516	06/07/2023 15:04	EPA SW 846-6010, 3050	

#### Wet Lab

NH3N %	<2.86	2.86	% dry	A	B3E1800	05/11/2023 14:45	EPA 350.2	
Nitrate-N, %	1.07	0.000143	% dry	N	B3E4290	05/29/2023 14:37	SM 4500 NO3 D	
Percent Solid	1.4	0.1	%	A	B3E1603	05/10/2023 13:02	SM 2540G	
pH-Sludge	4.76		std unit	A	B3E0865	05/09/2023 09:25	EPA SW 846-9040	
TKN %	3.32	0.0714	% dry	N	B3E4288	05/31/2023 10:53	EPA 351.2	



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**EPA SW 846-9040 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0865 - No Prep</b> Prepared: 05/09/23 09:25										
<b>LCS (B3E0865-BS1)</b>					Analyzed: 5/9/2023 9:25:00AM					
pH-Sludge	6.86		std unit	6.86		100	0-200			
<b>Duplicate (B3E0865-DUP1)</b>					Source: C3D5827-01		Analyzed: 5/9/2023 9:25:00AM			
pH-Sludge	6.92		std unit		6.94			0.289	20	
<b>Batch B3E1603 - No Prep</b> Prepared: 05/10/23 13:02										
<b>Blank (B3E1603-BLK1)</b>					Analyzed: 5/10/2023 1:02:00PM					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1603-DUP1)</b>					Source: C3E2612-02		Analyzed: 5/10/2023 1:02:00PM			
Percent Solid	1.6	0.1	%		1.6			0.00	20	
<b>Batch B3E1800 - No Prep</b> Prepared: 05/11/23 14:45										
<b>Blank (B3E1800-BLK1)</b>					Analyzed: 5/11/2023 2:45:00PM					
NH3N %	ND	0.0400	% wet							
<b>LCS (B3E1800-BS1)</b>					Analyzed: 5/11/2023 2:45:00PM					
NH3N %	2.07		mg/L	2.00		104	80-120			
<b>Matrix Spike (B3E1800-MS1)</b>					Source: C3D5827-01		Analyzed: 5/11/2023 2:45:00PM			
NH3N %	1.08	3.08	% dry	0.385	0.652	111	80-120			
<b>Matrix Spike Dup (B3E1800-MSD1)</b>					Source: C3D5827-01		Analyzed: 5/11/2023 2:45:00PM			
NH3N %	1.09	3.08	% dry	0.385	0.652	115	80-120	1.49	20	
<b>Batch B3E4288 - SM 4500 Norg C</b> Prepared: 05/31/23 10:53										
<b>Blank (B3E4288-BLK1)</b>					Analyzed: 5/31/2023 10:53:00AM					
TKN %	ND	0.00100	% wet							
<b>LCS (B3E4288-BS1)</b>					Analyzed: 5/31/2023 10:53:00AM					
TKN %	9.72		mg/L	10.0		97.2	80-120			
<b>Matrix Spike (B3E4288-MS1)</b>					Source: C3D2550-01		Analyzed: 5/31/2023 10:53:00AM			
TKN %	7.175933	0.0833	% dry	2.08	5.156041	97.0	80-120			
<b>Matrix Spike Dup (B3E4288-MSD1)</b>					Source: C3D2550-01		Analyzed: 5/31/2023 10:53:00AM			
TKN %	6.788192	0.0833	% dry	2.08	5.156041	78.3	80-120	5.55	20	

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Katy TX, 77494

SM 4500 NO3 D - Quality Control  
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E4290 - No Prep</b> Prepared: 05/29/23 14:37										
<b>Blank (B3E4290-BLK1)</b>					Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3E4290-BS1)</b>					Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.051		mg/L	1.00		105	80-120			
<b>Matrix Spike (B3E4290-MS1)</b>					Source: C3D2550-01 Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.1359	0.000167	% dry	0.417	0.8553666	67.3	80-120			23
<b>Matrix Spike Dup (B3E4290-MSD1)</b>					Source: C3D2550-01 Analyzed: 5/29/2023 2:37:00PM					
Nitrate-N, %	1.108608	0.000167	% dry	0.417	0.8553666	60.8	80-120	2.43	20	
<b>Batch B3E4445 - SW 846-7471B</b> Prepared: 05/29/23 11:10										
<b>Blank (B3E4445-BLK1)</b>					Analyzed: 5/30/2023 9:32:46AM					
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3E4445-BS1)</b>					Analyzed: 5/30/2023 9:35:17AM					
Mercury, Total	0.0241	0.00200	mg/Kg wet	0.0250		96.4	80-120			
<b>Matrix Spike (B3E4445-MS1)</b>					Source: C3D2550-01 Analyzed: 5/30/2023 9:45:24AM					
Mercury, Total	1.98	0.167	mg/Kg dry	2.08	0.0658	91.6	75-125			
<b>Matrix Spike Dup (B3E4445-MSD1)</b>					Source: C3D2550-01 Analyzed: 5/30/2023 9:47:56AM					
Mercury, Total	2.06	0.167	mg/Kg dry	2.08	0.0658	95.6	75-125	4.13	20	
<b>Batch B3F0516 - SW846-3050</b> Prepared: 06/02/23 15:53										
<b>Blank (B3F0516-BLK1)</b>					Analyzed: 6/7/2023 2:40:27PM					
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3F0516-BS1)</b>					Analyzed: 6/7/2023 2:43:55PM					

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**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3F0516 - SW846-3050**

**Prepared: 06/02/23 15:53**

**LCS (B3F0516-BS1)**

**Analyzed: 6/7/2023 2:43:55PM**

Molybdenum	2.45	0.100	mg/Kg wet	2.50		98.0	80-120			
Arsenic	2.29	0.100	mg/Kg wet	2.50		91.6	80-120			
Cadmium	2.4	0.100	mg/Kg wet	2.50		94.0	80-120			
Chromium	2.59	0.100	mg/Kg wet	2.50		104	80-120			
Copper	2.54	0.100	mg/Kg wet	2.50		102	80-120			
Lead	2.39	0.100	mg/Kg wet	2.50		95.6	80-120			
Nickel	2.43	0.100	mg/Kg wet	2.50		97.2	80-120			
Potassium, %	0.0278	0.00500	% wet	0.0250		111	80-120			
Selenium	2.19	0.100	mg/Kg wet	2.50		87.6	80-120			
Zinc	2.53	0.100	mg/Kg wet	2.50		101	80-120			

**Matrix Spike (B3F0516-MS1)**

**Source: C3D2550-01**

**Analyzed: 6/7/2023 2:54:07PM**

Molybdenum	215	8.33	mg/Kg dry	208	6.225	100	75-125			
Arsenic	196	8.33	mg/Kg dry	208	3.34	92.4	75-125			
Cadmium	210	8.33	mg/Kg dry	208	ND	98.8	75-125			
Chromium	225	8.33	mg/Kg dry	208	8.50	104	75-125			
Copper	418	8.33	mg/Kg dry	208	199	105	75-125			
Lead	202	8.33	mg/Kg dry	208	1.73	96.0	75-125			
Nickel	218	8.33	mg/Kg dry	208	8.92	101	75-125			
Potassium, %	2.60	0.417	% dry	2.08	0.504	101	75-125			
Selenium	197	8.33	mg/Kg dry	208	10.8	89.2	75-125			
Zinc	1041.667	8.33	mg/Kg dry	208	850	92.0	75-125			

**Matrix Spike Dup (B3F0516-MSD1)**

**Source: C3D2550-01**

**Analyzed: 6/7/2023 2:57:35PM**

Molybdenum	217.5	8.33	mg/Kg dry	208	6.225	101	75-125	1.16	20	
Arsenic	199	8.33	mg/Kg dry	208	3.34	94.0	75-125	1.69	20	
Cadmium	210	8.33	mg/Kg dry	208	ND	99.6	75-125	0.806	20	
Chromium	228	8.33	mg/Kg dry	208	8.50	105	75-125	1.10	20	
Copper	419	8.33	mg/Kg dry	208	199	106	75-125	0.398	20	
Lead	208	8.33	mg/Kg dry	208	1.73	98.8	75-125	2.85	20	
Nickel	215	8.33	mg/Kg dry	208	8.92	98.9	75-125	1.54	20	
Potassium, %	2.64	0.417	% dry	2.08	0.504	103	75-125	1.59	20	
Selenium	192	8.33	mg/Kg dry	208	10.8	87.2	75-125	2.14	20	
Zinc	1041.667	8.33	mg/Kg dry	208	850	92.0	75-125	0.00	20	

**Batch B3F0520 - SW846-3050**

**Prepared: 06/08/23 10:58**

**Blank (B3F0520-BLK1)**

**Analyzed: 6/8/2023 10:58:21AM**

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Katy TX, 77494

EPA SW 846-6010, 3050 - Quality Control  
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F0520 - SW846-3050</b> Prepared: 06/08/23 10:58										
<b>Blank (B3F0520-BLK1)</b> Analyzed: 6/8/2023 10:58:21AM										
Phosphorus, %	ND	1.00	% wet							
<b>LCS (B3F0520-BS1)</b> Analyzed: 6/8/2023 11:01:50AM										
Phosphorus, %	0.00246	1.00	% wet	0.00252		97.7	80-120			
<b>Matrix Spike (B3F0520-MS1)</b> Source: C3D2550-01 Analyzed: 6/8/2023 11:12:17AM										
Phosphorus, %	2.07	1.00	% dry	0.420	1.71	86.9	75-125			
<b>Matrix Spike Dup (B3F0520-MSD1)</b> Source: C3D2550-01 Analyzed: 6/8/2023 11:15:45AM										
Phosphorus, %	2.11	1.00	% dry	0.420	1.71	95.4	75-125	1.72	20	



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#### Notes and Definitions

23	Spike recovery outside of acceptance limits due to matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 5/18/2023 3:11:28 PM

## JOB DESCRIPTION

For Bend County MUD30

## JOB NUMBER

860-49176-1



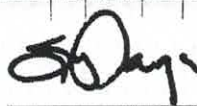
# Eurofins Houston

## 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



Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Job ID: 860-49176-1

Laboratory: Eurofins Houston

### Narrative

Job Narrative  
860-49176-1

### Receipt

The sample was received on 5/11/2023 7:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.7°C

### PCBs

Method 8082A: sludge, weighed to 5 grams FBC 30 Digester a (860-49176-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester 1a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Percent Solids: 1.6

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1221	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1232	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1242	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1248	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1254	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1
PCB-1260	ND		6.2		mg/Kg	11	05/16/23 13:01	05/17/23 13:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		35 - 140	05/16/23 13:01	05/17/23 13:55	1
DCB Decachlorobiphenyl (Surr)	113		37 - 142	05/16/23 13:01	05/17/23 13:55	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.4				%			05/16/23 17:06	1
Percent Solids (EPA Moisture)	1.6				%			05/16/23 17:06	1

Eurofins Houston

# Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (35-140)	DCB1 (37-142)
860-49176-1	FBC 30 Digester a	78	113
LCS 860-103444/14-A	Lab Control Sample	87	103
LCSD 860-103444/15-A	Lab Control Sample Dup	87	107
MB 860-103444/1-A	Method Blank	82	96

## Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-103444/1-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 103444

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1221	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1232	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1242	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1248	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1254	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1
PCB-1260	ND		0.017		mg/Kg		05/16/23 13:01	05/17/23 10:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		35 - 140	05/16/23 13:01	05/17/23 10:33	1
DCB Decachlorobiphenyl (Surr)	96		37 - 142	05/16/23 13:01	05/17/23 10:33	1

Lab Sample ID: LCS 860-103444/14-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 103444

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.131		mg/Kg		79	27 - 121
PCB-1260	0.167	0.143		mg/Kg		86	27 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	87		35 - 140
DCB Decachlorobiphenyl (Surr)	103		37 - 142

Lab Sample ID: LCSD 860-103444/15-A

Matrix: Solid

Analysis Batch: 103519

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 103444

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.132		mg/Kg		79	27 - 121	1	20
PCB-1260	0.167	0.145		mg/Kg		87	27 - 139	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	87		35 - 140
DCB Decachlorobiphenyl (Surr)	107		37 - 142

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-103533/1

Matrix: Solid

Analysis Batch: 103533

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.01				%			05/16/23 17:06	1
Percent Solids	100.0				%			05/16/23 17:06	1

Eurofins Houston



## QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-49011-B-1 DU

Matrix: Solid

Analysis Batch: 103533

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier			RPD	Limit
Percent Moisture	18.3		18.3		%		0	20
Percent Solids	81.7		81.7		%		0	20

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### GC Semi VOA

#### Prep Batch: 103444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	3550C	
MB 860-103444/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-103444/14-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-103444/15-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

#### Analysis Batch: 103519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	8082A	103444
MB 860-103444/1-A	Method Blank	Total/NA	Solid	8082A	103444
LCS 860-103444/14-A	Lab Control Sample	Total/NA	Solid	8082A	103444
LCSD 860-103444/15-A	Lab Control Sample Dup	Total/NA	Solid	8082A	103444

### General Chemistry

#### Analysis Batch: 103533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49176-1	FBC 30 Digester a	Total/NA	Solid	Moisture	
MB 860-103533/1	Method Blank	Total/NA	Solid	Moisture	
860-49011-B-1 DU	Duplicate	Total/NA	Solid	Moisture	

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			103533	05/16/23 17:06	JM	EET HOU

Client Sample ID: FBC 30 Digester a

Lab Sample ID: 860-49176-1

Date Collected: 05/05/23 09:40

Matrix: Solid

Date Received: 05/11/23 07:20

Percent Solids: 1.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.06 g	5 mL	103444	05/16/23 13:01	TH	EET HOU
Total/NA	Analysis	8082A		1			103519	05/17/23 13:55	WP	EET HOU

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston



## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD30

Job ID: 860-49176-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-49176-1	FBC8r 8s ig sD 180	Solid	05/05/23 09:40	05/11/23 07:20

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13



P O. Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email: eastexlab@eastex.net  
Tel. 936 653 3249

5/9/23  
MAD.



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone: 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone: 713-690-4444  
Fax 713-690-5646

**PO 051023J**

### PROJECT NAME

Fort Bend County MUD 30

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
1	5/5/23	9 40 am	FBC 30 Digester a	Grab	C3E0162-01	PCB 8082

### Special Instructions.

☐ See Attached

PCB/MG/KG %SOLIDS



860-49176 Chain of Custody

Temp. 4.9 IR ID: HOU-344  
C/F -0.2  
Corrected Temp: 4.7

Received Iced Y/N Temp \_\_\_\_\_

Released By

Date & Time

Received By

Date & Time

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-49176-1

Login Number: 49176

List Number: 1

Creator: Rubio, Yuri

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	
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	







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F/S

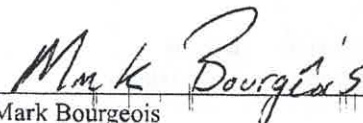
May 19, 2023

Municipal District Services, LLC.  
Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy, TX 77494

RE: **FBC 30 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 05/05/23 14:06, with Lab ID Number C3E0163. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

  
Mark Bourgeois  
Special Projects Manager



P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O<sub>2</sub>/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester b  
Client Matrix: Waste

Sample Date & Time: 05/05/2023 09:40  
Collector: CSW  
Sample Type: Grab  
Print Date: 5/19/2023

#### Digester C3E0163-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Microbiological Lab</u></b>								
Fecal Coliform IDEXX	61584	1000	mpn/gram	N	B3E1197	05/05/2023 14:25	Colilert 18	
Vector	<0.1	0.1	mg O <sub>2</sub> /hr/g	N	B3E2993	05/05/2023 16:00	TAC 312.83(b)(4)	
<b><u>Wet Lab</u></b>								
Percent Solid	1.4	0.1	%	A	B3E1598	05/10/2023 12:03	SM 2540G	
Volatile Percent Solid	80.8	0.1	%	A	B3E1593	05/11/2023 12:43	SM 2540G	



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Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### Colilert 18 - Quality Control

#### Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E1197 - No Prep Micro</b> <b>Prepared: 05/05/23 14:25</b>										
<b>Blank (B3E1197-BLK1)</b>					<b>Analyzed: 5/5/2023 2:25:00PM</b>					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3E1197-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/5/2023 2:25:00PM</b>					
Fecal Coliform IDEXX	50400	1000	mpn/gram		61584			20.0	200	
<b>Batch B3E1593 - No Prep</b> <b>Prepared: 05/11/23 12:43</b>										
<b>Blank (B3E1593-BLK1)</b>					<b>Analyzed: 5/11/2023 12:43:00PM</b>					
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1593-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/11/2023 12:43:00PM</b>					
Volatile Percent Solid	80.8	0.1	%		80.8			0.00	10	
<b>Batch B3E1598 - No Prep</b> <b>Prepared: 05/10/23 12:03</b>										
<b>Blank (B3E1598-BLK1)</b>					<b>Analyzed: 5/10/2023 12:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E1598-DUP1)</b>					<b>Source: C3E0163-01      Analyzed: 5/10/2023 12:03:00PM</b>					
Percent Solid	1.4	0.1	%		1.4			0.00	20	
<b>Batch B3E2993 - No Prep Micro</b> <b>Prepared: 05/05/23 16:00</b>										
<b>Blank (B3E2993-BLK1)</b>					<b>Analyzed: 5/5/2023 4:00:00PM</b>					
Vector	ND	0.1	mg O2/hr/g							
<b>Duplicate (B3E2993-DUP1)</b>					<b>Source: C3E1066-01      Analyzed: 5/5/2023 4:00:00PM</b>					
Vector	1.92	0.1	mg O2/hr/g		1.96			2.06	200	



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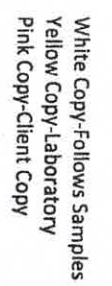


Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

#### Notes and Definitions

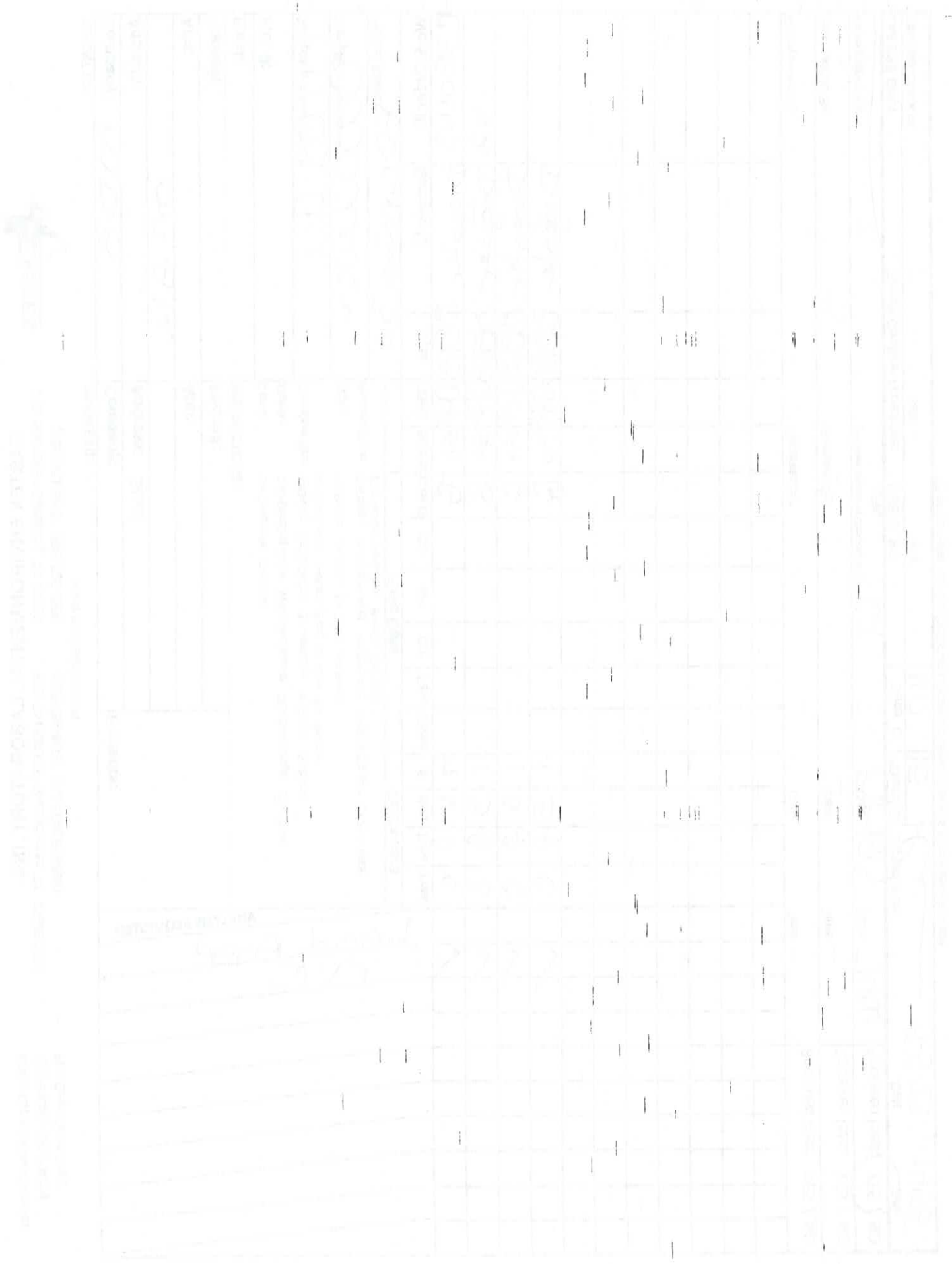
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference





www.ceroticlabs.co.uk

\*Thermometer has 0.0 factor and recorded temperature is actual temperature





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Tel: 936 653 3249



TCLP  
only

May 16, 2023

Municipal District Services, LLC.

Fort Bend County MUD 30

406 W Grand Pkwy S, Ste 260

Katy, TX 77494

RE: FBC 30 Digester

Enclosed are the results of analyses for samples received by the laboratory on 04/28/23 13:36, with Lab ID Number C3D5824. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

*Mark Bourgeois*

Mark Bourgeois

Special Projects Manager

ENTERED NOV 21 2023

RECEIVED  
NOV 20 2023  
BY:

- ☒ Sludge Manager
- ☒ Master Spreadsheet
  - ☒ TCLP
  - ☐ Metals
  - ☐ PCB
  - ☐ F/S
  - ☐ & Solid



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Email: eastexlab@eastex.net  
Tel: 936 653 3249



Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

### LABORATORY ANALYTICAL REPORT

Project: FBC 30 Digester c  
Client Matrix: Waste

Sample Date & Time: 04/28/2023 09:35

Collector: PU

Sample Type: Grab

Print Date: 5/16/2023

#### Digester C3D5824-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Wet Lab</u></b>								
Percent Solid	1.2	0.1	%	A	B3E0200	05/02/2023 09:35	SM 2540G	





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Fort Bend County MUD 30  
 406 W Grand Pkwy S, Ste 260  
 Katy TX, 77494

**SM 2540G - Quality Control**

**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E0200 - No Prep</b>										
<b>Prepared: 05/02/23 09:35</b>										
<b>Blank (B3E0200-BLK1)</b>										
<b>Analyzed: 5/2/2023 9:35:00AM</b>										
Percent Solid	ND	0.1	%							
<b>Duplicate (B3E0200-DUP1)</b>										
<b>Source: C3D6675-01</b>										
<b>Analyzed: 5/2/2023 9:35:00AM</b>										
Percent Solid	1.6	0.1	%		1.6			0.00	20	



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Fort Bend County MUD 30  
406 W Grand Pkwy S, Ste 260  
Katy TX, 77494

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 5/11/2023 5:50:09 PM

## JOB DESCRIPTION

For Bend County MUD 30

## JOB NUMBER

860-48518-1

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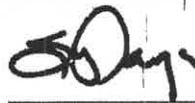
# Eurofins Houston

## 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



Generated  
5/11/2023 5:50:09 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004



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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Qualifiers

#### GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Job ID: 860-48518-1

Laboratory: Eurofins Houston

### Narrative

#### Job Narrative 860-48518-1

#### Receipt

The sample was received on 5/2/2023 10:15 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

#### GC/MS VOA

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

#### GC/MS Semi VOA

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 860-102484 and analytical batch 860-102521 recovered outside control limits for the following analyte: Pyridine.

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

#### Herbicides

Method 8151A\_MOD: Surrogate recovery for the following sample was outside the upper control limit: FBC 30 Digester c (860-48518-1). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

#### PCBs

Method 8082A: Liquid sludge sample. Extracted at 1 gram.FBC 30 Digester c (860-48518-1)

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

#### Pesticides

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

#### 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: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Houston



# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Berd County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			05/09/23 17:39	50
Carbon tetrachloride	ND		0.25		mg/L			05/09/23 17:39	50
Chlorobenzene	ND		0.050		mg/L			05/09/23 17:39	50
Chloroform	ND		0.050		mg/L			05/09/23 17:39	50
1,2-Dichloroethane	ND		0.050		mg/L			05/09/23 17:39	50
1,1-Dichloroethene	ND		0.050		mg/L			05/09/23 17:39	50
2-Butanone	ND		2.5		mg/L			05/09/23 17:39	50
Tetrachloroethene	ND		0.050		mg/L			05/09/23 17:39	50
Trichloroethene	ND		0.25		mg/L			05/09/23 17:39	50
Vinyl chloride	ND		0.10		mg/L			05/09/23 17:39	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		05/09/23 17:39	50
4-Bromofluorobenzene (Surr)	100		74 - 124		05/09/23 17:39	50
Dibromofluoromethane (Surr)	96		75 - 131		05/09/23 17:39	50
Toluene-d8 (Surr)	100		80 - 117		05/09/23 17:39	50

## Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2,4-Dinitrotoluene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
2-Methylphenol	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachlorobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachlorobutadiene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Hexachloroethane	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Nitrobenzene	ND		0.13		mg/L		05/09/23 18:27	05/11/23 02:17	5
Pentachlorophenol	ND		0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5
Pyridine	ND	*1	0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5
3 & 4 Methylphenol	ND		0.25		mg/L		05/09/23 18:27	05/11/23 02:17	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	49		31 - 132	05/09/23 18:27	05/11/23 02:17	5
2-Fluorobiphenyl (Surr)	67		29 - 112	05/09/23 18:27	05/11/23 02:17	5
2-Fluorophenol (Surr)	55		21 - 114	05/09/23 18:27	05/11/23 02:17	5
Nitrobenzene-d5 (Surr)	70		26 - 110	05/09/23 18:27	05/11/23 02:17	5
p-Terphenyl-d14 (Surr)	72		20 - 141	05/09/23 18:27	05/11/23 02:17	5
Phenol-d5 (Surr)	40		16 - 117	05/09/23 18:27	05/11/23 02:17	5

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0025		mg/L		05/10/23 11:17	05/10/23 16:43	1
Endrin	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Heptachlor	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Heptachlor epoxide	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
gamma-BHC (Lindane)	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 16:43	1
Methoxychlor	ND		0.00020		mg/L		05/10/23 11:17	05/10/23 16:43	1
Toxaphene	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 16:43	1

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# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

Date Collected: 04/28/23 10:15

Matrix: Solid

Date Received: 05/02/23 10:15

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	83		15 - 136	05/10/23 11:17	05/10/23 16:43	1
Tetrachloro-m-xylene	75		18 - 126	05/10/23 11:17	05/10/23 16:43	1

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 22:54	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	184	S1+	70 - 162	05/09/23 18:39	05/10/23 22:54	1

## Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Antimony	ND		0.10		mg/L		05/09/23 10:30	05/09/23 17:27	1
Barium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Cadmium	ND		0.025		mg/L		05/09/23 10:30	05/09/23 17:27	1
Chromium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Beryllium	ND		0.020		mg/L		05/09/23 10:30	05/09/23 17:27	1
Lead	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1
Selenium	ND		0.15		mg/L		05/09/23 10:30	05/09/23 17:27	1
Silver	ND		0.10		mg/L		05/09/23 10:30	05/09/23 17:27	1
Nickel	ND		0.050		mg/L		05/09/23 10:30	05/09/23 17:27	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:21	05/09/23 19:11	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.8				%			05/08/23 08:28	1
Percent Solids (EPA Moisture)	1.2				%			05/08/23 08:28	1

Client Sample ID: FBC 30 Digester c

Lab Sample ID: 860-48518-1

Date Collected: 04/28/23 10:15

Matrix: Solid

Date Received: 05/02/23 10:15

Percent Solids: 1.2

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1221	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1232	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1242	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1248	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1254	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1
PCB-1260	ND		40		mg/Kg		05/06/23 08:22	05/09/23 01:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		35 - 140	05/06/23 08:22	05/09/23 01:25	1
DCB Decachlorobiphenyl (Surr)	91		37 - 142	05/06/23 08:22	05/09/23 01:25	1

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-117)
LCS 860-102314/3	Lab Control Sample	103	100	107	98
LCS 860-102315/1013	Lab Control Sample	96	100	100	102
LCSD 860-102314/4	Lab Control Sample Dup	106	101	109	98
LCSD 860-102315/14	Lab Control Sample Dup	99	98	103	100
MB 860-102314/10	Method Blank	101	105	102	106
MB 860-102315/19	Method Blank	99	101	92	101

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-117)
860-48518-A-1-D MS	Matrix Spike	104	103	110	99
860-48518-1	FBC 30 Digester b	95	100	96	100
LB 860-102319/1-A	Method Blank	102	105	100	105

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-102484/2-A	Lab Control Sample	76	68	43	73	82	30
LCSD 860-102484/3-A	Lab Control Sample Dup	70	59	39	61	76	28
MB 860-102484/1-A	Method Blank	70	74	43	80	81	28

#### Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-48490-A-1-E MS	Matrix Spike	67	61	47	61	76	40
860-48518-1	FBC 30 Digester c	49	67	55	70	72	40
LB 860-102256/1-E	Method Blank	74	67	58	73	77	47

**Surrogate Legend**  
 TBP = 2,4,6-Tribromophenol (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 2FP = 2-Fluorophenol (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 TPHd14 = p-Terphenyl-d14 (Surr)  
 PHL = Phenol-d5 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (15-136)	TCX1 (18-126)
LCS 860-102544/2-A	Lab Control Sample	80	80
LCSD 860-102544/3-A	Lab Control Sample Dup	90	89
MB 860-102544/1-A	Method Blank	92	91

**Surrogate Legend**  
 DCB = DCB Decachlorobiphenyl (Surr)  
 TCX = Tetrachloro-m-xylene

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (15-136)	TCX1 (18-126)
860-48518-1	FBC 30 Digester c	83	75
LB 860-102256/1-G	Method Blank	90	90

**Surrogate Legend**  
 DCB = DCB Decachlorobiphenyl (Surr)  
 TCX = Tetrachloro-m-xylene

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (35-140)	DCB1 (37-142)
860-48444-B-4-B MS	Matrix Spike	66	89
860-48444-B-4-C MSD	Matrix Spike Duplicate	63	90
860-48518-1	FBC 30 Digester c	57	91
LCS 860-102044/2-A	Lab Control Sample	64	76
LCSD 860-102044/3-A	Lab Control Sample Dup	69	80
MB 860-102044/1-A	Method Blank	65	76

**Surrogate Legend**

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Job ID: 860-48518-1

Project/Site: For Bend County MUD 30

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
LCS 860-102500/2-A	Lab Control Sample	125	
LCSD 860-102500/3-A	Lab Control Sample Dup	125	
MB 860-102500/1-A	Method Blank	101	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
860-48518-1	FBC 30 Digester c	184 S1+	
LB 860-102256/1-F	Method Blank	86	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-102314/10

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			05/09/23 10:52	1
Carbon tetrachloride	ND		0.0050		mg/L			05/09/23 10:52	1
Chlorobenzene	ND		0.0010		mg/L			05/09/23 10:52	1
Chloroform	ND		0.0010		mg/L			05/09/23 10:52	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/09/23 10:52	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/09/23 10:52	1
2-Butanone	ND		0.050		mg/L			05/09/23 10:52	1
Tetrachloroethene	ND		0.0010		mg/L			05/09/23 10:52	1
Trichloroethene	ND		0.0050		mg/L			05/09/23 10:52	1
Vinyl chloride	ND		0.0020		mg/L			05/09/23 10:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		63 - 144		05/09/23 10:52	1
4-Bromofluorobenzene (Surr)	105		74 - 124		05/09/23 10:52	1
Dibromofluoromethane (Surr)	102		75 - 131		05/09/23 10:52	1
Toluene-d8 (Surr)	106		80 - 117		05/09/23 10:52	1

Lab Sample ID: LCS 860-102314/3

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0455		mg/L		91	75 - 125
Carbon tetrachloride	0.0500	0.0495		mg/L		99	70 - 130
Chlorobenzene	0.0500	0.0443		mg/L		89	65 - 135
Chloroform	0.0500	0.0463		mg/L		93	70 - 121
1,2-Dichloroethane	0.0500	0.0452		mg/L		90	72 - 130
1,1-Dichloroethene	0.0500	0.0395		mg/L		79	50 - 150
2-Butanone	0.250	0.207		mg/L		83	60 - 140
Tetrachloroethene	0.0500	0.0448		mg/L		90	71 - 125
Trichloroethene	0.0500	0.0449		mg/L		90	75 - 135
Vinyl chloride	0.0500	0.0414		mg/L		83	60 - 140

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	107		75 - 131
Toluene-d8 (Surr)	98		80 - 117

Lab Sample ID: LCSD 860-102314/4

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0434		mg/L		87	75 - 125	5	25
Carbon tetrachloride	0.0500	0.0468		mg/L		94	70 - 130	6	25
Chlorobenzene	0.0500	0.0442		mg/L		88	65 - 135	0	25
Chloroform	0.0500	0.0440		mg/L		88	70 - 121	5	25

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-102314/4

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0431		mg/L		86	72 - 130	5	25
1,1-Dichloroethene	0.0500	0.0394		mg/L		79	50 - 150	0	25
2-Butanone	0.250	0.209		mg/L		84	60 - 140	1	25
Tetrachloroethene	0.0500	0.0420		mg/L		84	71 - 125	6	25
Trichloroethene	0.0500	0.0424		mg/L		85	75 - 135	6	25
Vinyl chloride	0.0500	0.0477		mg/L		95	60 - 140	14	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		63 - 144
4-Bromofluorobenzene (Surr)	101		74 - 124
Dibromofluoromethane (Surr)	109		75 - 131
Toluene-d8 (Surr)	98		80 - 117

Lab Sample ID: MB 860-102315/19

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			05/09/23 13:12	1
Carbon tetrachloride	ND		0.0050		mg/L			05/09/23 13:12	1
Chlorobenzene	ND		0.0010		mg/L			05/09/23 13:12	1
Chloroform	ND		0.0010		mg/L			05/09/23 13:12	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/09/23 13:12	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/09/23 13:12	1
2-Butanone	ND		0.050		mg/L			05/09/23 13:12	1
Tetrachloroethene	ND		0.0010		mg/L			05/09/23 13:12	1
Trichloroethene	ND		0.0050		mg/L			05/09/23 13:12	1
Vinyl chloride	ND		0.0020		mg/L			05/09/23 13:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		63 - 144		05/09/23 13:12	1
4-Bromofluorobenzene (Surr)	101		74 - 124		05/09/23 13:12	1
Dibromofluoromethane (Surr)	92		75 - 131		05/09/23 13:12	1
Toluene-d8 (Surr)	101		80 - 117		05/09/23 13:12	1

Lab Sample ID: LCS 860-102315/1013

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0513		mg/L		103	75 - 125
Carbon tetrachloride	0.0500	0.0536		mg/L		107	70 - 130
Chlorobenzene	0.0500	0.0501		mg/L		100	65 - 135
Chloroform	0.0500	0.0519		mg/L		104	70 - 121
1,2-Dichloroethane	0.0500	0.0503		mg/L		101	72 - 130
1,1-Dichloroethene	0.0500	0.0515		mg/L		103	50 - 150
2-Butanone	0.250	0.261		mg/L		104	60 - 140
Tetrachloroethene	0.0500	0.0507		mg/L		101	71 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 860-102315/1013

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.0500	0.0538		mg/L		108	75 - 135
Vinyl chloride	0.0500	0.0486		mg/L		97	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		63 - 144
4-Bromofluorobenzene (Surr)	100		74 - 124
Dibromofluoromethane (Surr)	100		75 - 131
Toluene-d8 (Surr)	102		80 - 117

Lab Sample ID: LCSD 860-102315/14

Matrix: Solid

Analysis Batch: 102315

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0519		mg/L		104	75 - 125	1	25
Carbon tetrachloride	0.0500	0.0533		mg/L		107	70 - 130	1	25
Chlorobenzene	0.0500	0.0506		mg/L		101	65 - 135	1	25
Chloroform	0.0500	0.0521		mg/L		104	70 - 121	0	25
1,2-Dichloroethane	0.0500	0.0515		mg/L		103	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0521		mg/L		104	50 - 150	1	25
2-Butanone	0.250	0.263		mg/L		105	60 - 140	1	25
Tetrachloroethene	0.0500	0.0509		mg/L		102	71 - 125	0	25
Trichloroethene	0.0500	0.0538		mg/L		108	75 - 135	0	25
Vinyl chloride	0.0500	0.0504		mg/L		101	60 - 140	4	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		63 - 144
4-Bromofluorobenzene (Surr)	98		74 - 124
Dibromofluoromethane (Surr)	103		75 - 131
Toluene-d8 (Surr)	100		80 - 117

Lab Sample ID: LB 860-102319/1-A

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050		mg/L			05/09/23 10:31	5
Carbon tetrachloride	ND		0.025		mg/L			05/09/23 10:31	5
Chlorobenzene	ND		0.0050		mg/L			05/09/23 10:31	5
Chloroform	ND		0.0050		mg/L			05/09/23 10:31	5
1,2-Dichloroethane	ND		0.0050		mg/L			05/09/23 10:31	5
1,1-Dichloroethene	ND		0.0050		mg/L			05/09/23 10:31	5
2-Butanone	ND		0.25		mg/L			05/09/23 10:31	5
Tetrachloroethene	ND		0.0050		mg/L			05/09/23 10:31	5
Trichloroethene	ND		0.025		mg/L			05/09/23 10:31	5
Vinyl chloride	ND		0.010		mg/L			05/09/23 10:31	5

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LB 860-102319/1-A

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Method Blank

Prep Type: TCLP

Surrogate	LB LB	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		63 - 144		05/09/23 10:31	5
4-Bromofluorobenzene (Surr)	105		74 - 124		05/09/23 10:31	5
Dibromofluoromethane (Surr)	100		75 - 131		05/09/23 10:31	5
Toluene-d8 (Surr)	105		80 - 117		05/09/23 10:31	5

Lab Sample ID: 860-48516-A-1-D MS

Matrix: Solid

Analysis Batch: 102314

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		2.50	2.13		mg/L		85	66 - 142
Carbon tetrachloride	ND		2.50	2.41		mg/L		96	62 - 125
Chlorobenzene	ND		2.50	2.07		mg/L		83	60 - 133
Chloroform	ND		2.50	2.18		mg/L		87	70 - 130
1,2-Dichloroethane	ND		2.50	2.10		mg/L		84	68 - 127
1,1-Dichloroethene	ND		2.50	1.92		mg/L		77	59 - 172
2-Butanone	ND		12.5	10.2		mg/L		81	60 - 140
Tetrachloroethene	ND		2.50	2.18		mg/L		87	71 - 125
Trichloroethene	ND		2.50	2.11		mg/L		84	62 - 137
Vinyl chloride	ND		2.50	1.99		mg/L		80	60 - 140

Surrogate	MS MS	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		63 - 144
4-Bromofluorobenzene (Surr)	103		74 - 124
Dibromofluoromethane (Surr)	110		75 - 131
Toluene-d8 (Surr)	99		80 - 117

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-102484/1-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102484

Analyte	MB MB	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
2-Methylphenol	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachlorobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachlorobutadiene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Hexachloroethane	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Nitrobenzene	ND		0.0050		mg/L		05/09/23 18:27	05/10/23 13:32	1
Pentachlorophenol	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1
Pyridine	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1
3 & 4 Methylphenol	ND		0.010		mg/L		05/09/23 18:27	05/10/23 13:32	1

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 860-102484/1-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102484

	MB	MB							
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil	Fac		
2,4,6-Tribromophenol (Surr)	70		31 - 132	05/09/23 18:27	05/10/23 13:32	1			
2-Fluorobiphenyl (Surr)	74		29 - 112	05/09/23 18:27	05/10/23 13:32	1			
2-Fluorophenol (Surr)	43		21 - 114	05/09/23 18:27	05/10/23 13:32	1			
Nitrobenzene-d5 (Surr)	80		26 - 110	05/09/23 18:27	05/10/23 13:32	1			
p-Terphenyl-d14 (Surr)	81		20 - 141	05/09/23 18:27	05/10/23 13:32	1			
Phenol-d5 (Surr)	28		16 - 117	05/09/23 18:27	05/10/23 13:32	1			

Lab Sample ID: LCS 860-102484/2-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike	LCS	LCS						
	Added	Result	Qualifier	Unit	D	%Rec	Limits		
1,4-Dichlorobenzene	0.0400	0.0256		mg/L		64	37 - 111		
2,4,5-Trichlorophenol	0.0400	0.0325		mg/L		81	39 - 125		
2,4,6-Trichlorophenol	0.0400	0.0316		mg/L		79	42 - 125		
2,4-Dinitrotoluene	0.0400	0.0323		mg/L		81	41 - 128		
2-Methylphenol	0.0400	0.0242		mg/L		60	36 - 105		
Hexachlorobenzene	0.0400	0.0307		mg/L		77	39 - 128		
Hexachlorobutadiene	0.0400	0.0263		mg/L		66	31 - 120		
Hexachloroethane	0.0400	0.0246		mg/L		62	37 - 109		
Nitrobenzene	0.0400	0.0314		mg/L		79	37 - 114		
Pentachlorophenol	0.0400	0.0310		mg/L		78	10 - 137		
Pyridine	0.0400	0.00866	J	mg/L		22	5 - 130		
3 & 4 Methylphenol	0.0400	0.0217		mg/L		54	35 - 116		

	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
2,4,6-Tribromophenol (Surr)	76		31 - 132						
2-Fluorobiphenyl (Surr)	68		29 - 112						
2-Fluorophenol (Surr)	43		21 - 114						
Nitrobenzene-d5 (Surr)	73		26 - 110						
p-Terphenyl-d14 (Surr)	82		20 - 141						
Phenol-d5 (Surr)	30		16 - 117						

Lab Sample ID: LCSD 860-102484/3-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike	LCSD	LCSD							
	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
1,4-Dichlorobenzene	0.0400	0.0222		mg/L		55	37 - 111	15	30	
2,4,5-Trichlorophenol	0.0400	0.0293		mg/L		73	39 - 125	10	30	
2,4,6-Trichlorophenol	0.0400	0.0285		mg/L		71	42 - 125	10	30	
2,4-Dinitrotoluene	0.0400	0.0291		mg/L		73	41 - 128	10	30	
2-Methylphenol	0.0400	0.0227		mg/L		57	36 - 105	6	30	
Hexachlorobenzene	0.0400	0.0275		mg/L		69	39 - 128	11	30	
Hexachlorobutadiene	0.0400	0.0234		mg/L		59	31 - 120	12	30	
Hexachloroethane	0.0400	0.0221		mg/L		55	37 - 109	11	30	
Nitrobenzene	0.0400	0.0258		mg/L		64	37 - 114	20	30	
Pentachlorophenol	0.0400	0.0288		mg/L		72	10 - 137	8	40	

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 860-102484/3-A

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102484

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Pyridine	0.0400	0.00493	J *1	mg/L		12	5 - 130	55	50
3 & 4 Methylphenol	0.0400	0.0201		mg/L		50	35 - 116	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	70		31 - 132
2-Fluorobiphenyl (Surr)	59		29 - 112
2-Fluorophenol (Surr)	39		21 - 114
Nitrobenzene-d5 (Surr)	61		26 - 110
p-Terphenyl-d14 (Surr)	76		20 - 141
Phenol-d5 (Surr)	28		16 - 117

Lab Sample ID: LB 860-102256/1-E

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102484

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2,4-Dinitrotoluene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
2-Methylphenol	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachlorobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachlorobutadiene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Hexachloroethane	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Nitrobenzene	ND		0.025		mg/L		05/09/23 18:27	05/10/23 22:20	1
Pentachlorophenol	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1
Pyridine	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1
3 & 4 Methylphenol	ND		0.050		mg/L		05/09/23 18:27	05/10/23 22:20	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	74		31 - 132	05/09/23 18:27	05/10/23 22:20	1
2-Fluorobiphenyl (Surr)	67		29 - 112	05/09/23 18:27	05/10/23 22:20	1
2-Fluorophenol (Surr)	58		21 - 114	05/09/23 18:27	05/10/23 22:20	1
Nitrobenzene-d5 (Surr)	73		26 - 110	05/09/23 18:27	05/10/23 22:20	1
p-Terphenyl-d14 (Surr)	77		20 - 141	05/09/23 18:27	05/10/23 22:20	1
Phenol-d5 (Surr)	47		16 - 117	05/09/23 18:27	05/10/23 22:20	1

Lab Sample ID: 860-48490-A-1-E MS

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		55	37 - 111
2,4,5-Trichlorophenol	ND		0.200	0.141		mg/L		70	39 - 125
2,4,6-Trichlorophenol	ND		0.200	0.135		mg/L		68	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.162		mg/L		81	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		57	36 - 105
Hexachlorobenzene	ND		0.200	0.148		mg/L		74	39 - 128

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 860-48490-A-1-E MS

Matrix: Solid

Analysis Batch: 102521

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102484

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	ND		0.200	ND		mg/L		60	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		55	37 - 109
Nitrobenzene	ND		0.200	0.131		mg/L		65	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		102	10 - 137
Pyridine	ND	*1	0.200	ND		mg/L		32	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		64	35 - 116

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	67		31 - 132
2-Fluorobiphenyl (Surr)	61		29 - 112
2-Fluorophenol (Surr)	47		21 - 114
Nitrobenzene-d5 (Surr)	61		26 - 110
p-Terphenyl-d14 (Surr)	76		20 - 141
Phenol-d5 (Surr)	40		16 - 117

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-102544/1-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102544

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 14:38	1
Endrin	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Heptachlor	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Heptachlor epoxide	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
gamma-BHC (Lindane)	ND		0.000040		mg/L		05/10/23 11:17	05/10/23 14:38	1
Methoxychlor	ND		0.00016		mg/L		05/10/23 11:17	05/10/23 14:38	1
Toxaphene	ND		0.0016		mg/L		05/10/23 11:17	05/10/23 14:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	92		15 - 136	05/10/23 11:17	05/10/23 14:38	1
Tetrachloro-m-xylene	91		18 - 126	05/10/23 11:17	05/10/23 14:38	1

Lab Sample ID: LCS 860-102544/2-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102544

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.000800	0.000800		mg/L		100	14 - 169
Heptachlor	0.000800	0.000752		mg/L		94	10 - 157
Heptachlor epoxide	0.000800	0.000800		mg/L		100	15 - 155
gamma-BHC (Lindane)	0.000800	0.000765		mg/L		96	8 - 157
Methoxychlor	0.000800	0.000775		mg/L		97	25 - 161

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	80		15 - 136
Tetrachloro-m-xylene	80		18 - 126

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LCSD 860-102544/3-A

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102544

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Endrin	0.000800	0.000859		mg/L		107	14 - 169	7	25
Heptachlor	0.000800	0.000824		mg/L		103	10 - 157	9	25
Heptachlor epoxide	0.000800	0.000874		mg/L		109	15 - 155	9	25
gamma-BHC (Lindane)	0.000800	0.000840		mg/L		105	8 - 157	9	25
Methoxychlor	0.000800	0.000848		mg/L		106	25 - 161	9	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
DCB Decachlorobiphenyl (Surr)	90		15 - 136						
Tetrachloro-m-xylene	89		18 - 126						

Lab Sample ID: LB 860-102256/1-G

Matrix: Solid

Analysis Batch: 102466

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102544

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0025		mg/L		05/10/23 11:17	05/10/23 14:51	1
Endrin	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Heptachlor	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Heptachlor epoxide	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
gamma-BHC (Lindane)	ND		0.000050		mg/L		05/10/23 11:17	05/10/23 14:51	1
Methoxychlor	ND		0.00020		mg/L		05/10/23 11:17	05/10/23 14:51	1
Toxaphene	ND		0.0020		mg/L		05/10/23 11:17	05/10/23 14:51	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	90		15 - 136				05/10/23 11:17	05/10/23 14:51	1
Tetrachloro-m-xylene	90		18 - 126				05/10/23 11:17	05/10/23 14:51	1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-102044/1-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102044

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1221	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1232	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1242	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1248	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1254	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
PCB-1260	ND		0.017		mg/Kg		05/06/23 08:22	05/08/23 13:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		35 - 140				05/06/23 08:22	05/08/23 13:47	1
DCB Decachlorobiphenyl (Surr)	76		37 - 142				05/06/23 08:22	05/08/23 13:47	1

Eurofins Houston

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 860-102044/2-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 102044

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.112		mg/Kg		67	27 - 121
PCB-1260	0.167	0.108		mg/Kg		65	27 - 139
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene	64		35 - 140				
DCB Decachlorobiphenyl (Surr)	76		37 - 142				

Lab Sample ID: LCSD 860-102044/3-A

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	Limit
	Added	Result	Qualifier			Limits			
PCB-1016	0.167	0.119		mg/Kg		72	27 - 121	6	20
PCB-1260	0.167	0.112		mg/Kg		67	27 - 139	4	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	69		35 - 140
DCB Decachlorobiphenyl (Surr)	80		37 - 142

Lab Sample ID: 860-48444-B-4-B MS

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier		Added	Result			Qualifier	72	
PCB-1016	ND		0.214	0.153		mg/Kg	☒	72		27 - 121
PCB-1260	ND		0.214	0.156		mg/Kg	☒	73		27 - 139
Surrogate	MS	MS	Limits	%Recovery	Qualifier	Limits				
Tetrachloro-m-xylene	66		35 - 140							
DCB Decachlorobiphenyl (Surr)	89		37 - 142							

Lab Sample ID: 860-48444-B-4-C MSD

Matrix: Solid

Analysis Batch: 102105

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 102044

Analysis Batch: 102105

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Added	Result				Qualifier		
PCB-1016	ND		0.214	0.146		mg/Kg	☒	69	27 - 121	5	20
PCB-1260	ND		0.214	0.150		mg/Kg	☒	70	27 - 139	4	20
Surrogate	MSD	MSD	Limits								
	%Recovery	Qualifier									
Tetrachloro-m-xylene	63		35 - 140								
DCB Decachlorobiphenyl (Surr)	90		37 - 142								

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-102500/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 102528						Prep Batch: 102500			
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 12:47	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 12:47	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	101		70 - 162				05/09/23 18:39	05/10/23 12:47	

Lab Sample ID: LCS 860-102500/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 102528				Prep Batch: 102500			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00204	0.00203		mg/L		99	67 - 124
2,4,5-TP (Silvex)	0.00204	0.00199		mg/L		98	66 - 141
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	125		70 - 162				

Lab Sample ID: LCSD 860-102500/3-A				Client Sample ID: Lab Control Sample Dup						
Matrix: Solid				Prep Type: Total/NA						
Analysis Batch: 102528				Prep Batch: 102500						
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
2,4-D	0.00203	0.00199		mg/L		98	67 - 124	2	25	
2,4,5-TP (Silvex)	0.00203	0.00200		mg/L		98	66 - 141	0	25	
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits							
2,4-Dichlorophenylacetic acid	125		70 - 162							

Lab Sample ID: LB 860-102256/1-F						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 102528						Prep Batch: 102500			
	LB	LB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 15:25	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/09/23 18:39	05/10/23 15:25	1
	LB	LB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	86		70 - 162				05/09/23 18:39	05/10/23 15:25	

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-102374/1-A						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: Total/NA			
Analysis Batch: 102516						Prep Batch: 102374			
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Antimony	ND		0.020		mg/L		05/09/23 10:30	05/09/23 15:41	

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 860-102374/1-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Cadmium	ND		0.0050		mg/L		05/09/23 10:30	05/09/23 15:41	1
Chromium	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Beryllium	ND		0.0040		mg/L		05/09/23 10:30	05/09/23 15:41	1
Lead	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1
Selenium	ND		0.030		mg/L		05/09/23 10:30	05/09/23 15:41	1
Silver	ND		0.020		mg/L		05/09/23 10:30	05/09/23 15:41	1
Nickel	ND		0.010		mg/L		05/09/23 10:30	05/09/23 15:41	1

Lab Sample ID: LCS 860-102374/2-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	1.02		mg/L		102	80 - 120
Antimony	1.00	0.990		mg/L		99	80 - 120
Barium	1.00	0.963		mg/L		96	80 - 120
Cadmium	1.00	0.982		mg/L		98	80 - 120
Chromium	1.00	1.00		mg/L		100	80 - 120
Beryllium	1.00	0.994		mg/L		99	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120
Selenium	1.00	1.02		mg/L		102	80 - 120
Silver	0.500	0.485		mg/L		97	80 - 120
Nickel	1.00	0.983		mg/L		98	80 - 120

Lab Sample ID: LCSD 860-102374/3-A  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.00	1.02		mg/L		102	80 - 120	0	20
Antimony	1.00	0.995		mg/L		100	80 - 120	1	20
Barium	1.00	0.966		mg/L		97	80 - 120	0	20
Cadmium	1.00	0.988		mg/L		99	80 - 120	1	20
Chromium	1.00	1.01		mg/L		101	80 - 120	1	20
Beryllium	1.00	1.00		mg/L		100	80 - 120	1	20
Lead	1.00	1.02		mg/L		102	80 - 120	1	20
Selenium	1.00	1.02		mg/L		102	80 - 120	0	20
Silver	0.500	0.487		mg/L		97	80 - 120	0	20
Nickel	1.00	0.989		mg/L		99	80 - 120	1	20

Lab Sample ID: 830-3498-A-2-C MSD ^5  
Matrix: Solid  
Analysis Batch: 102516

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	1.10		mg/L		110	75 - 125	0	20
Antimony	ND		1.00	1.10		mg/L		110	75 - 125	3	20
Barium	0.055		1.00	1.13		mg/L		107	75 - 125	1	20

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 830-3498-A-2-C MSD ^5

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	ND		1.00	1.08		mg/L		108	75 - 125	1	20
Chromium	ND		1.00	1.11		mg/L		111	75 - 125	2	20
Beryllium	ND		1.00	1.11		mg/L		111	75 - 125	1	20
Lead	ND		1.00	1.11		mg/L		111	75 - 125	1	20
Selenium	ND		1.00	1.10		mg/L		110	75 - 125	1	20
Silver	ND		0.500	0.530		mg/L		106	75 - 125	1	20
Nickel	ND		1.00	1.09		mg/L		109	75 - 125	1	20

Lab Sample ID: LB 860-102256/1-C

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 102374

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Antimony	ND		0.10		mg/L		05/09/23 10:30	05/09/23 16:53	1
Barium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Cadmium	ND		0.025		mg/L		05/09/23 10:30	05/09/23 16:53	1
Chromium	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Beryllium	ND		0.020		mg/L		05/09/23 10:30	05/09/23 16:53	1
Lead	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1
Selenium	ND		0.15		mg/L		05/09/23 10:30	05/09/23 16:53	1
Silver	ND		0.10		mg/L		05/09/23 10:30	05/09/23 16:53	1
Nickel	ND		0.050		mg/L		05/09/23 10:30	05/09/23 16:53	1

Lab Sample ID: 860-48516-A-1-F MS

Matrix: Solid

Analysis Batch: 102516

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 102374

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1.00	1.07		mg/L		107	75 - 125
Antimony	ND		1.00	1.04		mg/L		104	75 - 125
Barium	0.050		1.00	1.08		mg/L		103	75 - 125
Cadmium	ND		1.00	1.05		mg/L		105	75 - 125
Chromium	ND		1.00	1.05		mg/L		105	75 - 125
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125
Lead	ND		1.00	1.05		mg/L		105	75 - 125
Selenium	ND		1.00	1.11		mg/L		111	75 - 125
Silver	ND		0.500	0.505		mg/L		101	75 - 125
Nickel	ND		1.00	1.05		mg/L		105	75 - 125

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-102388/1-A

Matrix: Solid

Analysis Batch: 102487

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 102388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:20	05/09/23 18:19	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 860-102388/2-A  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 102388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00210		mg/L		105	80 - 120

Lab Sample ID: LCSD 860-102388/3-A  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 102388

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00204		mg/L		102	80 - 120	3	20

Lab Sample ID: LB 860-102256/1-D  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/09/23 11:21	05/09/23 18:53	1

Lab Sample ID: 860-48165-A-1-H MS  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00021		0.00200	0.00211		mg/L		95	75 - 125

Lab Sample ID: 860-48165-A-1-I MSD  
Matrix: Solid  
Analysis Batch: 102487

Client Sample ID: Matrix Spike Duplicate  
Prep Type: TCLP  
Prep Batch: 102388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00021		0.00200	0.00213		mg/L		96	75 - 125	1	20

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-102147/1  
Matrix: Solid  
Analysis Batch: 102147

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.2				%			05/08/23 08:28	1
Percent Solids	99.8				%			05/08/23 08:28	1

Lab Sample ID: 860-48490-B-1 DU  
Matrix: Solid  
Analysis Batch: 102147

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	97.4		97.5		%		0.1	20
Percent Solids	2.6		2.5		%		4	20

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### GC/MS VOA

#### Analysis Batch: 102314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-102319/1-A	Method Blank	TCLP	Solid	8260C	107319
MB 860-102314/10	Method Blank	Total/NA	Solid	8260C	
LCS 860-102314/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-102314/4	Lab Control Sample Dup	Total/NA	Solid	8260C	
860-48516-A-1-D MS	Matrix Spike	TCLP	Solid	8260C	102319

#### Analysis Batch: 102315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8260C	102319
MB 860-102315/19	Method Blank	Total/NA	Solid	8260C	
LCS 860-102315/1013	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-102315/14	Lab Control Sample Dup	Total/NA	Solid	8260C	

#### Leach Batch: 102319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102319/1-A	Method Blank	TCLP	Solid	1311	
860-48516-A-1-D MS	Matrix Spike	TCLP	Solid	1311	

### GC/MS Semi VOA

#### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-E	Method Blank	TCLP	Solid	1311	
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 102484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3510C	102256
LB 860-102256/1-E	Method Blank	TCLP	Solid	3510C	102256
MB 860-102484/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-102484/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-102484/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	3510C	102256

#### Analysis Batch: 102521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-102256/1-E	Method Blank	TCLP	Solid	8270D	102484
MB 860-102484/1-A	Method Blank	Total/NA	Solid	8270D	102484
LCS 860-102484/2-A	Lab Control Sample	Total/NA	Solid	8270D	102484
LCSD 860-102484/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	102484
860-48490-A-1-E MS	Matrix Spike	TCLP	Solid	8270D	102484

#### Analysis Batch: 102631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8270D	102484

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# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

## GC Semi VOA

### Prep Batch: 102044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	3550C	
MB 860-102044/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-102044/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-102044/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
860-48444-B-4-B MS	Matrix Spike	Total/NA	Solid	3550C	
860-48444-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

### Analysis Batch: 102105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	8082A	102044
MB 860-102044/1-A	Method Blank	Total/NA	Solid	8082A	102044
LCS 860-102044/2-A	Lab Control Sample	Total/NA	Solid	8082A	102044
LCSD 860-102044/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	102044
860-48444-B-4-B MS	Matrix Spike	Total/NA	Solid	8082A	102044
860-48444-B-4-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	102044

### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-F	Method Blank	TCLP	Solid	1311	
LB 860-102256/1-G	Method Blank	TCLP	Solid	1311	

### Analysis Batch: 102466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8081B	102544
LB 860-102256/1-G	Method Blank	TCLP	Solid	8081B	102544
MB 860-102544/1-A	Method Blank	Total/NA	Solid	8081B	102544
LCS 860-102544/2-A	Lab Control Sample	Total/NA	Solid	8081B	102544
LCSD 860-102544/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	102544

### Prep Batch: 102500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3511	102256
LB 860-102256/1-F	Method Blank	TCLP	Solid	3511	102256
MB 860-102500/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-102500/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-102500/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

### Analysis Batch: 102528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	8151A	102500
LB 860-102256/1-F	Method Blank	TCLP	Solid	8151A	102500
MB 860-102500/1-A	Method Blank	Total/NA	Solid	8151A	102500
LCS 860-102500/2-A	Lab Control Sample	Total/NA	Solid	8151A	102500
LCSD 860-102500/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	102500

### Prep Batch: 102544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3510C	102256
LB 860-102256/1-G	Method Blank	TCLP	Solid	3510C	102256
MB 860-102544/1-A	Method Blank	Total/NA	Solid	3510C	

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### GC Semi VOA (Continued)

#### Prep Batch: 102544 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 860-102544/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-102544/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

### Metals

#### Leach Batch: 102256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	1311	
LB 860-102256/1-C	Method Blank	TCLP	Solid	1311	
LB 860-102256/1-D	Method Blank	TCLP	Solid	1311	
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	1311	
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 102374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	3010A	102256
LB 860-102256/1-C	Method Blank	TCLP	Solid	3010A	102256
MB 860-102374/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-102374/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-102374/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
830-3498-A-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3010A	
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	3010A	102256

#### Prep Batch: 102388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	7470A	102256
LB 860-102256/1-D	Method Blank	TCLP	Solid	7470A	102256
MB 860-102388/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 860-102388/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-102388/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	7470A	102256
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	102256

#### Analysis Batch: 102487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	7470A	102388
LB 860-102256/1-D	Method Blank	TCLP	Solid	7470A	102388
MB 860-102388/1-A	Method Blank	Total/NA	Solid	7470A	102388
LCS 860-102388/2-A	Lab Control Sample	Total/NA	Solid	7470A	102388
LCSD 860-102388/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	102388
860-48165-A-1-H MS	Matrix Spike	TCLP	Solid	7470A	102388
860-48165-A-1-I MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	102388

#### Analysis Batch: 102516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	TCLP	Solid	6010B	102374
LB 860-102256/1-C	Method Blank	TCLP	Solid	6010B	102374
MB 860-102374/1-A	Method Blank	Total/NA	Solid	6010B	102374
LCS 860-102374/2-A	Lab Control Sample	Total/NA	Solid	6010B	102374
LCSD 860-102374/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	102374

Eurofins Houston

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Metals (Continued)

#### Analysis Batch: 102516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
830-3498-A-2-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	102374
860-48516-A-1-F MS	Matrix Spike	TCLP	Solid	6010B	102374

### General Chemistry

#### Analysis Batch: 102147

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-48518-1	FBC 30 Digester c	Total/NA	Solid	Moisture	
MB 860-102147/1	Method Blank	Total/NA	Solid	Moisture	
860-48490-B-1 DU	Duplicate	Total/NA	Solid	Moisture	

Eurofins Houston

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	102319	05/08/23 14:00	SYB	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	102315	05/09/23 06:00 05/09/23 17:39	TTD	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	1 mL	102484	05/09/23 05:00 05/09/23 18:27	RC	EET HOU
TCLP	Analysis	8270D		5			102631	05/11/23 02:17	PXS	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	2 mL	102544	05/09/23 05:00 05/10/23 11:17	BH	EET HOU
TCLP	Analysis	8081B		1	1 mL	1 mL	102466	05/10/23 16:43	BNW	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3511			50.2 mL	4 mL	102500	05/09/23 05:00 05/09/23 18:39	JN	EET HOU
TCLP	Analysis	8151A		1			102528	05/10/23 22:54	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	3010A			10 mL	50 mL	102374	05/09/23 05:00 05/09/23 10:30	MD	EET HOU
TCLP	Analysis	6010B		1			102516	05/09/23 17:27	JDM	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	102256	05/08/23 13:00	EMC	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	102388	05/09/23 05:00 05/09/23 11:21	PB	EET HOU
TCLP	Analysis	7470A		1			102487	05/09/23 19:11	SHZ	EET HOU
Total/NA	Analysis	Moisture		1			102147	05/08/23 08:28	JM	EET HOU

Client Sample ID: FBC 30 Digester c

Date Collected: 04/28/23 10:15

Date Received: 05/02/23 10:15

Lab Sample ID: 860-48518-1

Matrix: Solid

Percent Solids: 1.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			1.04 g	5 mL	102044	05/06/23 08:22	OH	EET HOU
Total/NA	Analysis	8082A		1			102105	05/09/23 01:25	WP	EET HOU

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

Eurofins Houston

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

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Eurofins Houston



## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

Eurofins Houston

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: For Bend County MUD 30

Job ID: 860-48518-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-48518-1	FBC 30 Digester c	Solid	04/28/23 10:15	05/02/23 10:15

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P O Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email. eastexlab@eastex.net  
Tel. 936 653 3249

5/1/23  
MBB



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone: 713-690-4444  
Fax. 713-690-5646

**PO 050223C**

### PROJECT NAME

Fort Bend County MUD 30

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
2	4/28/23	9 35 am	FBC 30 Digester c	Grab	C3D5824-01	TCLP SUBCONTRACT
2				Grab		PCB SUBCONTRACT

### Special Instructions:

☐ See Attached

FULL TCLP REPORT, PCB MG/KG %SOLIDS



860-48518 Chain of Custody

Temp: 1.1 IR ID: HOU-344  
C/F -0.2  
Corrected Temp: 0.9

Received Iced Y/N Temp \_\_\_\_\_

Released By [Signature]

Date & Time 5/2/2023 10:15

Received By [Signature] Date & Time 5/2/23 10:15

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-48518-1

Login Number: 48518

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	

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# EASTEX ENVIRONMENTAL LABORATORY, INC.

P.O. Box 1089 • Goldspring, TX 77331 P.O. Box 631375 • Nacogdoches, TX 75963-1375  
(936) 653-3249 • (800) 525-0508 (936) 569-8879 • FAX (936) 569-8951

www.eastexlabs.com

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

## REPORT TO:

Company: WDD5

Address:

on file

Attn:

Phone#:

Email:

P.O. #:

Sampler's Name (print):

Sampler's Signature:

Project Name: FBG mwd 30

Work Order ID

ESD5824

Sample ID

Digester

Date

4/21/03

Time

0935

Matrix

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## INVOICE TO:

Company:

Address: SAME

Remarks:

Phone#:

Attn:

ANALYSIS REQUESTED

TCLP, PCB

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8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

October 20, 2023

## LABORATORY REPORT

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20231020084017Sta..

RE: HC MUD 26 - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Stations For Deena Higginbotham  
Director of Client Services



☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☐ Metals  
☐ PCB ☒ F/S ☒



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23J3697-01

Sample Matrix: Solid  
Date Collected: 10/16/2023 10:00  
Collected by: Jose Gutierrez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	148000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	69500	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	125000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	59600	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	75900	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	78200	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
Colilert-18	Fecal coliforms	103000	MPN/g TS dry	BGJ2544	10/17/2023 10:46	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.428	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGJ2584	10/17/2023 09:00	AKA
SM 2550 B	Temperature °C Field	20.9	°C	BGJ2651	10/16/2023 10:00	JG
SM 2540 G	% Solids	1.61 V	%	BGJ2580	10/18/2023 10:00	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.

659200  
÷ 7  
94171.43

pass

< 2 M  
< 1.5





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

## Quality Control

### General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2580 - Percent Solids</b>									
<b>Blank (BGJ2580-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Duplicate (BGJ2580-DUP1)</b>									
% Solids		0.100	%		1.62			0.126	20
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Duplicate (BGJ2580-DUP2)</b>									
% Solids		0.100	%		0.436			0.278	30
Prepared: 10/17/2023 Analyzed: 10/18/2023									
<b>Reference (BGJ2580-SRM1)</b>									
% Solids		0.100	%	0.350		110	78.9-118		



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Quality Control (Continued)

#### Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2544 - FC Quantitray</b>									
<b>Blank (BGJ2544-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 10/16/2023 Analyzed: 10/17/2023									
<b>Duplicate (BGJ2544-DUP1)</b>									
Fecal coliforms		621	MPN/g TS dry		148000			32.2	200
Source: 23J3697-01 Prepared: 10/16/2023 Analyzed: 10/17/2023									



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdsls.com  
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 26 - Non Potable - Class B Annual  
Project Number: 4  
Project Manager: John Montgomery

**Reported:**  
10/20/2023 08:40

### Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com



Page 1 of 1

23J3697

TCEQ T104704238-23-39

Lab PM : Deena Higginbotham	Project Name : HC MUD 26 - Non Potable - Class B Annual			Schedule Comments:	
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Sarricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL				

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23J3697-01	Digester		10/16/2022/10:00	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L Na2S2O3 I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 20.9°C

Field Remarks:		Lab Preservation: H2SO4 (Circle and Write ID Below)	HNO3	NaOH	Other:
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name Joe Gutierrez	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLs	Relinquished To Lab By: (Signature)	Date/Time 10-16-23/15:50	Received for Laboratory By: (Signature) POT	Date/Time 10-16-23	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Spring South

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022





November 17, 2023

## Laboratory Report

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20231117112001AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Aundra Noe For Deena Higginbotham  
Director of Client Services

RECEIVED  
DEC 29 2023  
ENTERED DEC 29 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☐ F/S ☐ & Solid



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

## Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23J3698-01  
HC MUD 26 - Sewage Sludge Annual

Sample Matrix: Solid  
Date Collected: 10/16/2023 9:50  
Collected by: Jose Gutierrez

4

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### Organics by GC

SW-8082	PCBs, Total	A	<1.21U	mg/kg (dry wt) dry	10	0.605	1.21	BGJ3644	10/31/2023 04:46	CDG
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		119%	60-140					10/31/2023 04:46	
SW-8082	Surrogate: Decachlorobiphenyl-surr		125%	60-140					10/31/2023 04:46	

### Metals, Total

SW-6010C	Arsenic	A	6.23	mg/kg dry	1	0.449	2.05	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Cadmium	A	0.969	mg/kg dry	1	0.0532	0.205	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Chromium	A	30.7	mg/kg dry	1	0.768	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Copper	A	240	mg/kg dry	5	1.09	10.2	BGJ3262	10/24/2023 14:45	FAA
SW-7471B	Mercury	A	0.299	mg/kg dry	1	0.0123	0.0245	BGJ4936	10/31/2023 16:22	AKR
SW-6010C	Lead	A	14.3	mg/kg dry	1	0.522	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Molybdenum	A	7.74	mg/kg dry	1	1.03	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Nickel	A	15.1	mg/kg dry	1	0.277	1.03	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Potassium	A	2890	mg/kg dry	1	17.6	205	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Selenium	A	13.3	mg/kg dry	1	0.799	2.05	BGJ3262	10/24/2023 12:07	FAA
SW-6010C	Total Phosphorus	A	15200	mg/kg dry	5	43.0	1020	BGJ3262	10/24/2023 14:45	FAA
SW-6010C	Zinc	A	1160	mg/kg dry	25	25.7	25.7	BGJ3262	10/24/2023 14:48	FAA

### General Chemistry

EPA 350.2	Ammonia as N	A	12800	mg/kg dry	1	613	1230	BGJ2578	10/17/2023 09:08	GIW
SW-9056A	Nitrate as N	A	65.5	mg/kg dry	1	3.08	7.69	BGJ2669	10/17/2023 13:03	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	53100	mg/kg dry	1	1510	1510	BGJ3202	10/20/2023 10:59	NAZ
SM 2540 G	% Solids	A	1.62V	%	1	0.100	0.100	BGJ2580	10/18/2023 10:00	JRU

### TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGJ3041	10/20/2023 15:07	FAA
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGJ2829	10/24/2023 01:27	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00U	mg/L	2	0.000476	1.00	BGJ2829	10/24/2023 01:27	KRB
SW-8151	Surrogate: DCAA-surr		137% S	70-130					10/24/2023 01:27	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGK1044	11/07/2023 15:01	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGJ3693	10/28/2023 09:38	ALA

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

### Sample Results (Continued)

Client Sample ID: Digester (Continued)  
Lab Sample ID: 23J3698-01  
HC MUD 26 - Sewage Sludge Annual

4

Sample Matrix: Solid  
Date Collected: 10/16/2023 9:50  
Collected by: Jose Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>TCLP (Continued)</b>										
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500C+, U	mg/L	1	3.00E-6	0.500	BGJ3693	10/28/2023 09:38	ALA
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		89.0%	60-140					10/28/2023 09:38	
SW-8081	Surrogate: Decachlorobiphenyl-surr		84.7%	60-140					10/28/2023 09:38	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGJ3041	10/20/2023 15:04	FAA
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGJ3041	10/20/2023 15:04	FAA
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGJ3234	10/20/2023 02:10	krb
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 02:10	krb
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 02:10	krb
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGJ3234	10/20/2023 02:10	krb
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGJ3234	10/20/2023 02:10	krb
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGJ3234	10/20/2023 02:10	krb
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		78.9%	54.6-148					10/20/2023 02:10	
SW-8270	Surrogate: 2-Fluorophenol-surr		80.7%	55-152					10/20/2023 02:10	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		94.8%	52.4-136					10/20/2023 02:10	
SW-8270	Surrogate: Nitrobenzene-d5-surr		90.2%	52-162					10/20/2023 02:10	
SW-8270	Surrogate: Phenol-d5-surr		84.5%	58.7-152					10/20/2023 02:10	
SW-8270	Surrogate: p-Terphenyl-d14-surr		72.7%	51.9-147					10/20/2023 02:10	

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

### Quality Control

#### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3644 - SW-3570</b>										
<b>MB PCB (BGJ3644-BLK1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet						
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6			0.00604	mg/kg (dry wt) wet	0.00600		101	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00703	mg/kg (dry wt) wet	0.00600		117	60-140		
<b>BS PCB (BGJ3644-BS1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	0.0503		0.0200	mg/kg (dry wt) wet	0.0600		83.8	60-140		
Aroclor-1260 (PCB-1260)	0.0587		0.0200	mg/kg (dry wt) wet	0.0600		97.9	60-140		
PCBs, Total	0.0571		0.0200	mg/kg (dry wt) wet	0.0600		95.2	60-140		
Surrogate: 2,4,5,6			0.00582	mg/kg (dry wt) wet	0.00600		97.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00700	mg/kg (dry wt) wet	0.00600		117	60-140		
<b>BSD PCB (BGJ3644-BSD1)</b>										
Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	0.0612		0.0200	mg/kg (dry wt) wet	0.0600		102	60-140	19.6	40
Aroclor-1260 (PCB-1260)	0.0659		0.0200	mg/kg (dry wt) wet	0.0600		110	60-140	11.5	40
PCBs, Total	0.0650		0.0200	mg/kg (dry wt) wet	0.0600		108	60-140	12.9	40
Surrogate: 2,4,5,6			0.00625	mg/kg (dry wt) wet	0.00600		104	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.00757	mg/kg (dry wt) wet	0.00600		126	60-140		
<b>23J3144-01 MS (BGJ3644-MS1)</b>										
Source: 23J3144-01 Prepared: 10/23/2023 Analyzed: 10/31/2023										
Aroclor-1016 (PCB-1016)	6.12		2.60	mg/kg (dry wt) dry	7.80	<2.60	78.5	60-140		
Aroclor-1260 (PCB-1260)	7.15		2.60	mg/kg (dry wt) dry	7.80	<2.60	91.7	60-140		
PCBs, Total	6.96		2.60	mg/kg (dry wt) dry	7.80	<2.60	89.2	60-140		
Surrogate: 2,4,5,6			0.835	mg/kg (dry wt) dry	0.780		107	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.891	mg/kg (dry wt) dry	0.780		114	60-140		

23J3144-01 MSD (BGJ3644-MSD1)

Source: 23J3144-01

Prepared: 10/23/2023 Analyzed: 10/31/2023

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3644 - SW-3570 (Continued)</b>										
<b>23J3144-01 MSD (BGJ3644-MSD1)</b>			<b>Source: 23J3144-01</b>		Prepared: 10/23/2023 Analyzed: 10/31/2023					
Aroclor-1016 (PCB-1016)	6.86		2.60	mg/kg (dry wt) dry	7.80	<2.60	88.0	60-140	11.4	40
Aroclor-1260 (PCB-1260)	7.76		2.60	mg/kg (dry wt) dry	7.80	<2.60	99.6	60-140	8.23	40
PCBs, Total	7.59		2.60	mg/kg (dry wt) dry	7.80	<2.60	97.4	60-140	8.79	40
<i>Surrogate: 2,4,5,6</i>			0.870	mg/kg (dry wt) dry	0.780		112	60-140		
<i>Tetrachloro-m-xylene-surr</i>										
<i>Surrogate: Decachlorobiphenyl-surr</i>			0.928	mg/kg (dry wt) dry	0.780		119	60-140		

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
11/17/2023 11:20

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3262 - SW-3050 for 6010**

**Blank (BGJ3262-BLK1)**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	<1.81	U	1.81	mg/kg wet					
Cadmium	<0.181	U	0.181	mg/kg wet					
Chromium	<0.906	U	0.906	mg/kg wet					
Copper	<1.81	U	1.81	mg/kg wet					
Lead	<0.906	U	0.906	mg/kg wet					
Molybdenum	<0.906	U	0.906	mg/kg wet					
Nickel	<0.906	U	0.906	mg/kg wet					
Potassium	<181	U	181	mg/kg wet					
Selenium	<1.81	U	1.81	mg/kg wet					
Total Phosphorus	<181	U	181	mg/kg wet					
Zinc	<0.906	U	0.906	mg/kg wet					

**LCS (BGJ3262-BS1)**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	45.7		1.90	mg/kg wet	47.5		96.2	80-120
Cadmium	4.64		0.190	mg/kg wet	4.75		97.6	80-120
Chromium	23.4		0.952	mg/kg wet	23.8		98.5	80-120
Copper	46.2		1.90	mg/kg wet	47.5		97.3	80-120
Lead	23.3		0.952	mg/kg wet	23.8		98.0	80-120
Molybdenum	23.1		0.952	mg/kg wet	23.8		97.2	80-120
Nickel	23.2		0.952	mg/kg wet	23.8		97.7	80-120
Potassium	4600		190	mg/kg wet	4750		96.7	80-120
Selenium	46.0		1.90	mg/kg wet	47.5		96.9	80-120
Total Phosphorus	4640		190	mg/kg wet	4750		97.6	80-120
Zinc	24.8		0.952	mg/kg wet	23.8		104	80-120

**Matrix Spike (BGJ3262-MS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	64.4		2.42	mg/kg dry	60.6	5.76	96.7	75-125
Cadmium	6.82		0.242	mg/kg dry	6.06	0.919	97.4	75-125
Chromium	48.5		1.21	mg/kg dry	30.3	19.8	94.6	75-125
Copper	1480		48.4	mg/kg dry	1270	366	87.2	75-125
Lead	39.9		1.21	mg/kg dry	30.3	11.1	94.9	75-125
Molybdenum	33.1		1.21	mg/kg dry	30.3	5.10	92.5	75-125
Nickel	43.0		1.21	mg/kg dry	30.3	14.6	93.6	75-125
Potassium	8710		242	mg/kg dry	6060	2610	101	75-125
Selenium	69.7		2.42	mg/kg dry	60.6	7.98	102	75-125
Total Phosphorus	2110	J1	1210	mg/kg dry	12100	13000	NR	75-125
Zinc	2420		60.7	mg/kg dry	1240	1140	103	75-125

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3262 - SW-3050 for 6010 (Continued)**

**Matrix Spike Dup (BGJ3262-MSD1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	65.5		2.42	mg/kg dry	60.6	5.76	98.7	75-125	1.84	20
Cadmium	6.88		0.242	mg/kg dry	6.06	0.919	98.4	75-125	0.886	20
Chromium	48.5		1.21	mg/kg dry	30.3	19.8	94.7	75-125	0.0483	20
Copper	1610		48.4	mg/kg dry	1270	366	98.1	75-125	8.92	20
Lead	41.7		1.21	mg/kg dry	30.3	11.1	101	75-125	4.34	20
Molybdenum	33.6		1.21	mg/kg dry	30.3	5.10	94.2	75-125	1.45	20
Nickel	42.9		1.21	mg/kg dry	30.3	14.6	93.5	75-125	0.0420	20
Potassium	8380		242	mg/kg dry	6060	2610	95.1	75-125	3.95	20
Selenium	69.8		2.42	mg/kg dry	60.6	7.98	102	75-125	0.143	20
Total Phosphorus	19200	J1	1210	mg/kg dry	12100	13000	51.7	75-125	160	20
Zinc	2440		60.7	mg/kg dry	1240	1140	105	75-125	0.875	20

**Post Spike (BGJ3262-PS1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	527			ug/L	500	44.9	96.4	80-120		
Cadmium	56.1			ug/L	50.0	7.17	97.9	80-120		
Chromium	398			ug/L	250	155	97.5	80-120		
Copper	3640	J1		ug/L	500	2860	156	80-120		
Lead	332			ug/L	250	86.9	97.9	80-120		
Molybdenum	279			ug/L	250	39.8	95.5	80-120		
Nickel	353			ug/L	250	114	95.7	80-120		
Potassium	69500			ug/L	50000	20400	98.2	80-120		
Selenium	568			ug/L	500	62.2	101	80-120		
Total Phosphorus	162000	J1		ug/L	50000	101000	122	80-120		
Zinc	9540	J1		ug/L	250	8930	247	80-120		

**Dilution Check (BGJ3262-SRL1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/24/2023

Arsenic	6.74	U	12.1	mg/kg dry		5.76			15.7	10
Cadmium	0.958	U	1.21	mg/kg dry		0.919			4.16	10
Chromium	20.9		6.08	mg/kg dry		19.8			5.08	10
Copper	368		12.1	mg/kg dry		366			0.538	10
Lead	12.2		6.08	mg/kg dry		11.1			9.09	10
Molybdenum	<6.08	U	6.08	mg/kg dry		<6.08			200	10
Nickel	15.8		6.08	mg/kg dry		14.6			7.52	10
Potassium	2550		1210	mg/kg dry		2610			2.43	10
Selenium	7.29	U	12.1	mg/kg dry		7.98			8.99	10
Total Phosphorus	13300		1210	mg/kg dry		13000			2.41	10

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ4936 - SW-7471</b>									
<b>MDL Check (BGJ4936-MRL1)</b>									
Mercury	0.0103	U	0.0196	mg/kg wet	0.00982		105		
<b>Matrix Spike (BGJ4936-MS1)</b>									
<b>Source: 23J4078-01</b>					<b>Prepared &amp; Analyzed: 10/31/2023</b>				
Mercury	0.486		0.0352	mg/kg dry	0.440	0.0995	87.9	80-120	
<b>Matrix Spike Dup (BGJ4936-MSD1)</b>									
<b>Source: 23J4078-01</b>					<b>Prepared &amp; Analyzed: 10/31/2023</b>				
Mercury	0.430	J1	0.0351	mg/kg dry	0.439	0.0995	75.4	80-120	20





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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2578 - TKN T</b>										
<b>Blank (BGJ2578-BLK1)</b>										
Ammonia as N	<9.98	U	9.98	mg/kg wet	Prepared & Analyzed: 10/17/2023					
<b>LCS (BGJ2578-BS1)</b>										
Ammonia as N	97.6		9.99	mg/kg wet	99.9		97.7	85-115		
<b>Duplicate (BGJ2578-DUP1)</b>										
Ammonia as N	3290		1450	mg/kg dry	Prepared & Analyzed: 10/17/2023				17.3	20
<b>MRL Check (BGJ2578-MRL1)</b>										
Ammonia as N	9.78	U	9.98	mg/kg wet	9.98		98.0	50-150		
<b>Matrix Spike (BGJ2578-MS1)</b>										
Ammonia as N	17400		1450	mg/kg dry	14500	2770	101	85-115		
<b>Batch: BGJ2580 - Percent Solids</b>										
<b>Blank (BGJ2580-BLK1)</b>										
% Solids	<0.100	U	0.100	%	Prepared: 10/17/2023 Analyzed: 10/18/2023					
<b>Duplicate (BGJ2580-DUP1)</b>										
% Solids	1.62		0.100	%	Prepared: 10/17/2023 Analyzed: 10/18/2023				0.126	20
<b>Duplicate (BGJ2580-DUP2)</b>										
% Solids	0.438		0.100	%	Prepared: 10/17/2023 Analyzed: 10/18/2023				0.278	30
<b>Reference (BGJ2580-SRM1)</b>										
% Solids	0.387		0.100	%	Prepared: 10/17/2023 Analyzed: 10/18/2023					
	0.350							110	78.9-118	

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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2669 - Solid Anions No Prep</b>										
<b>Duplicate (BGJ2669-DUP1)</b>		<b>Source: 23J3698-01</b>				Prepared & Analyzed: 10/17/2023				
Nitrate as N	65.4		7.69	mg/kg dry		65.5			0.282	15
<b>MRL Check (BGJ2669-MRL1)</b>						Prepared & Analyzed: 10/17/2023				
Nitrate as N	0.112	U	0.125	mg/kg wet	0.100		112	50-150		
<b>Matrix Spike (BGJ2669-MS1)</b>		<b>Source: 23J3698-01</b>				Prepared & Analyzed: 10/17/2023				
Nitrate as N	206		8.55	mg/kg dry	137	65.5	103	80-120		
<b>Batch: BGJ3202 - TKN T</b>										
<b>Blank (BGJ3202-BLK1)</b>						Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	<9.92	U	9.92	mg/kg wet						
<b>LCS (BGJ3202-BS1)</b>						Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	19.9		9.88	mg/kg wet	20.0		99.8	85-115		
<b>Duplicate (BGJ3202-DUP1)</b>		<b>Source: 23J3698-01</b>				Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	69300	J1	1490	mg/kg dry		53100			26.5	20
<b>Matrix Spike (BGJ3202-MS1)</b>		<b>Source: 23J3698-01</b>				Prepared: 10/19/2023 Analyzed: 10/20/2023				
Total Kjeldahl Nitrogen - (TKN)	73000	J1	1510	mg/kg dry	6030	53100	330	85-115		

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**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2829 - SW-3511</b>										
<b>MB HERB (BGJ2829-BLK1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0251	mg/L	0.0249		101	70-130		
<b>BS HERB (BGJ2829-BS1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00480	U	10.0	mg/L	0.00508		94	70-130		
Silvex (2,4,5-TP)	0.00474	U	1.00	mg/L	0.00493		96	70-130		
Surrogate: DCAA-surr			0.0216	mg/L	0.0247		88	70-130		
<b>BSD HERB (BGJ2829-BS1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.00492	U	10.0	mg/L	0.00511		96	70-130	2	30
Silvex (2,4,5-TP)	0.00463	U	1.00	mg/L	0.00497		93	70-130	2	30
Surrogate: DCAA-surr			0.0222	mg/L	0.0248		90	70-130		
<b>BGJ1444-BLK1 (BGJ2829-LBK1)</b>										
					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.120	mg/L	0.100		120	70-130		
<b>BGJ2741-BLK1 (BGJ2829-LBK2)</b>										
					Prepared: 10/18/2023 Analyzed: 10/24/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	5		0.142	mg/L	0.100		142	70-130		
<b>23J2360-01 MS (BGJ2829-MS1)</b>										
			<b>Source: 23J2360-01</b>		Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.0216	U	10.0	mg/L	0.0206	<10.0	105	70-130		
Silvex (2,4,5-TP)	0.0212	U	1.00	mg/L	0.0200	<1.00	106	70-130		
Surrogate: DCAA-surr			0.0951	mg/L	0.100		95	70-130		

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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ2829 - SW-3511 (Continued)</b>										
<b>23J2360-01 MSD (BGJ2829-MSD1)</b>			<b>Source: 23J2360-01</b>		Prepared: 10/18/2023 Analyzed: 10/23/2023					
2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	70-130	0.5	30
Silvex (2,4,5-TP)	0.0204	U	1.00	mg/L	0.0200	<1.00	102	70-130	4	30
<i>Surrogate: DCAA-surr</i>			0.0967	mg/L	0.100		97	70-130		

**Batch: BGJ3041 - EPA 200.2 TCLP**

**Blank (BGJ3041-BLK1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L

**LCS (BGJ3041-BS1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.515	U	5.00	mg/L	0.500	103	80-120
Barium	0.518	U	100	mg/L	0.500	104	80-120
Cadmium	0.0517	U	1.00	mg/L	0.0500	103	80-120
Chromium	0.257	U	5.00	mg/L	0.250	103	80-120
Lead	0.260	U	5.00	mg/L	0.250	104	80-120
Selenium	0.513	U	1.00	mg/L	0.500	103	80-120
Silver	0.0509	U	5.00	mg/L	0.0500	102	80-120

**Duplicate (BGJ3041-DUP1)**

**Source: 23J2900-01**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L	<5.00		20
Barium	1.05	U	100	mg/L	1.12	6.61	20
Cadmium	<1.00	U	1.00	mg/L	<1.00		20
Chromium	<5.00	U	5.00	mg/L	<5.00		20
Lead	<5.00	U	5.00	mg/L	<5.00		20
Selenium	<1.00	U	1.00	mg/L	<1.00		20
Silver	<5.00	U	5.00	mg/L	<5.00		20





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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3041 - EPA 200.2 TCLP (Continued)**

**BGJ2741-BLK1 (BGJ3041-LBK1)**

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.669	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**Matrix Spike (BGJ3041-MS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	0.547	U	5.00	mg/L	0.500	<5.00	109	75-125		
Barium	1.64	U	100	mg/L	0.500	1.12	104	75-125		
Cadmium	0.0559	U	1.00	mg/L	0.0500	<1.00	112	75-125		
Chromium	0.261	U	5.00	mg/L	0.250	<5.00	104	75-125		
Lead	0.258	U	5.00	mg/L	0.250	<5.00	103	75-125		
Selenium	0.530	U	1.00	mg/L	0.500	<1.00	106	75-125		
Silver	0.0524	U	5.00	mg/L	0.0500	<5.00	105	75-125		

**Post Spike (BGJ3041-PS1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	537			ug/L	500	7.81	106	80-120		
Barium	1550			ug/L	500	1090	92.4	80-120		
Cadmium	53.9			ug/L	50.0	0.673	106	80-120		
Chromium	257			ug/L	250	1.17	102	80-120		
Lead	257			ug/L	250	1.42	102	80-120		
Selenium	521			ug/L	500	2.93	104	80-120		
Silver	51.3			ug/L	50.0	0.448	102	80-120		

**Dilution Check (BGJ3041-SRL1)**

Source: 23J2900-01

Prepared: 10/19/2023 Analyzed: 10/20/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.12	U	100	mg/L		1.12			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

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Quality Control  
(Continued)

TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511

MB SV (BGJ3234-BLK1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00862	mg/L	0.00978		88.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0189	mg/L	0.0196		96.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0210	mg/L	0.0196		108	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00980	mg/L	0.00978		100	52-162		
Surrogate: Phenol-d5-surr			0.0160	mg/L	0.0196		81.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00913	mg/L	0.00978		93.3	51.9-147		

BS SV (BGJ3234-BS1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0215	U	400	mg/L	0.0197		109	60-140		
2,4,6-Trichlorophenol	0.0200	U	2.00	mg/L	0.0197		102	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.0117	U	0.130	mg/L	0.00984		119	60-140		
2-Methylphenol	0.0182	U	200	mg/L	0.0197		92.7	60-140		
3,4-Methylphenol	0.0340	U	200	mg/L	0.0394		86.4	60-140		
Hexachlorobenzene	0.00901	U	0.130	mg/L	0.00984		91.6	60-140		
Hexachlorobutadiene	0.00718	U	0.500	mg/L	0.00984		73.0	60-140		
Hexachloroethane	0.00791	U	3.00	mg/L	0.00984		80.4	60-140		
Nitrobenzene	0.0102	U	2.00	mg/L	0.00984		104	60-140		
Pentachlorophenol	0.0221	U	100	mg/L	0.0197		112	36.8-149		
Pyridine	0.0223	U	5.00	mg/L	0.0492		45.3	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00847	mg/L	0.00984		86.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0191	mg/L	0.0197		97.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0162	mg/L	0.0197		82.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00906	mg/L	0.00984		92.0	52-162		
Surrogate: Phenol-d5-surr			0.0177	mg/L	0.0197		90.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00750	mg/L	0.00984		76.2	51.9-147		

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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3234 - SW-3511 (Continued)</b>										
<b>BSD SV (BGJ3234-BS01)</b>					Prepared & Analyzed: 10/19/2023					
2,4,5-Trichlorophenol	0.0223	U	400	mg/L	0.0199		112	60-140	3.71	40
2,4,6-Trichlorophenol	0.0228	U	2.00	mg/L	0.0199		115	60-140	13.2	40
2,4-Dinitrotoluene (2,4-DNT)	0.0116	U	0.130	mg/L	0.00993		117	60-140	0.518	40
2-Methylphenol	0.0194	U	200	mg/L	0.0199		97.7	60-140	6.12	40
3,4-Methylphenol	0.0378	L, U	200	mg/L	0.0397		95.3	60-140	10.7	40
Hexachlorobenzene	0.00985	U	0.130	mg/L	0.00993		99.2	60-140	8.89	40
Hexachlorobutadiene	0.00817	U	0.500	mg/L	0.00993		82.3	60-140	13.0	40
Hexachloroethane	0.00891	U	3.00	mg/L	0.00993		89.7	60-140	11.8	40
Nitrobenzene	0.0111	U	2.00	mg/L	0.00993		112	60-140	8.31	40
Pentachlorophenol	0.0226	U	100	mg/L	0.0199		114	36.8-149	2.11	40
Pyridine	0.0234	U	5.00	mg/L	0.0497		47.1	2.5-101	4.85	40
Surrogate: 2-Fluorobiphenyl-surr			0.00896	mg/L	0.00993		90.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0203	mg/L	0.0199		102	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0177	mg/L	0.0199		88.9	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00919	mg/L	0.00993		92.5	52-162		
Surrogate: Phenol-d5-surr			0.0198	mg/L	0.0199		99.7	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00842	mg/L	0.00993		84.8	51.9-147		
<b>BGJ2741-BLK1 (BGJ3234-LBK2)</b>										
					Prepared: 10/19/2023 Analyzed: 10/20/2023					
2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0360	mg/L	0.0400		90.1	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0836	mg/L	0.0800		105	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0926	mg/L	0.0800		116	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0406	mg/L	0.0400		102	52-162		
Surrogate: Phenol-d5-surr			0.0803	mg/L	0.0800		100	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0277	mg/L	0.0400		69.3	51.9-147		

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Quality Control  
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TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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Batch: BGJ3234 - SW-3511 (Continued)

MDL SV (BGJ3234-MRL1)

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.00135	U	400	mg/L	0.000985		137		
2,4,6-Trichlorophenol	0.00159	U	2.00	mg/L	0.000985		161		
2,4-Dinitrotoluene (2,4-DNT)	0.000941	U	0.130	mg/L	0.000492		191		
2-Methylphenol	0.00122	U	200	mg/L	0.000985		124		
3,4-Methylphenol	0.00231	U	200	mg/L	0.00197		117		
Hexachlorobenzene	0.000383	U	0.130	mg/L	0.000492		77.8		
Hexachlorobutadiene	0.000555	U	0.500	mg/L	0.000492		113		
Hexachloroethane	0.000388	U	3.00	mg/L	0.000492		78.8		
Nitrobenzene	0.000747	U	2.00	mg/L	0.000492		152		
Pentachlorophenol	0.00104	U	100	mg/L	0.000985		105		
Pyridine	0.00328	U	5.00	mg/L	0.00246		133		
Surrogate: 2-Fluorobiphenyl-surr			0.00930	mg/L	0.00985		94.4	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0197		98.0	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0233	mg/L	0.0197		118	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0110	mg/L	0.00985		112	52-162	
Surrogate: Phenol-d5-surr			0.0176	mg/L	0.0197		89.2	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00968	mg/L	0.00985		98.2	51.9-147	

23J3307-02 MS (BGJ3234-MS1)

Source: 23J3307-02

Prepared & Analyzed: 10/19/2023

2,4,5-Trichlorophenol	0.0201	U	400	mg/L	0.0199	<400	101	44.9-171	
2,4,6-Trichlorophenol	0.0204	U	2.00	mg/L	0.0199	<2.00	102	34.7-143	
2,4-Dinitrotoluene (2,4-DNT)	0.0105	U	0.130	mg/L	0.00995	<0.130	106	50.3-144	
2-Methylphenol	0.0173	U	200	mg/L	0.0199	<200	86.8	17.3-182	
3,4-Methylphenol	0.0349	U	200	mg/L	0.0398	<200	87.6	43.4-188	
Hexachlorobenzene	0.00857	U	0.130	mg/L	0.00995	<0.130	86.1	56.1-137	
Hexachlorobutadiene	0.00723	U	0.500	mg/L	0.00995	<0.500	72.7	33.1-110	
Hexachloroethane	0.00752	U	3.00	mg/L	0.00995	<3.00	75.6	36.2-106	
Nitrobenzene	0.0109	U	2.00	mg/L	0.00995	<2.00	109	54.9-156	
Pentachlorophenol	0.0209	U	100	mg/L	0.0199	<100	105	42.2-151	
Pyridine	0.0346	U	5.00	mg/L	0.0497	<5.00	69.5	2-87.4	
Surrogate: 2-Fluorobiphenyl-surr			0.00775	mg/L	0.00995		77.9	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0188	mg/L	0.0199		94.5	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0155	mg/L	0.0199		77.8	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.00839	mg/L	0.00995		84.4	52-162	
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0199		92.4	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00659	mg/L	0.00995		66.2	51.9-147	





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27316 Spectrum Way  
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**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3234 - SW-3511 (Continued)</b>										
<b>23J3307-02 MSD (BGJ3234-MSD1)</b>			<b>Source: 23J3307-02</b>			<b>Prepared &amp; Analyzed: 10/19/2023</b>				
2,4,5-Trichlorophenol	0.0207	U	400	mg/L	0.0199	<400	104	44.9-171	2.80	40
2,4,6-Trichlorophenol	0.0215	U	2.00	mg/L	0.0199	<2.00	108	34.7-143	5.59	40
2,4-Dinitrotoluene (2,4-DNT)	0.0112	U	0.130	mg/L	0.00996	<0.130	112	50.3-144	5.75	40
2-Methylphenol	0.0178	U	200	mg/L	0.0199	<200	89.3	17.3-182	3.01	40
3,4-Methylphenol	0.0343	U	200	mg/L	0.0398	<200	86.0	43.4-188	1.75	40
Hexachlorobenzene	0.00865	U	0.130	mg/L	0.00996	<0.130	86.9	56.1-137	0.966	40
Hexachlorobutadiene	0.00765	U	0.500	mg/L	0.00996	<0.500	76.9	33.1-110	5.74	40
Hexachloroethane	0.00809	U	3.00	mg/L	0.00996	<3.00	81.2	36.2-106	7.39	40
Nitrobenzene	0.0110	U	2.00	mg/L	0.00996	<2.00	111	54.9-156	1.66	40
Pentachlorophenol	0.0215	U	100	mg/L	0.0199	<100	108	42.2-151	2.53	40
Pyridine	0.0332	U	5.00	mg/L	0.0498	<5.00	66.7	2-87.4	3.92	40
Surrogate: 2-Fluorobiphenyl-surr			0.00826	mg/L	0.00996		82.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0183	mg/L	0.0199		92.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0162	mg/L	0.0199		81.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00876	mg/L	0.00996		87.9	52-162		
Surrogate: Phenol-d5-surr			0.0178	mg/L	0.0199		89.4	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00690	mg/L	0.00996		69.3	51.9-147		

**Batch: BGJ3693 - SW-3511**

<b>Blank (BGJ3693-BLK1)</b>			<b>Prepared: 10/23/2023 Analyzed: 10/28/2023</b>							
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000102	mg/L	0.000120		85.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.7	60-140		

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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3693 - SW-3511 (Continued)**

Prepared: 10/23/2023 Analyzed: 10/28/2023									
LCS TOX (BGJ3693-BS1)									
Toxaphene (Chlorinated Camphene)	0.00114	U	0.500	mg/L	0.00120		94.7	60-140	
Surrogate: 2,4,5,6			9.30E-5	mg/L	0.000120		77.5	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000106	mg/L	0.000120		88.6	60-140	

Prepared: 10/23/2023 Analyzed: 10/28/2023									
LCS (BGJ3693-BS2)									
Chlordane (Total)	0.000561	U	0.0300	mg/L	0.000480		117	60-140	
Endrin	0.000132	U	0.0200	mg/L	0.000120		110	60-140	
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000136	U	0.400	mg/L	0.000120		113	60-140	
Heptachlor	0.000146	U	0.00800	mg/L	0.000120		121	60-140	
Heptachlor epoxide	0.000137	U	0.00800	mg/L	0.000120		114	60-140	
Methoxychlor	0.000109	U	10.0	mg/L	0.000120		90.7	60-140	
Surrogate: 2,4,5,6			9.70E-5	mg/L	0.000120		80.8	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.7	60-140	

Prepared: 10/23/2023 Analyzed: 10/28/2023									
LCSD TOX (BGJ3693-BSD1)									
Toxaphene (Chlorinated Camphene)	0.00118	U	0.500	mg/L	0.00120		98.6	60-140	4.09 40
Surrogate: 2,4,5,6			8.65E-5	mg/L	0.000120		72.1	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.4	60-140	

Prepared: 10/23/2023 Analyzed: 10/28/2023									
LCS Dup (BGJ3693-BSD2)									
Chlordane (Total)	0.000503	U	0.0300	mg/L	0.000480		105	60-140	11.0 40
Endrin	0.000114	U	0.0200	mg/L	0.000120		95.2	60-140	14.5 40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000119	U	0.400	mg/L	0.000120		99.5	60-140	12.7 40
Heptachlor	0.000129	U	0.00800	mg/L	0.000120		107	60-140	12.3 40
Heptachlor epoxide	0.000122	U	0.00800	mg/L	0.000120		102	60-140	11.7 40
Methoxychlor	0.000113	U	10.0	mg/L	0.000120		94.3	60-140	3.92 40
Surrogate: 2,4,5,6			9.12E-5	mg/L	0.000120		76.0	60-140	
Tetrachloro-m-xylene-surr									
Surrogate: Decachlorobiphenyl-surr			0.000105	mg/L	0.000120		87.5	60-140	

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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGJ3693 - SW-3511 (Continued)**

**BGJ2741-BLK1 (BGJ3693-LBK1)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	2.31E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			8.45E-5	mg/L	0.000120		70.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			7.75E-5	mg/L	0.000120		64.6	60-140		

**MRL TOX (BGJ3693-MRL1)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Toxaphene (Chlorinated Camphene)	0.000293	U	0.500	mg/L	0.000300		97.5			
Surrogate: 2,4,5,6			7.78E-5	mg/L	0.000120		64.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.79E-5	mg/L	0.000120		81.6	60-140		

**MRL Check (BGJ3693-MRL2)**

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	5.56E-5	U	0.0300	mg/L	4.80E-5		116			
Endrin	1.49E-5	U	0.0200	mg/L	1.20E-5		124			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.50E-5	U	0.400	mg/L	1.20E-5		125			
Heptachlor	1.71E-5	U	0.00800	mg/L	1.20E-5		143			
Heptachlor epoxide	1.36E-5	U	0.00800	mg/L	1.20E-5		114			
Methoxychlor	1.58E-5	U	10.0	mg/L	1.20E-5		131			
Surrogate: 2,4,5,6			9.14E-5	mg/L	0.000120		76.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000100	mg/L	0.000120		83.6	60-140		

**Matrix Spike (BGJ3693-MS1)**

Source: 23J2995-01

Prepared: 10/23/2023 Analyzed: 10/28/2023

Chlordane (Total)	0.000462	U	0.0300	mg/L	0.000480	<0.0300	96.2	60-140		
Endrin	0.000115	U	0.0200	mg/L	0.000120	<0.0200	95.5	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000111	U	0.400	mg/L	0.000120	<0.400	92.5	60-140		
Heptachlor	0.000124	U	0.00800	mg/L	0.000120	<0.00800	103	60-140		
Heptachlor epoxide	0.000109	U	0.00800	mg/L	0.000120	<0.00800	91.0	60-140		
Methoxychlor	0.000121	U	10.0	mg/L	0.000120	<10.0	101	60-140		
Surrogate: 2,4,5,6			7.20E-5	mg/L	0.000120		60.0	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000115	mg/L	0.000120		95.5	60-140		

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Oak Ridge, TX 77385

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11/17/2023 11:20

**Quality Control**  
(Continued)

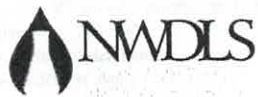
**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGJ3693 - SW-3511 (Continued)</b>										
<b>Matrix Spike Dup (BGJ3693-MSD1)</b>			<b>Source: 23J2995-01</b>		Prepared: 10/23/2023 Analyzed: 10/28/2023					
Chlordane (Total)	0.000498	U	0.0300	mg/L	0.000480	<0.0300	104	60-140	7.46	40
Endrin	0.000122	U	0.0200	mg/L	0.000120	<0.0200	102	60-140	6.58	40
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.000119	U	0.400	mg/L	0.000120	<0.400	98.8	60-140	6.68	40
Heptachlor	0.000133	U	0.00800	mg/L	0.000120	<0.00800	111	60-140	7.50	40
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000120	<0.00800	98.2	60-140	7.61	40
Methoxychlor	0.000118	U	10.0	mg/L	0.000120	<10.0	98.8	60-140	2.07	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	S		6.94E-5	mg/L	0.000120		57.8	60-140		
Surrogate: Decachlorobiphenyl-surr			0.000109	mg/L	0.000120		91.2	60-140		

**Batch: BGK1044 - SW-7471 TCLP**

<b>Duplicate (BGK1044-DUP1)</b>			<b>Source: 23J5785-02</b>		Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>Duplicate (BGK1044-DUP2)</b>			<b>Source: 23J2900-01</b>		Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGK0140-LBK1 (BGK1044-LBK1)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>BGJ2741-LBK2 (BGK1044-LBK2)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGK1044-MRL1)</b>					Prepared & Analyzed: 11/7/2023					
Mercury	0.000211	U	0.200	mg/L	0.000200		106			
<b>Matrix Spike (BGK1044-MS1)</b>			<b>Source: 23J5785-02</b>		Prepared & Analyzed: 11/7/2023					
Mercury	0.00490	U	0.200	mg/L	0.00500	<0.200	98.0	80-120		





130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www.NWDLS.com  
TCEQ T104704238-23-39

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27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGK1044 - SW-7471 TCLP (Continued)**

**Matrix Spike (BGK1044-MS2)**

**Source: 23J2900-01**

Prepared & Analyzed: 11/7/2023

Mercury	0.00513	U	0.200	mg/L	0.00500	<0.200	103	80-120		
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27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
11/17/2023 11:20

### Sample Condition Checklist

Work Order: 23J3698

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



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Oak Ridge, TX 77385

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11/17/2023 11:20

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



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23J3698

<b>Lab PM :</b> Deena Higginbotham		<b>Project Name :</b> HC MUD 26 - Sewage Sludge Annual		<b>Schedule Comments:</b>			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Saricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL					
<b>Sample ID</b>	<b>Collection Point</b>	<b>Date/Time Begin</b>	<b>Date/Time Sampled</b>	<b>Sample Type</b>	<b>Container</b>	<b>Analysis/Preservation</b>	<b>Field Results</b>
23J3698-01	Digester		10/16/2023/9:50	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass VOA 60mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C Sub_VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	





# CHAIN OF CUSTODY RECORD

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Page 2 of 2

23J3698

(Continued)

TCEQ T104704238-23-39

Lab PM : Deena Higginbotham	Project Name : HC MUD 26 - Sewage Sludge Annual	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 21615 Dawn Timbers Ct Humble 77338 Gate Combo 2146 Mikey Sarricolea 281-825-1854 MUST CALL OPERATOR 30 BEFORE ARRIVAL	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time			
Print Name <i>Jose Gutierrez</i>	Relinquished By: (Signature)	Date/Time			
Affiliation <i>NWDLS</i>	Relinquished To Lab By: (Signature) <i>[Signature]</i>	Date/Time <i>10-19-23</i>			
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022

Spring South

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23101996



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>


Client Project Name :  
23J3698

Report To : Client Name: NWDLS  
Attn: Deena Higginbotham  
Client Address: 130 S Trade Center Pkwy  
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23J3698  
Sample Collected By:  
Date Collected: 10/16/23

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23J3698-01	Solid	23101996.01

  
Released By: Gobinath Rangasamy  
Title: Project Manager  
Date: 10/24/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024  
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

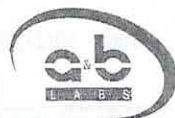
I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 10/18/2023 08:45

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23101996

Date: 10/24/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
J	Estimation. Below calibration range but above MDL	RptLimit	Reporting Limit
LCS	Laboratory Check Standard	SDL	Sample Detection Limit
LCSD	Laboratory Check Standard Duplicate	surr	Surrogate
MS	Matrix Spike	T	Time
MSD	Matrix Spike Duplicate	TNTC	Too numerous to count
MW	Molecular Weight	UQL	Unadjusted Upper Quantitation Limit
MQL	Unadjusted Minimum Quantitation Limit		

## Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



## LABORATORY TEST RESULTS

Job ID : 23101996

Date 10/24/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23J3698

Client Sample ID: 23J3698-01

Job Sample ID: 23101996.01

Date Collected: 10/16/23

Sample Matrix Solid

Time Collected: 09:50

% Moisture

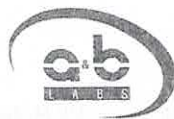
Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	10/23/23 22:08	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	10/23/23 22:08	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	10/23/23 22:08	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	10/23/23 22:08	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	10/23/23 22:08	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	10/23/23 22:08	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	10/23/23 22:08	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	10/23/23 22:08	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	10/23/23 22:08	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	10/23/23 22:08	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	10/23/23 22:08	ZQ
	1,2-Dichloroethane-d4(surr)	105	%	1.00		70-130			10/23/23 22:08	ZQ
	Dibromofluoromethane(surr)	101	%	1.00		70-130			10/23/23 22:08	ZQ
	p-Bromofluorobenzene(surr)	101	%	1.00		70-130			10/23/23 22:08	ZQ
	Toluene-d8(surr)	100	%	1.00		70-130			10/23/23 22:08	ZQ

ab-q212-0321



# QUALITY CONTROL CERTIFICATE



Job ID : 23101996

Date : 10/24/2023

Analysis : TCLP VOC Method : SW-846 8260C Reporting Units : mg/L

QC Batch ID : Qb23102401 Created Date : 10/23/23 Created By : Zeeshan

Samples in This QC Batch : 23101996.01

Sample Preparation : PB23102401 Prep Method : SW-846 5030C Prep Date : 10/23/23 10:00 Prep By : Zeeshan  
TCLP Prep : PB23102106 Prep Method : SW-846 1311 Prep Date : 10/20/23 16:51 Prep By : JCoku

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	101	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	101	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	103	%	1.00			
Toluene-d8(surr)	2037-26-5	100	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.04	104	1	1.00	100	4.1	35	70-130	
1,2-Dichloroethane	1	0.957	95.7	1	0.983	98.3	2.6	35	70-130	
1,4-Dichlorobenzene	1	0.983	98.3	1	0.949	94.9	3.5	35	70-130	
Benzene	1	0.957	95.7	1	0.945	94.5	1.3	35	70-130	
Carbon tetrachloride	1	1.02	102	1	1.00	100	2	35	70-130	
Chlorobenzene	1	0.992	99.2	1	0.980	98	1.2	35	70-130	
Chloroform	1	1.03	103	1	0.986	98.6	3.9	35	70-130	
MEK	1	0.898	89.8	1	0.911	91.1	1.4	35	70-130	
Tetrachloroethylene	1	0.943	94.3	1	0.942	94.2	0.1	35	70-130	
Trichloroethylene	1	0.986	98.7	1	0.977	97.7	1	35	70-130	
Vinyl Chloride	1	1.02	102	1	0.981	98.1	4.4	35	70-130	

## QC Type: MS and MSD

QC Sample ID: 23101844.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.03	103						70-130	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 23101996

Date : 10/24/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23102401 Created Date : 10/23/23

Created By : Zeeshan

Samples in This QC Batch : 23101996.01

QC Type: MS and MSD

QC Sample ID: 23101844.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.948	94.8						70-130	
1,4-Dichlorobenzene	BRL	1	1.01	101						70-130	
Benzene	BRL	1	0.972	97.2						70-130	
Carbon tetrachloride	BRL	1	1.05	105						70-130	
Chlorobenzene	BRL	1	1.01	101						70-130	
Chloroform	BRL	1	0.991	99.1						70-130	
MEK	BRL	1	0.937	93.7						70-130	
Tetrachloroethylene	BRL	1	0.992	99.2						70-130	
Trichloroethylene	BRL	1	1.02	102						70-130	
Vinyl Chloride	BRL	1	0.995	99.5						70-130	

ab-q213-0321

Refer to the Definition page for terms.



# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23J3698

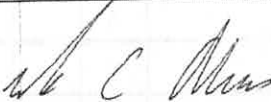
Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23J3698-01 Solid Sampled: 10/16/2023 09:50

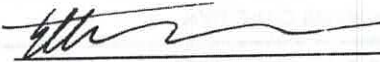
Sub_VOA-TCLP	10/30/2023	10/30/2023 09:50	
Analyte(s):			
1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr	
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr	
Benzene	Carbon tetrachloride	Chlorobenzene	
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)	
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)	

Containers Supplied:

OIA

  
Released By

10-18-23  
Date

  
Received By

10/18/23 8:45  
Date

8.1 °C  
In 5 min

Job ID:23101996



10/18/2023

NWDLS

AMS





## Sample Condition Checklist

A&B JobID : <b>23101996</b>		Date Received : <b>10/18/2023</b>		Time Received : <b>8:45AM</b>								
Client Name : <b>NWDLS</b>												
Temperature : <b>8.1°C</b>		Sample pH : <b>NA</b>										
Thermometer ID : <b>IR5</b>		pH Paper ID : <b>NA</b>										
Preservative :												
	<b>Check Points</b>				<b>Yes</b>	<b>No</b>	<b>N/A</b>					
1.	Cooler Seal present and signed.					X						
2.	Sample(s) in a cooler.				X							
3.	If yes, ice in cooler.				X							
4.	Sample(s) received with chain-of-custody.				X							
5.	C-O-C signed and dated.				X							
6.	Sample(s) received with signed sample custody seal.					X						
7.	Sample containers arrived intact. (If No comment)				X							
8.	Matrix:	Water	Soil	Liquid	Sludge	Solid	Cassette	Tube	Bulk	Badge	Food	Other
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Samples were received in appropriate container(s)				X							
10.	Sample(s) were received with Proper preservative						X					
11.	All samples were tagged or labeled.				X							
12.	Sample ID labels match C-O-C ID's.				X							
13.	Bottle count on C-O-C matches bottles found.				X							
14.	Sample volume is sufficient for analyses requested.				X							
15.	Samples were received with in the hold time.				X							
16.	VOA vials completely filled.						X					
17.	Sample accepted.				X							
18.	Has client been contacted about sub-out						X					

**Comments : Include actions taken to resolve discrepancies/problem:**

Samples do not meet temp requirements. COC shows solid matrix, received sludge. ~EV 10/18/2023

Brought by : Client

Received by : EValdez

Check in by/date : EValdez / 10/18/2023

ab-s005-0321

Phone : 713-453-6060

www.ablabs.com





May 01, 2023

## LABORATORY REPORT

John Montgomery  
Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Report ID: 20230501123128DLH

RE: HC MUD 200 - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in cursive script that reads "Deena Higginbotham".

Deena Higginbotham  
Director of Client Services



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23D4754-01

Sample Matrix: Solid  
Date Collected: 04/24/2023 8:10  
Collected by: Angel Rodriguez

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	455000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	163000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	286000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	196000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	196000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	187000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
Colilert-18	Fecal coliforms	229000	MPN/g TS dry	BGD3694	04/25/2023 09:22	AKA
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	1.46	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGD3708	04/24/2023 15:28	AKA
SM 2550 B	Temperature °C Field	23.7	°C	BGD3770	04/24/2023 08:10	AR
SM 2540 G	% Solids	1.20	%	BGD3710	04/25/2023 12:03	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

## Quality Control

### General Chemistry

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD3710 - Percent Solids</b>									
<b>Blank (BGD3710-BLK1)</b>									
% Solids	<0.100 U	0.100	%						
Prepared: 04/24/2023 Analyzed: 04/25/2023									
<b>Duplicate (BGD3710-DUP1)</b>									
% Solids		0.100	%		0.614			1.28	10
Prepared: 04/24/2023 Analyzed: 04/25/2023									
<b>Reference (BGD3710-SRM1)</b>									
% Solids		0.100	%	0.350		103	78.9-118		



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Quality Control (Continued)

#### Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
<b>Batch: BGD3694 - FC Quantitray</b>								
<b>Blank (BGD3694-BLK1)</b>								
Fecal coliforms	<10.0U	10.0	MPN/g TS wet					
Prepared: 04/24/2023 Analyzed: 04/25/2023								
<b>Duplicate (BGD3694-DUP1)</b>								
Fecal coliforms		831	MPN/g TS dry		455000		79.6	200
Source: 23D4754-01 Prepared: 04/24/2023 Analyzed: 04/25/2023								





Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Project: HC MUD 200 - Non Potable - Class B Annual  
Project Number: 2  
Project Manager: John Montgomery

**Reported:**  
05/01/2023 12:31

### Term and Qualfier Definitions

Item	Definition
U	Non-detected compound.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com  
TCEQ T104704238-23-39



Page 1 of 1

23D4754

Lab PM : Deena Higginbotham		Project Name : HC MUD 200 - Non Potable - Class B Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 13050 Stonefield Dr Houston 77014 Gate Combo 2006					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23D4754-01	Digester		4/24/2023 08:10	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C 4°C SOUR-2710 SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field 27.7

Field Remarks:		Lab Preservation: H2SO4		HNO3		NaOH		Other:	
(Circle and Write ID Below)		Date/Time		Received By: (Signature)		Date/Time			
Sample Signature									
Print Name									
Affiliation									
Relinquished To: Lab By: (Signature)									
Custody Seal: Yes / No		COC Labels Agree: Yes / No		Appropriate Volume: Yes / No		Received on Ice: Yes / No		Temperature: °C	
Container Intact: Yes / No		Appropriate Containers: Yes / No		Coolers Intact: Yes / No		Samples Accepted: Yes / No		Thermometer ID: _____	
North West									

HC MUD 200



130 S. Trade Center Parkway, Conroe TX 77385

Tel: (936) 321-6060

Email: lab@nwdls.com

www. NWDLS.com

May 24, 2023

## Laboratory Report

John Montgomery

Municipal Operations and Consulting

27316 Spectrum Way

Oak Ridge, TX 77385

Report ID: 20230524132502AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Aundra Noe For Deena Higginbotham

Director of Client Services



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

Reported:  
05/24/2023 13:25

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23D1283-01

Sample Matrix: Solid  
Date Collected: 04/04/2023 10:00  
Collected by: Francisco Gutierrez

HC MUD 200 - Non Potable - Sewage Sludge Annual

2

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>Metals, Total</b>										
SW-6010C	Arsenic	A	7.30	mg/kg dry	1	0.821	3.74	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Cadmium	A	0.717	mg/kg dry	1	0.0972	0.374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Chromium	A	9.47	mg/kg dry	1	1.40	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Copper	A	264	mg/kg dry	5	2.00	18.7	BGD0607	04/21/2023 16:38	FAL
SW-7471B	Mercury	A	0.211	mg/kg dry	1	0.0224	0.0448	BGD1436	04/12/2023 15:11	AKR
SW-6010C	Lead	A	5.37	mg/kg dry	1	0.954	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Molybdenum	A	5.95	mg/kg dry	1	1.88	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Nickel	A	13.4	mg/kg dry	1	0.505	1.88	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Potassium	A	6120	mg/kg dry	1	32.1	374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Selenium	A	4.12	mg/kg dry	1	1.46	3.74	BGD0607	04/24/2023 13:56	FAL
SW-6010C	Total Phosphorus	A	18100	mg/kg dry	1	15.7	374	BGD0607	04/20/2023 11:45	FAL
SW-6010C	Zinc	A	744	mg/kg dry	10	18.8	18.8	BGD0607	04/21/2023 16:41	FAL
<b>General Chemistry</b>										
EPA 350.2	Ammonia as N	A	18500	mg/kg dry	1	1110	2220	BGD2245	04/17/2023 09:29	GIW
SW-9056A	Nitrate as N	A	<14.0U, TV	mg/kg dry	1	5.62	14.0	BGD0625	04/05/2023 14:41	ORP
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	86000	mg/kg dry	1	2580	2580	BGD2244	04/17/2023 12:58	GIW
SM 2540 G	% Solids	A	0.890 V, TV	%	1	0.100	0.100	BGD0694	04/06/2023 16:22	AKA
<b>TCLP</b>										
SW-6010C	Arsenic	A	<5.00U, TV	mg/L	1	0.0200	5.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Barium	A	<100U, V2, TV	mg/L	5	0.0500	100	BGD2687	05/12/2023 15:01	FAL
SW-6010C	Cadmium	A	<1.00U, TV	mg/L	1	0.00100	1.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Chromium	A	<5.00U, TV	mg/L	1	0.00500	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8151	2,4-D	A	<10.0U, TV	mg/L	2	0.000476	10.0	BGD2443	04/25/2023 11:00	cdg
SW-8151	Silvex (2,4,5-TP)	A	<1.00U, TV	mg/L	2	0.000476	1.00	BGD2443	04/25/2023 11:00	cdg
SW-8151	Surrogate: DCAA-surr		104%	70-130					04/25/2023 11:00	
SW-7471B	Mercury	A	<0.200U, TV	mg/L	1	0.000200	0.200	BGD2137	04/17/2023 14:42	AKR
SW-6010C	Lead	A	<5.00U, TV	mg/L	1	0.0100	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8081	Chlordane (Total)	A	<0.0300U, TV	mg/L	1	3.00E-6	0.0300	BGD2621	05/01/2023 22:19	ala
SW-8081	Endrin	N	<0.0200U, TV	mg/L	1	3.00E-6	0.0200	BGD2621	05/01/2023 22:19	ala

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Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Sample Results**  
(Continued)

Client Sample ID: Digester (Continued)

Lab Sample ID: 23D1283-01

Sample Matrix: Solid

Date Collected: 04/04/2023 10:00

HC MUD 200 - Non Potable - Sewage Sludge Annual

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Collected by: Francisco Gutierrez

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**TCLP (Continued)**

SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400 U, TV	mg/L	1	3.00E-6	0.400	BGD2621	05/01/2023 22:19	ala
SW-8081	Heptachlor	A	<0.00800 U, TV	mg/L	1	3.00E-6	0.00800	BGD2621	05/01/2023 22:19	ala
SW-8081	Heptachlor epoxide	A	<0.00800 U, TV	mg/L	1	3.00E-6	0.00800	BGD2621	05/01/2023 22:19	ala
SW-8081	Methoxychlor	A	<10.0 U, TV	mg/L	1	3.00E-6	10.0	BGD2621	05/01/2023 22:19	ala
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U, TV	mg/L	1	3.00E-6	0.500	BGD2621	05/01/2023 22:19	ala
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		111%	60-140					05/01/2023 22:19	
SW-8081	Surrogate: Decachlorobiphenyl-surr		90.9%	60-140					05/01/2023 22:19	
SW-6010C	Selenium	A	<1.00 U, TV	mg/L	1	0.0200	1.00	BGD2687	05/12/2023 13:11	FAL
SW-6010C	Silver	A	<5.00 U, TV	mg/L	1	0.00200	5.00	BGD2687	05/12/2023 13:11	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400 U, TV	mg/L	1	0.00250	400	BGD2179	05/14/2023 08:27	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00 U, TV	mg/L	1	0.00250	2.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U, TV	mg/L	1	0.00250	0.130	BGD2179	05/14/2023 08:27	KRB
SW-8270	2-Methylphenol	A	<200 U, TV	mg/L	1	0.00250	200	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U, TV	mg/L	1	0.00250	0.130	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachlorobutadiene	A	<0.500 U, TV	mg/L	1	0.00250	0.500	BGD2179	05/14/2023 08:27	KRB
SW-8270	Hexachloroethane	A	<3.00 U, TV	mg/L	1	0.00250	3.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Nitrobenzene	A	<2.00 U, TV	mg/L	1	0.00250	2.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Pentachlorophenol	A	<100 U, TV	mg/L	1	0.00250	100	BGD2179	05/14/2023 08:27	KRB
SW-8270	Pyridine	A	<5.00 U, TV	mg/L	1	0.00250	5.00	BGD2179	05/14/2023 08:27	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		93.8%	54.6-148					05/14/2023 08:27	
SW-8270	Surrogate: 2-Fluorophenol-surr		107%	55-152					05/14/2023 08:27	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		114%	52.4-136					05/14/2023 08:27	
SW-8270	Surrogate: Nitrobenzene-d5-surr		106%	52-162					05/14/2023 08:27	
SW-8270	Surrogate: Phenol-d5-surr		97.8%	58.7-152					05/14/2023 08:27	
SW-8270	Surrogate: p-Terphenyl-d14-surr		110%	51.9-147					05/14/2023 08:27	

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27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Sample Results**  
(Continued)

Client Sample ID: Digester  
Lab Sample ID: 23D1283-01RE1

Sample Matrix: Solid  
Date Collected: 04/04/2023 10:00  
Collected by: Francisco Gutierrez

HC MUD 200 - Non Potable - Sewage Sludge Annual

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Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**Organics by GC**

SW-8082	PCBs, Total (Rerun)	A	<2250U, TV	ug/kg dry	10	1120	2250	BGD0593	05/09/2023 07:25	CRO
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr	92.8%	60-140						05/09/2023 07:25	
SW-8082	Surrogate: Decachlorobiphenyl-surr (Rerun)	92.8%	60-140						05/09/2023 07:25	

**TCLP**

SW-8270	3,4-Methylphenol (Rerun)	A	<200U, TV	mg/L	3	0.00750	200	BGD2179	05/16/2023 05:09	KRB
SW-8270	Surrogate: 2-Fluorophenol-surr (Rerun)	123%	55-152						05/16/2023 05:09	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr (Rerun)	99.7%	52.4-136						05/16/2023 05:09	
SW-8270	Surrogate: Phenol-d5-surr (Rerun)	110%	58.7-152						05/16/2023 05:09	

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27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

## Quality Control

### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0593 - SW-3570</b>										
<b>Blank (BGD0593-BLK1)</b>			Prepared: 4/5/2023 Analyzed: 4/29/2023							
Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
<b>Blank (BGD0593-BLK2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	<20.0	U	20.0	ug/kg wet						
Aroclor-1260 (PCB-1260)	<20.0	U	20.0	ug/kg wet						
PCBs, Total	<20.0	U	20.0	ug/kg wet						
Surrogate: 2,4,5,6			4.13	ug/kg wet	6.00		68.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.28	ug/kg wet	6.00		88.0	60-140		
<b>LCS (BGD0593-BS2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	50.2		20.0	ug/kg wet	60.0		83.7	60-140		
Aroclor-1260 (PCB-1260)	57.5		20.0	ug/kg wet	60.0		95.9	60-140		
PCBs, Total	54.6		20.0	ug/kg wet	60.0		91.0	60-140		
Surrogate: 2,4,5,6			4.41	ug/kg wet	6.00		73.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.74	ug/kg wet	6.00		95.6	60-140		
<b>LCS Dup (BGD0593-BSD2)</b>										
			Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	50.2		20.0	ug/kg wet	60.0		83.6	60-140	0.0681	40
Aroclor-1260 (PCB-1260)	57.8		20.0	ug/kg wet	60.0		96.3	60-140	0.491	40
PCBs, Total	54.8		20.0	ug/kg wet	60.0		91.3	60-140	0.286	40
Surrogate: 2,4,5,6			4.35	ug/kg wet	6.00		72.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			5.80	ug/kg wet	6.00		96.7	60-140		
<b>Matrix Spike (BGD0593-MS2)</b>										
			Source: 23D1094-01RE1 Prepared: 4/5/2023 Analyzed: 5/9/2023							
Aroclor-1016 (PCB-1016)	5660		2280	ug/kg dry	6830	<2280	82.9	60-140		
Aroclor-1260 (PCB-1260)	6330		2280	ug/kg dry	6830	<2280	92.7	60-140		
PCBs, Total	6060		2280	ug/kg dry	6830	<2280	88.8	60-140		
Surrogate: 2,4,5,6			576	ug/kg dry	683		84.4	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			665	ug/kg dry	683		97.5	60-140		

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**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0593 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGD0593-MSD2)</b>			<b>Source: 23D1094-01RE1</b>			Prepared: 4/5/2023 Analyzed: 5/9/2023				
Aroclor-1016 (PCB-1016)	6400		2280	ug/kg dry	6830	<2280	93.8	60-140	12.4	40
Aroclor-1260 (PCB-1260)	6950		2280	ug/kg dry	6830	<2280	102	60-140	9.29	40
PCBs, Total	6730		2280	ug/kg dry	6830	<2280	98.6	60-140	10.5	40
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Surrogate: 2,4,5,6			718	ug/kg dry	683		105	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			726	ug/kg dry	683		106	60-140		





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**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD0607 - SW-3050 for 6010**

**Blank (BGD0607-BLK1)**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	<1.70	U	1.70	mg/kg wet						
Cadmium	<0.170	U	0.170	mg/kg wet						
Chromium	<0.855	U	0.855	mg/kg wet						
Copper	<1.70	U	1.70	mg/kg wet						
Lead	<0.855	U	0.855	mg/kg wet						
Molybdenum	<0.855	U	0.855	mg/kg wet						
Nickel	<0.855	U	0.855	mg/kg wet						
Potassium	<170	U	170	mg/kg wet						
Selenium	<1.70	U	1.70	mg/kg wet						
Total Phosphorus	<170	U	170	mg/kg wet						
Zinc	<0.855	U	0.855	mg/kg wet						

**LCS (BGD0607-BS1)**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	43.5		1.91	mg/kg wet	47.8		91.0	80-120		
Cadmium	4.24		0.191	mg/kg wet	4.78		88.6	80-120		
Chromium	22.2		0.958	mg/kg wet	23.9		92.8	80-120		
Copper	43.5		1.91	mg/kg wet	47.8		90.9	80-120		
Lead	21.4		0.958	mg/kg wet	23.9		89.7	80-120		
Molybdenum	21.1		0.958	mg/kg wet	23.9		88.4	80-120		
Nickel	21.5		0.958	mg/kg wet	23.9		89.8	80-120		
Potassium	4450		191	mg/kg wet	4780		93.2	80-120		
Selenium	44.7		1.91	mg/kg wet	47.8		93.5	80-120		
Total Phosphorus	4540		191	mg/kg wet	4780		95.0	80-120		
Zinc	21.8		0.958	mg/kg wet	23.9		91.3	80-120		

**Matrix Spike (BGD0607-MS1)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	84.7	J1	4.41	mg/kg dry	110	3.71	73.4	75-125		
Cadmium	8.66	J1	0.441	mg/kg dry	11.0	0.547	73.5	75-125		
Chromium	50.3	J1	2.21	mg/kg dry	55.2	9.06	74.8	75-125		
Lead	45.6	J1	2.21	mg/kg dry	55.2	5.69	72.3	75-125		
Molybdenum	41.8	J1	2.21	mg/kg dry	55.2	3.96	68.7	75-125		
Nickel	50.9	J1	2.21	mg/kg dry	55.2	12.7	69.2	75-125		
Potassium	15400		441	mg/kg dry	11000	4750	96.5	75-125		
Selenium	88.7		4.41	mg/kg dry	110	4.32	76.5	75-125		



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**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD0607 - SW-3050 for 6010 (Continued)**

**Matrix Spike (BGD0607-MS2)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	45.9	J1	2.14	mg/kg dry	53.5	5.89	74.8	75-125		
Cadmium	4.29	J1	0.214	mg/kg dry	5.35	0.427	72.3	75-125		
Chromium	25.4		1.07	mg/kg dry	26.7	5.33	75.3	75-125		
Lead	25.0	J1	1.07	mg/kg dry	26.7	5.25	73.7	75-125		
Molybdenum	25.1	J1	1.07	mg/kg dry	26.7	6.35	70.2	75-125		
Nickel	25.9	J1	1.07	mg/kg dry	26.7	6.42	72.9	75-125		

**Matrix Spike (BGD0607-MS3)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/21/2023

Copper	2560		110	mg/kg dry	2320	131	105	75-125		
Total Phosphorus	32800		4410	mg/kg dry	22100	10700	100	75-125		

**Matrix Spike (BGD0607-MS4)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/21/2023

Copper	1180		53.4	mg/kg dry	1120	161	90.7	75-125		
Potassium	12600		1070	mg/kg dry	5350	7400	96.6	75-125		
Selenium	51.1		10.7	mg/kg dry	53.5	<10.7	95.6	75-125		
Total Phosphorus	32400		1070	mg/kg dry	10700	21100	106	75-125		

**Matrix Spike (BGD0607-MS5)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/24/2023

Zinc	1870	J1	55.3	mg/kg dry	2260	483	61.4	75-125		
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**Matrix Spike (BGD0607-MS6)**

**Source: 23C6098-01**

Prepared: 4/18/2023 Analyzed: 4/24/2023

Zinc	1400		53.6	mg/kg dry	1100	523	80.1	75-125		
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**Matrix Spike Dup (BGD0607-MSD1)**

**Source: 23C5686-01**

Prepared: 4/18/2023 Analyzed: 4/20/2023

Arsenic	74.1	J1	4.41	mg/kg dry	110	3.71	63.7	75-125	13.4	20
Cadmium	7.66	J1	0.441	mg/kg dry	11.0	0.547	64.4	75-125	12.3	20
Chromium	44.1	J1	2.21	mg/kg dry	55.2	9.06	63.4	75-125	13.2	20
Lead	40.0	J1	2.21	mg/kg dry	55.2	5.69	62.1	75-125	13.0	20
Molybdenum	36.6	J1	2.21	mg/kg dry	55.2	3.96	59.0	75-125	13.5	20
Nickel	44.3	J1	2.21	mg/kg dry	55.2	12.7	57.3	75-125	13.7	20
Potassium	15200		441	mg/kg dry	11000	4750	94.3	75-125	1.47	20
Selenium	75.8	J1	4.41	mg/kg dry	110	4.32	64.7	75-125	15.6	20



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Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Matrix Spike Dup (BGD0607-MSD2)</b>		<b>Source: 23C6098-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/20/2023</b>					
Arsenic	50.9		2.13	mg/kg dry	53.4	5.89	84.4	75-125	10.5	20
Cadmium	5.00		0.213	mg/kg dry	5.34	0.427	85.6	75-125	15.2	20
Chromium	28.3		1.07	mg/kg dry	26.7	5.33	86.1	75-125	10.7	20
Lead	27.5		1.07	mg/kg dry	26.7	5.25	83.5	75-125	9.81	20
Molybdenum	28.1		1.07	mg/kg dry	26.7	6.35	81.7	75-125	11.4	20
Nickel	28.5		1.07	mg/kg dry	26.7	6.42	82.6	75-125	9.46	20
<b>Matrix Spike Dup (BGD0607-MSD3)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/21/2023</b>					
Copper	2290		110	mg/kg dry	2320	131	93.2	75-125	11.1	20
Total Phosphorus	32600		4410	mg/kg dry	22100	10700	98.9	75-125	0.747	20
<b>Matrix Spike Dup (BGD0607-MSD4)</b>		<b>Source: 23C6098-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/21/2023</b>					
Copper	1120		107	mg/kg dry	1120	161	85.3	75-125	5.41	20
Potassium	12100		1070	mg/kg dry	5340	7400	88.4	75-125	3.61	20
Selenium	50.7		10.7	mg/kg dry	53.4	<10.7	95.0	75-125	0.843	20
Total Phosphorus	31400		1070	mg/kg dry	10700	21100	96.7	75-125	3.02	20
Zinc	1510		53.5	mg/kg dry	1090	523	89.8	75-125	7.23	20
<b>Matrix Spike Dup (BGD0607-MSD5)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/24/2023</b>					
Zinc	2480	J1	55.4	mg/kg dry	2260	483	88.1	75-125	27.9	20
<b>Post Spike (BGD0607-PS1)</b>		<b>Source: 23C5686-01</b>			<b>Prepared: 4/18/2023 Analyzed: 4/20/2023</b>					
Arsenic	336	J1		ug/L	500	15.9	64.1	80-120		
Cadmium	34.6	J1		ug/L	50.0	2.34	64.4	80-120		
Chromium	207	J1		ug/L	250	38.8	67.1	80-120		
Copper	803	J1		ug/L	500	561	48.4	80-120		
Lead	180	J1		ug/L	250	24.4	62.1	80-120		
Molybdenum	169	J1		ug/L	250	17.0	60.9	80-120		
Nickel	206	J1		ug/L	250	54.3	60.6	80-120		
Potassium	71300			ug/L	50000	20300	102	80-120		
Selenium	346	J1		ug/L	500	18.5	65.6	80-120		
Total Phosphorus	96800			ug/L	50000	45900	102	80-120		

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Post Spike (BGD0607-PS2)</b>		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023						
Arsenic	556			ug/L	500	52.1	101	80-120		
Cadmium	50.1			ug/L	50.0	3.78	92.7	80-120		
Chromium	303			ug/L	250	47.1	103	80-120		
Lead	287			ug/L	250	46.4	96.2	80-120		
Molybdenum	311			ug/L	250	56.2	102	80-120		
Nickel	305			ug/L	250	56.8	99.3	80-120		
<b>Post Spike (BGD0607-PS3)</b>										
<b>Source: 23C5686-01</b>		Prepared: 4/18/2023 Analyzed: 4/21/2023								
Zinc	3330	J1		ug/L	250	2070	503	80-120		
<b>Post Spike (BGD0607-PS4)</b>										
<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/21/2023								
Copper	2220	J1		ug/L	500	1430	160	80-120		
Potassium	118000			ug/L	50000	65500	105	80-120		
Selenium	519			ug/L	500	32.7	97.3	80-120		
Total Phosphorus	257000	J1		ug/L	50000	186000	141	80-120		
Zinc	5640	J1		ug/L	250	4630	403	80-120		
<b>Dilution Check (BGD0607-SRL1)</b>										
<b>Source: 23C5686-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023								
Arsenic	5.99	U	22.0	mg/kg dry		<22.0			47.0	10
Cadmium	0.573	U	2.20	mg/kg dry		<2.20			4.73	10
Chromium	<11.0	U	11.0	mg/kg dry		9.06			200	10
Copper	108	J1	22.0	mg/kg dry		131			19.1	10
Lead	5.80	U	11.0	mg/kg dry		5.69			1.92	10
Molybdenum	<11.0	U	11.0	mg/kg dry		<11.0			200	10
Nickel	10.7	U	11.0	mg/kg dry		12.7			16.6	10
Potassium	4940		2200	mg/kg dry		4750			3.92	10
Selenium	<22.0	U	22.0	mg/kg dry		<22.0			200	10
Total Phosphorus	11200		2200	mg/kg dry		10700			4.07	10
Zinc	483		11.0	mg/kg dry		483			0.00166	10

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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0607 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGD0607-SRL2)</b>		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/20/2023						
Arsenic	9.37	U	10.7	mg/kg dry		5.89			45.6	10
Cadmium	0.539	U	1.07	mg/kg dry		0.427			23.2	10
Chromium	5.83		5.35	mg/kg dry		5.33			9.02	10
Copper	155		10.7	mg/kg dry		161			3.82	10
Lead	6.54		5.35	mg/kg dry		5.25			22.0	10
Molybdenum	7.90		5.35	mg/kg dry		6.35			21.7	10
Nickel	7.44		5.35	mg/kg dry		6.42			14.8	10
Potassium	7230		1070	mg/kg dry		7400			2.36	10
Total Phosphorus	21100		1070	mg/kg dry		21100			0.00	10
<b>Dilution Check (BGD0607-SRL4)</b>										
		<b>Source: 23C6098-01</b>		Prepared: 4/18/2023 Analyzed: 4/24/2023						
Selenium	<10.7	U	10.7	mg/kg dry		<10.7			200	10
<b>Batch: BGD1436 - SW-7471</b>										
<b>MDL Check (BGD1436-MRL1)</b>				Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.0161	U	0.0197	mg/kg wet	0.00987		163			
<b>Matrix Spike (BGD1436-MS1)</b>										
		<b>Source: 23C5936-01</b>		Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.667		0.0468	mg/kg dry	0.585	0.157	87.0	80-120		
<b>Matrix Spike Dup (BGD1436-MSD1)</b>										
		<b>Source: 23C5936-01</b>		Prepared: 4/11/2023 Analyzed: 4/12/2023						
Mercury	0.596	J1	0.0469	mg/kg dry	0.587	0.157	74.9	80-120	11.1	20



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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD0625 - Solid Anions No Prep</b>										
<b>Duplicate (BGD0625-DUP1)</b>		<b>Source: 23D1094-01</b>			Prepared & Analyzed: 4/5/2023					
Nitrate as N	11400		711	mg/kg dry		11400			0.150	15
<b>MRL Check (BGD0625-MRL1)</b>					Prepared & Analyzed: 4/5/2023					
Nitrate as N	0.116	U	0.125	mg/kg wet	0.100		116	50-150		
<b>Matrix Spike (BGD0625-MS1)</b>		<b>Source: 23D1094-01</b>			Prepared & Analyzed: 4/5/2023					
Nitrate as N	11800	J1	790	mg/kg dry	253	11400	169	80-120		
<b>Batch: BGD0694 - Percent Solids</b>										
<b>Blank (BGD0694-BLK1)</b>					Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	<0.100	U	0.100	%						
<b>Duplicate (BGD0694-DUP1)</b>		<b>Source: 23D1274-08</b>			Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.639		0.100	%		0.642			0.563	20
<b>Duplicate (BGD0694-DUP2)</b>		<b>Source: 23D1471-01</b>			Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.775		0.100	%		0.770			0.564	20
<b>Reference (BGD0694-SRM1)</b>					Prepared: 4/5/2023 Analyzed: 4/6/2023					
% Solids	0.376		0.100	%	0.350		107	78.9-118		
<b>Batch: BGD2244 - TKN T</b>										
<b>Blank (BGD2244-BLK1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	<9.84	U	9.84	mg/kg wet						

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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2244 - TKN T (Continued)</b>										
<b>LCS (BGD2244-BS1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	33.6		10.0	mg/kg wet	35.6		94.4	85-115		
<b>Duplicate (BGD2244-DUP1)</b>					Source: 23D0681-45 Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	215		14.1	mg/kg dry		200			7.59	20
<b>MRL Check (BGD2244-MRL1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	25.7		9.96	mg/kg wet	39.8		64.4	50-150		
<b>Matrix Spike (BGD2244-MS1)</b>					Source: 23D0681-45 Prepared: 4/14/2023 Analyzed: 4/17/2023					
Total Kjeldahl Nitrogen - (TKN)	279	J1	14.1	mg/kg dry	56.3	200	141	85-115		
<b>Batch: BGD2245 - NH3-N T</b>										
<b>Blank (BGD2245-BLK1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Ammonia as N	<9.92	U	9.92	mg/kg wet						
<b>LCS (BGD2245-BS1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Ammonia as N	93.1		9.90	mg/kg wet	99.0		94.1	85-115		
<b>Duplicate (BGD2245-DUP1)</b>					Source: 23D0681-45 Prepared: 4/14/2023 Analyzed: 4/17/2023					
Ammonia as N	17.8	J1	13.8	mg/kg dry		13.0			31.2	20
<b>MRL Check (BGD2245-MRL1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Ammonia as N	9.49	U	9.97	mg/kg wet	9.97		95.2	50-150		
<b>Matrix Spike (BGD2245-MS1)</b>					Source: 23D0681-45 Prepared: 4/14/2023 Analyzed: 4/17/2023					
Ammonia as N	151		14.2	mg/kg dry	142	13.0	97.5	85-115		

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**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2137 - SW-7471 TCLP</b>										
<b>Duplicate (BGD2137-DUP1)</b>			<b>Source: 23D1481-01</b>		Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGD1470-LBK1 (BGD2137-LBK1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGD2137-MRL1)</b>					Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	0.000225	U	0.200	mg/L	0.000200		112			
<b>Matrix Spike (BGD2137-MS1)</b>			<b>Source: 23D1481-01</b>		Prepared: 4/14/2023 Analyzed: 4/17/2023					
Mercury	0.00504	U	0.200	mg/L	0.00500	<0.200	101	80-120		

**Batch: BGD2179 - SW-3511**

**MB SV (BGD2179-BLK1)**

Prepared: 4/14/2023 Analyzed: 5/13/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
<hr/>										
Surrogate: 2-Fluorobiphenyl-surr			0.0100	mg/L	0.0100		100	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0251	mg/L	0.0200		125	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0254	mg/L	0.0200		127	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0110	mg/L	0.0100		110	52-162		
Surrogate: Phenol-d5-surr			0.0203	mg/L	0.0200		102	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0109	mg/L	0.0100		109	51.9-147		





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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**BS SV (BGD2179-BS1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.0210	U	400	mg/L	0.0200		105	60-140	
2,4,6-Trichlorophenol	0.0222	U	2.00	mg/L	0.0200		111	60-140	
2,4-Dinitrotoluene (2,4-DNT)	0.0111	U	0.130	mg/L	0.0100		111	60-140	
2-Methylphenol	0.0204	U	200	mg/L	0.0200		102	60-140	
3,4-Methylphenol	0.0379	L, U	200	mg/L	0.0400		94.8	60-140	
Hexachlorobenzene	0.0111	U	0.130	mg/L	0.0100		111	60-140	
Hexachlorobutadiene	0.00529	J1, U	0.500	mg/L	0.0100		52.9	60-140	
Hexachloroethane	0.00594	J1, U	3.00	mg/L	0.0100		59.4	60-140	
Nitrobenzene	0.0117	U	2.00	mg/L	0.0100		117	60-140	
Pentachlorophenol	0.0186	U	100	mg/L	0.0200		93.2	36.8-149	
Pyridine	0.0103	U	5.00	mg/L	0.0500		20.7	2.5-101	
Surrogate: 2-Fluorobiphenyl-surr			0.00986	mg/L	0.0100		98.6	54.6-148	
Surrogate: 2-Fluorophenol-surr			0.0251	mg/L	0.0200		125	55-152	
Surrogate: 2,4,6-Tribromophenol-surr			0.0216	mg/L	0.0200		108	52.4-136	
Surrogate: Nitrobenzene-d5-surr			0.0106	mg/L	0.0100		106	52-162	
Surrogate: Phenol-d5-surr			0.0226	mg/L	0.0200		113	58.7-152	
Surrogate: p-Terphenyl-d14-surr			0.00990	mg/L	0.0100		99.0	51.9-147	

**BSD SV (BGD2179-BS1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.0222	U	400	mg/L	0.0200		111	60-140	5.56	40
2,4,6-Trichlorophenol	0.0224	U	2.00	mg/L	0.0200		112	60-140	0.765	40
2,4-Dinitrotoluene (2,4-DNT)	0.0113	U	0.130	mg/L	0.0100		113	60-140	0.942	40
2-Methylphenol	0.0211	U	200	mg/L	0.0200		105	60-140	3.07	40
3,4-Methylphenol	0.0384	L, U	200	mg/L	0.0400		95.9	60-140	1.20	40
Hexachlorobenzene	0.0111	U	0.130	mg/L	0.0100		111	60-140	0.130	40
Hexachlorobutadiene	0.00573	J1, U	0.500	mg/L	0.0100		57.3	60-140	7.86	40
Hexachloroethane	0.00628	U	3.00	mg/L	0.0100		62.8	60-140	5.60	40
Nitrobenzene	0.0112	U	2.00	mg/L	0.0100		112	60-140	4.69	40
Pentachlorophenol	0.0171	U	100	mg/L	0.0200		85.6	36.8-149	8.47	40
Pyridine	0.00699	U	5.00	mg/L	0.0500		14.0	2.5-101	38.7	40
Surrogate: 2-Fluorobiphenyl-surr			0.0102	mg/L	0.0100		102	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0241	mg/L	0.0200		121	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0219	mg/L	0.0200		110	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0104	mg/L	0.0100		104	52-162		
Surrogate: Phenol-d5-surr			0.0234	mg/L	0.0200		117	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00978	mg/L	0.0100		97.8	51.9-147		



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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**BGD1470-BLK1 (BGD2179-LBK1)**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00275	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0386	mg/L	0.0400		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0925	mg/L	0.0800		116	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0919	mg/L	0.0800		115	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0465	mg/L	0.0400		116	52-162		
Surrogate: Phenol-d5-surr			0.0745	mg/L	0.0800		93.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0364	mg/L	0.0400		90.9	51.9-147		

**23D1094-01 MS (BGD2179-MS1)**

**Source: 23D1094-01**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.116	U	400	mg/L	0.0800	<400	145	44.9-171		
2,4,6-Trichlorophenol	0.101	U	2.00	mg/L	0.0800	<2.00	126	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0600	J1, U	0.130	mg/L	0.0400	<0.130	150	50.3-144		
2-Methylphenol	0.0815	U	200	mg/L	0.0800	<200	102	17.3-182		
3,4-Methylphenol	0.167	L, U	200	mg/L	0.160	<200	105	43.4-188		
Hexachlorobenzene	0.0419	U	0.130	mg/L	0.0400	<0.130	105	56.1-137		
Hexachlorobutadiene	0.0195	U	0.500	mg/L	0.0400	<0.500	48.7	33.1-110		
Hexachloroethane	0.0229	U	3.00	mg/L	0.0400	<3.00	57.3	36.2-106		
Nitrobenzene	0.0502	U	2.00	mg/L	0.0400	<2.00	125	54.9-156		
Pentachlorophenol	0.124	J1, U	100	mg/L	0.0800	<100	156	42.2-151		
Pyridine	0.0669	U	5.00	mg/L	0.200	<5.00	33.5	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0397	mg/L	0.0400		99.3	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0969	mg/L	0.0800		121	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0890	mg/L	0.0800		111	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0473	mg/L	0.0400		118	52-162		
Surrogate: Phenol-d5-surr			0.0936	mg/L	0.0800		117	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0435	mg/L	0.0400		109	51.9-147		

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**Quality Control**  
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**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2179 - SW-3511 (Continued)**

**23D1094-01 MSD (BGD2179-MSD1)**

**Source: 23D1094-01**

Prepared: 4/14/2023 Analyzed: 5/14/2023

2,4,5-Trichlorophenol	0.105	U	400	mg/L	0.0800	<400	131	44.9-171	9.92	40
2,4,6-Trichlorophenol	0.0941	U	2.00	mg/L	0.0800	<2.00	118	34.7-143	6.87	40
2,4-Dinitrotoluene (2,4-DNT)	0.0545	U	0.130	mg/L	0.0400	<0.130	136	50.3-144	9.56	40
2-Methylphenol	0.0787	U	200	mg/L	0.0800	<200	98.4	17.3-182	3.42	40
3,4-Methylphenol	0.162	L, U	200	mg/L	0.160	<200	101	43.4-188	3.09	40
Hexachlorobenzene	0.0414	U	0.130	mg/L	0.0400	<0.130	104	56.1-137	1.17	40
Hexachlorobutadiene	0.0218	U	0.500	mg/L	0.0400	<0.500	54.5	33.1-110	11.3	40
Hexachloroethane	0.0249	U	3.00	mg/L	0.0400	<3.00	62.4	36.2-106	8.46	40
Nitrobenzene	0.0486	U	2.00	mg/L	0.0400	<2.00	121	54.9-156	3.23	40
Pentachlorophenol	0.109	U	100	mg/L	0.0800	<100	136	42.2-151	13.5	40
Pyridine	0.0659	U	5.00	mg/L	0.200	<5.00	32.9	2-87.4	1.64	40
<hr/>										
Surrogate: 2-Fluorobiphenyl-surr			0.0381	mg/L	0.0400		95.2	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0955	mg/L	0.0800		119	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0879	mg/L	0.0800		110	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0416	mg/L	0.0400		104	52-162		
Surrogate: Phenol-d5-surr			0.0901	mg/L	0.0800		113	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0429	mg/L	0.0400		107	51.9-147		

**Batch: BGD2443 - SW-3511**

**Blank (BGD2443-BLK1)**

Prepared: 4/17/2023 Analyzed: 4/25/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
<hr/>										
Surrogate: DCAA-surr			0.0216	mg/L	0.0250		86	70-130		

**LCS (BGD2443-BS1)**

Prepared: 4/17/2023 Analyzed: 4/25/2023

2,4-D	0.00427	U	10.0	mg/L	0.00515		83	70-130		
Silvex (2,4,5-TP)	0.00419	U	1.00	mg/L	0.00500		84	70-130		
<hr/>										
Surrogate: DCAA-surr			0.0204	mg/L	0.0250		82	70-130		





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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2443 - SW-3511 (Continued)</b>										
<b>LCS Dup (BGD2443-BSD1)</b>										
					Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.00465	U	10.0	mg/L	0.00515		90	70-130	9	30
Silvex (2,4,5-TP)	0.00434	U	1.00	mg/L	0.00500		87	70-130	4	30
Surrogate: DCAA-surr			0.0227	mg/L	0.0250		91	70-130		
<b>BGD1470-BLK1 (BGD2443-LBK3)</b>										
					Prepared: 4/17/2023 Analyzed: 5/13/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.153	mg/L	0.100		153	70-130		
<b>BGD1975-BLK1 (BGD2443-LBK4)</b>										
					Prepared: 4/17/2023 Analyzed: 5/13/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.155	mg/L	0.100		155	70-130		
<b>Matrix Spike (BGD2443-MS1)</b>										
			<b>Source: 23D0909-01</b>		Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.0205	U	10.0	mg/L	0.0206	<10.0	99	70-130		
Silvex (2,4,5-TP)	0.0191	U	1.00	mg/L	0.0200	<1.00	96	70-130		
Surrogate: DCAA-surr			0.0911	mg/L	0.100		91	70-130		
<b>Matrix Spike Dup (BGD2443-MSD1)</b>										
			<b>Source: 23D0909-01</b>		Prepared: 4/17/2023 Analyzed: 4/25/2023					
2,4-D	0.0215	U	10.0	mg/L	0.0206	<10.0	104	70-130	5	30
Silvex (2,4,5-TP)	0.0199	U	1.00	mg/L	0.0200	<1.00	100	70-130	4	30
Surrogate: DCAA-surr			0.112	mg/L	0.100		112	70-130		
<b>Batch: BGD2621 - SW-3511</b>										
<b>Blank (BGD2621-BLK1)</b>										
					Prepared: 4/18/2023 Analyzed: 5/1/2023					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			9.55E-5	mg/L	0.000120		79.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		84.6	60-140		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2621 - SW-3511 (Continued)**

**TOX LCS (BGD2621-BS1)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Toxaphene (Chlorinated Camphene)	0.00124	U	0.500	mg/L	0.00120		103	60-140		
Surrogate: 2,4,5,6			0.000133	mg/L	0.000120		111	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000141	mg/L	0.000120		118	60-140		

**LCS (BGD2621-BS2)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.000346	U	0.0300	mg/L	0.000480		72.2	60-140		
Endrin	9.31E-5	U	0.0200	mg/L	0.000120		77.6	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.69E-5	U	0.400	mg/L	0.000120		72.4	60-140		
Heptachlor	8.74E-5	U	0.00800	mg/L	0.000120		72.8	60-140		
Heptachlor epoxide	8.70E-5	U	0.00800	mg/L	0.000120		72.5	60-140		
Methoxychlor	9.64E-5	U	10.0	mg/L	0.000120		80.3	60-140		
Surrogate: 2,4,5,6			8.78E-5	mg/L	0.000120		73.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		85.4	60-140		

**TOX LCSD (BGD2621-BSD1)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Toxaphene (Chlorinated Camphene)	0.00129	U	0.500	mg/L	0.00120		107	60-140	3.66	40
Surrogate: 2,4,5,6			0.000122	mg/L	0.000120		102	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000133	mg/L	0.000120		111	60-140		

**LCS Dup (BGD2621-BSD2)**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.000345	U	0.0300	mg/L	0.000480		71.9	60-140	0.436	40
Endrin	9.13E-5	U	0.0200	mg/L	0.000120		76.1	60-140	2.03	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.06E-5	U	0.400	mg/L	0.000120		75.5	60-140	4.26	40
Heptachlor	8.87E-5	U	0.00800	mg/L	0.000120		73.9	60-140	1.44	40
Heptachlor epoxide	8.69E-5	U	0.00800	mg/L	0.000120		72.4	60-140	0.186	40
Methoxychlor	9.20E-5	U	10.0	mg/L	0.000120		76.7	60-140	4.66	40
Surrogate: 2,4,5,6			9.70E-5	mg/L	0.000120		80.8	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000104	mg/L	0.000120		87.0	60-140		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGD2621 - SW-3511 (Continued)</b>										
<b>BGD1470-BLK1 (BGD2621-LBK1)</b>										
					Prepared: 4/18/2023 Analyzed: 5/2/2023					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	6.93E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000572	mg/L	0.000600		95.3	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000505	mg/L	0.000600		84.1	60-140		
<b>BGD2228-BLK2 (BGD2621-LBK2)</b>										
					Prepared: 4/18/2023 Analyzed: 5/2/2023					
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	2.59E-6	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	3.39E-6	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	1.66E-5	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000138	mg/L	0.000120		115	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.98E-5	mg/L	0.000120		83.1	60-140		
<b>TOX MRL (BGD2621-MRL1)</b>										
					Prepared: 4/18/2023 Analyzed: 5/1/2023					
Toxaphene (Chlorinated Camphene)	0.000515	U	0.500	mg/L	0.000300		172			
Surrogate: 2,4,5,6			0.000151	mg/L	0.000120		126	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000170	mg/L	0.000120		142	60-140		
<b>MRL Check (BGD2621-MRL2)</b>										
					Prepared: 4/18/2023 Analyzed: 5/1/2023					
Chlordane (Total)	3.65E-5	U	0.0300	mg/L	4.80E-5		76.1			
Endrin	9.91E-6	U	0.0200	mg/L	1.20E-5		82.6			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	1.06E-5	U	0.400	mg/L	1.20E-5		88.1			
Heptachlor	1.11E-5	U	0.00800	mg/L	1.20E-5		92.8			
Heptachlor epoxide	9.00E-6	U	0.00800	mg/L	1.20E-5		75.0			
Methoxychlor	1.11E-5	U	10.0	mg/L	1.20E-5		92.2			
Surrogate: 2,4,5,6			9.95E-5	mg/L	0.000120		82.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000102	mg/L	0.000120		85.2	60-140		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2621 - SW-3511 (Continued)**

**Matrix Spike (BGD2621-MS1)**

**Source: 23D0985-01**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.00252	U	0.0300	mg/L	0.00240	4.98E-6	105	60-140		
Endrin	0.000707	U	0.0200	mg/L	0.000600	<0.0200	118	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000692	U	0.400	mg/L	0.000600	<0.400	115	60-140		
Heptachlor	0.000690	U	0.00800	mg/L	0.000600	<0.00800	115	60-140		
Heptachlor epoxide	0.000668	U	0.00800	mg/L	0.000600	4.98E-6	111	60-140		
Methoxychlor	0.000793	U	10.0	mg/L	0.000600	<10.0	132	60-140		
Surrogate: 2,4,5,6			0.000646	mg/L	0.000600		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000526	mg/L	0.000600		87.7	60-140		

**Matrix Spike Dup (BGD2621-MSD1)**

**Source: 23D0985-01**

Prepared: 4/18/2023 Analyzed: 5/1/2023

Chlordane (Total)	0.00283	U	0.0300	mg/L	0.00240	4.98E-6	118	60-140	11.4	40
Endrin	0.000804	U	0.0200	mg/L	0.000600	<0.0200	134	60-140	12.8	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000811	U	0.400	mg/L	0.000600	<0.400	135	60-140	15.9	40
Heptachlor	0.000776	U	0.00800	mg/L	0.000600	<0.00800	129	60-140	11.8	40
Heptachlor epoxide	0.000762	U	0.00800	mg/L	0.000600	4.98E-6	126	60-140	13.1	40
Methoxychlor	0.000891	U	10.0	mg/L	0.000600	<10.0	148	60-140	11.6	40
Surrogate: 2,4,5,6			0.000745	mg/L	0.000600		124	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000553	mg/L	0.000600		92.2	60-140		

**Batch: BGD2687 - EPA 200.2 TCLP**

**Blank (BGD2687-BLK1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L
Barium	<100	U	100	mg/L
Cadmium	<1.00	U	1.00	mg/L
Chromium	<5.00	U	5.00	mg/L
Lead	<5.00	U	5.00	mg/L
Selenium	<1.00	U	1.00	mg/L
Silver	<5.00	U	5.00	mg/L



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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**LCS (BGD2687-BS1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.510	U	5.00	mg/L	0.500		102	80-120		
Barium	0.513	U	100	mg/L	0.500		103	80-120		
Cadmium	0.0513	U	1.00	mg/L	0.0500		103	80-120		
Chromium	0.256	U	5.00	mg/L	0.250		102	80-120		
Lead	0.255	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.506	U	1.00	mg/L	0.500		101	80-120		
Silver	0.0531	U	5.00	mg/L	0.0500		106	80-120		

**Duplicate (BGD2687-DUP1)**

Source: 23D1481-01

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.13	U	100	mg/L		1.17			4.18	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

**Duplicate (BGD2687-DUP2)**

Source: 23D2913-01

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.67	U	100	mg/L		1.85			9.95	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

**BGD1470-BLK1 (BGD2687-LBK1)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.843	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						





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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**BGD1975-BLK1 (BGD2687-LBK2)**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.0112	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**Matrix Spike (BGD2687-MS1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.537	U	5.00	mg/L	0.500	<5.00	107	75-125		
Barium	1.58	U	100	mg/L	0.500	1.17	81.0	75-125		
Cadmium	0.0535	U	1.00	mg/L	0.0500	<1.00	107	75-125		
Chromium	0.246	U	5.00	mg/L	0.250	<5.00	98.4	75-125		
Lead	0.253	U	5.00	mg/L	0.250	<5.00	101	75-125		
Selenium	0.515	U	1.00	mg/L	0.500	<1.00	103	75-125		
Silver	0.0523	U	5.00	mg/L	0.0500	<5.00	105	75-125		

**Matrix Spike (BGD2687-MS2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	0.505	U	5.00	mg/L	0.500	<5.00	101	75-125		
Barium	1.45	J1, U	100	mg/L	0.500	1.85	NR	75-125		
Cadmium	0.0526	U	1.00	mg/L	0.0500	<1.00	105	75-125		
Chromium	0.253	U	5.00	mg/L	0.250	<5.00	101	75-125		
Lead	0.251	U	5.00	mg/L	0.250	<5.00	100	75-125		
Selenium	0.505	U	1.00	mg/L	0.500	<1.00	101	75-125		
Silver	0.0531	U	5.00	mg/L	0.0500	<5.00	106	75-125		

**Post Spike (BGD2687-PS1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	531			ug/L	500	13.2	104	80-120		
Barium	1470	J1		ug/L	500	1140	65.4	80-120		
Cadmium	52.1			ug/L	50.0	0.478	103	80-120		
Chromium	250			ug/L	250	1.89	99.4	80-120		
Lead	249			ug/L	250	3.28	98.3	80-120		
Selenium	505			ug/L	500	3.60	100	80-120		
Silver	53.0			ug/L	50.0	0.410	105	80-120		

\* A = Accredited, N = Not Accredited or Accreditation not available



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

**Quality Control**  
(Continued)

**TCLP (Continued)**

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

**Batch: BGD2687 - EPA 200.2 TCLP (Continued)**

**Post Spike (BGD2687-PS2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	530			ug/L	500	14.0	103	80-120		
Barium	2190	J1		ug/L	500	1800	77.6	80-120		
Cadmium	52.0			ug/L	50.0	0.351	103	80-120		
Chromium	249			ug/L	250	0.897	99.4	80-120		
Lead	248			ug/L	250	0.546	98.9	80-120		
Selenium	515			ug/L	500	1.80	103	80-120		
Silver	52.3			ug/L	50.0	0.634	103	80-120		

**Dilution Check (BGD2687-SRL1)**

**Source: 23D1481-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.17	U	100	mg/L		1.17			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

**Dilution Check (BGD2687-SRL2)**

**Source: 23D2913-01**

Prepared: 4/18/2023 Analyzed: 5/12/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.85	U	100	mg/L		1.85			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

### Sample Condition Checklist

Work Order: 23D1283

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



Municipal Operations and Consulting  
27316 Spectrum Way  
Oak Ridge, TX 77385

**Reported:**  
05/24/2023 13:25

## Term and Qualifier Definitions

Item	Definition
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
TV	Estimated value - The method required temperature requirement was outside of the acceptable range.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

\* A = Accredited, N = Not Accredited or Accreditation not available





# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-38 TCEQ-TOX T104704202-22-17



Page 1 of 2

23D1283

Lab PM : Deena Higginbotham		Project Name : HC MUD 200 - Non Potable - Sewage Sludge Annual		Schedule Comments:			
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511		Project Comments: 13050 Stonefield Dr Houston 77014 Gate Combo 2006					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23D1283-01	Digester		4/4/2023 1000	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass VOA 60mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCF-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C Sub_VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-38 TCEQ-TOX T104704202-22-17



Page 2 of 2

23D1283

(Continued)

Lab PM : Deena Higginbotham	Project Name : HC MUD 200 - Non Potable - Sewage Sludge Annual	Schedule Comments:
Municipal Operations and Consulting John Montgomery 27316 Spectrum Way Oak Ridge, TX 77385 Phone: (281) 367-5511	Project Comments: 13050 Stonesfield Dr Houston 77014 Gate Combo 2006	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
		(Circle and Write ID Below)			
Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	Date/Time
Print Name	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	Date/Time
Affiliation	Relinquished To Lab By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Date/Time	Date/Time
		4.4.23/1635	ROP	4.4.23/1635	°C
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

North West

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022

# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23040458



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

## Client Project Name :

**23D1283**

### Report To :

Client Name: NWDLS  
Attn: Deena Higginbotham  
Client Address: 130 S Trade Center Pkwy  
City, State, Zip: Conroe, Texas, 77385

P.O.#.: 23D1283

Sample Collected By:

Date Collected: 04/04/23

### A&B Labs has analyzed the following samples...

#### Client Sample ID

23D1283-01

#### Matrix

Solid

#### A&B Sample ID

23040458.01

A handwritten signature in black ink, appearing to read 'Senthilkumar Sevukan'.

Released By: Senthilkumar Sevukan

Title: Vice President Operations

Date: 4/14/2023



This Laboratory is NELAP ( T104704213) accredited. Effective: 04/01/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 04/05/2023 17:42

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23040458

Date: 4/14/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

V1 CCV recovery is above acceptance limits. This target analyte was not detected in the sample.



**LABORATORY TEST RESULTS**

Job ID : 23040458

Date 4/14/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23D1283

Client Sample ID: 23D1283-01

Job Sample ID: 23040458.01

Date Collected: 04/04/23

Sample Matrix Solid

Time Collected: 10:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8270D	TCLP Semivolatiles									
	2,4,5-Trichlorophenol	< 0.004	mg/L	1.00	0.004	0.025	400		04/10/23 21:24	GM
	2,4,6-Trichlorophenol	< 0.004	mg/L	1.00	0.004	0.025	2		04/10/23 21:24	GM
	2,4-Dinitrotoluene	< 0.005	mg/L	1.00	0.005	0.025	0.13	V1	04/10/23 21:24	GM
	2-Methylphenol	< 0.005	mg/L	1.00	0.005	0.025	200		04/10/23 21:24	GM
	3- & 4-Methylphenols	0.07975	mg/L	1.00	0.007	0.025	200		04/10/23 21:24	GM
	Hexachlorobenzene	< 0.003	mg/L	1.00	0.003	0.025	0.13		04/10/23 21:24	GM
	Hexachlorobutadiene	< 0.002	mg/L	1.00	0.002	0.025	0.5		04/10/23 21:24	GM
	Hexachloroethane	< 0.002	mg/L	1.00	0.002	0.025	3		04/10/23 21:24	GM
	Nitrobenzene	< 0.005	mg/L	1.00	0.005	0.025	2		04/10/23 21:24	GM
	Pentachlorophenol	< 0.003	mg/L	1.00	0.003	0.025	100		04/10/23 21:24	GM
	Pyridine	< 0.002	mg/L	1.00	0.002	0.025	5		04/10/23 21:24	GM
	2,4,6-Tribromophenol(surr)	58.8	%	1.00		10-120			04/10/23 21:24	GM
	2-Fluorobiphenyl(surr)	70.9	%	1.00		30-115			04/10/23 21:24	GM
	2-Fluorophenol(surr)	40.9	%	1.00		17-115			04/10/23 21:24	GM
	Nitrobenzene-d5(surr)	68.8	%	1.00		20-120			04/10/23 21:24	GM
	Phenol-d6(surr)	41	%	1.00		15-120			04/10/23 21:24	GM
	p-Terphenyl-d14(surr)	88.1	%	1.00		30-140			04/10/23 21:24	GM

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23040458

Date : 4/14/2023

Analysis : TCLP Semivolatiles Method : SW-846 8270D Reporting Units : mg/L

QC Batch ID : Qb230410117 Created Date : 03/10/23 Created By : GeMu

Samples in This QC Batch : 23040458.01

Extraction : PB23041035 Prep Method : SW-846 3510C Prep Date : 04/10/23 10:30 Prep By : MMuteen  
TCLP Prep : PB23040801 Prep Method : SW-846 1311 Prep Date : 04/07/23 17:00 Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
2,4,5-Trichlorophenol	95-95-4	< MDL	mg/L	0.20	0.005	0.00425	
2,4,6-Trichlorophenol	88-06-2	< MDL	mg/L	0.20	0.005	0.00395	
2,4-Dinitrotoluene	121-14-2	< MDL	mg/L	0.20	0.005	0.00485	
2-Methylphenol	95-48-7	< MDL	mg/L	0.20	0.005	0.005	
3- & 4-Methylphenols	65794-96-9	< MDL	mg/L	0.20	0.005	0.0066	
Hexachlorobenzene	118-74-1	< MDL	mg/L	0.20	0.005	0.00345	
Hexachlorobutadiene	87-68-3	< MDL	mg/L	0.20	0.005	0.00205	
Hexachloroethane	67-72-1	< MDL	mg/L	0.20	0.005	0.00235	
Nitrobenzene	98-95-3	< MDL	mg/L	0.20	0.005	0.00455	
Pentachlorophenol	87-86-5	< MDL	mg/L	0.20	0.005	0.0025	
Pyridine	110-86-1	< MDL	mg/L	0.20	0.005	0.00175	
2-Fluorophenol(surr)	367-12-4	48.5	%	0.20			
Phenol-d6(surr)	13127-88-3	15.8	%	0.20			
Nitrobenzene-d5(surr)	4165-60-0	70.8	%	0.20			
2-Fluorobiphenyl(surr)	321-60-8	60.2	%	0.20			
2,4,6-Tribromophenol(surr)	118-79-6	87.9	%	0.20			
p-Terphenyl-d14(surr)	1718-51-0	81.8	%	0.20			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
2,4,5-Trichlorophenol	0.25	0.186	74.6	0.25	0.182	72.8	2.4	35	10-115	
2,4,6-Trichlorophenol	0.25	0.190	75.9	0.25	0.186	74.5	2	35	40-138	
2,4-Dinitrotoluene	0.25	0.184	73.8	0.25	0.187	74.7	1.4	35	32-114	
2-Methylphenol	0.25	0.166	66.4	0.25	0.169	67.6	1.7	35	10-132	
3- & 4-Methylphenols	0.5	0.317	63.5	0.5	0.338	67.7	6.3	35	29-132	
Hexachlorobenzene	0.25	0.226	90.6	0.25	0.240	96	5.8	35	44-142	
Hexachlorobutadiene	0.25	0.208	83	0.25	0.196	78.5	5.7	35	20-124	
Hexachloroethane	0.25	0.160	64.2	0.25	0.159	63.8	0.9	35	14-136	
Nitrobenzene	0.25	0.159	63.5	0.25	0.167	66.6	5.1	35	38-146	
Pentachlorophenol	0.25	0.207	82.6	0.25	0.198	79	4.2	35	25-125	
Pyridine	0.25	0.142	57	0.25	0.137	54.6	3.9	35	10-112	
Pyridine	0.25	0.142	57	0.25	0.137	54.6	3.9	35	10-112	

ab-q213-0321

Refer to the Definition page for terms.

# QUALITY CONTROL CERTIFICATE



Job ID : 23040458

Date : 4/14/2023

Analysis : TCLP Semivolatiles

Method : SW-846 8270D

Reporting Units : mg/L

QC Batch ID : Qb230410117 Created Date : 03/10/23

Created By : GeMu

Samples in This QC Batch : 23040458.01

QC Type: MS and MSD

QC Sample ID: 23040467.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
2,4,5-Trichlorophenol	BRL	0.25	0.221	88.5						10-115	
2,4,6-Trichlorophenol	BRL	0.25	0.220	88.1						40-138	
2,4-Dinitrotoluene	BRL	0.25	0.237	94.9						32-114	
2-Methylphenol	BRL	0.25	0.211	84.4						10-132	
3- & 4-Methylphenols	BRL	0.5	0.412	82.4						29-132	
Hexachlorobenzene	BRL	0.25	0.291	116						44-142	
Hexachlorobutadiene	BRL	0.25	0.260	104						20-124	
Hexachloroethane	BRL	0.25	0.203	81.1						14-136	
Nitrobenzene	BRL	0.25	0.200	79.8						38-146	
Pentachlorophenol	BRL	0.25	0.283	113						25-125	
Pyridine	BRL	0.25	0.219	87.7						10-112	



# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23D1283

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23D1283-01 Solid Sampled: 04/04/2023 10:00

SVOA-TCLP

04/18/2023 04/11/2023 10:00

### Analyte(s):

2,4,5 & 2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2,4,6-Tribromophenol-surr

2,4,6-Trichlorophenol

2,4-Dinitrotoluene (2,4-DNT)

2-Fluorobiphenyl-surr

2-Fluorophenol-surr

2-Methylphenol

3,4-Methylphenol

Hexachlorobenzene

Hexachlorobutadiene

Hexachloroethane

Nitrobenzene

Nitrobenzene-d5-surr

Pentachlorophenol

Phenol-d5-surr

p-Terphenyl-d14-surr

Pyridine

Containers Supplied:

Released By

Date

Received By

Date

Job ID:23040458



04/05/2023

NWDLS

AMS





## Sample Condition Checklist

A&B JobID : <b>23040458</b>	Date Received : <b>04/05/2023</b>	Time Received : <b>5:42PM</b>
Client Name : <b>NWDLS</b>		
Temperature : <b>2.1°C</b>	Sample pH : <b>NA</b>	
Thermometer ID : <b>IR4</b>	pH Paper ID : <b>NA</b>	
Preservative :		

	Check Points	Yes	No	N/A											
1.	Cooler Seal present and signed.		X												
2.	Sample(s) in a cooler.	X													
3.	If yes, ice in cooler.	X													
4.	Sample(s) received with chain-of-custody.	X													
5.	C-O-C signed and dated.	X													
6.	Sample(s) received with signed sample custody seal.		X												
7.	Sample containers arrived intact. (If No comment)	X													
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water <input type="checkbox"/></td> <td>Soil <input type="checkbox"/></td> <td>Liquid <input type="checkbox"/></td> <td>Sludge <input type="checkbox"/></td> <td>Solid <input checked="" type="checkbox"/></td> <td>Cassette <input type="checkbox"/></td> <td>Tube <input type="checkbox"/></td> <td>Bulk <input type="checkbox"/></td> <td>Badge <input type="checkbox"/></td> <td>Food <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> </table>	Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>			
Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>					
9.	Samples were received in appropriate container(s)	X													
10.	Sample(s) were received with Proper preservative			X											
11.	All samples were tagged or labeled.	X													
12.	Sample ID labels match C-O-C ID's.	X													
13.	Bottle count on C-O-C matches bottles found.	X													
14.	Sample volume is sufficient for analyses requested.	X													
15.	Samples were received within the hold time.	X													
16.	VOA vials completely filled.			X											
17.	Sample accepted.	X													
18.	Has client been contacted about sub-out			X											

**Comments : Include actions taken to resolve discrepancies/problem:**

COC shows solid, received sludge. ~EV 4/5/2023

Received by : EValdez

Check in by/date : EValdez / 04/05/2023

ab-s005-0321

Phone : 713-453-6060

www.ablabs.com





P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



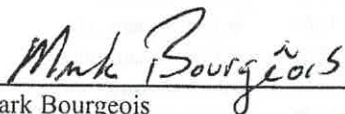
July 07, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

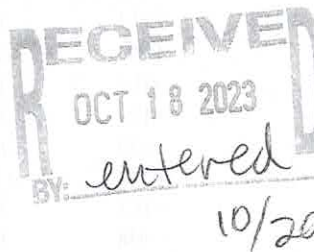
RE: **HC WCID 92 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 06/01/23 17:30, with Lab ID Number C3E5990. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Bourgeois  
Special Projects Manager



☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP ☒ Metals  
☒ PCB ☐ F/S

PS .7



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Harris County WCID 92  
P.O. Box 579  
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## LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester a  
Client Matrix: Waste

Sample Date & Time: 06/01/2023 11:37  
Collector: CNG  
Sample Type: Grab  
Print Date: 7/7/2023

### Digester C3E5990-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Metals</u></b>								
Arsenic	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Cadmium	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Chromium	14.2	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Copper	240	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Lead	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Mercury, Total	0.373	0.222	mg/Kg dry	A	B3F3803	06/26/2023 15:47	EPA SW 846-7471B	
Molybdenum	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Nickel	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Phosphorus, %	1.54	1.00	% dry	A	B3G0041	07/06/2023 14:38	EPA SW 846-6010, 3050	
Potassium, %	<0.556	0.556	% dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Selenium	<11.1	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	
Zinc	838	11.1	mg/Kg dry	A	B3G0040	07/06/2023 12:00	EPA SW 846-6010, 3050	

### Wet Lab

NH3N %	<4.44	4.44	% dry	A	B3F2073	06/22/2023 08:50	EPA 350.2	
Nitrate-N, %	0.457	0.000222	% dry	N	B3F2589	06/20/2023 11:34	SM 4500 NO3 D	
Percent Solid	0.9	0.1	%	A	B3F2399	06/15/2023 12:48	SM 2540G	3
pH-Sludge	6.6		std unit	A	B3F2126	06/14/2023 16:25	EPA SW 846-9040	
TKN %	4.87	0.111	% dry	N	B3F2345	06/22/2023 10:23	EPA 351.2	13

457  
÷ 10,000  
0000457





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Harris County WCID 92  
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**EPA 350.2 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F2073 - No Prep Prepared: 06/22/23 08:50</b>										
<b>Blank (B3F2073-BLK1)</b>				<b>Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	ND	0.0400	% wet							
<b>LCS (B3F2073-BS1)</b>				<b>Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.03		mg/L	2.00		101	80-120			
<b>Matrix Spike (B3F2073-MS1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.51		mg/L	2.50	0.00300	100	80-120			
<b>Matrix Spike Dup (B3F2073-MSD1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 8:50:00AM</b>						
NH3N %	2.52		mg/L	2.50	0.00300	100	80-120	0.159	20	
<b>Batch B3F2126 - No Prep Prepared: 06/14/23 16:25</b>										
<b>LCS (B3F2126-BS1)</b>				<b>Analyzed: 6/14/2023 4:25:00PM</b>						
pH-Sludge	6.88		std unit	6.86		100	0-200			
<b>Duplicate (B3F2126-DUP1)</b>				<b>Source: C3E5990-01 Analyzed: 6/14/2023 4:25:00PM</b>						
pH-Sludge	6.6		std unit		6.6			0.00	20	
<b>Batch B3F2345 - SM 4500 Norg C Prepared: 06/22/23 10:23</b>										
<b>Blank (B3F2345-BLK1)</b>				<b>Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	ND	0.00100	% wet							
<b>LCS (B3F2345-BS1)</b>				<b>Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	8.124		mg/L	10.0		81.2	80-120			13
<b>Matrix Spike (B3F2345-MS1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	7.275178	0.111	% dry	2.78	4.871811	86.5	80-120			13
<b>Matrix Spike Dup (B3F2345-MSD1)</b>				<b>Source: C3E5990-01 Analyzed: 6/22/2023 10:23:00AM</b>						
TKN %	7.441434	0.111	% dry	2.78	4.871811	92.5	80-120	2.26	20	13
<b>Batch B3F2399 - No Prep Prepared: 06/15/23 12:48</b>										
<b>Blank (B3F2399-BLK1)</b>				<b>Analyzed: 6/15/2023 12:48:00PM</b>						
Percent Solid	ND	0.1	%							
<b>Duplicate (B3F2399-DUP1)</b>				<b>Source: C3F3098-01 Analyzed: 6/15/2023 12:48:00PM</b>						
Percent Solid	1.5	0.1	%		1.5			0.00	20	

Eastex Environmental Laboratory - Coldspring

The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
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Harris County WCID 92  
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**SM 4500 NO3 D - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F2589 - No Prep</b> <b>Prepared: 06/20/23 11:34</b>										
<b>Blank (B3F2589-BLK1)</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3F2589-BS1)</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	0.996		mg/L	1.00		99.6	80-120			
<b>Matrix Spike (B3F2589-MS1)</b> <b>Source: C3E5990-01</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	1.016667	0.000222	% dry	0.556	0.4566667	101	80-120			
<b>Matrix Spike Dup (B3F2589-MSD1)</b> <b>Source: C3E5990-01</b> <b>Analyzed: 6/20/2023 11:34:00AM</b>										
Nitrate-N, %	1.106667	0.000222	% dry	0.556	0.4566667	117	80-120	8.48	20	
<b>Batch B3F3803 - SW 846-7471B</b> <b>Prepared: 06/23/23 13:50</b>										
<b>Blank (B3F3803-BLK1)</b> <b>Analyzed: 6/26/2023 3:30:00PM</b>										
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3F3803-BS1)</b> <b>Analyzed: 6/26/2023 3:32:31PM</b>										
Mercury, Total	0.0252	0.00200	mg/Kg wet	0.0250		101	80-120			
<b>Matrix Spike (B3F3803-MS1)</b> <b>Source: C3E5984-01</b> <b>Analyzed: 6/26/2023 3:40:54PM</b>										
Mercury, Total	1.51	0.133	mg/Kg dry	1.67	0.150	81.8	75-125			
<b>Matrix Spike Dup (B3F3803-MSD1)</b> <b>Source: C3E5984-01</b> <b>Analyzed: 6/26/2023 3:43:26PM</b>										
Mercury, Total	1.67	0.133	mg/Kg dry	1.67	0.150	91.0	75-125	9.64	20	
<b>Batch B3G0040 - SW846-3050</b> <b>Prepared: 07/03/23 15:29</b>										
<b>Blank (B3G0040-BLK1)</b> <b>Analyzed: 7/6/2023 11:36:56AM</b>										
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3G0040-BS1)</b> <b>Analyzed: 7/6/2023 11:40:23AM</b>										

Eastex Environmental Laboratory - Coldspring

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Harris County WCID 92  
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**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B3G0040 - SW846-3050**

**Prepared: 07/03/23 15:29**

**LCS (B3G0040-BS1)**

**Analyzed: 7/6/2023 11:40:23AM**

Molybdenum	2.72	0.100	mg/Kg wet	2.50		109	80-120			
Arsenic	2.56	0.100	mg/Kg wet	2.50		102	80-120			
Cadmium	2.7	0.100	mg/Kg wet	2.50		107	80-120			
Chromium	2.67	0.100	mg/Kg wet	2.50		107	80-120			
Copper	2.91	0.100	mg/Kg wet	2.50		116	80-120			
Lead	2.66	0.100	mg/Kg wet	2.50		106	80-120			
Nickel	2.73	0.100	mg/Kg wet	2.50		109	80-120			
Potassium, %	0.0276	0.00500	% wet	0.0250		110	80-120			
Selenium	2.43	0.100	mg/Kg wet	2.50		97.2	80-120			
Zinc	2.7	0.100	mg/Kg wet	2.50		108	80-120			

**Matrix Spike (B3G0040-MS1)**

**Source: C3E2834-01**

**Analyzed: 7/6/2023 11:50:42AM**

Molybdenum	883.3333	33.3	mg/Kg dry	833	3.4	106	75-125			
Arsenic	850	33.3	mg/Kg dry	833	ND	102	75-125			
Cadmium	870	33.3	mg/Kg dry	833	ND	105	75-125			
Chromium	937	33.3	mg/Kg dry	833	81.7	103	75-125			
Copper	1380	33.3	mg/Kg dry	833	433	114	75-125			
Lead	870	33.3	mg/Kg dry	833	11.1	103	75-125			
Nickel	930	33.3	mg/Kg dry	833	13.7	110	75-125			
Potassium, %	9.40	1.67	% dry	8.33	1.16	98.8	75-125			
Selenium	817	33.3	mg/Kg dry	833	ND	98.0	75-125			
Zinc	4133.333	33.3	mg/Kg dry	833	3220	110	75-125			

**Matrix Spike Dup (B3G0040-MSD1)**

**Source: C3E2834-01**

**Analyzed: 7/6/2023 11:54:11AM**

Molybdenum	883.3333	33.3	mg/Kg dry	833	3.4	106	75-125	0.00	20	
Arsenic	853	33.3	mg/Kg dry	833	ND	102	75-125	0.391	20	
Cadmium	880	33.3	mg/Kg dry	833	ND	105	75-125	0.381	20	
Chromium	937	33.3	mg/Kg dry	833	81.7	103	75-125	0.00	20	
Copper	1370	33.3	mg/Kg dry	833	433	112	75-125	0.727	20	
Lead	880	33.3	mg/Kg dry	833	11.1	104	75-125	1.14	20	
Nickel	927	33.3	mg/Kg dry	833	13.7	110	75-125	0.359	20	
Potassium, %	9.37	1.67	% dry	8.33	1.16	98.4	75-125	0.355	20	
Selenium	817	33.3	mg/Kg dry	833	ND	98.0	75-125	0.00	20	
Zinc	4066.667	33.3	mg/Kg dry	833	3220	102	75-125	1.63	20	

**Batch B3G0041 - SW846-3050**

**Prepared: 07/06/23 14:17**

**Blank (B3G0041-BLK1)**

**Analyzed: 7/6/2023 2:17:15PM**

Eastex Environmental Laboratory - Coldspring

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**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3G0041 - SW846-3050		Prepared: 07/06/23 14:17								
Blank (B3G0041-BLK1)				Analyzed: 7/6/2023 2:17:15PM						
Phosphorus, %	ND	1.00	% wet							
LCS (B3G0041-BS1)				Analyzed: 7/6/2023 2:20:44PM						
Phosphorus, %	0.00233	1.00	% wet	0.00252		92.3	80-120			
Matrix Spike (B3G0041-MS1)				Source: C3E2834-01		Analyzed: 7/6/2023 2:31:09PM				
Phosphorus, %	3.50	1.00	% dry	0.840	2.61	105	75-125			
Matrix Spike Dup (B3G0041-MSD1)				Source: C3E2834-01		Analyzed: 7/6/2023 2:34:36PM				
Phosphorus, %	3.46	1.00	% dry	0.840	2.61	101	75-125	0.986	20	





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#### Notes and Definitions

- 3 Sample analysis performed out of holding time.
- 13 LCS associated with sample batch outside of acceptance limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 6/19/2023 11:24:51 AM

## JOB DESCRIPTION

Harris County WCID 92

## JOB NUMBER

860-51255-1

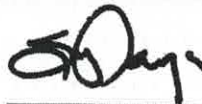
# Eurofins Houston

## 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



Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

Generated  
6/19/2023 11:24:51 AM

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Job ID: 860-51255-1

Laboratory: Eurofins Houston

Narrative

Job Narrative  
860-51255-1

### Receipt

The sample was received on 6/14/2023 2:05 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

### PCBs

Method 8082A: liquid sludge. weighed to 5 gramsHC WCID 92 Digester a (860-51255-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Percent Solids: 0.7

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1221	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1232	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1242	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1248	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1254	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1
PCB-1260	ND		14		mg/Kg	13	06/15/23 13:56	06/16/23 10:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		35 - 140	06/15/23 13:56	06/16/23 10:51	1
DCB Decachlorobiphenyl (Surr)	92		37 - 142	06/15/23 13:56	06/16/23 10:51	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	99.3				%			06/15/23 15:19	1
Percent Solids (EPA Moisture)	0.7				%			06/15/23 15:19	1



## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCB1
		(35-140)	(37-142)
860-51255-1	HC WCID 92 Digester a	76	92
LCS 860-107986/2-A	Lab Control Sample	81	88
LCSD 860-107986/3-A	Lab Control Sample Dup	81	88
MB 860-107986/1-A	Method Blank	78	87

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-107986/1-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1221	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1232	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1242	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1248	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1254	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1
PCB-1260	ND		0.017		mg/Kg		06/15/23 13:55	06/15/23 17:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		35 - 140	06/15/23 13:55	06/15/23 17:01	1
DCB Decachlorobiphenyl (Surr)	87		37 - 142	06/15/23 13:55	06/15/23 17:01	1

Lab Sample ID: LCS 860-107986/2-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.121		mg/Kg		73	27 - 121
PCB-1260	0.167	0.119		mg/Kg		71	27 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	81		35 - 140
DCB Decachlorobiphenyl (Surr)	88		37 - 142

Lab Sample ID: LCSD 860-107986/3-A  
Matrix: Solid  
Analysis Batch: 107881

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 107986

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.122		mg/Kg		73	27 - 121	0	20
PCB-1260	0.167	0.119		mg/Kg		72	27 - 139	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	81		35 - 140
DCB Decachlorobiphenyl (Surr)	88		37 - 142

## Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-108051/1  
Matrix: Solid  
Analysis Batch: 108051

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	0.4				%			06/15/23 15:19	1
Percent Solids	99.6				%			06/15/23 15:19	1

Eurofins Houston

## QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Method: Moisture - Percent Moisture (Continued)

Lab Sample ID: 860-51255-1 DU

Matrix: Solid

Analysis Batch: 108051

Client Sample ID: HC WCID 92 Digester a

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Moisture	99.3		99.3		%		0	20
Percent Solids	0.7		0.7		%		0	20

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

## GC Semi VOA

### Analysis Batch: 107881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-107986/1-A	Method Blank	Total/NA	Solid	8082A	107986
LCS 860-107986/2-A	Lab Control Sample	Total/NA	Solid	8082A	107986
LCSD 860-107986/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	107986

### Prep Batch: 107986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	3550C	
MB 860-107986/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-107986/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-107986/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

### Analysis Batch: 108126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	8082A	107986

## General Chemistry

### Analysis Batch: 108051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-51255-1	HC WCID 92 Digester a	Total/NA	Solid	Moisture	
MB 860-108051/1	Method Blank	Total/NA	Solid	Moisture	
860-51255-1 DU	HC WCID 92 Digester a	Total/NA	Solid	Moisture	



# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			108051	06/15/23 15:19	JM	EET HOU

Client Sample ID: HC WCID 92 Digester a

Lab Sample ID: 860-51255-1

Date Collected: 06/01/23 11:37

Matrix: Solid

Date Received: 06/14/23 14:05

Percent Solids: 0.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.02 g	5 mL	107986	06/15/23 13:56	BH	EET HOU
Total/NA	Analysis	8082A		1			108126	06/16/23 10:51	BNW	EET HOU

## Laboratory References:

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

## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-51255-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-51255-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-51255-1	HC WCID 92 Digester a	Solid	06/01/23 11:37	06/14/23 14:05







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Tel. 936 653 3249



6/13/23  
WBE

## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr  
Stafford, TX 77477  
Phone 713-690-4444  
Fax 713-690-5646

**PO 061423D**

### PROJECT NAME.

Harris County WCID 92

### Turnaround

10 DAYS

### Matrix

Waste

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
1	6-13	11 37 am	HC WCID 92 Digester a	Grab	C3E5990-01	PCB 8082

### Special instructions.

☐ See Attached

PCB MG/KG %SOLIDS



860-51255 Chain of Custody

Temp. 1.8 IR ID: HOU-343  
C/F -0.4  
Corrected Temp: 1.4

Received Iced Y/N Temp \_\_\_\_\_

Released By

Date & Time

Received By

Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-51255-1

Login Number: 51255

List Number: 1

List Source: Eurofins Houston

Creator: Rubio, Yuri

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	
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	





**EASTEX ENVIRONMENTAL LABORATORY, INC.**  
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(936) 569-8879 \* FAX (936) 569-8951  
www.eastexlabs.com

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

REPORT TO:

INVOICE TO:

Company: WDW

Company:

Address:

Address: SAME

Attn:

Attn:

Phone#:

Phone#:

Email:

INSTRUCTIONS:

P.O. #:

C or G:

Sampler's Name (print):

Matrix:

Sampler's Signature:

Container Size:

Project Name:

Type:

Work Order ID

Preservatives:

Sample ID

Time

Date

Matrix

DO

pH

CI2

Flow

Temp

#

Size

Type

Pres

Containers

Field Data

Analysis Requested

Received By:

Date

Time

Received Iced: YES / NO

Relinquished By:

Date

Time

Received Iced: YES / NO

Relinquished By:

Date

Time

Received Iced: YES / NO

LAB USE ONLY

Sample Condition Acceptable:

Alternate Check In:

Date

Time

Temp °C

\*Therm ID

Logged In By:

Date

Time

\*Thermometer has 0.0 factor and recorded temperature is actual temperature







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July 14, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

RE: **HC WCID 92 Digester**

Enclosed are the results of analyses for samples received by the laboratory on 06/01/23 16:24, with Lab ID Number C3E5991. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager



- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☐ TCLP ☐ Metals
- ☐ PCB ☒ F/S



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O2/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester b  
Client Matrix: Waste

Sample Date & Time: 06/01/2023 11:37  
Collector: CNG  
Sample Type: Grab  
Print Date: 7/14/2023

#### Digester C3E5991-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	--------------------	-------	-----------------	-------	-------------------------	--------	-------

#### Microbiological Lab

Fecal Coliform IDEXX	231400	1000	mpn/gram	N	B3F0416	06/01/2023 17:50	Colilert 18	
Vector	1.8	0.1	mg O2/hr/g	N	B3G1691	06/01/2023 17:00	TAC 312.83(b)(4)	

#### Wet Lab

Percent Solid	0.9	0.1	%	A	B3F0457	06/02/2023 16:44	SM 2540G	
Volatile Percent Solid	70.2	0.1	%	A	B3F0431	06/05/2023 10:38	SM 2540G	



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Harris County WCID 92  
 P.O. Box 579  
 Spring TX, 77383

**Colilert 18 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F0416 - No Prep Micro</b> <b>Prepared: 06/01/23 17:50</b>										
<b>Blank (B3F0416-BLK1)</b>					<b>Analyzed: 6/1/2023 5:50:00PM</b>					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3F0416-DUP1)</b>					<b>Source: C3F0733-03</b>		<b>Analyzed: 6/1/2023 5:50:00PM</b>			
Fecal Coliform IDEXX	183500	1000	mpn/gram		248100			29.9	200	
<b>Batch B3F0431 - No Prep</b> <b>Prepared: 06/05/23 10:38</b>										
<b>Blank (B3F0431-BLK1)</b>					<b>Analyzed: 6/5/2023 10:38:00AM</b>					
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3F0431-DUP1)</b>					<b>Source: C3E5991-01</b>		<b>Analyzed: 6/5/2023 10:38:00AM</b>			
Volatile Percent Solid	68.2	0.1	%		70.2			2.89	10	
<b>Batch B3F0457 - No Prep</b> <b>Prepared: 06/02/23 16:44</b>										
<b>Blank (B3F0457-BLK1)</b>					<b>Analyzed: 6/2/2023 4:44:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3F0457-DUP1)</b>					<b>Source: C3E5991-01</b>		<b>Analyzed: 6/2/2023 4:44:00PM</b>			
Percent Solid	0.9	0.1	%		0.9			0.00	20	
<b>Batch B3G1691 - No Prep Micro</b> <b>Prepared: 06/01/23 17:00</b>										
<b>Blank (B3G1691-BLK1)</b>					<b>Analyzed: 6/1/2023 5:00:00PM</b>					
Vector	ND	0.1	mg O2/hr/g							
<b>Duplicate (B3G1691-DUP1)</b>					<b>Source: C3F0530-01</b>		<b>Analyzed: 6/1/2023 5:00:00PM</b>			
Vector	5.85	0.1	mg O2/hr/g		2.66			75.0	200	



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference





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June 09, 2023

Water District Management  
Harris County WCID 92  
P.O. Box 579  
Spring, TX 77383

RE: HC WCID 92 Digester

Enclosed are the results of analyses for samples received by the laboratory on 05/18/23 17:07, with Lab ID Number C3D5831. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Mark Bourgeois  
Special Projects Manager



- ☒ Sludge Manager
- ☒ Master Spreadsheet
- ☒ TCLP
- ☐ PCB
- ☐ Metals
- ☐ F/S



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

### LABORATORY ANALYTICAL REPORT

Project: HC WCID 92 Digester c  
Client Matrix: Waste

Sample Date & Time: 05/18/2023 12:40  
Collector: TMF  
Sample Type: Grab  
Print Date: 6/9/2023

#### Digester C3D5831-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	--------------------	-------	-----------------	-------	-------------------------	--------	-------

#### Wet Lab

Percent Solid	0.6	0.1	%	A	B3E3232	05/19/2023 14:09	SM 2540G	
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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

**SM 2540G - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3E3232 - No Prep</b>		<b>Prepared: 05/19/23 14:09</b>							
<b>Blank (B3E3232-BLK1)</b>		<b>Analyzed: 5/19/2023 2:09:00PM</b>							
Percent Solid	ND	0.1	%						
<b>Duplicate (B3E3232-DUP1)</b>		<b>Source: C3E5025-02 Analyzed: 5/19/2023 2:09:00PM</b>							
Percent Solid	1.8	0.1	%		1.8		0.00	20	



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Harris County WCID 92  
P.O. Box 579  
Spring TX, 77383

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 6/5/2023 1:47:13 PM

## JOB DESCRIPTION

Harris County WCID 92

## JOB NUMBER

860-49823-1

# Eurofins Houston

## 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



Generated  
6/5/2023 1:47:13 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Qualifiers

#### GC/MS Semi VOA

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.

#### GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Job ID: 860-49823-1

Laboratory: Eurofins Houston

Narrative

Job Narrative  
860-49823-1

### Receipt

The sample was received on 5/23/2023 10:16 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.0°C

### GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 860-105101 recovered above the upper control limit for Tetrachloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 860-105101/2).

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

### GC/MS Semi VOA

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

### Herbicides

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

### Pesticides

Method 8081B: The laboratory is using 70 - 130% as interim acceptance criteria for recoveries of spiked analytes, until in-house LCS limits are developed. Data is flagged and reported. HC WCID 92 Digester C (860-49823-1), (LB 860-104900/1-F), (LCS 860-105332/2-A), (LCSD 860-105332/3-A) and (MB 860-105332/1-A)

Method 8081B: The laboratory is using 70 - 130% as interim acceptance criteria for recoveries of spiked analytes, until in-house LCS limits are developed. Data is flagged and reported. HC WCID 92 Digester C (860-49823-1), (LB 860-104900/1-F) and (MB 860-105332/1-A)

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

### Metals

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

## Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

☐ No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Houston



# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

## Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			05/27/23 02:51	50
Carbon tetrachloride	ND		0.25		mg/L			05/27/23 02:51	50
Chlorobenzene	ND		0.050		mg/L			05/27/23 02:51	50
Chloroform	ND		0.050		mg/L			05/27/23 02:51	50
1,2-Dichloroethane	ND		0.050		mg/L			05/27/23 02:51	50
1,1-Dichloroethene	ND		0.050		mg/L			05/27/23 02:51	50
2-Butanone	ND		2.5		mg/L			05/27/23 02:51	50
Tetrachloroethene	ND		0.050		mg/L			05/27/23 02:51	50
Trichloroethene	ND		0.25		mg/L			05/27/23 02:51	50
Vinyl chloride	ND		0.10		mg/L			05/27/23 02:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		63 - 144		05/27/23 02:51	50
4-Bromofluorobenzene (Surr)	101		74 - 124		05/27/23 02:51	50
Dibromofluoromethane (Surr)	97		75 - 131		05/27/23 02:51	50
Toluene-d8 (Surr)	103		80 - 120		05/27/23 02:51	50

## Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2,4-Dinitrotoluene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
2-Methylphenol	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachlorobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachlorobutadiene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Hexachloroethane	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Nitrobenzene	ND		0.13		mg/L		05/31/23 14:00	06/01/23 19:32	5
Pentachlorophenol	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5
Pyridine	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5
3 & 4 Methylphenol	ND		0.25		mg/L		05/31/23 14:00	06/01/23 19:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		31 - 132	05/31/23 14:00	06/01/23 19:32	5
2-Fluorobiphenyl (Surr)	50		29 - 112	05/31/23 14:00	06/01/23 19:32	5
2-Fluorophenol (Surr)	43		21 - 114	05/31/23 14:00	06/01/23 19:32	5
Nitrobenzene-d5 (Surr)	57		26 - 110	05/31/23 14:00	06/01/23 19:32	5
p-Terphenyl-d14 (Surr)	73		20 - 141	05/31/23 14:00	06/01/23 19:32	5
Phenol-d5 (Surr)	33		16 - 117	05/31/23 14:00	06/01/23 19:32	5

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 16:24	1
Endrin	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Heptachlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Heptachlor epoxide	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
gamma-BHC (Lindane)	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1
Methoxychlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 16:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	48	S1-	70 - 130	05/30/23 10:34	05/30/23 16:24	1

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# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62	S1-	70 - 130	05/30/23 10:34	05/30/23 16:24	1

## Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	06/02/23 13:30	1

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	06/01/23 16:21	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	06/01/23 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82		70 - 162	05/28/23 17:53	06/01/23 16:21	1

## Method: SW846 6010B - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Antimony	ND		0.10		mg/L		05/26/23 10:00	05/26/23 18:31	1
Barium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Cadmium	ND		0.025		mg/L		05/26/23 10:00	05/26/23 18:31	1
Chromium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Beryllium	ND		0.020		mg/L		05/26/23 10:00	05/26/23 18:31	1
Lead	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1
Selenium	ND		0.15		mg/L		05/26/23 10:00	05/26/23 18:31	1
Silver	ND		0.10		mg/L		05/26/23 10:00	05/26/23 18:31	1
Nickel	ND		0.050		mg/L		05/26/23 10:00	05/26/23 18:31	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 19:16	1



## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-105101/3	Lab Control Sample	103	87	94	99
LCSD 860-105101/4	Lab Control Sample Dup	104	86	92	100
MB 860-105101/8	Method Blank	95	108	99	107

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-49823-1	HC WCID 92 Digester C	94	101	97	103

**Surrogate Legend**  
DCA = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane (Surr)  
TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-105600/2-A	Lab Control Sample	89	69	40	66	87	28
LCSD 860-105600/3-A	Lab Control Sample Dup	89	73	49	69	87	36
MB 860-105600/1-A	Method Blank	77	80	48	80	94	30

**Surrogate Legend**  
TBP = 2,4,6-Tribromophenol (Surr)  
FBP = 2-Fluorobiphenyl (Surr)  
2FP = 2-Fluorophenol (Surr)  
NBZ = Nitrobenzene-d5 (Surr)  
TPHd14 = p-Terphenyl-d14 (Surr)  
PHL = Phenol-d5 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-49778-A-1-F MS	Matrix Spike	67	58	41	50	79	33
860-49823-1	HC WCID 92 Digester C	58	50	43	57	73	33
LB 860-104900/1-G	Method Blank	84	85	61	87	94	51

**Surrogate Legend**

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-49823-1

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (70-130)	TCX1 (70-130)
LCS 860-105332/2-A	Lab Control Sample	52 S1-	69 S1-
LCSD 860-105332/3-A	Lab Control Sample Dup	63 S1-	67 S1-
MB 860-105332/1-A	Method Blank	56 S1-	64 S1-
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCB1 (70-130)	TCX1 (70-130)
860-49823-1	HC WCID 92 Digester C	48 S1-	62 S1-
LB 860-104900/1-F	Method Blank	50 S1-	71
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
LCS 860-105229/2-A	Lab Control Sample	85	
LCSD 860-105229/3-A	Lab Control Sample Dup	97	
MB 860-105229/1-A	Method Blank	77	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

### Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (70-162)	
860-49823-1	HC WCID 92 Digester C	82	
LB 860-104900/1-E	Method Blank	85	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-105101/8

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
B34z343	ND		0.0010		mg/L			05/27/23 01:09	1
Carbon tetrachloride	ND		0.0050		mg/L			05/27/23 01:09	1
Chlorobenzene	ND		0.0010		mg/L			05/27/23 01:09	1
Chloroform	ND		0.0010		mg/L			05/27/23 01:09	1
1,2-Dichloroethane	ND		0.0010		mg/L			05/27/23 01:09	1
1,1-Dichloroethene	ND		0.0010		mg/L			05/27/23 01:09	1
2-Butanone	ND		0.050		mg/L			05/27/23 01:09	1
Tetrachloroethene	ND		0.0010		mg/L			05/27/23 01:09	1
Trichloroethene	ND		0.0050		mg/L			05/27/23 01:09	1
Vinyl chloride	ND		0.0020		mg/L			05/27/23 01:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		63 - 144		05/27/23 01:09	1
4-Bromofluorobenzene (Surr)	108		74 - 124		05/27/23 01:09	1
Dibromofluoromethane (Surr)	99		75 - 131		05/27/23 01:09	1
Toluene-d8 (Surr)	107		80 - 120		05/27/23 01:09	1

Lab Sample ID: LCS 860-105101/3

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0519		mg/L		104	75 - 125
Carbon tetrachloride	0.0500	0.0497		mg/L		99	70 - 130
Chlorobenzene	0.0500	0.0500		mg/L		100	65 - 135
Chloroform	0.0500	0.0497		mg/L		99	70 - 121
1,2-Dichloroethane	0.0500	0.0541		mg/L		108	72 - 130
1,1-Dichloroethene	0.0500	0.0457		mg/L		91	50 - 150
2-Butanone	0.250	0.231		mg/L		92	60 - 140
Tetrachloroethene	0.0500	0.0556		mg/L		111	71 - 125
Trichloroethene	0.0500	0.0520		mg/L		104	75 - 135
Vinyl chloride	0.0500	0.0365		mg/L		73	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		63 - 144
4-Bromofluorobenzene (Surr)	87		74 - 124
Dibromofluoromethane (Surr)	94		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 860-105101/4

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0517		mg/L		103	75 - 125	0	25
Carbon tetrachloride	0.0500	0.0506		mg/L		101	70 - 130	2	25
Chlorobenzene	0.0500	0.0507		mg/L		101	65 - 135	1	25
Chloroform	0.0500	0.0497		mg/L		99	70 - 121	0	25

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-105101/4

Matrix: Solid

Analysis Batch: 105101

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0529		mg/L		106	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0478		mg/L		96	50 - 150	5	25
2-Butanone	0.250	0.239		mg/L		96	60 - 140	4	25
Tetrachloroethene	0.0500	0.0569		mg/L		114	71 - 125	2	25
Trichloroethene	0.0500	0.0512		mg/L		102	75 - 135	2	25
Vinyl chloride	0.0500	0.0375		mg/L		75	60 - 140	3	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		63 - 144
4-Bromofluorobenzene (Surr)	86		74 - 124
Dibromofluoromethane (Surr)	92		75 - 131
Toluene-d8 (Surr)	100		80 - 120

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-105600/1-A

Matrix: Solid

Analysis Batch: 105501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105600

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
2-Methylphenol	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachlorobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachlorobutadiene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Hexachloroethane	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Nitrobenzene	ND		0.0050		mg/L		05/31/23 14:00	05/31/23 19:36	1
Pentachlorophenol	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1
Pyridine	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1
3 & 4 Methylphenol	ND		0.010		mg/L		05/31/23 14:00	05/31/23 19:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	77		31 - 132	05/31/23 14:00	05/31/23 19:36	1
2-Fluorobiphenyl (Surr)	80		29 - 112	05/31/23 14:00	05/31/23 19:36	1
2-Fluorophenol (Surr)	48		21 - 114	05/31/23 14:00	05/31/23 19:36	1
Nitrobenzene-d5 (Surr)	80		26 - 110	05/31/23 14:00	05/31/23 19:36	1
p-Terphenyl-d14 (Surr)	94		20 - 141	05/31/23 14:00	05/31/23 19:36	1
Phenol-d5 (Surr)	30		16 - 117	05/31/23 14:00	05/31/23 19:36	1

Lab Sample ID: LCS 860-105600/2-A

Matrix: Solid

Analysis Batch: 105501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105600

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0216		mg/L		54	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0306		mg/L		77	39 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-105600/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 105501				Prep Batch: 105600			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,6-Trichlorophenol	0.0400	0.0281		mg/L		70	42 - 125
2,4-Dinitrotoluene	0.0400	0.0345		mg/L		86	41 - 128
2-Methylphenol	0.0400	0.0209		mg/L		52	36 - 105
Hexachlorobenzene	0.0400	0.0308		mg/L		77	39 - 128
Hexachlorobutadiene	0.0400	0.0227		mg/L		57	31 - 120
Hexachloroethane	0.0400	0.0188		mg/L		47	37 - 109
Nitrobenzene	0.0400	0.0260		mg/L		65	37 - 114
Pentachlorophenol	0.0400	0.0292		mg/L		73	10 - 137
Pyridine	0.0400	0.00943	J	mg/L		24	5 - 130
3 & 4 Methylphenol	0.0400	0.0198		mg/L		49	35 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		31 - 132
2-Fluorobiphenyl (Surr)	69		29 - 112
2-Fluorophenol (Surr)	40		21 - 114
Nitrobenzene-d5 (Surr)	66		26 - 110
p-Terphenyl-d14 (Surr)	87		20 - 141
Phenol-d5 (Surr)	28		16 - 117

Lab Sample ID: LCSD 860-105600/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 105501

Prep Batch: 105600

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.0400	0.0253		mg/L		63	37 - 111	16	30
2,4,5-Trichlorophenol	0.0400	0.0319		mg/L		80	39 - 125	4	30
2,4,6-Trichlorophenol	0.0400	0.0313		mg/L		78	42 - 125	11	30
2,4-Dinitrotoluene	0.0400	0.0355		mg/L		89	41 - 128	3	30
2-Methylphenol	0.0400	0.0255		mg/L		64	36 - 105	20	30
Hexachlorobenzene	0.0400	0.0322		mg/L		80	39 - 128	4	30
Hexachlorobutadiene	0.0400	0.0246		mg/L		62	31 - 120	8	30
Hexachloroethane	0.0400	0.0233		mg/L		58	37 - 109	22	30
Nitrobenzene	0.0400	0.0274		mg/L		69	37 - 114	5	30
Pentachlorophenol	0.0400	0.0303		mg/L		76	10 - 137	4	40
Pyridine	0.0400	0.0111		mg/L		28	5 - 130	17	50
3 & 4 Methylphenol	0.0400	0.0234		mg/L		59	35 - 116	17	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	89		31 - 132
2-Fluorobiphenyl (Surr)	73		29 - 112
2-Fluorophenol (Surr)	49		21 - 114
Nitrobenzene-d5 (Surr)	69		26 - 110
p-Terphenyl-d14 (Surr)	87		20 - 141
Phenol-d5 (Surr)	36		16 - 117

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-104900/1-G						Client Sample ID: Method Blank			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 105311						Prep Batch: 105294			
Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4,6-Trichlorophenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2,4-Dinitrotoluene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
2-Methylphenol	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachlorobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachlorobutadiene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Hexachloroethane	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Nitrobenzene	ND		0.025		mg/L		05/30/23 11:48	05/30/23 15:51	1
Pentachlorophenol	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
Pyridine	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
3 & 4 Methylphenol	ND		0.050		mg/L		05/30/23 11:48	05/30/23 15:51	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	84		31 - 132				05/30/23 11:48	05/30/23 15:51	1
2-Fluorobiphenyl (Surr)	85		29 - 112				05/30/23 11:48	05/30/23 15:51	1
2-Fluorophenol (Surr)	61		21 - 114				05/30/23 11:48	05/30/23 15:51	1
Nitrobenzene-d5 (Surr)	87		26 - 110				05/30/23 11:48	05/30/23 15:51	1
p-Terphenyl-d14 (Surr)	94		20 - 141				05/30/23 11:48	05/30/23 15:51	1
Phenol-d5 (Surr)	51		16 - 117				05/30/23 11:48	05/30/23 15:51	1

Lab Sample ID: 860-49778-A-1-F MS						Client Sample ID: Matrix Spike			
Matrix: Solid						Prep Type: TCLP			
Analysis Batch: 105501						Prep Batch: 105600			
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		51	37 - 111
2,4,5-Trichlorophenol	ND		0.200	ND		mg/L		60	39 - 125
2,4,6-Trichlorophenol	ND		0.200	ND		mg/L		52	42 - 125
2,4-Dinitrotoluene	ND		0.200	ND		mg/L		63	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		45	36 - 105
Hexachlorobenzene	ND		0.200	0.145		mg/L		72	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		49	31 - 120
Hexachloroethane	ND		0.200	ND		mg/L		44	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		50	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		77	10 - 137
Pyridine	ND		0.200	ND		mg/L		31	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		48	35 - 116
Surrogate	MS %Recovery	MS Qualifier	Limits						
2,4,6-Tribromophenol (Surr)	67		31 - 132						
2-Fluorobiphenyl (Surr)	58		29 - 112						
2-Fluorophenol (Surr)	41		21 - 114						
Nitrobenzene-d5 (Surr)	50		26 - 110						
p-Terphenyl-d14 (Surr)	79		20 - 141						
Phenol-d5 (Surr)	33		16 - 117						

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-105332/1-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		05/30/23 10:34	05/30/23 13:36	1
Endrin	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Heptachlor	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Heptachlor epoxide	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
gamma-BHC (Lindane)	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Methoxychlor	ND		0.000052		mg/L		05/30/23 10:34	05/30/23 13:36	1
Toxaphene	ND		0.0010		mg/L		05/30/23 10:34	05/30/23 13:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	56	S1-	70 - 130	05/30/23 10:34	05/30/23 13:36	1
Tetrachloro-m-xylene	64	S1-	70 - 130	05/30/23 10:34	05/30/23 13:36	1

Lab Sample ID: MB 860-105332/1-A

Matrix: Solid

Analysis Batch: 105807

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105332

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.0010		mg/L		05/30/23 10:34	06/02/23 11:04	1

Lab Sample ID: LCS 860-105332/2-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105332

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00130	0.00118		mg/L		91	55 - 102
Heptachlor	0.00130	0.00124		mg/L		96	55 - 106
Heptachlor epoxide	0.00130	0.00123		mg/L		95	56 - 109
gamma-BHC (Lindane)	0.00130	0.00131		mg/L		101	59 - 107
Methoxychlor	0.00130	0.00110		mg/L		85	53 - 102

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	52	S1-	70 - 130
Tetrachloro-m-xylene	69	S1-	70 - 130

Lab Sample ID: LCSD 860-105332/3-A

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 105332

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Endrin	0.00129	0.00119		mg/L		92	55 - 102	1	25
Heptachlor	0.00129	0.00125		mg/L		96	55 - 106	0	25
Heptachlor epoxide	0.00129	0.00124		mg/L		96	56 - 109	1	25
gamma-BHC (Lindane)	0.00129	0.00132		mg/L		102	59 - 107	0	25
Methoxychlor	0.00129	0.00111		mg/L		86	53 - 102	1	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	63	S1-	70 - 130
Tetrachloro-m-xylene	67	S1-	70 - 130

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: LB 860-104900/1-F

Matrix: Solid

Analysis Batch: 105355

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105332

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 14:32	1
Endrin	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Heptachlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Heptachlor epoxide	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
gamma-BHC (Lindane)	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Methoxychlor	ND		0.000049		mg/L		05/30/23 10:34	05/30/23 14:32	1
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	05/30/23 14:32	1
Surrogate	LB %Recovery	LB Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	50	S1-	70 - 130				05/30/23 10:34	05/30/23 14:32	1
Tetrachloro-m-xylene	71		70 - 130				05/30/23 10:34	05/30/23 14:32	1

Lab Sample ID: LB 860-104900/1-F

Matrix: Solid

Analysis Batch: 105807

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 105332

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.00098		mg/L		05/30/23 10:34	06/02/23 11:38	1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-105229/1-A

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 105229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 13:34	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 13:34	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	77		70 - 162				05/28/23 17:53	05/31/23 13:34	1

Lab Sample ID: LCS 860-105229/2-A

Matrix: Solid

Analysis Batch: 105485

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 105229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00202	0.00173		mg/L		86	67 - 124
2,4,5-TP (Silvex)	0.00202	0.00185		mg/L		92	66 - 141
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	85		70 - 162				

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 860-105229/3-A  
Matrix: Solid  
Analysis Batch: 105485

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 105229

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	0.00202	0.00183		mg/L		91	67 - 124	6	25
2,4,5-TP (Silvex)	0.00202	0.00213		mg/L		105	66 - 141	14	25
Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits						
2,4-Dichlorophenylacetic acid	97		70 - 162						

Lab Sample ID: LB 860-104900/1-E  
Matrix: Solid  
Analysis Batch: 105485

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 105229

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 16:13	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		05/28/23 17:53	05/31/23 16:13	1
Surrogate	LB %Recovery	LB Qualifier	LB Limits						
2,4-Dichlorophenylacetic acid	85		70 - 162						
							Prepared	Analyzed	Dil Fac
							05/28/23 17:53	05/31/23 16:13	1

## Method: 6010B - Metals (ICP)

Lab Sample ID: MB 860-105040/1-A  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 105040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Antimony	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:02	1
Barium	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Cadmium	ND		0.0050		mg/L		05/26/23 10:00	05/26/23 17:02	1
Chromium	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Beryllium	ND		0.0040		mg/L		05/26/23 10:00	05/26/23 17:02	1
Lead	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1
Selenium	ND		0.030		mg/L		05/26/23 10:00	05/26/23 17:02	1
Silver	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:02	1
Nickel	ND		0.010		mg/L		05/26/23 10:00	05/26/23 17:02	1

Lab Sample ID: LCS 860-105040/2-A  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 105040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.937		mg/L		94	80 - 120
Antimony	1.00	0.935		mg/L		94	80 - 120
Barium	1.00	0.926		mg/L		93	80 - 120
Cadmium	1.00	0.947		mg/L		95	80 - 120
Chromium	1.00	0.959		mg/L		96	80 - 120
Beryllium	1.00	0.946		mg/L		95	80 - 120
Lead	1.00	0.946		mg/L		95	80 - 120
Selenium	1.00	0.947		mg/L		95	80 - 120

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-105040/2-A  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 105040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.500	0.469		mg/L		94	80 - 120
Nickel	1.00	0.947		mg/L		95	80 - 120

Lab Sample ID: LCSD 860-105040/3-A  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 105040

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	1.00	0.938		mg/L		94	80 - 120	0	20
Antimony	1.00	0.943		mg/L		94	80 - 120	1	20
Barium	1.00	0.931		mg/L		93	80 - 120	1	20
Cadmium	1.00	0.958		mg/L		96	80 - 120	1	20
Chromium	1.00	0.962		mg/L		96	80 - 120	0	20
Beryllium	1.00	0.954		mg/L		95	80 - 120	1	20
Lead	1.00	0.952		mg/L		95	80 - 120	1	20
Selenium	1.00	0.949		mg/L		95	80 - 120	0	20
Silver	0.500	0.472		mg/L		94	80 - 120	1	20
Nickel	1.00	0.951		mg/L		95	80 - 120	0	20

Lab Sample ID: LB 860-104900/1-C  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 105040

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Antimony	ND		0.10		mg/L		05/26/23 10:00	05/26/23 17:12	1
Barium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Cadmium	ND		0.025		mg/L		05/26/23 10:00	05/26/23 17:12	1
Chromium	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Beryllium	ND		0.020		mg/L		05/26/23 10:00	05/26/23 17:12	1
Lead	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1
Selenium	ND		0.15		mg/L		05/26/23 10:00	05/26/23 17:12	1
Silver	ND		0.10		mg/L		05/26/23 10:00	05/26/23 17:12	1
Nickel	ND		0.050		mg/L		05/26/23 10:00	05/26/23 17:12	1

Lab Sample ID: 830-3604-A-1-E MS  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		1.00	0.980		mg/L		98	75 - 125
Antimony	ND		1.00	0.925		mg/L		93	75 - 125
Barium	0.15		1.00	1.10		mg/L		95	75 - 125
Cadmium	ND		1.00	0.995		mg/L		100	75 - 125
Chromium	ND		1.00	1.01		mg/L		99	75 - 125
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125
Lead	ND		1.00	0.985		mg/L		99	75 - 125
Selenium	ND		1.00	1.03		mg/L		103	75 - 125
Silver	ND		0.500	0.483		mg/L		97	75 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 830-3604-A-1-E MS  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	ND		1.00	1.03		mg/L		101	75 - 125

Lab Sample ID: 830-3604-A-1-F MSD  
Matrix: Solid  
Analysis Batch: 105326

Client Sample ID: Matrix Spike Duplicate  
Prep Type: TCLP  
Prep Batch: 105040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		1.00	0.990		mg/L		99	75 - 125	1	20
Antimony	ND		1.00	0.925		mg/L		93	75 - 125	0	20
Barium	0.15		1.00	1.10		mg/L		95	75 - 125	0	20
Cadmium	ND		1.00	1.00		mg/L		100	75 - 125	1	20
Chromium	ND		1.00	1.02		mg/L		100	75 - 125	0	20
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125	0	20
Lead	ND		1.00	0.960		mg/L		96	75 - 125	3	20
Selenium	ND		1.00	1.03		mg/L		103	75 - 125	0	20
Silver	ND		0.500	0.483		mg/L		97	75 - 125	0	20
Nickel	ND		1.00	1.04		mg/L		101	75 - 125	0	20

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-105056/10-A  
Matrix: Solid  
Analysis Batch: 105153

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 105056

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 18:58	1

Lab Sample ID: LCS 860-105056/11-A  
Matrix: Solid  
Analysis Batch: 105153

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 105056

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00200	0.00202		mg/L		101	80 - 120

Lab Sample ID: LCSD 860-105056/12-A  
Matrix: Solid  
Analysis Batch: 105153

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 105056

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00200	0.00201		mg/L		101	80 - 120	0	20

Lab Sample ID: LB 860-104900/1-D  
Matrix: Solid  
Analysis Batch: 105153

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 105056

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/26/23 11:29	05/26/23 19:21	1



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 860-49821-A-1-E MS

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 105056

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00025		0.00200	0.00221		mg/L		98	75 - 125

Lab Sample ID: 860-49821-A-1-F MSD

Matrix: Solid

Analysis Batch: 105153

Client Sample ID: Matrix Spike Duplicate

Prep Type: TCLP

Prep Batch: 105056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.00025		0.00200	0.00224		mg/L		99	75 - 125	1	20



## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### GC/MS VOA

#### Leach Batch: 104913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	

#### Analysis Batch: 105101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8260C	104913
MB 860-105101/8	Method Blank	Total/NA	Solid	8260C	
LCS 860-105101/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 860-105101/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

### GC/MS Semi VOA

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-G	Method Blank	TCLP	Solid	1311	
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	1311	

#### Prep Batch: 105294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-G	Method Blank	TCLP	Solid	3510C	104900

#### Analysis Batch: 105311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-G	Method Blank	TCLP	Solid	8270D	105294

#### Analysis Batch: 105501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-105600/1-A	Method Blank	Total/NA	Solid	8270D	105600
LCS 860-105600/2-A	Lab Control Sample	Total/NA	Solid	8270D	105600
LCSD 860-105600/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	105600
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	8270D	105600

#### Prep Batch: 105600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3510C	104900
MB 860-105600/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 860-105600/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 860-105600/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
860-49778-A-1-F MS	Matrix Spike	TCLP	Solid	3510C	104900

#### Analysis Batch: 105851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8270D	105600

### GC Semi VOA

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	1311	
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-E	Method Blank	TCLP	Solid	1311	
LB 860-104900/1-F	Method Blank	TCLP	Solid	1311	

Eurofins Houston

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### GC Semi VOA

#### Prep Batch: 105229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3511	104900
LB 860-104900/1-E	Method Blank	TCLP	Solid	3511	104900
MB 860-105229/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-105229/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-105229/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

#### Prep Batch: 105332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3511	104900
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	3511	104900
LB 860-104900/1-F	Method Blank	TCLP	Solid	3511	104900
MB 860-105332/1-A	Method Blank	Total/NA	Solid	3511	
LCS 860-105332/2-A	Lab Control Sample	Total/NA	Solid	3511	
LCSD 860-105332/3-A	Lab Control Sample Dup	Total/NA	Solid	3511	

#### Analysis Batch: 105355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8081B	105332
LB 860-104900/1-F	Method Blank	TCLP	Solid	8081B	105332
MB 860-105332/1-A	Method Blank	Total/NA	Solid	8081B	105332
LCS 860-105332/2-A	Lab Control Sample	Total/NA	Solid	8081B	105332
LCSD 860-105332/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	105332

#### Analysis Batch: 105485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-104900/1-E	Method Blank	TCLP	Solid	8151A	105229
MB 860-105229/1-A	Method Blank	Total/NA	Solid	8151A	105229
LCS 860-105229/2-A	Lab Control Sample	Total/NA	Solid	8151A	105229
LCSD 860-105229/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	105229

#### Analysis Batch: 105707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	8151A	105229

#### Analysis Batch: 105807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1 - RA	HC WCID 92 Digester C	TCLP	Solid	8081B	105332
LB 860-104900/1-F	Method Blank	TCLP	Solid	8081B	105332
MB 860-105332/1-A	Method Blank	Total/NA	Solid	8081B	105332

### Metals

#### Leach Batch: 104900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	1311	
LB 860-104900/1-C	Method Blank	TCLP	Solid	1311	
LB 860-104900/1-D	Method Blank	TCLP	Solid	1311	
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	1311	
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	1311	
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	1311	
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	1311	

Eurofins Houston

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Metals

#### Prep Batch: 105040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	3010A	104900
LB 860-104900/1-C	Method Blank	TCLP	Solid	3010A	104900
MB 860-105040/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-105040/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-105040/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	3010A	104900
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	3010A	104900

#### Prep Batch: 105056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	7470A	104900
LB 860-104900/1-D	Method Blank	TCLP	Solid	7470A	104900
MB 860-105056/10-A	Method Blank	Total/NA	Solid	7470A	
LCS 860-105056/11-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 860-105056/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	7470A	104900
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	104900

#### Analysis Batch: 105153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	7470A	105056
LB 860-104900/1-D	Method Blank	TCLP	Solid	7470A	105056
MB 860-105056/10-A	Method Blank	Total/NA	Solid	7470A	105056
LCS 860-105056/11-A	Lab Control Sample	Total/NA	Solid	7470A	105056
LCSD 860-105056/12-A	Lab Control Sample Dup	Total/NA	Solid	7470A	105056
860-49821-A-1-E MS	Matrix Spike	TCLP	Solid	7470A	105056
860-49821-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	7470A	105056

#### Analysis Batch: 105326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-49823-1	HC WCID 92 Digester C	TCLP	Solid	6010B	105040
LB 860-104900/1-C	Method Blank	TCLP	Solid	6010B	105040
MB 860-105040/1-A	Method Blank	Total/NA	Solid	6010B	105040
LCS 860-105040/2-A	Lab Control Sample	Total/NA	Solid	6010B	105040
LCSD 860-105040/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	105040
830-3604-A-1-E MS	Matrix Spike	TCLP	Solid	6010B	105040
830-3604-A-1-F MSD	Matrix Spike Duplicate	TCLP	Solid	6010B	105040



# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Client Sample ID: HC WCID 92 Digester C

Lab Sample ID: 860-49823-1

Date Collected: 05/18/23 12:40

Matrix: Solid

Date Received: 05/23/23 10:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	104913	05/25/23 14:00	SYB	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	Completed: 105101	05/26/23 06:00		
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/27/23 02:51	NA	EET HOU
TCLP	Prep	3510C			200 mL	1.0 mL	Completed: 105600	05/25/23 12:30	EMC	EET HOU
TCLP	Analysis	8270D		5			105851	05/26/23 04:30	MPC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/31/23 14:00	PXS	EET HOU
TCLP	Prep	3511			51.1 mL	5 mL	Completed: 105332	06/01/23 19:32		
TCLP	Analysis	8081B		1			105355	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311	RA		1.0 g	1.0 mL	104900	05/26/23 04:30	TH	EET HOU
TCLP	Prep	3511	RA		51.1 mL	5 mL	Completed: 105332	05/30/23 10:34	BNW	EET HOU
TCLP	Analysis	8081B	RA	1			105807	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/26/23 04:30	TH	EET HOU
TCLP	Prep	3511			49.3 mL	4 mL	Completed: 105229	05/30/23 13:30	BNW	EET HOU
TCLP	Analysis	8151A		1			105707	05/25/23 12:30	EMC	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	Completed: 05/26/23 04:30		
TCLP	Prep	3010A			10 mL	50 mL	105040	05/28/23 17:53	JN	EET HOU
TCLP	Analysis	6010B		1			105326	05/26/23 10:00	MD	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	104900	05/26/23 18:31	JDM	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	105056	05/25/23 12:30	EMC	EET HOU
TCLP	Analysis	7470A		1			105153	Completed: 05/26/23 04:30		
								05/26/23 11:29	PB	EET HOU
								05/26/23 19:16	SHZ	EET HOU

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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



## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.

Project/Site: Harris County WCID 92

Job ID: 860-49823-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-23
Florida	NELAP	E871002	06-30-23
Louisiana	NELAP	03054	06-30-23
Louisiana (All)	NELAP	03054	06-30-23
Oklahoma	State	1306	08-31-23
Texas	NELAP	T104704215-23-50	06-30-23
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010B	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Harris County WCID 92

Job ID: 860-49823-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-49823-1	HC WCID 92 Digester C	Solid	05/18/23 12:40	05/23/23 10:16



P O. Box 1089 Coldspring, Texas 77331  
Website eastexlabs.com  
Email. eastexlab@eastex.net  
Tel. 936 653 3249



## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331  
Phone 936-653-3249  
Fax 936-653-3172

### Subcontracted Laboratory:

Eurofins Xenco LLC  
4147 Greenbriar Dr.  
Stafford, TX 77477  
Phone 713-690-4444  
Fax. 713-690-5646

*BB 5/18/23*

**PO 052323E**

### PROJECT NAME.

Harris County WCID 92

### Turnaround

**10 DAYS**

### Matrix

**Waste**

Containers	Date	Time	EEL Sample ID	Sample Type	Sample No.	Analysis to be Performed
3	5/18/23	12.40 pm	HC WCID 92 Digester	c Grab	C3D5831-01	TCLP SUBCONTRACT

### Special Instructions:

FULL TCLP REPORT

☐ See Attached



860-49823 Chain of Custody

Temp: 4.4 IR ID: HOU-343  
C/F -0.4  
Corrected Temp: 4.0

Received Iced Y/N Temp \_\_\_\_\_

*[Signature]*  
Released By

5/23/2023  
Date & Time

1014  
Received By

5/23/23 1016  
Date & Time



## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-49823-1

Login Number: 49823

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	

White Copy-Follows Samples  
Yellow Copy-Laboratory  
Pink Copy-Client Copy

REPORT TO:

INVOICE TO:

www.eastexlabs.com

Company: WDBM

Address: 00 hte

Attn: 00 hte

Phone#: 00 hte

Email: 00 hte

P.O. #: 00 hte

Company: WDBM

Address: SAME

Attn: 00 hte

Phone#: 00 hte

Remarks:

ANALYSIS REQUESTED

Project Name: HEAVY METALS

Preservatives: C=Chilled S=Sulfuric Acid N=Nitric Acid B=Base/Caustic Z=Zn Acetate

Sampler's Signature: [Signature]

Project Name: HEAVY METALS

Sampler's Name (print): JAVIS FRENZEL

Container Size: 1=1 Gallon 2=1/2 Gallon 3=Quart/Liter 4=500ml 5=250ml 6=125ml (4oz) 7=60ml (2 oz) 8=40ml Vial 9=Other

Matrix: DW=Drinking Water WW=Wastewater SO=Soil/Sludge OT=Other

Type: P=Plastic G=Glass T=Teflon S=Stainless

Work Order ID: 0305831

Sample ID: 0305831

Date: 5/18/23

Time: 1240

Matrix: WW

C or G: G

DO: 11.0

pH: 6.5

CI2: 1.5

Flow: 1.5

Temp: 15

#: 4

Size: 3

Type: PCB

Pres: ✓

Received By: [Signature]

Date: 5/18/23

Time: 1240

Received Iced: YES / NO

Date: 5/18/23

Time: 1822

Relinquished By: [Signature]

Date: 5/18/23

Time: 1240

Relinquished By: [Signature]

Date: 5/18/23

Time: 1240

Relinquished By: [Signature]

Date: 5/18/23

Time: 1240

LAB USE ONLY

Sample Condition Acceptable: YES / NO

Date: 5/18/23

Time: 1240

Received By: [Signature]

Date: 5/18/23

Time: 1240

Received Iced: YES / NO

Date: 5/18/23

Time: 1822

Alternate Check In: [Signature]

Date: 5/18/23

Time: 1240

Received By: [Signature]

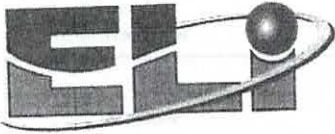
Date: 5/18/23

Time: 1240

Received Iced: YES / NO

Date: 5/18/23

Time: 1822



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

28 August 2023

Si Environmental, LLC  
Chris Manthei  
6420 Reading Road  
Rosenberg, TX 77471

### Pecan Grove MUD WWTP

Enclosed are the results of analyses for samples received by the laboratory on 22-Jun-23 15:10. 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 7

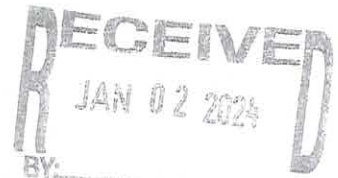
Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

Laura Bonjonia For Sarah Chaplain  
Client Services Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ & Solid



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Digester	23F2402-01	Solids	22-Jun-23 12:35	22-Jun-23 15:10

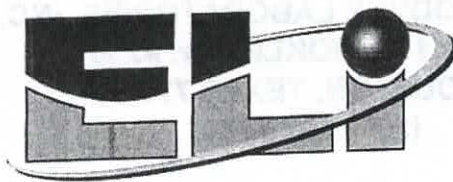
L - Sample analyzed by TNI certified lab: T104704215-22-47

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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.





# ENVIRODYNE LABORATORIES, INC.

CLIENT: **PECAN GROVE WWTP**  
 (Si Environmental)  
 DATE COLLECTED: 22-Jun-23  
 DATE COMPLETED: 28-Jul-23  
 DATE ANALYZED: 28-Jul-23

LAB NUMBER: 23F2402A  
 DATE RECEIVED: 22-Jun-23  
 SAMPLED BY: Si

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION:	CAKE @ 1235	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	Ceiling	
PARAMETERS:			(mg/kg)	(mg/kg)	
pH (UNITS)	6.20	9045	> 6.00		
TOT.NITROGEN-N * (%)	0.48	Calc	N.A.		0.01
TKN-N * (%)	0.25	EPA 351.2	N.A.		0.01
NO3-N * (%)	0.20	SM 4500-NO3 E	N.A.		0.01
NH3-N * (%)	0.01	SM 4500-NH3 F	N.A.		0.01
NH4-N * (%)	0.01	Calc	N.A.		0.01
TOTAL PHOSPHORUS * (%)	2.80	SM 4500-P E	N.A.		0.01
PHOSPHORUS PENTOXIDE * (%)	2.10	Calc	N.A.		0.01
POTASSIUM * (%)	0.16	6010B	N.A.		0.002
ARSENIC * (mg/kg)	2.39	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	0.42	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	193.78	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	3.00	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	7.28	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	7.46	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	13.02	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.02	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<0.25	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	347.34	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	13.50	SM 2540 B	N.A.		
VOLATILE SOLIDS (%)	9.12		N.A.		
Org.CONC. (%)	67.6		N.A.		

Ref. SW-846  
 \*EPA CHEMICAL ANALYSIS

Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

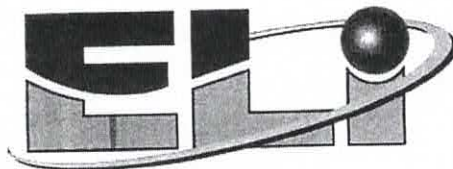
CERTIFICATE OF ANALYSIS

CLIENT: <b>PECAN GROVE WWTP</b> (Si Environmental)	LAB NUMBER: 23F2402B
DATE COLLECTED: 22-Jun-23	DATE RECEIVED: 22-Jun-23
DATE COMPLETED: 28-Jul-23	SAMPLED BY: Si
SAMPLE TYPE: <b>Processes to Significantly Reduce Pathogens (PSRP)</b>	
LOCATION:	CAKE @ 1235
PARAMETERS:	LIMITS
Microbial Populations	
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	4,030 2,000,000 CFU/g/TS
Vector Attraction Pontential	
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.24 1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics	
Total Solids (%)	13.50 N/A
Volatile Solids (%)	9.12 N/A
Organic Conc. (%)	67.6
Soil pH - Measured in Water (Units)	6.20 > 5.50
Sample Temp. (C/F)	N/A 20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A N/A
Test Temp. - Start / Stop (C)	22/22 (+/- 1C) - Var.

SOUR diluted to TS <2.0%

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH

  
CERTIFIED BY



# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: **PECAN GROVE MUD WWTP**  
(Si Environmental)

LAB NUMBER: 23F2402C

DATE COLLECTED: 22-Jun-23

DATE RECEIVED: 22-Jun-23

DATE COMPLETED: 28-Jun-23

SAMPLED BY: Si

Toxicity Characteristic Leaching Procedure

EXTRACTION DATE: 27-Jun-23

TESTING DATE: 28-Jun-23

SAMPLE TYPE:

LOCATION:

PARAMETERS:

SW 846 1311 EPA 6010B

ANTIIMONY (mg/l)

<0.10

5.0

ARSENIC (mg/l)

<0.05

100.0

BARIUM (mg/l)

0.40

0.080

BERYLLIUM (mg/l)

<0.02

1.0

CADMIUM (mg/l)

<0.025

5.0

CHROMIUM (mg/l)

<0.05

5.0

LEAD (mg/l)

<0.05

70.0

NICKEL (mg/l)

<0.150

1.0

SELENIUM (mg/l)

<0.100

5.0

SILVER (mg/l)

SW 846 1311 EPA 7470

MERCURY (mg/l)

<0.002

0.2

SW 846 1311 EPA 8260

BENZENE (mg/l)

<0.05

0.5

CARBON TETRACHLORIDE (mg/l)

<0.25

0.5

CHLOROBENZENE (mg/l)

<0.05

100.0

CHLOROFORM (mg/l)

<0.05

6.0

METHYL ETHYL KETONE (mg/l)

<2.50

200.0

1,2-DICHLOROETHANE (mg/l)

<0.05

0.5

1,1-DICHLOROETHENE (mg/l)

<0.05

0.7

TETRACHLOROETHENE (mg/l)

<0.05

0.7

TRICHLOROETHENE (mg/l)

<0.250

0.5

VINYL CHLORIDE (mg/l)

<0.10

0.2

SW 846 1311 EPA 8270

Total Cresol (mg/l)

<0.250

200.0

1,4-DICHLOROBENZENE (mg/l)

<0.0250

7.5

2,4-DINITROTOLUENE (mg/l)

<0.0250

0.13

HEXACHLOROBENZENE (mg/l)

<0.0250

0.13

HEXACHLOROBUTADIENE (mg/l)

<0.0250

0.5

HEXACHLOROETHANE (mg/l)

<0.0250

3.0

NITROBENZENE (mg/l)

<0.0250

2.0

PENTACHLOROPHENOL (mg/l)

<0.0250

100.0

2,4,5-TRICHLOROPHENOL (mg/l)

<0.0250

400.0

2,4,6-TRICHLOROPHENOL (mg/l)

<0.0250

2.0

PYRIDINE (mg/l)

<0.0500

5.0

2-Methylphenol (mg/l)

<0.0500

200.0

3,5,4-Methylphenol (mg/l)

<0.0500

200.0

SW 846 1311 EPA 8081

CHLORDANE (mg/l)

<0.00105

0.03

ENDRIN (mg/l)

<0.00005

0.02

HEPTACHLOR (mg/l)

<0.00005

0.008

HEPTACHLOR EPOXIDE (mg/l)

<0.00005

0.008

LINDANE (mg/l)

<0.00005

0.4

METHOXYCHLOR (mg/l)

<0.00005

10.0

TOXAPHENE (mg/l)

<0.00105

0.5

PCBs (mg/l)

<0.01

SW 846 1311 EPA 8150

2,4-D (mg/l)

<0.000201

10.0

2,4,5-TP (Silvex) (mg/l)

<0.000201

1.0

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

Microbiology - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3G3558 - Microbiology</b>										
<b>Blank (B3G3558-BLK1)</b>					Prepared & Analyzed: 28-Jun-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g							
<b>Duplicate (B3G3558-DUP1)</b>					Source: 23F2402-01 Prepared & Analyzed: 28-Jun-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g		4030				200	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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Laura Bonjonia For Sarah Chaplain, Client Services Representative

Page 5 of 7





Envirodyne Laboratories, Inc  
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Houston, TX 77099  
281.568.7880 Phone  
www.envirodyne.com

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3F5660 - Inorganics</b>										
<b>Duplicate (B3F5660-DUP1)</b>		<b>Source: 23F2233-05</b>			<b>Prepared &amp; Analyzed: 28-Jun-23</b>					
Total Solids	0.910	0.01	%		0.910			0.00	20	
Volatile Solids	0.660	0.01	"		0.650			1.53	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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Envirodyne Laboratories, Inc  
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281.568.7880 Phone  
www.envirodyne.com

Client: Si Environmental, LLC  
Project: Pecan Grove MUD WWTP  
Work Order: 23F2402

Reported:  
28-Aug-23 10:50

### Notes and Definitions

H Hold time exceeded  
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

Envirodyne Laboratories, Inc.

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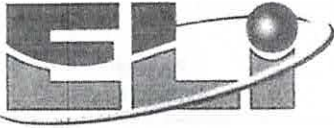
Laura Bonjonia For Sarah Chaplain, Client Services Representative

Page 7 of 7









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

30 October 2023

Si Environmental, LLC  
Mike Thornhill  
6420 Reading Road  
Rosenberg, TX 77471

### Rosenberg #1A - WWTP

Enclosed are the results of analyses for samples received by the laboratory on 26-Jul-23 08:25. 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 10

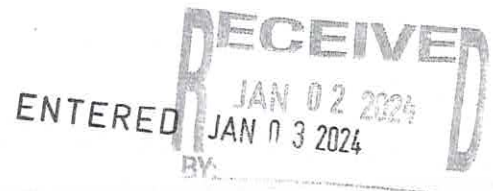
Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

Laura Bonjonia For Sarah Chaplain  
Client Services Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ Ph



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Digester	23G2876-01	Solids	25-Jul-23 06:25	26-Jul-23 08:25

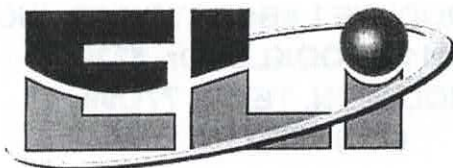
L - Sample analyzed by TNI certified lab: T104704215-22-47

Envirodyne Laboratories, Inc.

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Laura Bonjonia For Sarah Chaplain, Client Services Representative

Page 2 of 10



# ENVIRODYNE LABORATORIES, INC.

CLIENT: ROSENBERG #1  
(Si Environmental)  
DATE COLLECTED: 25-Jul-23  
DATE COMPLETED: 28-Aug-23  
DATE ANALYZED: 28-Aug-23

LAB NUMBER: 23G2876A  
DATE RECEIVED: 25-Jul-23  
SAMPLED BY: GM

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION: PARAMETERS:	DIGESTER @ 0625	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	/ Ceiling (mg/kg)	
pH (UNITS)	6.48	9045	> 6.00		
TOT.NITROGEN-N * (%)	0.18	Calc	N.A.		0.01
TKN-N * (%)	0.10	EPA 351.2	N.A.		0.01
NO3-N * (%)	0.01	SM 4500-NO3 E	N.A.		0.01
NH3-N * (%)	0.01	SM 4500-NH3 F	N.A.		0.01
NH4-N * (%)	0.01	Calc	N.A.		0.01
TOTAL PHOSPHORUS* (%)	0.08	SM 4500-P E	N.A.		0.01
PHOSPHORUS PENTOXIDE * (%)	0.06	Calc	N.A.		0.01
POTASSIUM * (%)	0.46	6010B	N.A.		0.002
ARSENIC * (mg/kg)	<0.25	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	<0.25	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	303.00	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	<0.25	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	<0.25	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	34.90	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	24.60	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.02	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<0.25	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	846.00	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	1.20	SM 2540 B	N.A.		
VOLATILE SOLIDS (%)	0.83		N.A.		
Org.CONC. (%)	69.2		N.A.		

Ref. SW-846

\*EPA CHEMICAL ANALYSIS

Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

CERTIFICATE OF ANALYSIS

CLIENT: **ROSENBERG #1** LAB NUMBER: 23G2876B  
(Si Environmental)  
DATE COLLECTED: 25-Jul-23 DATE RECEIVED: 25-Jul-23  
DATE COMPLETED: 28-Aug-23 SAMPLED BY: GM

SAMPLE TYPE: **Processes to Significantly Reduce Pathogens (PSRP)**

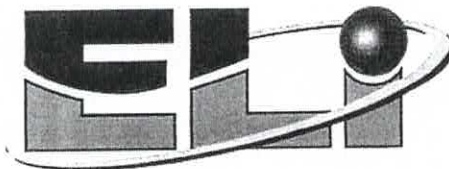
LOCATION:	DIGESTER	LIMITS
PARAMETERS:	@ 0625	
Microbial Populations		
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	131,000	2,000,000 CFU/g/TS
Vector Attraction Pontential		
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.50	1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics		
Total Solids (%)	1.20	N/A
Volatile Solids (%)	0.83	N/A
Organic Conc. (%)	69.2	
Soil pH - Measured in Water (Units)	6.48	> 5.50
Sample Temp. (C/F)	N/A	20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A	N/A
Test Temp. - Start / Stop (C)	22/22	(+/- 1C) - Var.

SOUR diluted to TS <2.0%

  
CERTIFIED BY

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH





# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: **ROSENBERG #1** LAB NUMBER: 23G2876C  
(Si Environmental)

DATE COLLECTED: 25-Jul-23 DATE RECEIVED: 25-Jul-23

DATE COMPLETED: 28-Aug-23 SAMPLED BY: GM

Toxicity Characteristic Leaching Procedure

EXTRACTION DATE: 28-Jul-23

TESTING DATE: 28-Aug-23

SAMPLE TYPE: T.C.L.P. MAXIMUM LIMIT (mg/l)

LOCATION: DIGESTER @ 0625

PARAMETERS:

SW 846 1311 EPA 6010B		
ANTIMONY (mg/l)	<0.10	
ARSENIC (mg/l)	<0.05	5.0
BARIUM (mg/l)	0.51	100.0
BERYLLIUM (mg/l)	<0.02	0.080
CADMIUM (mg/l)	<0.025	1.0
CHROMIUM (mg/l)	<0.05	5.0
LEAD (mg/l)	<0.05	5.0
NICKEL (mg/l)	<0.05	70.0
SELENIUM (mg/l)	<0.150	1.0
SILVER (mg/l)	<0.100	5.0
SW 846 1311 EPA 7470		
MERCURY (mg/l)	<0.002	0.2
SW 846 1311 EPA 8260		
BENZENE (mg/l)	<0.05	0.5
CARBON TETRACHLORIDE (mg/l)	<0.25	0.5
CHLOROBENZENE (mg/l)	<0.05	100.0
CHLOROFORM (mg/l)	<0.05	6.0
METHYL ETHYL KETONE (mg/l)	<2.50	200.0
1,2-DICHLOROETHANE (mg/l)	<0.05	0.5
1,1-DICHLOROETHENE (mg/l)	<0.05	0.7
TETRACHLOROETHENE (mg/l)	<0.05	0.7
TRICHLOROETHENE (mg/l)	<0.250	0.5
VINYL CHLORIDE (mg/l)	<0.10	0.2
SW 846 1311 EPA 8270		
Total Cresol (mg/l)	<0.250	200.0
1,4-DICHLOROBENZENE (mg/l)	<0.125	7.5
2,4-DINITROTOLUENE (mg/l)	<0.125	0.13
HEXACHLOROBENZENE (mg/l)	<0.125	0.13
HEXACHLOROBUTADIENE (mg/l)	<0.125	0.5
HEXACHLOROETHANE (mg/l)	<0.125	3.0
NITROBENZENE (mg/l)	<0.125	2.0
PENTACHLOROPHENOL (mg/l)	<0.250	100.0
2,4,5-TRICHLOROPHENOL (mg/l)	<0.125	400.0
2,4,6-TRICHLOROPHENOL (mg/l)	<0.125	2.0
PYRIDINE (mg/l)	<0.250	5.0
2-Methylphenol (mg/l)	<0.250	200.0
3&4 Methylphenol (mg/l)	<0.250	200.0
SW 846 1311 EPA 8081		
CHLORDANE (mg/l)	<0.00102	0.03
ENDRIN (mg/l)	<0.00005	0.02
HEPTACHLOR (mg/l)	<0.00005	0.008
HEPTACHLOR EPOXIDE (mg/l)	<0.00005	0.008
LINDANE (mg/l)	<0.00005	0.4
METHOXYCHLOR (mg/l)	<0.00005	10.0
TOXAPHENE (mg/l)	<0.00102	0.5
PCBs (mg/l)	<0.01	
SW 846 1311 EPA 8150		
2,4-D (mg/l)	<0.000201	10.0
2,4,5-TP (Silvex) (mg/l)	<0.000201	1.0

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWT (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

Microbiology - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B3G5744 - Microbiology										
Blank (B3G5744-BLK1)					Prepared & Analyzed: 26-Jul-23					
Fecal Coliform (geomean of 7)	<1	1	CFU/g							
Duplicate (B3G5744-DUP1)					Prepared & Analyzed: 26-Jul-23					
Fecal Coliform (geomean of 7)	<1000	1000	CFU/g		13100000				200	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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Houston, TX 77099  
281.568.7880 Phone  
www.envirodyne.com

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### Wet Chemistry - Quality Control

### Envirodyne Laboratories, Inc.

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

#### Batch B3H3846 - Inorganics

#### Duplicate (B3H3846-DUP1)

Source: 23G2653-01

Prepared & Analyzed: 09-Aug-23

Total Solids	0.740	0.01	%		0.760			2.67	20	H
Volatile Solids	0.330	0.01	"		0.330			0.00	20	H

Envirodyne Laboratories, Inc.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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www.envirodyne.com

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### Total Metals by ICP - Quality Control

#### Envirodyne Laboratories, Inc.

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

#### Batch B3H6110 - Metals - EPA 3050B

##### Blank (B3H6110-BL.K1)

Prepared: 23-Aug-23 Analyzed: 28-Aug-23

Cadmium	<0.50	0.50	mg/kg
Chromium	<0.5	0.5	"
Lead	<0.50	0.50	"
Selenium	<0.50	0.50	"
Arsenic	<0.50	0.50	"
Zinc	<0.5	0.5	"
Copper	<0.5	0.5	"
Molybdenum	<500	500	"
Nickel	<0.5	0.5	"
Potassium	<0.02	0.02	%

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

*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.*





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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

### TCLP Extraction by EPA 1311 - Quality Control

#### Envirodyne Laboratories, Inc.

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

#### Batch B3H5541 - Metals - TCLP EPA 1311

##### Blank (B3H5541-BLK1)

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Chromium	<0.01	0.01	mg/L
Copper	<0.01	0.01	"
Nickel	<0.01	0.01	"
Arsenic	<0.01	0.01	"
Lead	<0.01	0.01	"
Silver	<0.01	0.01	"
Selenium	<0.01	0.01	"
Barium	<0.01	0.01	"
Cadmium	<0.01	0.01	"
Beryllium	<0.01	0.01	"
Antimony	<0.01	0.01	"

##### LCS (B3H5541-BS1)

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Arsenic	0.263		mg/L	0.250	105	85-115
Nickel	0.228		"	0.250	91.2	85-115
Chromium	0.240		"	0.250	96.0	85-115
Silver	0.220		"	0.250	88.0	85-115
Copper	0.251		"	0.250	100	85-115
Lead	0.232		"	0.250	92.8	85-115
Selenium	0.268		"	0.250	107	85-115
Barium	0.253		"	0.250	101	85-115
Antimony	0.262		"	0.250	105	85-115
Beryllium	0.244		"	0.250	97.6	85-115

##### Matrix Spike (B3H5541-MS1)

Source: 23G2653-01

Prepared: 23-Aug-23 Analyzed: 25-Aug-23

Silver	0.0991	0.01	mg/L	0.125	0.00314	76.8	80-120	Q
Selenium	0.115	0.01	"	0.125	0.00613	87.3	80-120	
Nickel	0.102	0.01	"	0.125	0.00214	80.0	80-120	
Copper	0.191	0.01	"	0.125	0.0160	140	80-120	Q
Lead	0.102	0.01	"	0.125	0.0154	69.1	80-120	Q
Arsenic	0.106	0.01	"	0.125	ND	84.8	80-120	
Chromium	0.104	0.01	"	0.125	ND	83.2	80-120	
Barium	0.215	0.01	"	0.125	0.0456	135	80-120	Q

Envirodyne Laboratories, Inc.

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*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative



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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

**TCLP Extraction by EPA 1311 - Quality Control**  
**Envirodyne Laboratories, Inc.**

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

**Batch B3H5541 - Metals - TCLP EPA 1311**

**Matrix Spike (B3H5541-MS1)**

**Source: 23G2653-01**

**Prepared: 23-Aug-23 Analyzed: 25-Aug-23**

Beryllium	0.106	0.01	mg/L	0.125	0.000158	85.0	80-120			
Antimony	0.116	0.01	"	0.125	0.00888	85.4	80-120			

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Sarah Chaplain, Client Services Representative

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

Client: Si Environmental, LLC  
Project: Rosenberg #1A - WWTP (Permit Renewal)  
Work Order: 23G2876

Reported:  
30-Oct-23 21:21

#### Notes and Definitions

Q QC did not meet ELI acceptance criteria  
H Hold time exceeded  
< < 0.25  
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

Envirodyne Laboratories, Inc.

A handwritten signature in cursive script, reading 'Laura Bonjonia', is written over a horizontal line.

Laura Bonjonia For Sarah Chaplain, Client Services Representative

*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.*

FLOW  
Methyl Redding  
Cl<sub>2</sub> Residual  
Mn Chloride  
Cl Corrected





# Chaparral Laboratories, Inc.



861 State Hwy 19 P.O. Box 1622 Huntsville, TX 77342-1622 www.chaparrallabs.com Phone: 936-291-1881 Fax: 936-295-1731

## Certificate of Analysis

City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

## Analytical Results

Collection Point: Digester

Date/Time Collected: 09/14/2023 10:30

Sample Type: Grab

Collector: JAS

Parameter	Result	Units	Date/Time	Analyst	Bottle	Method	QC ID	Acrid
Ammonia Nitrogen	1032	mg/kg	09/28/2023 10:15	JCG	-01	EPA 350.2	QC2310195	NELAP
Arsenic	5.0	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310124	NELAP
Cadmium	<2.5	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310126	NELAP
Chromium	34.0	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310127	NELAP
Copper	308.5	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310128	NELAP
Lead	37.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310134	NELAP
Mercury	1.52	mg/kg	09/19/2023 10:26	MHE	-01	EPA 7471 A	QC2309263	NELAP
Molybdenum	6.1	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310131	NELAP
Nickel	16.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310132	NELAP
Phosphorus	10068	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310133	NELAP
Potassium	1391	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310129	NELAP
Selenium	8.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310135	NELAP
Total Kjeldahl Nitrogen	16702	mg/kg	09/28/2023 09:41	JCG	-01	SM 4500-NH3 C	QC2310205	
Total Solids	20.7	%	09/15/2023 13:01	DKH	-01	SM 2540 G	QC2309374	NELAP
Zinc	6737.4	mg/kg	10/04/2023 07:51	RS	-01	EPA 6010 C	QC2310136	NELAP
7 Pt Fecal Geometric Mean	525491	CFU/g/TS	09/15/2023 15:54	MHE	-02	Calculation	QC2309435	
Fecal Coliform	671494	CFU/g/TS	09/14/2023 15:40	JCG	-02	SM 9222 D	QC2309434	NELAP
Fecal Coliform	190832	CFU/g/TS	09/14/2023 15:40	JCG	-03	SM 9222 D	QC2309434	NELAP
Fecal Coliform	570469	CFU/g/TS	09/14/2023 15:40	JCG	-04	SM 9222 D	QC2309434	NELAP
Fecal Coliform	955671	CFU/g/TS	09/14/2023 15:40	JCG	-05	SM 9222 D	QC2309434	NELAP
Fecal Coliform	287726	CFU/g/TS	09/14/2023 15:40	JCG	-06	SM 9222 D	QC2309434	NELAP
Fecal Coliform	574995	CFU/g/TS	09/14/2023 15:40	JCG	-07	SM 9222 D	QC2309434	NELAP
Fecal Coliform	957376	CFU/g/TS	09/14/2023 15:40	JCG	-08	SM 9222 D	QC2309434	NELAP
Nitrate Nitrogen	151.0	mg/kg	09/25/2023 19:48	SA	-09	EPA 9056	QC2310232	NELAP
TCLP	See SPL Report			SA	-09	N/A	QC2310221	NELAP
PCB	See SPL Report			SA	-10	N/A	QC2310222	NELAP
Oxygen Uptake Rate	<0.1	mg/g/h	09/15/2023 09:04	JFL	-11		QC2309451	

ENTERED NOV 21 2023

Wednesday, October 11, 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ F/S ☒ & Solid



# Chaparral Laboratories, Inc.



861 State Hwy 19 P.O. Box 1622 Huntsville, TX 77342-1622 www.chaparrallabs.com Phone: 936-291-1881 Fax: 936-295-1731

## Certificate of Analysis

City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

### Quality Control

QC ID	Param	QC Type	Result	Units	Flag
QC2309263	Mercury	Duplicate %RPD	19.9	%	
		LCS	100.2	%	
		Method Blank	<0.040	mg/kg	
		MS %R	105	%	
		MSD %R	105	%	
QC2309374	Total Solids	Duplicate %RPD	0	%	
		LCS	102.3	%	
		Method Blank	<0.0005	%	
QC2309434	Fecal Coliform	Duplicate %RPD	33.6	%	
		Method Blank	<1.0	CFU/g/TS	
QC2309451	Oxygen Uptake Rate	Duplicate %RPD	0	%	
		Method Blank	<0.1	mg/g/h	
QC2310124	Arsenic	Duplicate %RPD	0.9	%	
		LCS	94.1	%	
		Method Blank	<2.5	mg/kg	
		MS %R	99.7	%	
QC2310126	Cadmium	Duplicate %RPD	0	%	
		LCS	86.3	%	
		Method Blank	<2.5	mg/kg	
		MS %R	101.2	%	



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Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

QC2310127 Chromium

Duplicate %RPD	0	%
LCS	97.7	%
Method Blank	<2.5	mg/kg
MS %R	100.7	%

QC2310128 Copper

Duplicate %RPD	24.6	%
LCS	94.1	%
Method Blank	<2.5	mg/kg
MS %R	113.1	%

QC2310129 Potassium

Duplicate %RPD	0.2	%
LCS	103.4	%
Method Blank	<250	mg/kg
MS %R	106	%

QC2310131 Molybdenum

Duplicate %RPD	0	%
LCS	88.5	%
Method Blank	<5.0	mg/kg
MS %R	100.6	%

QC2310132 Nickel

Duplicate %RPD	0	%
LCS	91.5	%
Method Blank	<2.5	mg/kg
MS %R	103.5	%

QC2310133 Phosphorus

Duplicate %RPD	0	%
Method Blank	<50	mg/kg
MS %R	117	%



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City of Sealy  
Attn: Travis Cochran  
P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

QC2310134 Lead

Duplicate %RPD	2.4	%
LCS	100.8	%
Method Blank	<2.5	mg/kg
MS %R	102.4	%

QC2310135 Selenium

Duplicate %RPD	0	%
LCS	86.9	%
Method Blank	<2.5	mg/kg
MS %R	94.9	%

QC2310136 Zinc

Duplicate %RPD	0.2	%
LCS	93.7	%
Method Blank	<2.5	mg/kg
MS %R	106.8	%

QC2310195 Ammonia Nitrogen

Duplicate %RPD	0.1	%
LCS	89.9	%
Method Blank	<22.0	mg/kg
MS %R	95.2	%
MSD %R	95.2	%

QC2310205 Total Kjeldahl Nitrogen

Duplicate %RPD	2	%
LCS	95.2	%
Method Blank	<11.0	mg/kg
MS %R	117.9	%
MSD %R	104.7	%





# Chaparral Laboratories, Inc.



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## Certificate of Analysis

City of Sealy  
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P.O. Box 517  
Sealy, TX 77474

Customer ID: CSEALY  
Sample ID: 23090412  
Date Received: 09/14/2023  
Date Reported: 10/11/2023

Project: City of Sealy WWTP  
Location: Austin County, TX

### Notes:

Initials of SA = Subcontract Analysis sent to SPL for testing.

*The analytical results in this Certificate of Analysis relate only to the samples tested. This Certificate of Analysis, with its corresponding Chain of Custody, completes the data package. This data package may not be reproduced, except in full, without the written approval of Chaparral Laboratories, Inc. Chaparral Laboratories, Inc. NELAP accredited certification # T104704204. (<) = Result was below quantitation limits. (>) = Result was above quantitation limits. Samples analyzed for Oxygen Uptake Rate are diluted to <2% total solids for analysis. Results reported as mg/kg, %, or CFU/g/TS are calculated on a dry weight basis, unless otherwise noted. Precision Criteria for Fecal Coliform, Escherichia coli and Enterococci analyses are calculated according to SM 9020 B 8.5.b. Acceptable = meets Precision Criteria; Unacceptable = does not meet Precision Criteria.*

*\*Note 1: Laboratory Approval by TCEQ*

Approved by David H. Veinotte  
Laboratory Director



## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
**1076460**

Printed 10/11/2023 10:22

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1076460_r10_05_ProjectQC	SPL Kilgore Project P:1076460 C:CLDV Project Quality Control Groups	13
Total Pages:		19

Email: Kilgore.projectmanager@spl-inc.com



Report Page 1 of 20



CLDV-G

Page 1 of 6

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
**1076460**

Printed: 10/11/2023

Ign remove

## RESULTS

### Sample Results

**2238598 23090412 SEALY**

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report#2232400

EPA 6020A

Prepared: 1082717 09/21/2023 13:00:00 Analyzed 1082980 09/22/2023 16:05:00 HLT

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Arsenic	<0.050	mg/L	0.050		7440-38-2	08
NELAC	TCLP Barium	0.268	mg/L	0.050		7440-39-3	08
NELAC	TCLP Cadmium	<0.005	mg/L	0.005		7440-43-9	08
NELAC	TCLP Chromium	<0.050	mg/L	0.050		7440-47-3	08
NELAC	TCLP Lead	<0.050	mg/L	0.050		7439-92-1	08
NELAC	TCLP Selenium	<0.050	mg/L	0.050	B	7782-49-2	08

EPA 6020A

Prepared: 1082717 09/21/2023 13:00:00 Analyzed 1083033 09/22/2023 19:57:00 JC2

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Silver	<0.050	mg/L	0.050		7440-22-4	08

EPA 7470 A

Prepared: 1082677 09/21/2023 12:25:00 Analyzed 1082761 09/21/2023 15:26:00 CAS

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Mercury	<0.00113	mg/L	0.00113		7439-97-6	06

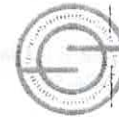
EPA 8081A

Prepared: 1082716 09/21/2023 13:30:00 Analyzed 1084248 09/25/2023 18:51:00 KLB

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	TCLP Chlordane	<0.001	mg/L	0.001		57-74-9	07
NELAC	TCLP Endrin	<0.00005	mg/L	0.00005		72-20-8	07
NELAC	TCLP gamma-BHC (Lindane)	<0.00005	mg/L	0.00005		58-89-9	07
NELAC	TCLP Heptachlor	<0.00005	mg/L	0.00005		76-44-8	07
NELAC	TCLP Heptachlor Epoxide	<0.00005	mg/L	0.00005		1024-57-3	07
NELAC	TCLP Methoxychlor	<0.00005	mg/L	0.00005		72-43-5	07
NELAC	TCLP Toxaphene	<0.001	mg/L	0.001		8001-35-2	07



Report Page 2 of 20



CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
1076460

Printed: 10/11/2023

2238598 23090412 SEALY

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report 2232400

EPA 8082

Prepared: 1083342 09/26/2023

16:31:53

Analyzed 1083728

09/28/2023

04:14:00

BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC PCB-1016	<1000 *	ug/kg	1000		12674-11-2	14
NELAC PCB-1221	<1000 *	ug/kg	1000		11104-28-2	14
NELAC PCB-1232	<1000 *	ug/kg	1000		11141-16-5	14
NELAC PCB-1242	<1000 *	ug/kg	1000		53469-21-9	14
NELAC PCB-1248	<1000 *	ug/kg	1000		12672-29-6	14
NELAC PCB-1254	<1000 *	ug/kg	1000		11097-69-1	14
NELAC PCB-1260	<1000 *	ug/kg	1000	X	11096-82-5	14

\* Dry Weight Basis

EPA 8151

Prepared: 1083228 09/26/2023

10:45:00

Analyzed 1083861

09/29/2023

03:34:00

BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4 D	<0.500	mg/L	0.500		94-75-7	12
NELAC TCLP 2,4,5-TP (Silvex)	<0.300	mg/L	0.300		93-72-1	12

EPA 8260B

Prepared: 1082851 09/21/2023

17:30:00

Analyzed 1083209

09/25/2023

15:30:00

PM1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 1,1-Dichloroethene	<0.010	mg/L	0.010		75-35-4	10
NELAC TCLP 1,2-Dichloroethane	<0.010	mg/L	0.010		107-06-2	10
NELAC TCLP 1,4 Dichlorobenzene	<0.010	mg/L	0.010		106-46-7	10
NELAC TCLP Benzene	<0.010	mg/L	0.010		71-43-2	10
NELAC TCLP Carbon tetrachloride	<0.010	mg/L	0.010		56-23-5	10
NELAC TCLP Chlorobenzene	<0.010	mg/L	0.010		108-90-7	10
NELAC TCLP Chloroform	<0.010	mg/L	0.010		67-66-3	10
NELAC TCLP MEK	<0.010	mg/L	0.010		78-93-3	10
NELAC TCLP Tetrachloroethylene	<0.010	mg/L	0.010		127-18-4	10
NELAC TCLP Trichloroethylene	<0.010	mg/L	0.010		79-01-6	10
NELAC TCLP Vinyl chloride	<0.010	mg/L	0.010		75-01-4	10

EPA 8270C

Prepared: 1083292 09/26/2023

14:15:00

Analyzed 1084018

09/30/2023

00:14:00

BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4,5-Trichlorophenol	<0.010	mg/L	0.010		95-95-4	13
NELAC TCLP 2,4,6-Trichlorophenol	<0.010	mg/L	0.010		88-06-2	13



Report Page 3 of 20





CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19,  
Huntsville, TX 77320

Page 3 of 6

Project

1076460

Printed: 10/11/2023

2238598 23090412 SEALY

Received: 09/20/2023

Solid & Chemical Materials

Collected by: Client

Chaparral Labs

PO:

Taken: 09/14/2023

10:30:00

Supplement to Test Report 2232400

EPA 8270C

Prepared: 1083292 09/26/2023 14:15:00 Analyzed 1084018 09/30/2023 00:14:00 BLF

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC TCLP 2,4-Dinitrotoluene	<0.035	mg/L	0.035		121-14-2	13
NELAC TCLP 2-Methylphenol (o-Cresol)	<0.052	mg/L	0.052		95-48-7	13
NELAC TCLP 3&4-Methylphenol (m&p-Creso	<0.062	mg/L	0.062		108-39-4	13
NELAC TCLP Hexachlorobenzene	<0.010	mg/L	0.010		118-74-1	13
NELAC TCLP Hexachlorobutadiene	<0.010	mg/L	0.010		87-68-3	13
NELAC TCLP Hexachloroethane	<0.010	mg/L	0.010		67-72-1	13
NELAC TCLP Nitrobenzene	<0.010	mg/L	0.010		98-95-3	13
NELAC TCLP Pentachlorophenol	<0.010	mg/L	0.010		87-86-5	13
NELAC TCLP Pyridine (Reg. Limit 5)	<0.054	mg/L	0.054	D	110-86-1	13

EPA 8270C

Prepared: 1083292 09/26/2023 14:15:00 Calculated 1084018 10/04/2023 07:38:33 CAL

Parameter	Results	Units	RL	Flags	CAS	Bottle
TCLP Total Cresols (Reg Lim 200)	<0.062	mg/L	0.062		108-39-4,ect.	13

EPA 9056

Prepared: 1083139 09/25/2023 16:20:12 Analyzed 1083217 09/25/2023 19:48:00 KAP

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Nitrate-Nitrogen	151*	mg/kg	1.09		14797-55-8	11

\* Dry Weight Basis

SM2540 G-1997/MOD

Prepared: 1082592 09/20/2023 14:30:00 Analyzed 1082592 09/20/2023 14:30:00 JK1

Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC Total Solids for Dry Wt Conversi	20.8	%	0.010			02

Sample Preparation

2238598 23090412 SEALY

Received: 09/20/2023

09/14/2023



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# CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
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Project  
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2238598 23090412 SEALY

Received: 09/20/2023

09/14/2023

EPA 3510C	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082716	09/21/2023	13:30:00	MCC
TCLP Liq-Liq Extr. W/Hex Exch.	10/200	ml					05
EPA 3510C	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1083292	09/26/2023	14:15:00	MCC
TCLP Liquid-Liquid Extract	1/100	ml					05
EPA 1311	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082501	09/20/2023	14:40:00	SLF
NELAC TCLP Extraction Non-Volatile	SOLID EXT 1	ml					01
EPA 1311ZHE	Prepared: 1082851	09/21/2023	17:30:00	Analyzed 1082851	09/21/2023	17:30:00	SLF
NELAC TCLP Extraction ZHE Volatiles	100% SOLID	ml					01
EPA 3005A	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082717	09/21/2023	13:00:00	TES
Metals Digestion TCLP Extract	50/10	ml					04
EPA 3550B	Prepared: 1083342	09/26/2023	16:31:53	Analyzed 1083342	09/26/2023	16:31:53	NAZ
NELAC PCB Total Sonic Extr. W/Hex Exch	10/2.01	grams					02
EPA 7470A	Prepared: 1082501	09/20/2023	14:40:00	Analyzed 1082677	09/21/2023	12:25:00	ALB
NELAC Metals Digestion TCLP 7470	50/2.5	ml					04
EPA 8081A	Prepared: 1082716	09/21/2023	13:30:00	Analyzed 1084248	09/25/2023	18:51:00	KLB



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**CLDV-G**

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**2238598 23090412 SEALY**

Received: 09/20/2023

09/14/2023

EPA 8081A	Prepared: 1082716 09/21/2023 13:30:00	Analyzed 1084248 09/25/2023 18:51:00	KLB
NELAC GC TCLP Pesticide	Entered		07
EPA 8082	Prepared: 1083342 09/26/2023 16:31:53	Analyzed 1083728 09/28/2023 04:14:00	BLF
NELAC Polychlorinated Biphenyls	Entered		14
EPA 8151	Prepared: 1083228 09/26/2023 10:45:00	Analyzed 1083861 09/29/2023 03:34:00	BLF
NELAC GC TCLP Herbicide	Entered		12
EPA 8151A (Prep)	Prepared: 1082501 09/20/2023 14:40:00	Analyzed 1083228 09/26/2023 10:45:00	CED
NELAC Esterification of TCLP Extract	10/1 ml		05
EPA 8260B	Prepared: 1082851 09/21/2023 17:30:00	Analyzed 1083209 09/25/2023 15:30:00	PM1
NELAC MS TCLP Volatile Analysis	Entered		10
EPA 8270C	Prepared: 1083292 09/26/2023 14:15:00	Analyzed 1084018 09/30/2023 00:14:00	BLF
NELAC MS TCLP Semivolatile Analysis	Entered		13
EPA 9056	Prepared: 1083139 09/25/2023 16:20:12	Analyzed 1083139 09/25/2023 16:20:12	NAZ
Water Extract-Ion Chromatography	50/4.99 grams		02



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CLDV-G

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09/14/2023

SM 2540 G-1997

Prepared: 1082454 09/20/2023 14:30:00 Analyzed 1082454 09/20/2023 14:30:00 JK1

NELAC Total Solids Start Code

Started

Qualifiers:

- B - Analyte detected in the associated method blank  
X - Standard reads higher than desired.  
D - Duplicate RPD was higher than expected.

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc. Kilgore laboratory which holds International, Federal, and State accreditations. Please see our Websites for details

(N)ELAC - Covered in our NELAC scope of accreditation  
Z - Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the Results column of our report (without a "J" flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

*Bill Peery*

Bill Peery, MS, VP Technical Services



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# QUALITY CONTROL



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**CLDV-G**

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project  
**1076460**

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Analytical Set **1082592**

**SM2540 G-1997 /MOD**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Total Solids for Dry Wt Conversi	1082592	0			grams	125457012
Duplicate						
Parameter	Sample	Result	Unknown		Unit	RPD
Total Solids for Dry Wt Conversi	2231691	100	100		%	0
Total Solids for Dry Wt Conversi	2232002	3.16	3.18		%	0.631

Analytical Set **1083217**

**EPA 9056**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
Nitrate-Nitrogen	1083139	0.00542	0.00185	0.0226	mg/kg	125471967
CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471966
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471982
Nitrate-Nitrogen	2.31	2.26	mg/kg	102	90.0 - 110	125471984
LCS Dup						
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%
Nitrate-Nitrogen	1083139	1.12	1.12	1.13	75.0 - 120	99.1
MSD						
Parameter	Sample	MS	MSD	UNK	Known	Limits
Nitrate-Nitrogen	2232323	2.30	2.35	0.0722	2.26	80.0 - 120

Analytical Set **1082761**

**EPA 7470 A**

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP Mercury	1082677	ND	0.000113	0.0002	mg/L	125460229
CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.00502	0.005	mg/L	100	90.0 - 110	125460227
TCLP Mercury	0.00501	0.005	mg/L	100	90.0 - 110	125460228
TCLP Mercury	0.00475	0.005	mg/L	95.0	90.0 - 110	125460236
TCLP Mercury	0.00484	0.005	mg/L	96.8	90.0 - 110	125460239
ICL						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.0208	0.02	mg/L	104	90.0 - 110	125460226
ICV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Mercury	0.00486	0.005	mg/L	97.2	90.0 - 110	125460225



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## CLDV-G

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LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Mercury	1082677	0.00934	0.00987	0.010	85.1 - 117	93.4	98.7	mg/L	5.52	20.0
MSD										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP Mercury	2232285	0.095	0.0968	ND	0.100	80.9 - 121	95.0	96.8	mg/L	1.88

Analytical Set

1082980

EPA 6020A

Blank										
Parameter	PrepSet	Reading	MDL	MQL	Units	File				
TCLP Arsenic	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Barium	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Cadmium	1082717	ND	0.001	0.001	mg/L	125465513				
TCLP Chromium	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Lead	1082717	ND	0.010	0.010	mg/L	125465513				
TCLP Selenium	1082717	0.0524	0.010	0.010	mg/L	125465513				

CCV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP Arsenic	0.0506	0.05	mg/L	101	90.0 - 110	125465510				
TCLP Arsenic	0.0463	0.05	mg/L	92.6	90.0 - 110	125465520				
TCLP Arsenic	0.0454	0.05	mg/L	90.8	90.0 - 110	125465532				
TCLP Barium	0.050	0.05	mg/L	100	90.0 - 110	125465510				
TCLP Barium	0.0469	0.05	mg/L	93.8	90.0 - 110	125465520				
TCLP Barium	0.0459	0.05	mg/L	91.8	90.0 - 110	125465532				
TCLP Cadmium	0.0481	0.05	mg/L	96.2	90.0 - 110	125465510				
TCLP Cadmium	0.047	0.05	mg/L	94.0	90.0 - 110	125465520				
TCLP Cadmium	0.0454	0.05	mg/L	90.8	90.0 - 110	125465532				
TCLP Chromium	0.0492	0.05	mg/L	98.4	90.0 - 110	125465510				
TCLP Chromium	0.0483	0.05	mg/L	96.6	90.0 - 110	125465520				
TCLP Chromium	0.0476	0.05	mg/L	95.2	90.0 - 110	125465532				
TCLP Lead	0.0485	0.05	mg/L	97.0	90.0 - 110	125465510				
TCLP Lead	0.048	0.05	mg/L	96.0	90.0 - 110	125465520				
TCLP Lead	0.0473	0.05	mg/L	94.6	90.0 - 110	125465532				
TCLP Selenium	0.0496	0.05	mg/L	99.2	90.0 - 110	125465510				
TCLP Selenium	0.0528	0.05	mg/L	106	90.0 - 110	125465520				
TCLP Selenium	0.0484	0.05	mg/L	96.8	90.0 - 110	125465532				

ICV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP Arsenic	0.0514	0.05	mg/L	103	90.0 - 110	125465476				
TCLP Barium	0.0515	0.05	mg/L	103	90.0 - 110	125465476				
TCLP Cadmium	0.0501	0.05	mg/L	100	90.0 - 110	125465476				
TCLP Chromium	0.0502	0.05	mg/L	100	90.0 - 110	125465476				
TCLP Lead	0.0518	0.05	mg/L	104	90.0 - 110	125465476				
TCLP Selenium	0.0511	0.05	mg/L	102	90.0 - 110	125465476				



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**CLDV-G**

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LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Arsenic	1082717	0.459	0.471	0.500	82.8 - 120	91.8	94.2	mg/L	2.58	14.0
TCLP Barium	1082717	0.463	0.468	0.500	83.1 - 113	92.6	93.6	mg/L	1.07	14.0
TCLP Cadmium	1082717	0.222	0.228	0.250	86.0 - 115	88.8	91.2	mg/L	2.67	14.0
TCLP Chromium	1082717	0.486	0.479	0.500	84.3 - 118	97.2	95.8	mg/L	1.45	14.0
TCLP Lead	1082717	0.438	0.444	0.500	85.1 - 115	87.6	88.8	mg/L	1.36	14.0
TCLP Selenium	1082717	0.496	0.494	0.500	83.5 - 121	99.2	98.8	mg/L	0.404	14.0

MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Arsenic	2232285	2.30	2.28	ND	2.50	84.9 - 114	92.0	91.2	mg/L	0.873	20.0
TCLP Barium	2232285	3.07	3.03	0.644	2.50	80.3 - 115	97.0	95.4	mg/L	1.66	20.0
TCLP Cadmium	2232285	1.11	1.14	ND	1.25	78.2 - 120	88.8	91.2	mg/L	2.67	20.0
TCLP Chromium	2232285	2.39	2.37	0.0139	2.50	86.0 - 117	95.0	94.2	mg/L	0.845	20.0
TCLP Lead	2232285	2.22	2.26	ND	2.50	85.0 - 116	88.8	90.4	mg/L	1.79	20.0
TCLP Selenium	2232285	2.37	2.34	0.0847	2.50	80.2 - 121	91.4	90.2	mg/L	1.32	20.0

Analytical Set

**1083033**

**EPA 6020A**

Blank						
Parameter	PrepSet	Reading	MDL	MDL	Units	File
TCLP Silver	1082717	ND	0.010	0.010	mg/L	125467805

CCV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Silver	0.0492	0.05	mg/L	98.4	90.0 - 110	125467802
TCLP Silver	0.0495	0.05	mg/L	99.0	90.0 - 110	125467808
TCLP Silver	0.0494	0.05	mg/L	98.8	90.0 - 110	125467820

ICV						
Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Silver	0.0495	0.05	mg/L	99.0	90.0 - 110	125467747

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Silver	1082717	0.103	0.104	0.100	80.1 - 118	103	104	mg/L	0.966	14.0

MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Silver	2232285	0.523	0.531	ND	0.500	80.7 - 115	105	106	mg/L	1.52	20.0

Analytical Set

**1083209**

**EPA 8260B**

BFB					
Parameter	Sample	RefMass	Reading	%	Limits%
BFB Mass 173	1083209	174	0	0.0	0 - 2.00
BFB Mass 174	1083209	95.0	938	64.1	50.0 - 100
BFB Mass 175	1083209	174	80	8.5	5.00 - 9.00
BFB Mass 176	1083209	174	902	96.2	95.0 - 101



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### BFB

Parameter	Sample	RefMass	Reading	%	Limits%	File
BFB Mass 177	1083209	176	52	5.7	5.00 - 9.00	125471872
BFB Mass 50	1083209	95.0	316	21.6	15.0 - 40.0	125471872
BFB Mass 75	1083209	95.0	821	56.1	30.0 - 60.0	125471872
BFB Mass 95	1083209	95.0	1462	100.0	100 - 100	125471872
BFB Mass 96	1083209	95.0	89	6.1	5.00 - 9.00	125471872

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP 1,1-Dichloroethene	1083209	ND	0.000574	0.001	mg/L	125471876
TCLP 1,2-Dichloroethane	1083209	ND	0.00059	0.001	mg/L	125471876
TCLP 1,4 Dichlorobenzene	1083209	ND	0.000837	0.001	mg/L	125471876
TCLP Benzene	1083209	ND	0.000453	0.001	mg/L	125471876
TCLP Carbon tetrachloride	1083209	ND	0.000299	0.001	mg/L	125471876
TCLP Chlorobenzene	1083209	ND	0.000558	0.001	mg/L	125471876
TCLP Chloroform	1083209	ND	0.000463	0.001	mg/L	125471876
TCLP MEK	1083209	ND	0.000742	0.001	mg/L	125471876
TCLP Tetrachloroethylene	1083209	ND	0.000607	0.001	mg/L	125471876
TCLP Trichloroethylene	1083209	ND	0.000521	0.001	mg/L	125471876
TCLP Vinyl chloride	1083209	ND	0.000702	0.001	mg/L	125471876

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP 1,1-Dichloroethene	0.0212	0.020	mg/L	106	70.0 - 130	125471873
TCLP 1,2-Dichloroethane	0.0229	0.020	mg/L	114	70.0 - 130	125471873
TCLP 1,4 Dichlorobenzene	0.0193	0.020	mg/L	96.5	70.0 - 130	125471873
TCLP Benzene	0.0216	0.020	mg/L	108	70.0 - 130	125471873
TCLP Carbon tetrachloride	0.0216	0.020	mg/L	108	70.0 - 130	125471873
TCLP Chlorobenzene	0.0196	0.020	mg/L	98.0	70.0 - 130	125471873
TCLP Chloroform	0.022	0.020	mg/L	110	70.0 - 130	125471873
TCLP MEK	0.0226	0.020	mg/L	113	70.0 - 130	125471873
TCLP Tetrachloroethylene	0.019	0.020	mg/L	95.0	70.0 - 130	125471873
TCLP Trichloroethylene	0.0197	0.020	mg/L	98.5	70.0 - 130	125471873
TCLP Vinyl chloride	0.0238	0.020	mg/L	119	70.0 - 130	125471873

### IS Areas

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1083209	CCV	42720	42720	29900	55540	125471873	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS	46180	42720	29900	55540	125471874	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS Dup	41510	42720	29900	55540	125471875	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	Blank	33810	42720	29900	55540	125471876	1083209
ChlorobenzeneD5 (ISTD)	1083209	CCV	85560	85560	59900	111200	125471873	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS	92160	85560	59900	111200	125471874	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS Dup	82640	85560	59900	111200	125471875	1083209
ChlorobenzeneD5 (ISTD)	1083209	Blank	77000	85560	59900	111200	125471876	1083209
1,4-DichlorobenzeneD4 (ISTD)	2232400	MS	33870	42720	29900	55540	125471881	1082851
1,4-DichlorobenzeneD4 (ISTD)	2232400	MSD	36430	42720	29900	55540	125471882	1082851



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**CLDV-G**

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Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
ChlorobenzeneD5 (ISTD)	2232400	MS	68560	85560	59900	111200	125471881	1082851
ChlorobenzeneD5 (ISTD)	2232400	MSD	74250	85560	59900	111200	125471882	1082851

Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS	11.97	11.97	11.91	12.03	125471874	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	LCS Dup	11.97	11.97	11.91	12.03	125471875	1083209
1,4-DichlorobenzeneD4 (ISTD)	1083209	Blank	11.97	11.97	11.91	12.03	125471876	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS	9.597	9.597	9.537	9.657	125471874	1083209
ChlorobenzeneD5 (ISTD)	1083209	LCS Dup	9.597	9.597	9.537	9.657	125471875	1083209
ChlorobenzeneD5 (ISTD)	1083209	Blank	9.597	9.597	9.537	9.657	125471876	1083209
1,4-DichlorobenzeneD4 (ISTD)	2232400	MS	11.97	11.97	11.91	12.03	125471881	1082851
1,4-DichlorobenzeneD4 (ISTD)	2232400	MSD	11.97	11.97	11.91	12.03	125471882	1082851
ChlorobenzeneD5 (ISTD)	2232400	MS	9.597	9.597	9.537	9.657	125471881	1082851
ChlorobenzeneD5 (ISTD)	2232400	MSD	9.597	9.597	9.537	9.657	125471882	1082851

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 1,1-Dichloroethene	1083209	0.0157	0.0163	0.020	56.7 - 135	78.5	81.5	mg/L	3.75	30.0
TCLP 1,2-Dichloroethane	1083209	0.0192	0.0216	0.020	69.8 - 132	96.0	108	mg/L	11.8	30.0
TCLP 1,4 Dichlorobenzene	1083209	0.0184	0.0199	0.020	74.8 - 116	92.0	99.5	mg/L	7.83	30.0
TCLP Benzene	1083209	0.0185	0.0204	0.020	67.1 - 123	92.5	102	mg/L	9.77	30.0
TCLP Carbon tetrachloride	1083209	0.0186	0.0192	0.020	60.1 - 132	93.0	96.0	mg/L	3.17	30.0
TCLP Chlorobenzene	1083209	0.0177	0.0193	0.020	74.0 - 115	88.5	96.5	mg/L	8.65	30.0
TCLP Chloroform	1083209	0.019	0.0206	0.020	71.1 - 128	95.0	103	mg/L	8.08	30.0
TCLP MEK	1083209	0.0209	0.0248	0.020	40.7 - 166	104	124	mg/L	17.5	30.0
TCLP Tetrachloroethylene	1083209	0.0158	0.0181	0.020	71.2 - 126	79.0	90.5	mg/L	13.6	30.0
TCLP Trichloroethylene	1083209	0.0174	0.0178	0.020	71.4 - 126	87.0	89.0	mg/L	2.27	30.0
TCLP Vinyl chloride	1083209	0.0241	0.0249	0.020	18.5 - 155	120	124	mg/L	3.28	30.0

Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP 1,1-Dichloroethene	2232400	0.152	0.135	ND	0.200	0.100 - 168	76.0	67.5	mg/L	11.8	30.0
TCLP 1,2-Dichloroethane	2232400	0.220	0.194	ND	0.200	48.4 - 134	110	97.0	mg/L	12.6	30.0
TCLP 1,4 Dichlorobenzene	2232400	0.190	0.177	ND	0.200	45.4 - 121	95.0	88.5	mg/L	7.08	30.0
TCLP Benzene	2232400	0.201	0.180	ND	0.200	5.00 - 119	100	90.0	mg/L	11.0	30.0
TCLP Carbon tetrachloride	2232400	0.182	0.152	ND	0.200	0.100 - 164	91.0	76.0	mg/L	18.0	30.0
TCLP Chlorobenzene	2232400	0.186	0.172	ND	0.200	32.5 - 130	93.0	86.0	mg/L	7.82	30.0
TCLP Chloroform	2232400	0.209	0.194	ND	0.200	22.1 - 141	104	97.0	mg/L	7.44	30.0
TCLP MEK	2232400	0.210	0.212	ND	0.200	9.88 - 197	105	106	mg/L	0.948	30.0
TCLP Tetrachloroethylene	2232400	0.164	0.137	ND	0.200	0.100 - 157	82.0	68.5	mg/L	17.9	30.0
TCLP Trichloroethylene	2232400	0.178	0.150	ND	0.200	0.100 - 161	89.0	75.0	mg/L	17.1	30.0
TCLP Vinyl chloride	2232400	0.183	0.167	ND	0.200	0.100 - 197	91.5	83.5	mg/L	9.14	30.0

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

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Project  
**1076460**

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Parameter	Sample	Type	Surrogate		Units	Recover%	Limits%	File
			Reading	Known				
1,2-DCA-d4 (SURR)	1083209	CCV	0.0212	0.020	mg/L	106	74.2 - 132	125471873
1,2-DCA-d4 (SURR)	1083209	LCS	0.0212	0.020	mg/L	106	74.2 - 132	125471874
1,2-DCA-d4 (SURR)	1083209	LCS Dup	0.0206	0.020	mg/L	103	74.2 - 132	125471875
1,2-DCA-d4 (SURR)	1083209	Blank	0.0215	0.020	mg/L	108	74.2 - 132	125471876
Bromofluorobenzene (SURR)	1083209	CCV	0.020	0.020	mg/L	100	77.2 - 134	125471873
Bromofluorobenzene (SURR)	1083209	LCS	0.020	0.020	mg/L	100	77.2 - 134	125471874
Bromofluorobenzene (SURR)	1083209	LCS Dup	0.0207	0.020	mg/L	104	77.2 - 134	125471875
Bromofluorobenzene (SURR)	1083209	Blank	0.0213	0.020	mg/L	106	77.2 - 134	125471876
Dibromofluoromethane (SURR)	1083209	CCV	0.0194	0.020	mg/L	97.0	67.2 - 122	125471873
Dibromofluoromethane (SURR)	1083209	LCS	0.0191	0.020	mg/L	95.5	67.2 - 122	125471874
Dibromofluoromethane (SURR)	1083209	LCS Dup	0.0186	0.020	mg/L	93.0	67.2 - 122	125471875
Dibromofluoromethane (SURR)	1083209	Blank	0.0198	0.020	mg/L	99.0	67.2 - 122	125471876
TolueneD8 (SURR)	1083209	CCV	0.0198	0.020	mg/L	99.0	69.2 - 122	125471873
TolueneD8 (SURR)	1083209	LCS	0.0191	0.020	mg/L	95.5	69.2 - 122	125471874
TolueneD8 (SURR)	1083209	LCS Dup	0.0192	0.020	mg/L	96.0	69.2 - 122	125471875
TolueneD8 (SURR)	1083209	Blank	0.0195	0.020	mg/L	97.5	69.2 - 122	125471876
1,2-DCA-d4 (SURR)	2232400	MS	0.0217	0.020	mg/L	108	74.2 - 132	125471881
1,2-DCA-d4 (SURR)	2232400	MSD	0.0213	0.020	mg/L	106	74.2 - 132	125471882
Bromofluorobenzene (SURR)	2232400	MS	0.0206	0.020	mg/L	103	77.2 - 134	125471881
Bromofluorobenzene (SURR)	2232400	MSD	0.0205	0.020	mg/L	102	77.2 - 134	125471882
Dibromofluoromethane (SURR)	2232400	MS	0.0204	0.020	mg/L	102	67.2 - 122	125471881
Dibromofluoromethane (SURR)	2232400	MSD	0.0198	0.020	mg/L	99.0	67.2 - 122	125471882
TolueneD8 (SURR)	2232400	MS	0.0196	0.020	mg/L	98.0	69.2 - 122	125471881
TolueneD8 (SURR)	2232400	MSD	0.0193	0.020	mg/L	96.5	69.2 - 122	125471882

Analytical Set

1083728

EPA 8082

Parameter	PrepSet	Reading	MDL	MQL	Units	File
PCB-1016	1083342	ND	43.0	250	ug/kg	125481650
PCB-1221	1083342	ND	43.0	250	ug/kg	125481650
PCB-1232	1083342	ND	43.0	250	ug/kg	125481650
PCB-1242	1083342	ND	43.0	250	ug/kg	125481650
PCB-1248	1083342	ND	43.0	250	ug/kg	125481650
PCB-1254	1083342	ND	43.0	250	ug/kg	125481650
PCB-1260	1083342	ND	43.0	250	ug/kg	125481650

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
PCB-1016	1080	1000	ug/kg	108	80.0 - 120	125481649
PCB-1016	1090	1000	ug/kg	109	80.0 - 120	125481663
PCB-1016	847	1000	ug/kg	84.7	80.0 - 120	125481665
PCB-1260	1130	1000	ug/kg	113	80.0 - 120	125481649
PCB-1260	2250	1000	ug/kg	225	80.0 - 120	125481663
PCB-1260	3290	1000	ug/kg	329	80.0 - 120	125481665



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**CLDV-G**

Chaparral Labs  
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Project  
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LCS Dup											
Parameter	PrepSet	LQS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
PCB-1016	1083342	6540	6830		5000	28.4 - 187	131	137	ug/kg	4.48	30.0
PCB-1260	1083342	6870	7030		5000	22.3 - 183	137	141	ug/kg	2.88	30.0
MSD											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
PCB-1016	2231591	11500	11500	ND	10000	0.100 - 427	115	115	ug/kg	0	30.0
PCB-1260	2231591	7700	8440	ND	10000	0.100 - 470	77.0	84.4	ug/kg	9.17	30.0
Surrogate											
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File			
Decachlorobiphenyl	1083342	Blank	77.9	100	ug/kg	77.9	10.0 - 200	125481650			
Tetrachloro-m-Xylene (Surr)	1083342	Blank	100	100	ug/kg	100	10.0 - 160	125481650			

Analytical Set

**1083861**

EPA 8151

Blank										
Parameter	PrepSet	Reading	MDL	MQL	Units	File				
TCLP 2,4 D	1082501	ND	0.000159	0.0005	mg/L	125486022				
TCLP 2,4,5-TP (Silvex)	1082501	ND	0.0000893	0.0003	mg/L	125486022				
TCLP 2,4 D	1083228	ND	0.000159	0.0005	mg/L	125486019				
TCLP 2,4 D	1083228	ND	0.000159	0.0005	mg/L	125486029				
TCLP 2,4,5-TP (Silvex)	1083228	ND	0.0000893	0.0003	mg/L	125486019				
TCLP 2,4,5-TP (Silvex)	1083228	ND	0.0000893	0.0003	mg/L	125486029				

CCV										
Parameter	Reading	Known	Units	Recover%	Limits%	File				
TCLP 2,4 D	0.150	0.150	mg/L	100	70.0 - 130	125486018				
TCLP 2,4 D	0.156	0.150	mg/L	104	70.0 - 130	125486036				
TCLP 2,4 D	0.156	0.150	mg/L	104	70.0 - 130	125486040				
TCLP 2,4,5-TP (Silvex)	0.157	0.150	mg/L	104	70.0 - 130	125486018				
TCLP 2,4,5-TP (Silvex)	0.158	0.150	mg/L	105	70.0 - 130	125486036				
TCLP 2,4,5-TP (Silvex)	0.157	0.150	mg/L	105	70.0 - 130	125486040				

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 2,4 D	1083228	0.000371	0.000275	0.001	2.06 - 194	37.1	27.5	mg/L	29.7	30.0
TCLP 2,4,5-TP (Silvex)	1083228	0.000423	0.000314	0.001	19.3 - 162	42.3	31.4	mg/L	29.6	30.0

Surrogate										
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File		
2,4-Dichlorophenylacetic Acid		CCV	0.151	0.200	mg/L	75.5	0.100 - 294	125486018		
2,4-Dichlorophenylacetic Acid		CCV	0.152	0.200	mg/L	76.0	0.100 - 294	125486036		
2,4-Dichlorophenylacetic Acid		CCV	0.152	0.200	mg/L	76.0	0.100 - 294	125486040		
2,4-Dichlorophenylacetic Acid	1082501	Blank	0.0373	0.200	mg/L	18.6	0.100 - 294	125486022		
2,4-Dichlorophenylacetic Acid	1083228	Blank	0.0328	0.200	mg/L	16.4	0.100 - 294	125486019		
2,4-Dichlorophenylacetic Acid	1083228	LCS	0.0411	0.200	mg/L	20.6	0.100 - 294	125486020		
2,4-Dichlorophenylacetic Acid	1083228	LCS Dup	0.0322	0.200	mg/L	16.1	0.100 - 294	125486021		



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## CLDV-G

Chaparral Labs  
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Project

1076460

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### Surrogate

Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4-Dichlorophenylacetic Acid	1083228	Blank	0.0349	0.200	mg/L	17.4	0.100 - 294	125486029

Analytical Set

1084018

EPA 8270C

### Blank

Parameter	PrepSet	Reading	MDL	MQL	Units	File
TCLP 2,4,5-Trichlorophenol	1082501	ND	0.000734	0.001	mg/L	125490260
TCLP 2,4,6-Trichlorophenol	1082501	ND	0.000704	0.001	mg/L	125490260
TCLP 2,4-Dinitrotoluene	1082501	ND	0.00335	0.0035	mg/L	125490260
TCLP 2-Methylphenol (o-Cresol)	1082501	ND	0.00513	0.0052	mg/L	125490260
TCLP 3&4-Methylphenol (m&p-Creso	1082501	ND	0.00615	0.0062	mg/L	125490260
TCLP Hexachlorobenzene	1082501	ND	0.000187	0.001	mg/L	125490260
TCLP Hexachlorobutadiene	1082501	ND	0.000618	0.001	mg/L	125490260
TCLP Hexachloroethane	1082501	ND	0.000789	0.001	mg/L	125490260
TCLP Nitrobenzene	1082501	ND	0.00039	0.001	mg/L	125490260
TCLP Pentachlorophenol	1082501	0.00058	0.000129	0.001	mg/L	125490260
TCLP Pyridine (Reg. Limit 5)	1082501	ND	0.00533	0.0054	mg/L	125490260
TCLP 2,4,5-Trichlorophenol	1083292	ND	0.000734	0.001	mg/L	125490257
TCLP 2,4,6-Trichlorophenol	1083292	ND	0.000704	0.001	mg/L	125490257
TCLP 2,4-Dinitrotoluene	1083292	ND	0.00335	0.0035	mg/L	125490257
TCLP 2-Methylphenol (o-Cresol)	1083292	ND	0.00513	0.0052	mg/L	125490257
TCLP 3&4-Methylphenol (m&p-Creso	1083292	ND	0.00615	0.0062	mg/L	125490257
TCLP Hexachlorobenzene	1083292	ND	0.000187	0.001	mg/L	125490257
TCLP Hexachlorobutadiene	1083292	ND	0.000618	0.001	mg/L	125490257
TCLP Hexachloroethane	1083292	ND	0.000789	0.001	mg/L	125490257
TCLP Nitrobenzene	1083292	ND	0.00039	0.001	mg/L	125490257
TCLP Pentachlorophenol	1083292	0.00057	0.000129	0.001	mg/L	125490257
TCLP Pyridine (Reg. Limit 5)	1083292	ND	0.00533	0.0054	mg/L	125490257

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP 2,4,5-Trichlorophenol	55.7	50.0	mg/L	111	70.0 - 130	125490256
TCLP 2,4,6-Trichlorophenol	55.4	50.0	mg/L	111	70.0 - 130	125490256
TCLP 2,4-Dinitrotoluene	45.0	50.0	mg/L	90.0	70.0 - 130	125490256
TCLP 2-Methylphenol (o-Cresol)	50.9	50.0	mg/L	102	70.0 - 130	125490256
TCLP 3&4-Methylphenol (m&p-Creso	51.5	50.0	mg/L	103	70.0 - 130	125490256
TCLP Hexachlorobenzene	48.1	50.0	mg/L	96.2	70.0 - 130	125490256
TCLP Hexachlorobutadiene	44.6	50.0	mg/L	89.1	70.0 - 130	125490256
TCLP Hexachloroethane	46.9	50.0	mg/L	93.8	70.0 - 130	125490256
TCLP Nitrobenzene	50.7	50.0	mg/L	101	70.0 - 130	125490256
TCLP Pentachlorophenol	46.6	50.0	mg/L	93.2	70.0 - 130	125490256
TCLP Pyridine (Reg. Limit 5)	44.5	50.0	mg/L	89.0	70.0 - 130	125490256

### DFTPP

Parameter		RefMass	Reading	%	Limits%	File
DFTPP Mass 127	620075	198	24765	54.6	40.0 - 60.0	125490255



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

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DFTPP						
Parameter	RefMass	Reading	%	Limits%	File	
DFTPP Mass 197	620075	198	0	0.0	125490255	
DFTPP Mass 198	620075	198	45389	100.0	125490255	
DFTPP Mass 199	620075	198	3244	7.1	125490255	
DFTPP Mass 275	620075	198	13168	29.0	125490255	
DFTPP Mass 365	620075	198	2783	6.1	125490255	
DFTPP Mass 441	620075	443	5068	92.3	125490255	
DFTPP Mass 442	620075	198	28888	63.6	125490255	
DFTPP Mass 443	620075	442	5490	19.0	125490255	
DFTPP Mass 51	620075	198	26144	57.6	125490255	
DFTPP Mass 68	620075	69.0	0	0.0	125490255	
DFTPP Mass 69	620075	198	27388	60.3	125490255	
DFTPP Mass 70	620075	69.0	116	0.4	125490255	

IS Areas							
Parameter	Sample	Type	Reading	CCVISM	Low	High	File
1,4-Dichlorobenzene-d4-ISTD	620073	CCV	61950	61950	30970	92920	125490256
Acenaphthene-d10-ISTD	620073	CCV	101200	101200	50580	151700	125490256
Naphthalene-d8-ISTD	620073	CCV	194200	194200	97100	291300	125490256
Phenanthrene-d10-ISTD	620073	CCV	153900	153900	76930	230800	125490256
1,4-Dichlorobenzene-d4-ISTD	1082501	Blank	60370	61950	30970	92920	125490260
Acenaphthene-d10-ISTD	1082501	Blank	105600	101200	50580	151700	125490260
Naphthalene-d8-ISTD	1082501	Blank	190300	194200	97100	291300	125490260
Phenanthrene-d10-ISTD	1082501	Blank	200400	153900	76930	230800	125490260
1,4-Dichlorobenzene-d4-ISTD	1083292	Blank	59390	61950	30970	92920	125490257
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS	61190	61950	30970	92920	125490258
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS Dup	64690	61950	30970	92920	125490259
Acenaphthene-d10-ISTD	1083292	Blank	102300	101200	50580	151700	125490257
Acenaphthene-d10-ISTD	1083292	LCS	102900	101200	50580	151700	125490258
Acenaphthene-d10-ISTD	1083292	LCS Dup	106000	101200	50580	151700	125490259
Naphthalene-d8-ISTD	1083292	Blank	191400	194200	97100	291300	125490257
Naphthalene-d8-ISTD	1083292	LCS	190700	194200	97100	291300	125490258
Naphthalene-d8-ISTD	1083292	LCS Dup	198700	194200	97100	291300	125490259
Phenanthrene-d10-ISTD	1083292	Blank	186500	153900	76930	230800	125490257
Phenanthrene-d10-ISTD	1083292	LCS	162900	153900	76930	230800	125490258
Phenanthrene-d10-ISTD	1083292	LCS Dup	212700	153900	76930	230800	125490259
1,4-Dichlorobenzene-d4-ISTD	2232209	MS	51200	61950	30970	92920	125490266
Acenaphthene-d10-ISTD	2232209	MS	88740	101200	50580	151700	125490266
Naphthalene-d8-ISTD	2232209	MS	161100	194200	97100	291300	125490266
Phenanthrene-d10-ISTD	2232209	MS	150700	153900	76930	230800	125490266

IS RetTime							
Parameter	Sample	Type	Reading	CCVISM	Low	High	File
1,4-Dichlorobenzene-d4-ISTD	620073	CCV	8.690	8.690	8.630	8.750	125490256
Acenaphthene-d10-ISTD	620073	CCV	15.20	15.20	15.14	15.26	125490256
Naphthalene-d8-ISTD	620073	CCV	11.22	11.22	11.16	11.28	125490256



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
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Huntsville, TX 77320

Project  
**1076460**

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IS RetTime								
Parameter	Sample	Type	Reading	CCVISM	Low	High	File	PrepSet
Phenanthrene-d10-ISTD	620073	CCV	17.74	17.74	17.68	17.80	125490256	620073
1,4-Dichlorobenzene-d4-ISTD	1082501	Blank	8.680	8.690	8.630	8.750	125490260	1082501
Acenaphthene-d10-ISTD	1082501	Blank	15.20	15.20	15.14	15.26	125490260	1082501
Naphthalene-d8-ISTD	1082501	Blank	11.21	11.22	11.16	11.28	125490260	1082501
Phenanthrene-d10-ISTD	1082501	Blank	17.73	17.74	17.68	17.80	125490260	1082501
1,4-Dichlorobenzene-d4-ISTD	1083292	Blank	8.690	8.690	8.630	8.750	125490257	1083292
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS	8.690	8.690	8.630	8.750	125490258	1083292
1,4-Dichlorobenzene-d4-ISTD	1083292	LCS Dup	8.690	8.690	8.630	8.750	125490259	1083292
Acenaphthene-d10-ISTD	1083292	Blank	15.20	15.20	15.14	15.26	125490257	1083292
Acenaphthene-d10-ISTD	1083292	LCS	15.20	15.20	15.14	15.26	125490258	1083292
Acenaphthene-d10-ISTD	1083292	LCS Dup	15.20	15.20	15.14	15.26	125490259	1083292
Naphthalene-d8-ISTD	1083292	Blank	11.22	11.22	11.16	11.28	125490257	1083292
Naphthalene-d8-ISTD	1083292	LCS	11.22	11.22	11.16	11.28	125490258	1083292
Naphthalene-d8-ISTD	1083292	LCS Dup	11.21	11.22	11.16	11.28	125490259	1083292
Phenanthrene-d10-ISTD	1083292	Blank	17.73	17.74	17.68	17.80	125490257	1083292
Phenanthrene-d10-ISTD	1083292	LCS	17.73	17.74	17.68	17.80	125490258	1083292
Phenanthrene-d10-ISTD	1083292	LCS Dup	17.73	17.74	17.68	17.80	125490259	1083292
1,4-Dichlorobenzene-d4-ISTD	2232209	MS	8.680	8.690	8.630	8.750	125490266	1083292
Acenaphthene-d10-ISTD	2232209	MS	15.20	15.20	15.14	15.26	125490266	1083292
Naphthalene-d8-ISTD	2232209	MS	11.22	11.22	11.16	11.28	125490266	1083292
Phenanthrene-d10-ISTD	2232209	MS	17.73	17.74	17.68	17.80	125490266	1083292

LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP 2,4,5-Trichlorophenol	1083292	0.0218	0.0228	0.025	39.3 - 111	87.2	91.2	mg/L	4.48	30.0
TCLP 2,4,6-Trichlorophenol	1083292	0.0226	0.0246	0.025	38.2 - 109	90.4	98.4	mg/L	8.47	30.0
TCLP 2,4-Dinitrotoluene	1083292	0.0202	0.0227	0.025	36.3 - 132	80.8	90.8	mg/L	11.7	30.0
TCLP 2-Methylphenol (o-Cresol)	1083292	0.017	0.0155	0.025	23.0 - 87.8	68.0	62.0	mg/L	9.23	30.0
TCLP 3&4-Methylphenol (m&p-Creso	1083292	0.0163	0.0157	0.025	14.9 - 92.5	65.2	62.8	mg/L	3.75	30.0
TCLP Hexachlorobenzene	1083292	0.020	0.0191	0.025	44.4 - 117	80.0	76.4	mg/L	4.60	30.0
TCLP Hexachlorobutadiene	1083292	0.0146	0.014	0.025	17.2 - 88.9	58.4	56.0	mg/L	4.20	30.0
TCLP Hexachloroethane	1083292	0.0137	0.0135	0.025	14.6 - 88.8	54.8	54.0	mg/L	1.47	30.0
TCLP Nitrobenzene	1083292	0.0202	0.0192	0.025	34.3 - 113	80.8	76.8	mg/L	5.08	30.0
TCLP Pentachlorophenol	1083292	0.0191	0.0198	0.025	15.7 - 129	76.4	79.2	mg/L	3.60	30.0
TCLP Pyridine (Reg. Limit 5)	1083292	0.0103	0.0068	0.025	0.0753 - 83.4	41.2	27.2	mg/L	40.9 *	30.0

MS										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP 2,4,5-Trichlorophenol	2232209	0.193	0	0.0057	0.250	33.7 - 116	74.9		mg/L	30.0
TCLP 2,4,6-Trichlorophenol	2232209	0.193	0	0.0057	0.250	20.1 - 131	74.9		mg/L	30.0
TCLP 2,4-Dinitrotoluene	2232209	0.173	0	0.0057	0.250	31.8 - 135	66.9		mg/L	30.0
TCLP 2-Methylphenol (o-Cresol)	2232209	0.152	0	0.0057	0.250	10.6 - 106	58.5		mg/L	30.0
TCLP 3&4-Methylphenol (m&p-Creso	2232209	0.146	0	ND	0.250	0.100 - 149	58.4		mg/L	30.0
TCLP Hexachlorobenzene	2232209	0.177	0	0.0057	0.250	35.9 - 125	68.5		mg/L	30.0
TCLP Hexachlorobutadiene	2232209	0.125	0	0.0057	0.250	11.1 - 88.5	47.7		mg/L	30.0



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

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MS										
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD
TCLP Hexachloroethane	2232209	0.130	0	0.0057	0.250	8.41 - 88.1	49.7		mg/L	30.0
TCLP Nitrobenzene	2232209	0.192	0	0.0057	0.250	28.7 - 119	74.5		mg/L	30.0
TCLP Pentachlorophenol	2232209	0.151	0	0.005	0.250	8.33 - 141	58.4		mg/L	30.0
TCLP Pyridine (Reg. Limit 5)	2232209	0.0901	0	0.0057	0.250	0.100 - 97.2	33.8		mg/L	30.0

SPCC					File
Parameter	Sample	RF	Minimum		
TCLP 2,4-Dinitrophenol	620073	48.8	0.050		125490256
TCLP 4-Nitrophenol	620073	48.8	0.050		125490256
TCLP Hexachlorocyclopentadiene	620073	56.2	0.050		125490256
TCLP N-Nitroso-n-propylamine	620073	49.6	0.050		125490256

Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2,4,6-Tribromophenol	620073	CCV	44.0	100	mg/L	44.0	9.79 - 123	125490256
2-Fluorobiphenyl-SURR	620073	CCV	54.9	50.0	mg/L	110	0.100 - 131	125490256
2-Fluorophenol-SURR	620073	CCV	47.5	100	mg/L	47.5	5.36 - 80.2	125490256
4-Terphenyl-d14-SURR	620073	CCV	34.8	50.0	mg/L	69.6	0.100 - 137	125490256
Nitrobenzene-d5-SURR	620073	CCV	53.4	50.0	mg/L	107	0.100 - 131	125490256
Phenol-d6-SURR	620073	CCV	52.1	100	mg/L	52.1	0.100 - 66.5	125490256
2,4,6-Tribromophenol	1082501	Blank	1.78	3.33	mg/L	53.5	9.79 - 123	125490260
2-Fluorobiphenyl-SURR	1082501	Blank	20.5	50.0	mg/L	41.0	0.100 - 131	125490260
2-Fluorophenol-SURR	1082501	Blank	32.5	100	mg/L	32.5	5.36 - 80.2	125490260
4-Terphenyl-d14-SURR	1082501	Blank	25.5	50.0	mg/L	51.0	0.100 - 137	125490260
Nitrobenzene-d5-SURR	1082501	Blank	23.7	50.0	mg/L	47.4	0.100 - 131	125490260
Phenol-d6-SURR	1082501	Blank	20.2	100	mg/L	20.2	0.100 - 66.5	125490260
2,4,6-Tribromophenol	1083292	Blank	1.65	3.33	mg/L	49.5	9.79 - 123	125490257
2,4,6-Tribromophenol	1083292	LCS	1.74	3.33	mg/L	52.3	9.79 - 123	125490258
2,4,6-Tribromophenol	1083292	LCS Dup	2.04	3.33	mg/L	61.3	9.79 - 123	125490259
2-Fluorobiphenyl-SURR	1083292	Blank	19.9	50.0	mg/L	39.8	0.100 - 131	125490257
2-Fluorobiphenyl-SURR	1083292	LCS	21.2	50.0	mg/L	42.4	0.100 - 131	125490258
2-Fluorobiphenyl-SURR	1083292	LCS Dup	19.4	50.0	mg/L	38.8	0.100 - 131	125490259
2-Fluorophenol-SURR	1083292	Blank	30.7	100	mg/L	30.7	5.36 - 80.2	125490257
2-Fluorophenol-SURR	1083292	LCS	31.9	100	mg/L	31.9	5.36 - 80.2	125490258
2-Fluorophenol-SURR	1083292	LCS Dup	28.3	100	mg/L	28.3	5.36 - 80.2	125490259
4-Terphenyl-d14-SURR	1083292	Blank	22.3	50.0	mg/L	44.6	0.100 - 137	125490257
4-Terphenyl-d14-SURR	1083292	LCS	22.8	50.0	mg/L	45.6	0.100 - 137	125490258
4-Terphenyl-d14-SURR	1083292	LCS Dup	23.1	50.0	mg/L	46.2	0.100 - 137	125490259
Nitrobenzene-d5-SURR	1083292	Blank	22.2	50.0	mg/L	44.4	0.100 - 131	125490257
Nitrobenzene-d5-SURR	1083292	LCS	23.8	50.0	mg/L	47.6	0.100 - 131	125490258
Nitrobenzene-d5-SURR	1083292	LCS Dup	23.1	50.0	mg/L	46.2	0.100 - 131	125490259
Phenol-d6-SURR	1083292	Blank	19.8	100	mg/L	19.8	0.100 - 66.5	125490257
Phenol-d6-SURR	1083292	LCS	21.6	100	mg/L	21.6	0.100 - 66.5	125490258
Phenol-d6-SURR	1083292	LCS Dup	18.8	100	mg/L	18.8	0.100 - 66.5	125490259
2,4,6-Tribromophenol	2232209	MS	0.462	1.00	mg/L	46.2	9.79 - 123	125490266



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

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Project

1076460

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Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
2-Fluorobiphenyl-SURR	2232209	MS	0.186	0.500	mg/L	37.2	0.100 - 131	125490266
2-Fluorophenol-SURR	2232209	MS	0.278	1.00	mg/L	27.8	5.36 - 80.2	125490266
4-Terphenyl-d14-SURR	2232209	MS	0.197	0.500	mg/L	39.4	0.100 - 137	125490266
Nitrobenzene-d5-SURR	2232209	MS	0.212	0.500	mg/L	42.4	0.100 - 181	125490266
Phenol-d6-SURR	2232209	MS	0.189	1.00	mg/L	18.9	0.100 - 66.5	125490266

Analytical Set

1084248

EPA 8081A

Blank								
Parameter	PrepSet	Reading	MDL	MQL	Units	File		
TCLP Chlordane	1082501	ND	0.0183	0.020	mg/L	125495468		
TCLP Endrin	1082501	ND	0.000538	0.001	mg/L	125495468		
TCLP gamma-BHC (Lindane)	1082501	ND	0.000385	0.001	mg/L	125495468		
TCLP Heptachlor	1082501	0.000858	0.000207	0.001	mg/L	125495468		
TCLP Heptachlor Epoxide	1082501	ND	0.00066	0.001	mg/L	125495468		
TCLP Methoxychlor	1082501	ND	0.000898	0.001	mg/L	125495468		
TCLP Toxaphene	1082501	ND	0.000169	0.0002	mg/L	125495468		
TCLP Chlordane	1082716	ND	0.0183	0.020	mg/L	125495465		
TCLP Endrin	1082716	ND	0.000538	0.001	mg/L	125495465		
TCLP gamma-BHC (Lindane)	1082716	ND	0.000385	0.001	mg/L	125495465		
TCLP Heptachlor	1082716	ND	0.000207	0.001	mg/L	125495465		
TCLP Heptachlor Epoxide	1082716	ND	0.00066	0.001	mg/L	125495465		
TCLP Methoxychlor	1082716	ND	0.000898	0.001	mg/L	125495465		
TCLP Toxaphene	1082716	ND	0.000169	0.0002	mg/L	125495465		

### CCV

Parameter	Reading	Known	Units	Recover%	Limits%	File
TCLP Endrin	0.0512	0.050	mg/L	102	70.0 - 130	125495464
TCLP Endrin	0.0488	0.050	mg/L	97.5	70.0 - 130	125495472
TCLP Endrin	0.0464	0.050	mg/L	92.8	70.0 - 130	125495476
TCLP gamma-BHC (Lindane)	0.0492	0.050	mg/L	98.5	70.0 - 130	125495464
TCLP gamma-BHC (Lindane)	0.0512	0.050	mg/L	102	70.0 - 130	125495472
TCLP gamma-BHC (Lindane)	0.0488	0.050	mg/L	97.6	70.0 - 130	125495476
TCLP Heptachlor	0.048	0.050	mg/L	96.1	70.0 - 130	125495464
TCLP Heptachlor	0.0443	0.050	mg/L	88.7	70.0 - 130	125495472
TCLP Heptachlor	0.0435	0.050	mg/L	86.9	70.0 - 130	125495476
TCLP Heptachlor Epoxide	0.0478	0.050	mg/L	95.7	70.0 - 130	125495464
TCLP Heptachlor Epoxide	0.048	0.050	mg/L	96.1	70.0 - 130	125495472
TCLP Heptachlor Epoxide	0.0462	0.050	mg/L	92.4	70.0 - 130	125495476
TCLP Methoxychlor	0.0576	0.050	mg/L	115	70.0 - 130	125495464
TCLP Methoxychlor	0.0405	0.050	mg/L	81.1	70.0 - 130	125495472
TCLP Methoxychlor	0.0395	0.050	mg/L	79.0	70.0 - 130	125495476

### LCS Dup

Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP Endrin	1082716	0.0727	0.0842	0.100	42.6 - 137	72.7	84.2	mg/L	14.7	30.0



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# QUALITY CONTROL



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## CLDV-G

Chaparral Labs  
Dave Veinotte  
861 Hwy 19  
Huntsville, TX 77320

Project

1076460

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LCS Dup										
Parameter	PrepSet	LCS	LCSD	Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%
TCLP gamma-BHC (Lindane)	1082716	0.0661	0.0768	0.100	33.0 - 129	66.1	76.8	mg/L	15.0	30.0
TCLP Heptachlor	1082716	0.0626	0.076	0.100	24.2 - 129	62.6	76.0	mg/L	19.3	30.0
TCLP Heptachlor Epoxide	1082716	0.0675	0.0778	0.100	40.8 - 128	67.5	77.8	mg/L	14.2	30.0
TCLP Methoxychlor	1082716	0.0793	0.0977	0.100	33.3 - 146	79.3	97.7	mg/L	20.8	30.0

MS											
Parameter	Sample	MS	MSD	UNK	Known	Limits	MS%	MSD%	Units	RPD	Limit%
TCLP Endrin	2232468	0.00412	0	ND	0.005	24.3 - 151	82.4		mg/L		30.0
TCLP gamma-BHC (Lindane)	2232468	0.00402	0	ND	0.005	21.3 - 144	80.4		mg/L		30.0
TCLP Heptachlor	2232468	0.00362	0	ND	0.005	14.9 - 138	72.4		mg/L		30.0
TCLP Heptachlor Epoxide	2232468	0.00394	0	ND	0.005	29.9 - 133	78.8		mg/L		30.0
TCLP Methoxychlor	2232468	0.00364	0	ND	0.005	10.3 - 183	72.8		mg/L		30.0

Surrogate								
Parameter	Sample	Type	Reading	Known	Units	Recover%	Limits%	File
Decachlorobiphenyl		CCV	0.0529	0.100	mg/L	52.9	10.0 - 150	125495464
Decachlorobiphenyl		CCV	0.0411	0.100	mg/L	41.1	10.0 - 150	125495472
Decachlorobiphenyl		CCV	0.046	0.100	mg/L	46.0	10.0 - 150	125495476
Tetrachloro-m-Xylene (Surr)		CCV	0.0493	0.100	mg/L	49.3	10.0 - 150	125495464
Tetrachloro-m-Xylene (Surr)		CCV	0.0487	0.100	mg/L	48.7	10.0 - 150	125495472
Tetrachloro-m-Xylene (Surr)		CCV	0.0489	0.100	mg/L	48.9	10.0 - 150	125495476
Decachlorobiphenyl	1082501	Blank	0.096	0.100	mg/L	96.0	10.0 - 150	125495468
Tetrachloro-m-Xylene (Surr)	1082501	Blank	0.0785	0.100	mg/L	78.5	10.0 - 150	125495468
Decachlorobiphenyl	1082716	Blank	0.0768	0.100	mg/L	76.8	10.0 - 150	125495465
Decachlorobiphenyl	1082716	LCS	0.0895	0.100	mg/L	89.5	10.0 - 150	125495466
Decachlorobiphenyl	1082716	LCS Dup	0.0975	0.100	mg/L	97.5	10.0 - 150	125495467
Tetrachloro-m-Xylene (Surr)	1082716	Blank	0.0614	0.100	mg/L	61.4	10.0 - 150	125495465
Tetrachloro-m-Xylene (Surr)	1082716	LCS	0.063	0.100	mg/L	63.0	10.0 - 150	125495466
Tetrachloro-m-Xylene (Surr)	1082716	LCS Dup	0.0815	0.100	mg/L	81.5	10.0 - 150	125495467
Decachlorobiphenyl	2232468	MS	0.00442	0.005	mg/L	88.4	10.0 - 150	125495475
Tetrachloro-m-Xylene (Surr)	2232468	MS	0.00417	0.005	mg/L	83.4	10.0 - 150	125495475

\* Out RPD is Relative Percent Difference:  $\frac{\text{abs}(r1-r2)}{\text{mean}(r1,r2)} * 100\%$

Recover% is Recovery Percent:  $\text{result} / \text{known} * 100\%$

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample, monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); MSD - Matrix Spike Duplicate (replicate of the matrix spike; same solution and amount of target analyte added to the MS is added to a third aliquot of sample; quantifies matrix bias and precision.); ICV - Initial Calibration Verification; LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.); BFB - Bromofluorobenzene, GC/MS Tuning Compound (mass intensity used as tuning acceptance criteria.); Surrogate - Surrogate (mimics the analyte of interest but is unlikely to be found in environmental sample; added to analytical samples for QC purposes \*\*ANSI/ASQC E4 1994 Ref#4 TRADE QA Resources Guide.); IS Area - Internal Standard Area (The area of the internal standard relative to a check standard. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); IS RetTime - Internal Standard Retention Time (the time the internal standard comes off the column. Internal Standard is a known concentration of an analyte(s) that is not a sample component or standard that is added to the sample and standard and is used to measure the relative responses of other analytes in the same sample or standard.); MS - Matrix Spike (same solution and amount of target analyte added to the LCS is added to a second aliquot of sample; quantifies matrix bias.); DFTPP - GC/MS Tuning Compound



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# Chaparral Laboratories, Inc.

861 State Hwy 19 P.O. Box 1622-Harrisville, TX. 77342 www.chaparrallabs.com reports@chaparrallabs.com Phone: 936-291-1881 FAX: 936-295-1731

## Chain of Custody Record

Client		Report To	Same as Client	Invoice Info	Same as Client	COC Page	of	Collection Code							
Name	City of Sealy			City of Sealy		1	1	Special							
Attn:	Travis Cochran			Accounts Payable											
Address	P.O. Box 517														
City, State, Zip	Sealy, TX 77474			P.O. Box 517											
Phone #				Sealy, TX 77474											
Fax #				979-885-2761											
E-Mail															
Lab Use Only		Project	Collection Point	Sample Type	Matrix Code	Date Collected	Time Collected	Flow (mgd)	Bottle Code	Vol (mL)	Pres. Code	Analysis	Matrix Code	Bottle Code	Preservative Code
23090412	01	City of Sealy WWTP	Belt Press	Grab	-S-				P	1000	1	As, Cd, Cr, Cu, Hg, Mo, NH3N, Ni, Pb, Se, T-K, T-P, TKN, %TS, Zn	SP	Non-Forable Water	1 - 6 - C
	02	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	2 - H2SO4
	03	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	3 - HNO3
	04	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	4 - NaOH
	05	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	5 - HCl
	06	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	6 - Na2S2O5
	07	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	7 - On-Site Analysis
	08	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	8 - Other
	09	City of Sealy WWTP	Belt Press	Grab	S				W	100	1	Fecal Coliform	SP	Non-Forable Water	
	10	City of Sealy WWTP	Belt Press	Grab	S				G	250	1	TCLP, NO3N	SP	Non-Forable Water	
	11	City of Sealy WWTP	Digester	Grab	S				P	1000	NA	PCB	SP	Non-Forable Water	
												SOUR	SP	Non-Forable Water	

Sample Conditions as Received from Client	Retinquished by:	Date	Time	Received by:	Date	Time
Received on ice: Y N NA IF N: Temperature °C*		9/14/23	1551			
Sample Conditions as Received by Lab						
Samples intact: Y N NA						
Received on ice: Y N NA						
Cooler ID # C110						

Notes:

Transfer to work 9/14/23 1551



8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321.6061

Email: lab@nwdls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

August 16, 2023

## LABORATORY REPORT

Glen Williams  
City of Tomball  
501 James Street  
Tomball, TX 77375

Report ID: 20230816173515DLH

RE: City of Tomball - South Plant - Class B

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Deena Higginbotham  
Director of Client Services

ENTERED DEC 15 2023

☒ Sludge Manager  
☒ Master Spreadsheet  
☐ TCLP  
☐ PCB  
☐ Metals  
☒ F/S  
☒ & Solid





City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Sample Results

Client Sample ID: Digester  
Lab Sample ID: 23F1980-01

Sample Matrix: Solid  
Date Collected: 06/08/2023 8:15  
Collected by: Hermilo Cortes

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	112000	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	42600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	84100	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	63600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	61000	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	31300	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
Colilert-18	Fecal coliforms	42600	MPN/g TS dry	BGF1337	06/09/2023 09:14	AKA
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.590	mg O <sub>2</sub> /hr/g TS @ 20°C dry	BGF1351	06/08/2023 16:10	AKA
SM 2550 B	Temperature °C Field	38.5	°C	BGF1562	06/08/2023 08:15	HCI
SM 2540 G	% Solids	3.90 V	%	BGF1366	06/09/2023 11:45	JRU / BP

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O<sub>2</sub>/hr/g TS.

62,457.14





City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Quality Control

#### General Chemistry

Analyte	Result/Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1366 - Percent Solids</b>									
<b>Blank (BGF1366-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1366-DUP1)</b>									
% Solids		0.100	%		0.902			1.08	10
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1366-DUP2)</b>									
% Solids		0.100	%		1.65			1.94	10
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Reference (BGF1366-SRM1)</b>									
% Solids		0.100	%	0.350		112	78.9-118		



City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Quality Control (Continued)

#### Microbiology

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1337 - FC Quantitray</b>									
<b>Blank (BGF1337-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 06/08/2023 Analyzed: 06/09/2023									
<b>Duplicate (BGF1337-DUP1)</b>									
Fecal coliforms		256	MPN/g TS dry		112000			89.4	200
Source: 23F1980-01 Prepared: 06/08/2023 Analyzed: 06/09/2023									



City of Tomball  
501 James Street  
Tomball, TX 77375

Project: City of Tomball - South Plant - Class B  
Project Number: 55  
Project Manager: Glen Williams

**Reported:**  
08/16/2023 17:35

### Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 1

23F1980

Lab PM : Deena Higginbotham		Project Name : City of Tomball - South Plant - Class B		Schedule Comments:	
City of Tomball Glen Williams 501 James Street Tomball, TX 77375 Phone: 832-349-8027		Project Comments: 12411 Holderieth Rd Tomball 77375 Combo # 9898 Glen Williams - 832-349-8027 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE			

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23F1980-01	Digester		6/8/2023 0815	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR SOUR-2710 SOUR TS-2540 G TS-2540 G Na2S2O3 <10°C 4°C 4°C 4°C	Temp C Field 39.5°C

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
Sampler (Signature) <i>[Signature]</i>		Write ID Below			
Print Name H. Carter	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLs	Relinquished To Lab By: (Signature) <i>[Signature]</i>	Date/Time 6.8.23/1345	Received for Laboratory By: (Signature) ROR	Date/Time 6.8.23	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022

Tomball



Tomball South



130 S. Trade Center Parkway, Conroe TX 77385  
Tel: (936) 321-6060  
Email: lab@nwdls.com  
www.NWDLS.com



August 01, 2023

## Laboratory Report

Glen Williams  
City of Tomball  
501 James Street  
Tomball, TX 77375

Report ID: 20230801105311AEN

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in dark ink, appearing to read "Aundra Noe", is written over a horizontal line.

Aundra Noe For Deena Higginbotham  
Director of Client Services



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

## Sample Results

Client Sample ID: Centrifuge  
Lab Sample ID: 23F1979-01

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

City of Tomball - South Plant - Annual Sludge

55

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### Organics by GC

SW-8082	PCBs, Total	A	<0.150 U	mg/kg (dry wt) dry	10	0.0750	0.150	BGF2732	06/26/2023 08:27	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		133%	60-140					06/26/2023 08:27	
SW-8082	Surrogate: Decachlorobiphenyl-surr		90.5%	60-140					06/26/2023 08:27	

### Metals, Total

SW-6010C	Arsenic	A	4.44	mg/kg dry	1	0.437	1.99	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Cadmium	A	0.540	mg/kg dry	1	0.0517	0.199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Chromium	A	17.6	mg/kg dry	1	0.747	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Copper	A	316	mg/kg dry	5	1.06	9.95	BGF2504	06/28/2023 14:11	FAL
SW-7471B	Mercury	A	0.491	mg/kg dry	5	0.0499	0.0997	BGF2130	06/14/2023 16:35	AKR
SW-6010C	Lead	A	11.7	mg/kg dry	1	0.507	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Molybdenum	A	4.87	mg/kg dry	1	0.998	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Nickel	A	11.3	mg/kg dry	1	0.269	0.998	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Potassium	A	1700	mg/kg dry	1	17.1	199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Selenium	A	4.47	mg/kg dry	1	0.777	1.99	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Total Phosphorus	A	8950	mg/kg dry	1	8.37	199	BGF2504	06/28/2023 12:08	FAL
SW-6010C	Zinc	A	737	mg/kg dry	20	20.0	20.0	BGF2504	06/28/2023 14:14	FAL

### General Chemistry

EPA 350.2	Ammonia as N	A	5880	mg/kg dry	1	76.7	153	BGF1604	06/12/2023 13:03	GIW
SW-9056A	Nitrate as N	A	88.8	mg/kg dry	1	3.88	9.70	BGF1622	06/09/2023 17:11	ORP
SW-9065	Free Liquids	A	Absent U		1	0.00	1.00	BGF2012	06/13/2023 15:39	EM
EPA 351.3	Total Kjeldahl Nitrogen - (TKN)	N	50800	mg/kg dry	1	194	194	BGF1608	06/12/2023 09:29	GIW
SM 2540 G	% Solids	A	12.9 V	%	1	0.100	0.100	BGF1881	06/13/2023 11:44	JRU

### TCLP

SW-6010C	Arsenic	A	<5.00 U	mg/L	1	0.0200	5.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Barium	A	<100 V2, U	mg/L	1	0.0100	100	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Cadmium	A	<1.00 U	mg/L	1	0.00100	1.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Chromium	A	<5.00 U	mg/L	1	0.00500	5.00	BGF2074	06/15/2023 14:30	TBB
SW-8151	2,4-D	A	<10.0 C+, U	mg/L	2	0.000476	10.0	BGF2849	07/09/2023 02:05	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00 C+, U	mg/L	2	0.000476	1.00	BGF2849	07/09/2023 02:05	KRB
SW-8151	Surrogate: DCAA-surr		129%	70-130					07/09/2023 02:05	
SW-7471B	Mercury	A	<0.200 U	mg/L	1	0.000200	0.200	BGF1994	06/15/2023 13:26	AKR
SW-6010C	Lead	A	<5.00 U	mg/L	1	0.0100	5.00	BGF2074	06/15/2023 14:30	TBB

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Sample Results**  
(Continued)

Client Sample ID: Centrifuge (Continued)  
Lab Sample ID: 23F1979-01  
City of Tomball - South Plant - Annual Sludge

55

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>TCLP (Continued)</b>										
SW-8081	Chlordane (Total)	A	<0.0300 C+, U	mg/L	1	3.00E-6	0.0300	BGF2470	07/13/2023 00:11	cdg
SW-8081	Endrin	N	<0.0200 U	mg/L	1	3.00E-6	0.0200	BGF2470	07/13/2023 00:11	cdg
SW-8081	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	<0.400 C+, U	mg/L	1	3.00E-6	0.400	BGF2470	07/13/2023 00:11	cdg
SW-8081	Heptachlor	A	<0.00800 C+, U	mg/L	1	3.00E-6	0.00800	BGF2470	07/13/2023 00:11	cdg
SW-8081	Heptachlor epoxide	A	<0.00800 U	mg/L	1	3.00E-6	0.00800	BGF2470	07/13/2023 00:11	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500 U	mg/L	1	3.00E-6	0.500	BGF2470	07/13/2023 00:11	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		106%	60-140					07/13/2023 00:11	
SW-8081	Surrogate: Decachlorobiphenyl-surr		64.7%	60-140					07/13/2023 00:11	
SW-6010C	Selenium	A	<1.00 U	mg/L	1	0.0200	1.00	BGF2074	06/15/2023 14:30	TBB
SW-6010C	Silver	A	<5.00 U	mg/L	1	0.00200	5.00	BGF2074	06/16/2023 11:43	TBB
SW-8270	2,4,5 & 2,4,6 -Trichlorophenol	N	<0.0100 U	mg/L	1	0.00500	0.0100	BGF1942	07/11/2023 19:54	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130 U	mg/L	1	0.00250	0.130	BGF1942	07/11/2023 19:54	KRB
SW-8270	2-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGF1942	07/11/2023 19:54	KRB
SW-8270	3,4-Methylphenol	A	<200 U	mg/L	1	0.00250	200	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachlorobenzene	A	<0.130 U	mg/L	1	0.00250	0.130	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachlorobutadiene	A	<0.500 U	mg/L	1	0.00250	0.500	BGF1942	07/11/2023 19:54	KRB
SW-8270	Hexachloroethane	A	<3.00 U	mg/L	1	0.00250	3.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Nitrobenzene	A	<2.00 U	mg/L	1	0.00250	2.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Pentachlorophenol	A	<100 U	mg/L	1	0.00250	100	BGF1942	07/11/2023 19:54	KRB
SW-8270	Pyridine	A	<5.00 U	mg/L	1	0.00250	5.00	BGF1942	07/11/2023 19:54	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		105%	54.6-148					07/11/2023 19:54	
SW-8270	Surrogate: 2-Fluorophenol-surr		98.3%	55-152					07/11/2023 19:54	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		118%	52.4-136					07/11/2023 19:54	
SW-8270	Surrogate: Nitrobenzene-d5-surr		109%	52-162					07/11/2023 19:54	
SW-8270	Surrogate: Phenol-d5-surr		96.1%	58.7-152					07/11/2023 19:54	
SW-8270	Surrogate: p-Terphenyl-d14-surr		95.8%	51.9-147					07/11/2023 19:54	

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Sample Results**  
(Continued)

Client Sample ID: Centrifuge  
Lab Sample ID: 23F1979-01RE1  
City of Tomball - South Plant - Annual Sludge

55

Sample Matrix: Solid  
Date Collected: 06/08/2023 7:00  
Collected by: Hermilo Cortes

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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**TCLP**

SW-8081	Methoxychlor (Rerun)	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF2470	07/14/2023 01:21	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-sur		91.0%	60-140					07/14/2023 01:21	
SW-8081	Surrogate: Decachlorobiphenyl-surr (Rerun)		71.0%	60-140					07/14/2023 01:21	





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

### Quality Control

#### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2732 - SW-3570</b>										
<b>Blank (BGF2732-BLK1)</b>			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	<0.0198	U	0.0198	mg/kg (dry wt) wet						
Aroclor-1260 (PCB-1260)	<0.0198	U	0.0198	mg/kg (dry wt) wet						
PCBs, Total	<0.0198	U	0.0198	mg/kg (dry wt) wet						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.00641	mg/kg (dry wt) wet	0.00593		108	60-140		
Surrogate: Decachlorobiphenyl-surr			0.00585	mg/kg (dry wt) wet	0.00593		98.7	60-140		
<b>LCS (BGF2732-BS1)</b>										
			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	0.0417		0.0199	mg/kg (dry wt) wet	0.0598		69.7	60-140		
Aroclor-1260 (PCB-1260)	0.0641		0.0199	mg/kg (dry wt) wet	0.0598		107	60-140		
PCBs, Total	0.0529		0.0199	mg/kg (dry wt) wet	0.0598		88.4	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.00648	mg/kg (dry wt) wet	0.00598		108	60-140		
Surrogate: Decachlorobiphenyl-surr			0.00633	mg/kg (dry wt) wet	0.00598		106	60-140		
<b>LCS Dup (BGF2732-BSD1)</b>										
			Prepared: 6/16/2023 Analyzed: 6/26/2023							
Aroclor-1016 (PCB-1016)	0.0384		0.0195	mg/kg (dry wt) wet	0.0585		65.7	60-140	8.19	40
Aroclor-1260 (PCB-1260)	0.0590		0.0195	mg/kg (dry wt) wet	0.0585		101	60-140	8.32	40
PCBs, Total	0.0487		0.0195	mg/kg (dry wt) wet	0.0585		83.2	60-140	8.27	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.00567	mg/kg (dry wt) wet	0.00585		97.0	60-140		
Surrogate: Decachlorobiphenyl-surr			0.00575	mg/kg (dry wt) wet	0.00585		98.3	60-140		
<b>Matrix Spike (BGF2732-MS1)</b>										
			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					
Aroclor-1016 (PCB-1016)	3.90		2.00	mg/kg (dry wt) dry	5.99	<2.00	65.0	60-140		
Aroclor-1260 (PCB-1260)	5.80		2.00	mg/kg (dry wt) dry	5.99	<2.00	96.9	60-140		
PCBs, Total	4.86		2.00	mg/kg (dry wt) dry	5.99	<2.00	81.1	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.762	mg/kg (dry wt) dry	0.599		127	60-140		
Surrogate: Decachlorobiphenyl-surr			0.570	mg/kg (dry wt) dry	0.599		95.2	60-140		
<b>Matrix Spike Dup (BGF2732-MSD1)</b>										
			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**Organics by GC (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2732 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGF2732-MSD1)</b>			<b>Source: 23F1467-01</b>		Prepared: 6/16/2023 Analyzed: 6/26/2023					
Aroclor-1016 (PCB-1016)	4.58		1.99	mg/kg (dry wt) dry	5.96	<1.99	76.8	60-140	16.1	40
Aroclor-1260 (PCB-1260)	6.35		1.99	mg/kg (dry wt) dry	5.96	<1.99	106	60-140	8.97	40
PCBs, Total	5.47		1.99	mg/kg (dry wt) dry	5.96	<1.99	91.7	60-140	11.9	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.780	mg/kg (dry wt) dry	0.596		131	60-140		
Surrogate: Decachlorobiphenyl-surr			0.645	mg/kg (dry wt) dry	0.596		108	60-140		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**Metals, Total**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2130 - SW-7471**

**MDL Check (BGF2130-MRL1)**

Prepared & Analyzed: 6/14/2023

Mercury	0.00974	U	0.0199	mg/kg wet	0.00993		98.0			
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**Matrix Spike (BGF2130-MS1)**

**Source: 23F1434-18**

Prepared & Analyzed: 6/14/2023

Mercury	0.470	J1	0.0199	mg/kg dry	0.249	0.168	121	80-120		
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**Matrix Spike Dup (BGF2130-MSD1)**

**Source: 23F1434-18**

Prepared & Analyzed: 6/14/2023

Mercury	0.414		0.0199	mg/kg dry	0.249	0.168	98.9	80-120	12.5	20
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**Batch: BGF2504 - SW-3050 for 6010**

**Blank (BGF2504-BLK1)**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	<1.77	U	1.77	mg/kg wet						
Cadmium	<0.177	U	0.177	mg/kg wet						
Chromium	<0.885	U	0.885	mg/kg wet						
Copper	<1.77	U	1.77	mg/kg wet						
Lead	<0.885	U	0.885	mg/kg wet						
Molybdenum	<0.885	U	0.885	mg/kg wet						
Nickel	<0.885	U	0.885	mg/kg wet						
Potassium	<177	U	177	mg/kg wet						
Selenium	<1.77	U	1.77	mg/kg wet						
Total Phosphorus	<177	U	177	mg/kg wet						
Zinc	<0.885	U	0.885	mg/kg wet						

**LCS (BGF2504-BS1)**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	41.8		1.73	mg/kg wet	43.3		96.7	80-120		
Cadmium	4.04		0.173	mg/kg wet	4.33		93.5	80-120		
Chromium	20.7		0.867	mg/kg wet	21.6		95.9	80-120		
Copper	41.2		1.73	mg/kg wet	43.3		95.2	80-120		
Lead	20.7		0.867	mg/kg wet	21.6		95.8	80-120		
Molybdenum	21.4		0.867	mg/kg wet	21.6		99.0	80-120		
Nickel	20.7		0.867	mg/kg wet	21.6		95.7	80-120		
Potassium	3930		173	mg/kg wet	4330		90.9	80-120		
Selenium	41.3		1.73	mg/kg wet	43.3		95.5	80-120		
Total Phosphorus	4230		173	mg/kg wet	4330		97.7	80-120		
Zinc	20.8		0.867	mg/kg wet	21.6		96.1	80-120		



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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2504 - SW-3050 for 6010 (Continued)**

**Matrix Spike (BGF2504-MS1)**

**Source: 23E0762-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	43.4		2.00	mg/kg dry	50.0	4.56	77.7	75-125		
Cadmium	4.25		0.200	mg/kg dry	5.00	0.400	77.0	75-125		
Chromium	34.9	J1	1.00	mg/kg dry	25.0	17.1	71.2	75-125		
Copper	956		20.0	mg/kg dry	1050	150	76.8	75-125		
Lead	30.9	J1	1.00	mg/kg dry	25.0	12.3	74.5	75-125		
Molybdenum	25.0	J1	1.00	mg/kg dry	25.0	6.72	73.3	75-125		
Nickel	31.6	J1	1.00	mg/kg dry	25.0	14.1	69.8	75-125		
Potassium	9250		200	mg/kg dry	5000	5210	80.7	75-125		
Selenium	44.2		2.00	mg/kg dry	50.0	3.53	81.4	75-125		
Total Phosphorus	24200		2000	mg/kg dry	10000	15400	88.0	75-125		
Zinc	1390		50.1	mg/kg dry	1020	493	87.9	75-125		

**Matrix Spike (BGF2504-MS2)**

**Source: 23F2769-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	84.2		2.92	mg/kg dry	73.2	13.0	97.2	75-125		
Cadmium	7.62		0.292	mg/kg dry	7.32	0.702	94.5	75-125		
Chromium	75.2		14.7	mg/kg dry	36.6	39.1	98.7	75-125		
Copper	1550		146	mg/kg dry	1540	242	85.2	75-125		
Lead	40.1		1.47	mg/kg dry	36.6	6.12	92.8	75-125		
Molybdenum	41.1		1.47	mg/kg dry	36.6	7.57	91.6	75-125		
Nickel	46.6		1.47	mg/kg dry	36.6	12.6	93.0	75-125		
Potassium	13200		292	mg/kg dry	7320	5710	103	75-125		
Selenium	80.8		2.92	mg/kg dry	73.2	8.38	98.9	75-125		
Total Phosphorus	32100	J1	2920	mg/kg dry	14600	23600	58.0	75-125		
Zinc	2570		73.3	mg/kg dry	1500	1040	102	75-125		

**Matrix Spike Dup (BGF2504-MSD1)**

**Source: 23E0762-01**

Prepared: 6/15/2023 Analyzed: 6/28/2023

Arsenic	39.4	J1	2.00	mg/kg dry	50.0	4.56	69.6	75-125	9.80	20
Cadmium	3.90	J1	0.200	mg/kg dry	5.00	0.400	70.0	75-125	8.55	20
Chromium	31.6	J1	1.00	mg/kg dry	25.0	17.1	58.0	75-125	9.95	20
Copper	802	J1	20.0	mg/kg dry	1050	150	62.2	75-125	17.4	20
Lead	28.0	J1	1.00	mg/kg dry	25.0	12.3	62.8	75-125	9.97	20
Molybdenum	22.7	J1	1.00	mg/kg dry	25.0	6.72	64.1	75-125	9.61	20
Nickel	29.0	J1	1.00	mg/kg dry	25.0	14.1	59.5	75-125	8.57	20
Potassium	8200	J1	200	mg/kg dry	5000	5210	59.8	75-125	12.0	20
Selenium	40.0	J1	2.00	mg/kg dry	50.0	3.53	73.0	75-125	9.97	20
Total Phosphorus	22200	J1	2000	mg/kg dry	10000	15400	68.7	75-125	8.32	20
Zinc	984	J1	50.1	mg/kg dry	1020	493	47.9	75-125	34.4	20





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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2504 - SW-3050 for 6010 (Continued)**

<b>Matrix Spike Dup (BGF2504-MSD2)</b>		<b>Source: 23F2769-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023					
Arsenic	83.7		2.93	mg/kg dry	73.2	13.0	96.5	75-125	0.604	20
Cadmium	7.60		0.293	mg/kg dry	7.32	0.702	94.2	75-125	0.256	20
Chromium	73.6		14.7	mg/kg dry	36.6	39.1	94.2	75-125	2.19	20
Copper	1630		146	mg/kg dry	1540	242	90.4	75-125	5.02	20
Lead	40.0		1.47	mg/kg dry	36.6	6.12	92.4	75-125	0.331	20
Molybdenum	40.9		1.47	mg/kg dry	36.6	7.57	91.1	75-125	0.433	20
Nickel	46.2		1.47	mg/kg dry	36.6	12.6	91.9	75-125	0.863	20
Potassium	13200		293	mg/kg dry	7320	5710	102	75-125	0.216	20
Selenium	80.4		2.93	mg/kg dry	73.2	8.38	98.4	75-125	0.442	20
Total Phosphorus	29900	J1	2930	mg/kg dry	14600	23600	43.0	75-125	7.08	20
Zinc	2720		73.4	mg/kg dry	1500	1040	111	75-125	5.43	20

<b>Post Spike (BGF2504-PS1)</b>		<b>Source: 23E0762-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023					
Arsenic	533			ug/L	500	43.1	97.9	80-120		
Cadmium	53.8			ug/L	50.0	3.78	100	80-120		
Chromium	398			ug/L	250	162	94.6	80-120		
Copper	2120	J1		ug/L	500	1420	141	80-120		
Lead	349			ug/L	250	116	93.3	80-120		
Molybdenum	300			ug/L	250	63.5	94.6	80-120		
Nickel	367			ug/L	250	134	93.2	80-120		
Potassium	94200			ug/L	50000	49200	89.8	80-120		
Selenium	544			ug/L	500	33.4	102	80-120		
Total Phosphorus	206000	J1		ug/L	50000	145000	122	80-120		
Zinc	5580	J1		ug/L	250	4660	367	80-120		

<b>Post Spike (BGF2504-PS2)</b>		<b>Source: 23F2769-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023					
Arsenic	573			ug/L	500	84.1	97.7	80-120		
Cadmium	54.1			ug/L	50.0	4.53	99.1	80-120		
Chromium	517			ug/L	250	252	106	80-120		
Copper	1750	J1		ug/L	500	1560	37.8	80-120		
Lead	274			ug/L	250	39.5	93.8	80-120		
Molybdenum	290			ug/L	250	48.9	96.5	80-120		
Nickel	318			ug/L	250	81.3	94.9	80-120		
Potassium	89200			ug/L	50000	36800	105	80-120		
Selenium	562			ug/L	500	54.1	102	80-120		
Total Phosphorus	175000	J1		ug/L	50000	152000	46.6	80-120		
Zinc	7940	J1		ug/L	250	6730	483	80-120		



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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2504 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGF2504-SRL1)</b>			<b>Source: 23E0762-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023				
Arsenic	4.74	U	10.0	mg/kg dry		4.56			4.04	10
Cadmium	0.310	U	1.00	mg/kg dry		0.400			25.3	10
Chromium	14.2		5.01	mg/kg dry		17.1			18.3	10
Copper	150		10.0	mg/kg dry		150			0.0791	10
Lead	9.48		5.01	mg/kg dry		12.3			25.5	10
Molybdenum	5.57		5.01	mg/kg dry		6.72			18.7	10
Nickel	11.5		5.01	mg/kg dry		14.1			20.5	10
Potassium	4570	J1	1000	mg/kg dry		5210			13.1	10
Selenium	<10.0	U	10.0	mg/kg dry		<10.0			200	10
Total Phosphorus	15400		1000	mg/kg dry		15400			0.0791	10

<b>Dilution Check (BGF2504-SRL2)</b>			<b>Source: 23F2769-01</b>			Prepared: 6/15/2023 Analyzed: 6/28/2023				
Arsenic	18.6		14.6	mg/kg dry		13.0			35.4	10
Cadmium	0.828	U	1.46	mg/kg dry		0.702			16.5	10
Chromium	51.5		7.34	mg/kg dry		39.1			27.5	10
Copper	242		14.6	mg/kg dry		242			0.00334	10
Lead	7.82		7.34	mg/kg dry		6.12			24.3	10
Molybdenum	9.92		7.34	mg/kg dry		7.57			26.8	10
Nickel	17.1		7.34	mg/kg dry		12.6			30.2	10
Potassium	7230	J1	1460	mg/kg dry		5710			23.5	10
Selenium	12.2	U	14.6	mg/kg dry		8.38			36.9	10
Total Phosphorus	23600		1460	mg/kg dry		23600			0.00330	10



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**Quality Control**  
(Continued)

**General Chemistry**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1604 - NH3-N T</b>										
<b>Blank (BGF1604-BLK1)</b>										
Ammonia as N	<10.0	U	10.0	mg/kg wet						
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>LCS (BGF1604-BS1)</b>										
Ammonia as N	93.6		9.92	mg/kg wet	99.2		94.4	85-115		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Duplicate (BGF1604-DUP1)</b>										
Ammonia as N	131		24.4	mg/kg dry		116			12.2	20
Source: 23E2399-13 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>MRL Check (BGF1604-MRL1)</b>										
Ammonia as N	10.1		9.99	mg/kg wet	9.99		101	50-150		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Matrix Spike (BGF1604-MS1)</b>										
Ammonia as N	340		25.4	mg/kg dry	254	116	88.3	85-115		
Source: 23E2399-13 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Batch: BGF1608 - TKN T</b>										
<b>Blank (BGF1608-BLK1)</b>										
Total Kjeldahl Nitrogen - (TKN)	<12.0	U	12.0	mg/kg wet						
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>LCS (BGF1608-BS1)</b>										
Total Kjeldahl Nitrogen - (TKN)	23.1		12.1	mg/kg wet	24.5		94.3	85-115		
Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Duplicate (BGF1608-DUP1)</b>										
Total Kjeldahl Nitrogen - (TKN)	40800	J1	2410	mg/kg dry		52000			24.2	20
Source: 23E5251-01 Prepared: 6/9/2023 Analyzed: 6/12/2023										
<b>Matrix Spike (BGF1608-MS1)</b>										
Total Kjeldahl Nitrogen - (TKN)	58900	J1	2390	mg/kg dry	9560	52000	72.3	85-115		
Source: 23E5251-01 Prepared: 6/9/2023 Analyzed: 6/12/2023										

\* A = Accredited, N = Not Accredited or Accreditation not available



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1622 - Solid Anions with Prep</b>										
<b>Blank (BGF1622-BLK1)</b>										
Nitrate as N	<1.21	U	1.21	mg/kg wet	Prepared & Analyzed: 6/9/2023					
<b>LCS (BGF1622-BS1)</b>										
Nitrate as N	18.6		1.24	mg/kg wet	19.9		93.7	90-110		
<b>Duplicate (BGF1622-DUP1)</b>										
			<b>Source: 23F1977-01</b>			Prepared & Analyzed: 6/9/2023				
Nitrate as N	175		8.70	mg/kg dry		196			11.3	15
<b>Matrix Spike (BGF1622-MS1)</b>										
			<b>Source: 23F1977-01</b>			Prepared & Analyzed: 6/9/2023				
Nitrate as N	530	J1	43.4	mg/kg dry	139	196	240	80-120		
<b>Batch: BGF1881 - Percent Solids</b>										
<b>Blank (BGF1881-BLK1)</b>										
% Solids	<0.100	U	0.100	%	Prepared: 6/12/2023 Analyzed: 6/13/2023					
<b>Duplicate (BGF1881-DUP1)</b>										
			<b>Source: 23F0644-05</b>			Prepared: 6/12/2023 Analyzed: 6/13/2023				
% Solids	1.34		0.100	%		1.33			0.583	10
<b>Duplicate (BGF1881-DUP2)</b>										
			<b>Source: 23F2214-02</b>			Prepared: 6/12/2023 Analyzed: 6/13/2023				
% Solids	2.03		0.100	%		2.03			0.0438	10
<b>Reference (BGF1881-SRM1)</b>										
					Prepared: 6/12/2023 Analyzed: 6/13/2023					
% Solids	0.382		0.100	%	0.350		109	78.9-118		
<b>Batch: BGF2012 - Paint Filter</b>										
<b>Duplicate (BGF2012-DUP1)</b>										
			<b>Source: 23F1977-01</b>			Prepared & Analyzed: 6/13/2023				
Free Liquids	Absent	U	1.00	[blank]		<1.00				20





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**Quality Control**  
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**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511**

**MB SV (BGF1942-BLK1)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.00250	U	0.00250	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0102	mg/L	0.0100		102	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0188	mg/L	0.0200		93.8	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0187	mg/L	0.0200		93.4	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00947	mg/L	0.0100		94.7	52-162		
Surrogate: Phenol-d5-surr			0.0196	mg/L	0.0200		97.8	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00902	mg/L	0.0100		90.2	51.9-147		

**BS SV (BGF1942-BS2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0407		0.00250	mg/L	0.0400		102	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00997	U	0.130	mg/L	0.0100		99.7	60-140		
2-Methylphenol	0.0151	U	200	mg/L	0.0200		75.7	60-140		
3,4-Methylphenol	0.0327	U	200	mg/L	0.0400		81.8	60-140		
Hexachlorobenzene	0.00953	U	0.130	mg/L	0.0100		95.3	60-140		
Hexachlorobutadiene	0.00799	U	0.500	mg/L	0.0100		79.9	60-140		
Hexachloroethane	0.00778	U	3.00	mg/L	0.0100		77.8	60-140		
Nitrobenzene	0.00981	U	2.00	mg/L	0.0100		98.1	60-140		
Pentachlorophenol	0.0177	U	100	mg/L	0.0200		88.5	36.8-149		
Pyridine	0.00611	U	5.00	mg/L	0.0500		12.2	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.0101	mg/L	0.0100		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0186	mg/L	0.0200		93.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0185	mg/L	0.0200		92.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00886	mg/L	0.0100		88.6	52-162		
Surrogate: Phenol-d5-surr			0.0190	mg/L	0.0200		95.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00935	mg/L	0.0100		93.5	51.9-147		

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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511 (Continued)**

**BSD SV (BGF1942-bsd2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0434		0.00250	mg/L	0.0400		108	60-140	6.48	40
2,4-Dinitrotoluene (2,4-DNT)	0.0101	U	0.130	mg/L	0.0100		101	60-140	0.858	40
2-Methylphenol	0.0161	U	200	mg/L	0.0200		80.6	60-140	6.31	40
3,4-Methylphenol	0.0341	U	200	mg/L	0.0400		85.2	60-140	4.06	40
Hexachlorobenzene	0.00963	U	0.130	mg/L	0.0100		96.3	60-140	1.09	40
Hexachlorobutadiene	0.00716	U	0.500	mg/L	0.0100		71.6	60-140	11.0	40
Hexachloroethane	0.00812	U	3.00	mg/L	0.0100		81.2	60-140	4.30	40
Nitrobenzene	0.0103	U	2.00	mg/L	0.0100		103	60-140	4.58	40
Pentachlorophenol	0.0173	U	100	mg/L	0.0200		86.4	36.8-149	2.51	40
Pyridine	0.0186	J1, U	5.00	mg/L	0.0500		37.3	2.5-101	101	40
Surrogate: 2-Fluorobiphenyl-surr			0.0101	mg/L	0.0100		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0193	mg/L	0.0200		96.6	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0183	mg/L	0.0200		91.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00930	mg/L	0.0100		93.0	52-162		
Surrogate: Phenol-d5-surr			0.0199	mg/L	0.0200		99.3	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00921	mg/L	0.0100		92.1	51.9-147		

**BGF1262-BLK1 (BGF1942-LBK1)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.0100	U	0.0100	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00574	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0402	mg/L	0.0400		101	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0731	mg/L	0.0800		91.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0852	mg/L	0.0800		107	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0377	mg/L	0.0400		94.2	52-162		
Surrogate: Phenol-d5-surr			0.0759	mg/L	0.0800		94.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0303	mg/L	0.0400		75.8	51.9-147		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511 (Continued)**

**BGF1811-BLK1 (BGF1942-LBK2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	<0.0100	U	0.0100	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	0.00399	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0416	mg/L	0.0400		104	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0810	mg/L	0.0800		101	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0954	mg/L	0.0800		119	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0460	mg/L	0.0400		115	52-162		
Surrogate: Phenol-d5-surr			0.0797	mg/L	0.0800		99.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0384	mg/L	0.0400		95.9	51.9-147		

**MDL SV (BGF1942-MRL2)**

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.00134	U	0.00250	mg/L	0.00200		66.9			
2,4-Dinitrotoluene (2,4-DNT)	0.000635	U	0.130	mg/L	0.000500		127			
2-Methylphenol	0.000484	U	200	mg/L	0.00100		48.4			
3,4-Methylphenol	0.00217	U	200	mg/L	0.00200		109			
Hexachlorobenzene	0.000215	U	0.130	mg/L	0.000500		42.9			
Hexachlorobutadiene	0.000379	U	0.500	mg/L	0.000500		75.9			
Hexachloroethane	0.000362	U	3.00	mg/L	0.000500		72.4			
Nitrobenzene	0.000568	U	2.00	mg/L	0.000500		114			
Pentachlorophenol	0.000753	U	100	mg/L	0.00100		75.3			
Pyridine	0.00611	U	5.00	mg/L	0.00250		244			
Surrogate: 2-Fluorobiphenyl-surr			0.0103	mg/L	0.0100		103	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0195	mg/L	0.0200		97.7	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0200	mg/L	0.0200		99.8	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0105	mg/L	0.0100		105	52-162		
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0200		92.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00917	mg/L	0.0100		91.7	51.9-147		





City of Tomball  
501 James Street  
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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF1942 - SW-3511 (Continued)**

**23F1434-02 MS (BGF1942-MS1)**

Source: 23F1434-02

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0405		0.00249	mg/L	0.0398	<0.00249	102	44.9-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0102	U	0.130	mg/L	0.00995	<0.130	102	50.3-144		
2-Methylphenol	0.0162	U	200	mg/L	0.0199	<200	81.5	17.3-182		
3,4-Methylphenol	0.0373	U	200	mg/L	0.0398	<200	93.7	43.4-188		
Hexachlorobenzene	0.00865	U	0.130	mg/L	0.00995	<0.130	86.9	56.1-137		
Hexachlorobutadiene	0.00626	U	0.500	mg/L	0.00995	<0.500	63.0	33.1-110		
Hexachloroethane	0.00696	U	3.00	mg/L	0.00995	<3.00	70.0	36.2-106		
Nitrobenzene	0.0112	U	2.00	mg/L	0.00995	<2.00	112	54.9-156		
Pentachlorophenol	0.0163	U	100	mg/L	0.0199	<100	81.8	42.2-151		
Pyridine	0.0234	U	5.00	mg/L	0.0497	<5.00	47.1	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.00991	mg/L	0.00995		99.6	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0190	mg/L	0.0199		95.5	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0171	mg/L	0.0199		86.2	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00995	mg/L	0.00995		100	52-162		
Surrogate: Phenol-d5-surr			0.0223	mg/L	0.0199		112	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00836	mg/L	0.00995		84.0	51.9-147		

**23F1434-02 MSD (BGF1942-MSD1)**

Source: 23F1434-02

Prepared: 6/13/2023 Analyzed: 7/11/2023

2,4,5 & 2,4,6 -Trichlorophenol	0.0439		0.00249	mg/L	0.0398	<0.00249	110	44.9-143	8.24	40
2,4-Dinitrotoluene (2,4-DNT)	0.0110	U	0.130	mg/L	0.00996	<0.130	111	50.3-144	8.32	40
2-Methylphenol	0.0153	U	200	mg/L	0.0199	<200	76.6	17.3-182	6.06	40
3,4-Methylphenol	0.0353	U	200	mg/L	0.0398	<200	88.6	43.4-188	5.45	40
Hexachlorobenzene	0.00981	U	0.130	mg/L	0.00996	<0.130	98.5	56.1-137	12.6	40
Hexachlorobutadiene	0.00767	U	0.500	mg/L	0.00996	<0.500	77.0	33.1-110	20.2	40
Hexachloroethane	0.00821	U	3.00	mg/L	0.00996	<3.00	82.4	36.2-106	16.4	40
Nitrobenzene	0.0111	U	2.00	mg/L	0.00996	<2.00	111	54.9-156	0.818	40
Pentachlorophenol	0.0180	U	100	mg/L	0.0199	<100	90.5	42.2-151	10.3	40
Pyridine	0.0314	U	5.00	mg/L	0.0498	<5.00	63.0	2-87.4	28.9	40
Surrogate: 2-Fluorobiphenyl-surr			0.0109	mg/L	0.00996		110	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0195	mg/L	0.0199		98.1	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0188	mg/L	0.0199		94.1	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00973	mg/L	0.00996		97.7	52-162		
Surrogate: Phenol-d5-surr			0.0184	mg/L	0.0199		92.6	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00842	mg/L	0.00996		84.5	51.9-147		





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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF1994 - SW-7471 TCLP</b>										
<b>Duplicate (BGF1994-DUP1)</b>		<b>Source: 23F2123-01</b>		Prepared: 6/14/2023 Analyzed: 6/15/2023						
Mercury	<0.200	U	0.200	mg/L		<0.200				200
<b>BGF1262-LBK1 (BGF1994-LBK1)</b>				Prepared: 6/14/2023 Analyzed: 6/15/2023						
Mercury	<0.200	U	0.200	mg/L						
<b>BGF1811-LBK2 (BGF1994-LBK2)</b>				Prepared: 6/14/2023 Analyzed: 6/15/2023						
Mercury	<0.200	U	0.200	mg/L						
<b>MDL Check (BGF1994-MRL1)</b>				Prepared: 6/14/2023 Analyzed: 6/15/2023						
Mercury	0.000191	U	0.200	mg/L	0.000200		95.5			
<b>Matrix Spike (BGF1994-MS1)</b>		<b>Source: 23F2123-01</b>		Prepared: 6/14/2023 Analyzed: 6/15/2023						
Mercury	0.00497	U	0.200	mg/L	0.00500	<0.200	99.4	80-120		
<b>Batch: BGF2074 - EPA 200.2 TCLP</b>										
<b>Blank (BGF2074-BLK1)</b>				Prepared: 6/14/2023 Analyzed: 6/15/2023						
Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
<b>Blank (BGF2074-BLK2)</b>				Prepared: 6/14/2023 Analyzed: 6/16/2023						
Silver	<5.00	U	5.00	mg/L						

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2074 - EPA 200.2 TCLP (Continued)**

**LCS (BGF2074-BS1)**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	0.510	U	5.00	mg/L	0.500		102	80-120		
Barium	0.502	U	100	mg/L	0.500		100	80-120		
Cadmium	0.0491	U	1.00	mg/L	0.0500		98.2	80-120		
Chromium	0.255	U	5.00	mg/L	0.250		102	80-120		
Lead	0.256	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.511	U	1.00	mg/L	0.500		102	80-120		

**LCS (BGF2074-BS2)**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	0.0515	U	5.00	mg/L	0.0500		103	80-120		
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**Duplicate (BGF2074-DUP1)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00			20.4	20
Barium	1.12	U	100	mg/L		1.37				20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20

**Duplicate (BGF2074-DUP2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	<5.00	U	5.00	mg/L		<5.00				20
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**BGF1262-BLK1 (BGF2074-LBK1)**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.800	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						



City of Tomball  
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**Reported:**  
 08/01/2023 10:53

**Quality Control**  
**(Continued)**

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2074 - EPA 200.2 TCLP (Continued)</b>										
<b>BGF1811-BLK1 (BGF2074-LBK2)</b>					Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	<5.00	U	5.00	mg/L						
Barium	0.780	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
<b>BGF1262-BLK1 (BGF2074-LBK3)</b>					Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	<5.00	U	5.00	mg/L						
<b>BGF1811-BLK1 (BGF2074-LBK4)</b>					Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	<5.00	U	5.00	mg/L						
<b>Matrix Spike (BGF2074-MS1)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	0.524	U	5.00	mg/L	0.500	<5.00	105	75-125		
Barium	1.62	J1, U	100	mg/L	0.500	1.37	50.9	75-125		
Cadmium	0.0509	U	1.00	mg/L	0.0500	<1.00	102	75-125		
Chromium	0.240	U	5.00	mg/L	0.250	<5.00	96.0	75-125		
Lead	0.246	U	5.00	mg/L	0.250	<5.00	98.3	75-125		
Selenium	0.507	U	1.00	mg/L	0.500	<1.00	101	75-125		
<b>Matrix Spike (BGF2074-MS2)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/16/2023					
Silver	0.0433	U	5.00	mg/L	0.0500	<5.00	86.5	75-125		
<b>Post Spike (BGF2074-PS1)</b>					Source: 23F1031-01 Prepared: 6/14/2023 Analyzed: 6/15/2023					
Arsenic	534			ug/L	500	15.3	104	80-120		
Barium	1600	J1		ug/L	500	1330	53.6	80-120		
Cadmium	51.9			ug/L	50.0	0.117	104	80-120		
Chromium	249			ug/L	250	2.37	98.7	80-120		
Lead	253			ug/L	250	1.72	101	80-120		
Selenium	516			ug/L	500	1.73	103	80-120		

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City of Tomball  
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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2074 - EPA 200.2 TCLP (Continued)**

**Post Spike (BGF2074-PS2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	50.7			ug/L	50.0	1.05	99.2	80-120		
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**Dilution Check (BGF2074-SRL1)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/15/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.37	U	100	mg/L		1.37			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10

**Dilution Check (BGF2074-SRL2)**

**Source: 23F1031-01**

Prepared: 6/14/2023 Analyzed: 6/16/2023

Silver	<5.00	U	5.00	mg/L		<5.00				10
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**Batch: BGF2470 - SW-3511**

**MB OCP (BGF2470-BLK1)**

Prepared: 6/15/2023 Analyzed: 7/11/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000121	mg/L		0.000119		101		60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.97E-5	mg/L		0.000119		75.2		60-140

**BS TOX (BGF2470-BS1)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Toxaphene (Chlorinated Camphene)	0.00109	U	0.500	mg/L		0.00119		91.2		60-140
Surrogate: 2,4,5,6			0.000133	mg/L		0.000119		111		60-140
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.93E-5	mg/L		0.000119		83.2		60-140





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**Reported:**  
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**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2470 - SW-3511 (Continued)**

**BS OCP (BGF2470-BS2)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000475	U	0.0300	mg/L	0.000480		99.1	60-140		
Endrin	0.000121	U	0.0200	mg/L	0.000120		101	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000118	U	0.400	mg/L	0.000120		98.2	60-140		
Heptachlor	0.000130	U	0.00800	mg/L	0.000120		109	60-140		
Heptachlor epoxide	0.000117	U	0.00800	mg/L	0.000120		97.2	60-140		
Methoxychlor	0.000117	U	10.0	mg/L	0.000120		97.7	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000138	mg/L	0.000120		115	60-140		
Surrogate: Decachlorobiphenyl-surr			9.24E-5	mg/L	0.000120		77.0	60-140		

**BSD TOX (BGF2470-BSD1)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Toxaphene (Chlorinated Camphene)	0.00117	U	0.500	mg/L	0.00119		98.3	60-140	7.43	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000137	mg/L	0.000119		115	60-140		
Surrogate: Decachlorobiphenyl-surr			9.95E-5	mg/L	0.000119		83.4	60-140		

**BSD OCP (BGF2470-BSD2)**

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000467	U	0.0300	mg/L	0.000477		97.9	60-140	1.84	40
Endrin	0.000134	U	0.0200	mg/L	0.000119		113	60-140	10.5	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000117	U	0.400	mg/L	0.000119		98.5	60-140	0.353	40
Heptachlor	0.000123	U	0.00800	mg/L	0.000119		103	60-140	5.54	40
Heptachlor epoxide	0.000117	U	0.00800	mg/L	0.000119		98.4	60-140	0.648	40
Methoxychlor	0.000116	U	10.0	mg/L	0.000119		97.3	60-140	1.06	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000135	mg/L	0.000119		113	60-140		
Surrogate: Decachlorobiphenyl-surr			8.96E-5	mg/L	0.000119		75.2	60-140		

**BGF1811-BLK1 (BGF2470-LBK1)**

Prepared: 6/15/2023 Analyzed: 7/13/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000672	mg/L	0.000600		112	60-140		
Surrogate: Decachlorobiphenyl-surr	S		0.000281	mg/L	0.000600		46.8	60-140		

\* A = Accredited, N = Not Accredited or Accreditation not available



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2470 - SW-3511 (Continued)</b>										
<b>BGF1811-BLK1 (BGF2470-LBK3)</b>										
					Prepared: 6/15/2023 Analyzed: 7/14/2023					
Methoxychlor	<10.0	U	10.0	mg/L						
Surrogate: 2,4,5,6			0.000533	mg/L	0.000600		88.9	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		0.000332	mg/L	0.000600		55.3	60-140		
<b>MDL TOX (BGF2470-MRL1)</b>										
					Prepared: 6/15/2023 Analyzed: 7/12/2023					
Toxaphene (Chlorinated Camphene)	0.000249	U	0.500	mg/L	0.000296		84.4			
Surrogate: 2,4,5,6	S		0.000167	mg/L	0.000118		142	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			9.40E-5	mg/L	0.000118		79.5	60-140		
<b>MDL OCP (BGF2470-MRL2)</b>										
					Prepared: 6/15/2023 Analyzed: 7/12/2023					
Chlordane (Total)	4.32E-5	U	0.0300	mg/L	4.74E-5		91.1			
Endrin	9.35E-6	U	0.0200	mg/L	1.18E-5		78.9			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.71E-6	U	0.400	mg/L	1.18E-5		81.9			
Heptachlor	1.28E-5	U	0.00800	mg/L	1.18E-5		108			
Heptachlor epoxide	1.18E-5	U	0.00800	mg/L	1.18E-5		99.9			
Methoxychlor	1.04E-5	U	10.0	mg/L	1.18E-5		87.8			
Surrogate: 2,4,5,6			0.000130	mg/L	0.000118		109	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.36E-5	mg/L	0.000118		70.5	60-140		
<b>23F0710-02 MS (BGF2470-MS1)</b>										
			<b>Source: 23F0710-02</b>		Prepared: 6/15/2023 Analyzed: 7/12/2023					
Chlordane (Total)	0.000421	U	0.0300	mg/L	0.000478	<0.0300	88.0	60-140		
Endrin	0.000119	U	0.0200	mg/L	0.000119	<0.0200	99.3	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000118	U	0.400	mg/L	0.000119	<0.400	98.8	60-140		
Heptachlor	0.000109	U	0.00800	mg/L	0.000119	<0.00800	91.1	60-140		
Heptachlor epoxide	0.000118	U	0.00800	mg/L	0.000119	<0.00800	98.5	60-140		
Methoxychlor	7.21E-5	U	10.0	mg/L	0.000119	<10.0	60.3	60-140		
Surrogate: 2,4,5,6			0.000131	mg/L	0.000119		110	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			8.54E-5	mg/L	0.000119		71.5	60-140		



City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF2470 - SW-3511 (Continued)**

**23F0710-02 MSD (BGF2470-MSD1)**

Source: 23F0710-02

Prepared: 6/15/2023 Analyzed: 7/12/2023

Chlordane (Total)	0.000434	U	0.0300	mg/L	0.000478	<0.0300	90.7	60-140	3.09	40
Endrin	0.000123	U	0.0200	mg/L	0.000120	<0.0200	103	60-140	3.71	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000117	U	0.400	mg/L	0.000120	<0.400	98.2	60-140	0.566	40
Heptachlor	0.000107	U	0.00800	mg/L	0.000120	<0.00800	89.6	60-140	1.54	40
Heptachlor epoxide	0.000121	U	0.00800	mg/L	0.000120	<0.00800	101	60-140	2.32	40
Methoxychlor	7.15E-5	J1, U	10.0	mg/L	0.000120	<10.0	59.8	60-140	0.735	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			0.000126	mg/L	0.000120		105	60-140		
Surrogate: Decachlorobiphenyl-surr			8.09E-5	mg/L	0.000120		67.6	60-140		

**Batch: BGF2849 - SW-3511**

**Blank (BGF2849-BLK1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0258	mg/L	0.0250		103	70-130		

**LCS (BGF2849-BS1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	0.00565	U	10.0	mg/L	0.00515		110	70-130		
Silvex (2,4,5-TP)	0.00503	U	1.00	mg/L	0.00500		101	70-130		
Surrogate: DCAA-surr			0.0292	mg/L	0.0250		117	70-130		

**LCS Dup (BGF2849-BSD1)**

Prepared: 6/19/2023 Analyzed: 7/8/2023

2,4-D	0.00594	U	10.0	mg/L	0.00515		115	70-130	5	30
Silvex (2,4,5-TP)	0.00524	U	1.00	mg/L	0.00500		105	70-130	4	30
Surrogate: DCAA-surr	S		0.0331	mg/L	0.0250		132	70-130		

**BGF1811-BLK1 (BGF2849-LBK1)**

Prepared: 6/19/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.139	mg/L	0.100		139	70-130		





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

**Quality Control**  
(Continued)

**TCLP (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF2849 - SW-3511 (Continued)</b>										
<b>BGF2702-BLK1 (BGF2849-LBK2)</b>										
					Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.115	mg/L	0.100		115	70-130		
<b>Matrix Spike (BGF2849-MS1)</b>										
			<b>Source: 23F2847-02</b>		Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	0.00582	U	10.0	mg/L	0.00515	<10.0	113	70-130		
Silvex (2,4,5-TP)	0.00498	U	1.00	mg/L	0.00500	<1.00	100	70-130		
Surrogate: DCAA-surr		S	0.0355	mg/L	0.0250		142	70-130		
<b>Matrix Spike Dup (BGF2849-MSD1)</b>										
			<b>Source: 23F2847-02</b>		Prepared: 6/19/2023 Analyzed: 7/9/2023					
2,4-D	0.00731	J1, U	10.0	mg/L	0.00515	<10.0	142	70-130	23	30
Silvex (2,4,5-TP)	0.00628	U	1.00	mg/L	0.00500	<1.00	126	70-130	23	30
Surrogate: DCAA-surr		S	0.0408	mg/L	0.0250		163	70-130		





City of Tomball  
501 James Street  
Tomball, TX 77375

**Reported:**  
08/01/2023 10:53

### Sample Condition Checklist

Work Order: 23F1979

#### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

City of Tomball  
 501 James Street  
 Tomball, TX 77375

**Reported:**  
 08/01/2023 10:53

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nmwdis.com

TCEQ T104704238-23-39



Page 1 of 2

23F1979

Lab PM : Deena Higginbotham

Project Name : City of Tomball - South Plant - Annual Sludge

Schedule Comments:

City of Tomball  
Glen Williams  
501 James Street  
Tomball, TX 77375  
Phone: 832-349-8027

Project Comments: 12411 Holdereth Rd Tomball 77375  
Combo # 9898 Glen Williams - 832-349-8027  
ENTER CODE TO CLOSE GATE WHEN YOU LEAVE

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23F1979-01	Centrifuge		6/8/2023 collected by operator 0700	S Grab	A Glass 1L B Glass 250mL w/ Teflon-lined Lid C HDPE IC 250mL D HDPE MET 250mL E HDPE WC 250mL F Glass Wide 1L w/ Teflon-lined Lid G HDPE 250mL H Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCP-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C Paint Filter-9095 4°C TKN T-351.3 4°C TS-2540 G 4°C	



# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdlis.com

TCEQ T104704238-23-39



Page 2 of 2

23F1979

(Continued)

Lab PM : Deena Higginbotham	Project Name : City of Tomball - South Plant - Annual Sludge	Schedule Comments:
City of Tomball Glen Williams 501 James Street Tomball, TX 77375 Phone: 832-349-8027	Project Comments: 12411 Holderrieth Rd Tomball 77375 Combo # 9898 Glen Williams - 832-349-8027 ENTER CODE TO CLOSE GATE WHEN YOU LEAVE	

Field Remarks:		Lab Preservation: H2SO4      HNO3      NaOH      Other: _____			
		(Circle and Write ID Below)			
Sampler (Signature) <i>[Signature]</i>	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Print Name H. Cotos	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time	
Affiliation NWDLIS	Relinquished To Lab By: (Signature) <i>[Signature]</i>	Date/Time 6.8.23/1345	Received for Laboratory By: (Signature) ROR	Date/Time 6.8.23	
Custody Seal: Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: _____ °C	
Container Intact: Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID: _____	

Tomball



# Laboratory Analysis Report

Total Number of Pages: 7

Job ID : 23061168



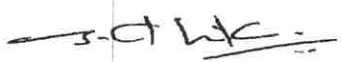
10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

## Client Project Name : 23F1979

**Report To :** Client Name: NWDLS P.O.#.: 23F1979  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 06/08/23  
City, State, Zip: Conroe, Texas, 77385

### A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
23F1979-01	Solid	23061168.01

  
Released By: Senthilkumar Sevukan  
Title: Vice President Operations  
Date: 6/15/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024  
Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 06/13/2023 09:50

# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23061168

Date: 6/15/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

U	Undetected at SDL (Sample Detection Limit).
---	---



## LABORATORY TEST RESULTS

Job ID : 23061168

Date 6/15/2023

Client Name: NWDLS

Attn: Deena Higginbotham

Project Name: 23F1979

Client Sample ID: 23F1979-01

Job Sample ID: 23061168.01

Date Collected: 06/08/23

Sample Matrix Solid

Time Collected: 07:00

% Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	06/14/23 13:37	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	06/14/23 13:37	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	06/14/23 13:37	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	06/14/23 13:37	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	06/14/23 13:37	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	06/14/23 13:37	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	06/14/23 13:37	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	06/14/23 13:37	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	06/14/23 13:37	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	06/14/23 13:37	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	06/14/23 13:37	ZQ
	1,2-Dichloroethane-d4(surr)	105	%	1.00		70-130			06/14/23 13:37	ZQ
	Dibromofluoromethane(surr)	102	%	1.00		70-130			06/14/23 13:37	ZQ
	p-Bromofluorobenzene(surr)	106	%	1.00		70-130			06/14/23 13:37	ZQ
	Toluene-d8(surr)	105	%	1.00		70-130			06/14/23 13:37	ZQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



**Job ID :** 23061168

**Date :** 6/15/2023

**Analysis :** TCLP VOC **Method :** SW-846 8260C **Reporting Units :** mg/L

**QC Batch ID :** Qb23061501 **Created Date :** 06/14/23 **Created By :** Zeeshan

**Samples in This QC Batch :** 23061168.01

**Sample Preparation :** PB23061501 **Prep Method :** SW-846 5030C **Prep Date :** 06/14/23 10:00 **Prep By :** Zeeshan  
**TCLP Prep :** PB23061430 **Prep Method :** SW-846 1311 **Prep Date :** 06/13/23 17:40 **Prep By :** JCoku

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr	17060-07-0	102	%	1.00			
Dibromofluoromethane(surr	1868-53-7	101	%	1.00			
p-Bromofluorobenzene(surr	460-00-4	106	%	1.00			
Toluene-d8(surr)	2037-26-5	104	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.06	106	1	1.05	105	0.6	35	70-130	
1,2-Dichloroethane	1	0.992	99.2	1	1.01	101	1.8	35	70-130	
1,4-Dichlorobenzene	1	0.999	99.9	1	0.998	99.8	0.1	35	70-130	
Benzene	1	0.999	99.9	1	0.986	98.6	1.3	35	70-130	
Carbon tetrachloride	1	1.04	104	1	1.03	103	0.9	35	70-130	
Chlorobenzene	1	0.982	98.3	1	0.984	98.4	0.2	35	70-130	
Chloroform	1	1.03	103	1	1.03	103	0.4	35	70-130	
MEK	1	1.06	106	1	1.01	101	4.6	35	70-130	
Tetrachloroethylene	1	0.915	91.5	1	0.831	83.1	9.6	35	70-130	
Trichloroethylene	1	0.951	95.1	1	0.958	95.8	0.8	35	70-130	
Vinyl Chloride	1	1.11	111	1	1.09	109	2	35	70-130	

## QC Type: MS and MSD

**QC Sample ID:** 23061167.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	1.09	109						70-130	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 23061168

Date : 6/15/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23061501 Created Date : 06/14/23

Created By : Zeeshan

Samples in This QC Batch : 23061168.01

QC Type: MS and MSD

QC Sample ID: 23061167.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	1.04	104						70-130	
1,4-Dichlorobenzene	BRL	1	1.01	101						70-130	
Benzene	BRL	1	1.03	103						70-130	
Carbon tetrachloride	BRL	1	1.00	100						70-130	
Chlorobenzene	BRL	1	0.995	99.5						70-130	
Chloroform	BRL	1	1.08	108						70-130	
MEK	BRL	1	0.884	88.4						70-130	
Tetrachloroethylene	BRL	1	0.804	80.4						70-130	
Trichloroethylene	BRL	1	0.995	99.5						70-130	
Vinyl Chloride	BRL	1	1.14	114						70-130	



# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23F1979

Analysis	Due	Expires	Comments
<b>Sample ID: 23F1979-01 Solid Sampled: 06/08/2023 07:00</b>			
TCLP ZHE	06/22/2023	06/22/2023 07:00	Auto-Included
VOA-TCLP	06/22/2023	06/22/2023 07:00	
<i>o/a</i>			
<b>Analyte(s):</b>			
1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr	
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr	
Benzene	Carbon tetrachloride	Chlorobenzene	
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)	
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)	

Containers Supplied:

Released By Juan K. Rodriguez 06/13/23 9:50

Date

Received By [Signature]

Date 06/13/23 9:50

U. g. c.  
INS  
Bm

Job ID:23061168



06/13/2023

NWDLS

AMS



## Sample Condition Checklist

A&B JobID :	23061168	Date Received : 06/13/2023	Time Received : 9:50AM
Client Name :	NWDLS		
Temperature :	4.8°C	Sample pH :	NA
Thermometer ID :	IR5	pH Paper ID :	NA
Perservative :			

	Check Points	Yes	No	N/A											
1.	Cooler Seal present and signed.		X												
2.	Sample(s) in a cooler.	X													
3.	If yes, ice in cooler.	X													
4.	Sample(s) received with chain-of-custody.	X													
5.	C-O-C signed and dated.	X													
6.	Sample(s) received with signed sample custody seal.		X												
7.	Sample containers arrived intact. (If No comment)	X													
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water <input type="checkbox"/></td> <td>Soil <input type="checkbox"/></td> <td>Liquid <input type="checkbox"/></td> <td>Sludge <input type="checkbox"/></td> <td>Solid <input checked="" type="checkbox"/></td> <td>Cassette <input type="checkbox"/></td> <td>Tube <input type="checkbox"/></td> <td>Bulk <input type="checkbox"/></td> <td>Badge <input type="checkbox"/></td> <td>Food <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> </table>	Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>			
Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>					
9.	Samples were received in appropriate container(s)	X													
10.	Sample(s) were received with Proper preservative			X											
11.	All samples were tagged or labeled.	X													
12.	Sample ID labels match C-O-C ID's.	X													
13.	Bottle count on C-O-C matches bottles found.	X													
14.	Sample volume is sufficient for analyses requested.	X													
15.	Samples were received with in the hold time.	X													
16.	VOA vials completely filled.			X											
17.	Sample accepted.	X													
18.	Has client been contacted about sub-out			X											

Comments : Include actions taken to resolve discrepancies/problem:

Received by : EValdez

Check in by/date : EValdez / 06/13/2023







Treschwig

8725 Fawn Trail The Woodlands, TX 77385

Tel: (936) 321-6060 | Fax: (936) 321 6061

Email: lab@nwdsls.com

www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

May 24, 2023

## LABORATORY REPORT

Gregory Camp  
Inframark  
32259 Morton Road  
Brookshire, TX 77423

Report ID: 20230524134812Sta..

RE: Treschwig JP - Non Potable - Class B Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

Stations For Deena Higginbotham  
Director of Client Services



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
www. NWDLS.com

TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Sample Results

Client Sample ID: Digester 1  
Lab Sample ID: 23E4378-01

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	Result Q	Units	Batch	Date Analyzed	Analyst
Colilert-18	Fecal coliforms	19600	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	24200	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	16000	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	25700	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	18200	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	14800	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
Colilert-18	Fecal coliforms	24800	MPN/g TS dry	BGE3527	05/23/2023 10:43	JKB
SM 2710 B	Specific Oxygen Uptake Rate (SOUR)	0.576	mg O2/hr/g TS @ 20°C dry	BGE3528	05/22/2023 15:17	AKA
SM 2550 B	Temperature °C Field	13.2	°C	BGE3593	05/22/2023 08:40	JTS
SM 2540 G	% Solids	1.08 V	%	BGE3555	05/23/2023 11:17	JRU

The total solids is diluted to <=2.0% for the S.O.U.R. test when necessary.

### CLASS B - Pass

Per Title 30, Texas Administrative Code, Chapter 312, for a Class B to pass, the fecal coliform geometric mean must be less than or equal to 2,000,000 CFU/ug TS and the S.O.U.R. must be less than or equal to 1.5 mg O2/hr/g TS.



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

## Quality Control

### General Chemistry

Analyte	ResultQual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3555 - Percent Solids</b>									
<b>Blank (BGE3555-BLK1)</b>									
% Solids	<0.100U	0.100	%						
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Duplicate (BGE3555-DUP1)</b>									
<b>Source: 23E4424-01</b>									
% Solids		0.100	%		1.67			0.399	20
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Reference (BGE3555-SRM1)</b>									
% Solids		0.100	%	0.350		105	78.9-118		



8725 Fawn Trail The Woodlands, TX 77385  
Tel: (936) 321-6060 | Fax: (936) 321 6061  
Email: lab@nwdls.com  
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TCEQ Lab ID #: TX204, Accreditation ID: T104704238

Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Quality Control (Continued)

#### Microbiology

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3527 - FC Quantitray</b>									
<b>Blank (BGE3527-BLK1)</b>									
Fecal coliforms	<10.0U	10.0	MPN/g TS wet						
Prepared: 5/22/2023 Analyzed: 5/23/2023									
<b>Duplicate (BGE3527-DUP1)</b>									
Fecal coliforms		922	MPN/g TS dry		19600			14.4	200
Source: 23E4378-01 Prepared: 5/22/2023 Analyzed: 5/23/2023									





Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Class B Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
05/24/2023 13:48

### Term and Qualifier Definitions

Item	Definition
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated



## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe TX 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 2

**23E4378**

<b>Lab PM :</b> Deena Higginbotham	<b>Project Name :</b> Treschwig JP - Non Potable - Class B Annual	<b>Schedule Comments:</b>
<b>Inframark</b> Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	<b>Project Comments:</b> 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito -- 832-302-4323 Chris - 713-657-5188 EDP helper	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23E4378-01	Digester 1		5/22/2023 <i>5840</i>	S Grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field <i>12.1</i>
23E4378-02	Digester 2		5/22/2023 <i>5840</i>	S grab	A HDPE S150mL Na2S2O3 B HDPE S150mL Na2S2O3 C HDPE S150mL Na2S2O3 D HDPE S150mL Na2S2O3 E HDPE S150mL Na2S2O3 F HDPE S150mL Na2S2O3 G HDPE S150mL Na2S2O3 H HDPE 1L I HDPE 250mL	FC/CB-QT-LR Na2S2O3 <10°C SOUR-2710 4°C SOUR TS-2540 G 4°C TS-2540 G 4°C	Temp C Field <i>12.1</i>



## CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 2 of 2

**23E4378**

(Continued)

<b>Lab PM :</b> Deena Higginbotham	<b>Project Name :</b> Treschwig JP - Non Potable - Class B Annual	<b>Schedule Comments:</b>
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	<b>Project Comments:</b> 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper	

<b>Field Remarks:</b>		<b>Lab Preservation:</b> H2SO4      HNO3      NaOH      Other: _____			
		<b>(Circle and Write ID Below)</b>			
<b>Sampler (Signature)</b> <i>SB</i>	<b>Relinquished By: (Signature)</b>	<b>Date/Time</b>	<b>Received By: (Signature)</b>	<b>Date/Time</b>	
<b>Print Name</b> <i>Sub T Smith</i>	<b>Relinquished By: (Signature)</b>	<b>Date/Time</b>	<b>Received By: (Signature)</b>	<b>Date/Time</b>	
<b>Affiliation</b> <i>NWDLs</i>	<b>Relinquished To Lab By: (Signature)</b> <i>SB</i>	<b>Date/Time</b> <i>5-22-23/3P</i>	<b>Received for Laboratory By: (Signature)</b> <i>RLR</i>	<b>Date/Time</b> <i>5-22-23 13:50</i>	
<b>Custody Seal :</b> Yes / No	<b>COC Labels Agree:</b> Yes / No	<b>Appropriate Volume:</b> Yes / No	<b>Received on Ice:</b> Yes / No	<b>Temperature:</b> _____ °C	
<b>Container Intact :</b> Yes / No	<b>Appropriate Containers:</b> Yes / No	<b>Coolers Intact:</b> Yes / No	<b>Samples Accepted:</b> Yes / No	<b>Thermometer ID:</b> _____	

Spring South

wko\_NWDLs\_COC\_LS Revision 4.1 Effective: 2/17/2022







July 25, 2023

## LAB REPORT

Gregory Camp  
Inframark  
32259 Morton Road  
Brookshire, TX 77423

Report ID: 20230725114901AEN

RE: Treschwig JP - Non Potable - Sewage Sludge Annual

The following test results meet all NELAP requirements for analytes for which certification is available. Any deviations from our quality system will be noted in the case narrative. All analyses performed by North Water District Laboratory Services, Inc. unless noted.

For questions regarding this report, contact Monica Martin at 936-321-6060.

Sincerely,

A handwritten signature in cursive script, appearing to read "Aundra Noe".

Aundra Noe For Deena Higginbotham  
Director of Client Services



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Sample Results

Client Sample ID: Digester 1  
Lab Sample ID: 23E4380-01  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### Organics by GC

SW-8082	PCBs, Total	A	<1.84U	mg/kg (dry wt) dry	10	0.922	1.84	BGF0514	06/16/2023 09:25	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		195% S	60-140					06/16/2023 09:25	
SW-8082	Surrogate: Decachlorobiphenyl-surr		93.4%	60-140					06/16/2023 09:25	

### Metals, Total

SW-6010C	Arsenic	A	6.32	mg/kg dry	1	0.674	3.07	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Cadmium	A	0.922	mg/kg dry	1	0.0797	0.307	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Chromium	A	26.5	mg/kg dry	1	1.15	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Copper	A	245	mg/kg dry	5	1.64	15.3	BGE4698	06/07/2023 12:21	FAL
SW-7471B	Mercury	A	0.366	mg/kg dry	1	0.0184	0.0369	BGE4918	06/01/2023 14:58	AKR
SW-6010C	Lead	A	18.8	mg/kg dry	1	0.782	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Molybdenum	A	5.01	mg/kg dry	1	1.54	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Nickel	A	13.8	mg/kg dry	1	0.415	1.54	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Potassium	A	4800	mg/kg dry	1	26.4	307	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Selenium	A	10.1	mg/kg dry	1	1.20	3.07	BGE4698	06/07/2023 10:41	FAL
SW-6010C	Total Phosphorus	A	16000	mg/kg dry	5	64.5	1530	BGE4698	06/07/2023 12:21	FAL
SW-6010C	Zinc	A	1060	mg/kg dry	20	30.8	30.8	BGE4698	06/07/2023 12:32	FAL

### General Chemistry

EPA 350.2	Ammonia as N	A	3540	mg/kg dry	1	917	1830	BGF0371	06/06/2023 13:11	GIW
SW-9056A	Nitrate as N	A	3880	mg/kg dry	10	46.1	115	BGE3627	05/22/2023 20:45	ORP
SM 2540 G	% Solids	A	1.08V	%	1	0.100	0.100	BGE3555	05/23/2023 11:17	JRU

### TCLP

SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Barium	A	<100V2, U	mg/L	5	0.0500	100	BGF0509	06/06/2023 11:28	FAL
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGF0530	07/09/2023 08:06	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00C+, U	mg/L	2	0.000476	1.00	BGF0530	07/09/2023 08:06	KRB
SW-8151	Surrogate: DCAA-surr		125%	70-130					07/09/2023 08:06	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGF0431	06/05/2023 12:43	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGF0708	06/29/2023 11:10	cdg
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGF0708	06/29/2023 11:10	cdg
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexa nE)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGF0708	06/29/2023 11:10	cdg
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:10	cdg
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:10	cdg



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 1 (Continued)  
Lab Sample ID: 23E4380-01  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
--------	---------	---	----------	-------	----	-----	-----	-------	----------	---------

#### TCLP (Continued)

SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF0708	06/29/2023 11:10	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BGF0708	06/29/2023 11:10	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		111%	60-140					06/29/2023 11:10	
SW-8081	Surrogate: Decachlorobiphenyl-surr		104%	60-140					06/29/2023 11:10	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGF0509	06/06/2023 11:26	FAL
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGF0509	06/06/2023 11:26	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGF0760	06/21/2023 10:10	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:10	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:10	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGF0760	06/21/2023 10:10	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGF0760	06/21/2023 10:10	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGF0760	06/21/2023 10:10	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		103%	54.6-148					06/21/2023 10:10	
SW-8270	Surrogate: 2-Fluorophenol-surr		87.5%	55-152					06/21/2023 10:10	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		86.5%	52.4-136					06/21/2023 10:10	
SW-8270	Surrogate: Nitrobenzene-d5-surr		108%	52-162					06/21/2023 10:10	
SW-8270	Surrogate: Phenol-d5-surr		88.1%	58.7-152					06/21/2023 10:10	
SW-8270	Surrogate: p-Terphenyl-d14-surr		77.9%	51.9-147					06/21/2023 10:10	



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Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Sample Results (Continued)

Client Sample ID: Digester 1  
Lab Sample ID: 23E4380-01RE2  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	45300	mg/kg dry	1	2280	2280	BGF0406	06/05/2023 13:28	GIW
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Project Number: 50  
Project Manager: Gregory Camp

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### Sample Results (Continued)

Client Sample ID: Digester 2  
Lab Sample ID: 23E4380-02  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
<b>Organics by GC</b>										
SW-8082	PCBs, Total	A	<1.85U	mg/kg (dry wt) dry	10	0.927	1.85	BGF0514	06/16/2023 09:50	KRB
SW-8082	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		150% S	60-140					06/16/2023 09:50	
SW-8082	Surrogate: Decachlorobiphenyl-surr		84.0%	60-140					06/16/2023 09:50	
<b>Metals, Total</b>										
SW-6010C	Arsenic	A	6.33	mg/kg dry	1	0.677	3.08	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Cadmium	A	0.901	mg/kg dry	1	0.0801	0.308	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Chromium	A	26.6	mg/kg dry	1	1.16	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Copper	A	239	mg/kg dry	5	1.65	15.4	BGE4698	06/07/2023 12:35	FAL
SW-7471B	Mercury	A	0.361	mg/kg dry	1	0.0185	0.0371	BGF0125	06/01/2023 17:38	AKR
SW-6010C	Lead	A	19.2	mg/kg dry	1	0.786	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Molybdenum	A	5.08	mg/kg dry	1	1.55	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Nickel	A	13.4	mg/kg dry	1	0.417	1.55	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Potassium	A	4830	mg/kg dry	1	26.5	308	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Selenium	A	10.1	mg/kg dry	1	1.20	3.08	BGE4698	06/07/2023 10:44	FAL
SW-6010C	Total Phosphorus	A	15500	mg/kg dry	5	64.8	1540	BGE4698	06/07/2023 12:35	FAL
SW-6010C	Zinc	A	954	mg/kg dry	20	30.9	30.9	BGE4698	06/07/2023 12:38	FAL
<b>General Chemistry</b>										
EPA 350.2	Ammonia as N	A	2920	mg/kg dry	1	914	1830	BGE4355	05/30/2023 08:46	GIW
SW-9056A	Nitrate as N	A	3880	mg/kg dry	10	46.3	116	BGE3627	05/22/2023 22:45	ORP
SM 2540 G	% Solids	A	1.08V	%	1	0.100	0.100	BGE3555	05/23/2023 11:17	JRU
<b>TCLP</b>										
SW-6010C	Arsenic	A	<5.00U	mg/L	1	0.0200	5.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Barium	A	<100U, V2	mg/L	5	0.0500	100	BGF0509	06/06/2023 11:34	FAL
SW-6010C	Cadmium	A	<1.00U	mg/L	1	0.00100	1.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Chromium	A	<5.00U	mg/L	1	0.00500	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8151	2,4-D	A	<10.0C+, U	mg/L	2	0.000476	10.0	BGF0530	07/09/2023 08:36	KRB
SW-8151	Silvex (2,4,5-TP)	A	<1.00C+, U	mg/L	2	0.000476	1.00	BGF0530	07/09/2023 08:36	KRB
SW-8151	Surrogate: DCAA-surr		142% S	70-130					07/09/2023 08:36	
SW-7471B	Mercury	A	<0.200U	mg/L	1	0.000200	0.200	BGF0431	06/05/2023 12:46	AKR
SW-6010C	Lead	A	<5.00U	mg/L	1	0.0100	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8081	Chlordane (Total)	A	<0.0300U	mg/L	1	3.00E-6	0.0300	BGF0708	06/29/2023 11:40	cdg
SW-8081	Endrin	N	<0.0200U	mg/L	1	3.00E-6	0.0200	BGF0708	06/29/2023 11:40	cdg
SW-8081	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	A	<0.400U	mg/L	1	3.00E-6	0.400	BGF0708	06/29/2023 11:40	cdg
SW-8081	Heptachlor	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:40	cdg
SW-8081	Heptachlor epoxide	A	<0.00800U	mg/L	1	3.00E-6	0.00800	BGF0708	06/29/2023 11:40	cdg



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### Sample Results (Continued)

Client Sample ID: Digester 2 (Continued)  
Lab Sample ID: 23E4380-02  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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#### TCLP (Continued)

SW-8081	Methoxychlor	A	<10.0U	mg/L	1	3.00E-6	10.0	BGF0708	06/29/2023 11:40	cdg
SW-8081	Toxaphene (Chlorinated Camphene)	A	<0.500U	mg/L	1	3.00E-6	0.500	BGF0708	06/29/2023 11:40	cdg
SW-8081	Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr		135%	60-140					06/29/2023 11:40	
SW-8081	Surrogate: Decachlorobiphenyl-surr		105%	60-140					06/29/2023 11:40	
SW-6010C	Selenium	A	<1.00U	mg/L	1	0.0200	1.00	BGF0509	06/06/2023 11:31	FAL
SW-6010C	Silver	A	<5.00U	mg/L	1	0.00200	5.00	BGF0509	06/06/2023 11:31	FAL
SW-8270	2,4,5-Trichlorophenol	A	<400U	mg/L	1	0.00250	400	BGF0760	06/21/2023 10:45	KRB
SW-8270	2,4,6-Trichlorophenol	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	2,4-Dinitrotoluene (2,4-DNT)	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:45	KRB
SW-8270	2-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:45	KRB
SW-8270	3,4-Methylphenol	A	<200U	mg/L	1	0.00250	200	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachlorobenzene	A	<0.130U	mg/L	1	0.00250	0.130	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachlorobutadiene	A	<0.500U	mg/L	1	0.00250	0.500	BGF0760	06/21/2023 10:45	KRB
SW-8270	Hexachloroethane	A	<3.00U	mg/L	1	0.00250	3.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Nitrobenzene	A	<2.00U	mg/L	1	0.00250	2.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Pentachlorophenol	A	<100U	mg/L	1	0.00250	100	BGF0760	06/21/2023 10:45	KRB
SW-8270	Pyridine	A	<5.00U	mg/L	1	0.00250	5.00	BGF0760	06/21/2023 10:45	KRB
SW-8270	Surrogate: 2-Fluorobiphenyl-surr		100%	54.6-148					06/21/2023 10:45	
SW-8270	Surrogate: 2-Fluorophenol-surr		90.2%	55-152					06/21/2023 10:45	
SW-8270	Surrogate: 2,4,6-Tribromophenol-surr		80.4%	52.4-136					06/21/2023 10:45	
SW-8270	Surrogate: Nitrobenzene-d5-surr		110%	52-162					06/21/2023 10:45	
SW-8270	Surrogate: Phenol-d5-surr		100%	58.7-152					06/21/2023 10:45	
SW-8270	Surrogate: p-Terphenyl-d14-surr		75.3%	51.9-147					06/21/2023 10:45	



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## Sample Results

(Continued)

Client Sample ID: Digester 2  
Lab Sample ID: 23E4380-02RE2  
Sample Alias:

Sample Matrix: Solid  
Date Collected: 05/22/2023 8:40  
Collected by: Jacob Smith

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
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### General Chemistry

EPA 351.3	Total Kjeldahl Nitrogen - (TKN) (Rerun)	N	53200	mg/kg dry	1	2270	2270	BGF0406	06/05/2023 13:28	GIW
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## Quality Control

### Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0514 - SW-3570

##### Blank (BGF0514-BLK1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	<0.0200	U	0.0200	mg/kg (dry wt) wet					
Aroclor-1260 (PCB-1260)	<0.0200	U	0.0200	mg/kg (dry wt) wet					
PCBs, Total	<0.0200	U	0.0200	mg/kg (dry wt) wet					
Surrogate: 2,4,5,6	S		0.00967	mg/kg (dry wt) wet	0.00600		161	60-140	
Tetrachloro-m-xylene-surr			0.00645	mg/kg (dry wt) wet	0.00600		107	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### LCS (BGF0514-BS1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	0.0422		0.0200	mg/kg (dry wt) wet	0.0600		70.3	60-140	
Aroclor-1260 (PCB-1260)	0.0430		0.0200	mg/kg (dry wt) wet	0.0600		71.6	60-140	
PCBs, Total	0.0426		0.0200	mg/kg (dry wt) wet	0.0600		71.0	60-140	
Surrogate: 2,4,5,6	S		0.00949	mg/kg (dry wt) wet	0.00600		158	60-140	
Tetrachloro-m-xylene-surr			0.00674	mg/kg (dry wt) wet	0.00600		112	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### LCS Dup (BGF0514-BSD1)

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	0.0411		0.0200	mg/kg (dry wt) wet	0.0600	68.5	60-140	2.66	40
Aroclor-1260 (PCB-1260)	0.0412		0.0200	mg/kg (dry wt) wet	0.0600	68.7	60-140	4.16	40
PCBs, Total	0.0412		0.0200	mg/kg (dry wt) wet	0.0600	68.6	60-140	3.41	40
Surrogate: 2,4,5,6	S		0.0108	mg/kg (dry wt) wet	0.00600		180	60-140	
Tetrachloro-m-xylene-surr			0.00625	mg/kg (dry wt) wet	0.00600		104	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### Matrix Spike (BGF0514-MS1)

Source: 23E4380-01

Prepared: 6/5/2023 Analyzed: 6/16/2023

Aroclor-1016 (PCB-1016)	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
Aroclor-1260 (PCB-1260)	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
PCBs, Total	3.97		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.7	60-140	
Surrogate: 2,4,5,6	S		1.06	mg/kg (dry wt) dry	0.553		192	60-140	
Tetrachloro-m-xylene-surr			0.655	mg/kg (dry wt) dry	0.553		118	60-140	
Surrogate: Decachlorobiphenyl-surr									

##### Matrix Spike Dup (BGF0514-MSD1)

Source: 23E4380-01

Prepared: 6/5/2023 Analyzed: 6/16/2023





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### Quality Control (Continued)

#### Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0514 - SW-3570 (Continued)</b>										
<b>Matrix Spike Dup (BGF0514-MSD1)</b>										
<b>Source: 23E4380-01</b>										
Prepared: 6/5/2023 Analyzed: 6/16/2023										
Aroclor-1016 (PCB-1016)	4.01		1.84	mg/kg (dry wt) dry	5.53	<1.84	72.6	60-140	1.14	40
Aroclor-1260 (PCB-1260)	3.85		1.84	mg/kg (dry wt) dry	5.53	<1.84	69.6	60-140	2.91	40
PCBs, Total	3.93		1.84	mg/kg (dry wt) dry	5.53	<1.84	71.1	60-140	0.865	40
Surrogate: 2,4,5,6	S		2.23	mg/kg (dry wt) dry	0.553		403	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr	S		1.10	mg/kg (dry wt) dry	0.553		199	60-140		



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### Quality Control (Continued)

#### Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGE4698 - SW-3050 for 6010

##### Blank (BGE4698-BLK1)

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	<1.80	U	1.80	mg/kg wet						
Cadmium	<0.180	U	0.180	mg/kg wet						
Chromium	<0.901	U	0.901	mg/kg wet						
Copper	<1.80	U	1.80	mg/kg wet						
Lead	<0.901	U	0.901	mg/kg wet						
Molybdenum	<0.901	U	0.901	mg/kg wet						
Nickel	<0.901	U	0.901	mg/kg wet						
Potassium	<180	U	180	mg/kg wet						
Selenium	<1.80	U	1.80	mg/kg wet						
Total Phosphorus	<180	U	180	mg/kg wet						
Zinc	<0.901	U	0.901	mg/kg wet						

##### LCS (BGE4698-BS1)

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	45.7		1.81	mg/kg wet	45.3		101	80-120		
Cadmium	4.54		0.181	mg/kg wet	4.53		100	80-120		
Chromium	22.7		0.908	mg/kg wet	22.6		100	80-120		
Copper	45.3		1.81	mg/kg wet	45.3		100	80-120		
Lead	22.7		0.908	mg/kg wet	22.6		100	80-120		
Molybdenum	22.6		0.908	mg/kg wet	22.6		99.9	80-120		
Nickel	22.6		0.908	mg/kg wet	22.6		99.7	80-120		
Potassium	4380		181	mg/kg wet	4530		96.6	80-120		
Selenium	45.5		1.81	mg/kg wet	45.3		101	80-120		
Total Phosphorus	4470		181	mg/kg wet	4530		98.8	80-120		
Zinc	23.1		0.908	mg/kg wet	22.6		102	80-120		

##### Matrix Spike (BGE4698-MS1)

Source: 23E0151-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	52.2		1.99	mg/kg dry	49.8	3.51	97.7	75-125		
Cadmium	5.65		0.199	mg/kg dry	4.98	0.856	96.2	75-125		
Chromium	48.2		0.998	mg/kg dry	24.9	24.2	96.7	75-125		
Copper	1580		39.8	mg/kg dry	1050	658	88.0	75-125		
Lead	37.9		0.998	mg/kg dry	24.9	13.9	96.7	75-125		
Molybdenum	32.0		0.998	mg/kg dry	24.9	8.07	96.2	75-125		
Nickel	34.0		0.998	mg/kg dry	24.9	9.93	96.5	75-125		
Potassium	7810		199	mg/kg dry	4980	2820	100	75-125		
Selenium	71.3		1.99	mg/kg dry	49.8	18.3	107	75-125		
Total Phosphorus	17900	J1	3980	mg/kg dry	9970	10500	73.7	75-125		
Zinc	1420		49.9	mg/kg dry	1020	371	103	75-125		



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### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
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#### Batch: BGE4698 - SW-3050 for 6010 (Continued)

##### Matrix Spike (BGE4698-MS2)

Source: 23E4735-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	53.9		2.00	mg/kg dry	50.1	5.35	96.8	75-125	
Cadmium	5.60		0.200	mg/kg dry	5.01	0.747	96.8	75-125	
Chromium	33.9		1.00	mg/kg dry	25.1	10.7	92.7	75-125	
Copper	1140		40.1	mg/kg dry	1050	41.3	104	75-125	
Lead	27.4		1.00	mg/kg dry	25.1	4.93	89.8	75-125	
Molybdenum	29.7		1.00	mg/kg dry	25.1	6.94	91.0	75-125	
Nickel	40.2		1.00	mg/kg dry	25.1	17.6	90.5	75-125	
Potassium	10000	J1	4010	mg/kg dry	5010	6760	64.6	75-125	
Selenium	58.3		2.00	mg/kg dry	50.1	8.35	99.7	75-125	
Total Phosphorus	28900	J1	4010	mg/kg dry	10000	22200	67.1	75-125	
Zinc	1940		50.2	mg/kg dry	1030	1000	91.6	75-125	

##### Matrix Spike Dup (BGE4698-MSD1)

Source: 23E0151-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	51.3		2.00	mg/kg dry	49.9	3.51	95.7	75-125	1.75	20
Cadmium	5.63		0.200	mg/kg dry	4.99	0.856	95.7	75-125	0.290	20
Chromium	47.9		1.00	mg/kg dry	25.0	24.2	95.0	75-125	0.789	20
Copper	1620		39.9	mg/kg dry	1050	658	91.3	75-125	2.29	20
Lead	37.5		1.00	mg/kg dry	25.0	13.9	94.8	75-125	1.16	20
Molybdenum	30.9		1.00	mg/kg dry	25.0	8.07	91.5	75-125	3.59	20
Nickel	33.3		1.00	mg/kg dry	25.0	9.93	93.5	75-125	2.05	20
Potassium	7680		200	mg/kg dry	4990	2820	97.2	75-125	1.76	20
Selenium	69.9		2.00	mg/kg dry	49.9	18.3	103	75-125	2.10	20
Total Phosphorus	17700	J1	3990	mg/kg dry	9990	10500	71.9	75-125	0.937	20
Zinc	1420		50.0	mg/kg dry	1020	371	102	75-125	0.358	20

##### Matrix Spike Dup (BGE4698-MSD2)

Source: 23E4735-01

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	55.0		2.01	mg/kg dry	50.2	5.35	98.9	75-125	2.12	20
Cadmium	5.73		0.201	mg/kg dry	5.02	0.747	99.3	75-125	2.34	20
Chromium	35.3		1.01	mg/kg dry	25.1	10.7	97.9	75-125	3.89	20
Copper	991		40.1	mg/kg dry	1050	41.3	90.1	75-125	13.8	20
Lead	28.1		1.01	mg/kg dry	25.1	4.93	92.1	75-125	2.27	20
Molybdenum	29.9		1.01	mg/kg dry	25.1	6.94	91.6	75-125	0.677	20
Nickel	41.2		1.01	mg/kg dry	25.1	17.6	94.1	75-125	2.34	20
Potassium	5890	J1	4010	mg/kg dry	5020	6760	NR	75-125	51.8	20
Selenium	59.3		2.01	mg/kg dry	50.2	8.35	101	75-125	1.68	20
Total Phosphorus	17400	J1	4010	mg/kg dry	10000	22200	NR	75-125	49.8	20
Zinc	1890		50.3	mg/kg dry	1030	1000	86.2	75-125	2.75	20



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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGE4698 - SW-3050 for 6010 (Continued)**

**Post Spike (BGE4698-PS1)**

**Source: 23E0151-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	536			ug/L	500	33.2	101	80-120		
Cadmium	58.7			ug/L	50.0	8.11	101	80-120		
Chromium	482			ug/L	250	229	101	80-120		
Copper	7090	J1		ug/L	500	6230	172	80-120		
Lead	379			ug/L	250	131	99.2	80-120		
Molybdenum	328			ug/L	250	76.4	101	80-120		
Nickel	344			ug/L	250	94.0	99.9	80-120		
Potassium	79700			ug/L	50000	26700	106	80-120		
Selenium	705			ug/L	500	173	107	80-120		
Total Phosphorus	153000			ug/L	50000	99600	106	80-120		
Zinc	3920	J1		ug/L	250	3510	164	80-120		

**Post Spike (BGE4698-PS2)**

**Source: 23E4735-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	552			ug/L	500	50.3	100	80-120		
Cadmium	58.1			ug/L	50.0	7.01	102	80-120		
Chromium	348			ug/L	250	100	99.1	80-120		
Copper	2420	J1		ug/L	500	388	406	80-120		
Lead	293			ug/L	250	46.3	98.7	80-120		
Molybdenum	316			ug/L	250	65.2	100	80-120		
Nickel	416			ug/L	250	165	101	80-120		
Potassium	109000			ug/L	50000	63500	91.0	80-120		
Selenium	607			ug/L	500	78.4	106	80-120		
Total Phosphorus	256000			ug/L	50000	208000	96.2	80-120		
Zinc	9970	J1		ug/L	250	9410	223	80-120		

**Dilution Check (BGE4698-SRL1)**

**Source: 23E0151-01**

Prepared: 5/30/2023 Analyzed: 6/7/2023

Arsenic	5.14	U	9.98	mg/kg dry	3.51		37.7	10
Cadmium	0.649	U	0.998	mg/kg dry	0.856		27.5	10
Chromium	18.5		5.00	mg/kg dry	24.2		26.7	10
Lead	11.1		5.00	mg/kg dry	13.9		22.1	10
Molybdenum	6.03		5.00	mg/kg dry	8.07		28.9	10
Nickel	7.71		5.00	mg/kg dry	9.93		25.3	10
Potassium	2600		998	mg/kg dry	2820		8.39	10
Selenium	14.0		9.98	mg/kg dry	18.3		26.8	10
Total Phosphorus	10500		998	mg/kg dry	10500		0.0513	10





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### Quality Control (Continued)

#### Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE4698 - SW-3050 for 6010 (Continued)</b>										
<b>Dilution Check (BGE4698-SRL2)</b>			<b>Source: 23E4735-01</b>		Prepared: 5/30/2023 Analyzed: 6/7/2023					
Arsenic	7.26	U	10.1	mg/kg dry		5.35			30.2	10
Cadmium	0.735	U	1.01	mg/kg dry		0.747			1.61	10
Chromium	10.5		5.04	mg/kg dry		10.7			1.39	10
Copper	202	J1	10.1	mg/kg dry		41.3			132	10
Lead	5.06		5.04	mg/kg dry		4.93			2.49	10
Molybdenum	6.76		5.04	mg/kg dry		6.94			2.53	10
Nickel	16.9		5.04	mg/kg dry		17.6			3.71	10
Potassium	6490		1010	mg/kg dry		6760			4.17	10
Selenium	7.18	U	10.1	mg/kg dry		8.35			15.0	10
Total Phosphorus	21600		1010	mg/kg dry		22200			2.30	10

#### Batch: BGE4918 - SW-7471

##### MDL Check (BGE4918-MRL1)

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.0102	U	0.0196	mg/kg wet	0.00980			104		
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##### Matrix Spike (BGE4918-MS1)

Source: 23E3563-01

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.782	J1	0.0434	mg/kg dry	0.542	0.595	34.4	80-120		
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##### Matrix Spike (BGE4918-MS2)

Source: 23E0740-22

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.277	J1	0.0197	mg/kg dry	0.247	0.107	68.7	80-120		
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##### Matrix Spike Dup (BGE4918-MSD1)

Source: 23E3563-01

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.643	J1	0.0434	mg/kg dry	0.543	0.595	8.81	80-120	19.5	20
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##### Matrix Spike Dup (BGE4918-MSD2)

Source: 23E0740-22

Prepared: 5/31/2023 Analyzed: 6/1/2023

Mercury	0.337		0.0199	mg/kg dry	0.249	0.107	92.4	80-120	19.7	20
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**Quality Control**  
(Continued)

**Metals, Total (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0125 - SW-7471</b>										
<b>MDL Check (BGF0125-MRL1)</b>										
Mercury	0.0106	U	0.0195	mg/kg wet	0.00976		109			
<b>Matrix Spike (BGF0125-MS1)</b>										
	<b>Source: 23E4642-01</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.539	J1	0.0254	mg/kg dry	0.317	0.470	21.8	80-120		
<b>Matrix Spike (BGF0125-MS2)</b>										
	<b>Source: 23E4380-02</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.814		0.0371	mg/kg dry	0.463	0.361	98.0	80-120		
<b>Matrix Spike Dup (BGF0125-MSD1)</b>										
	<b>Source: 23E4642-01</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.571	J1	0.0254	mg/kg dry	0.317	0.470	31.9	80-120	5.73	20
<b>Matrix Spike Dup (BGF0125-MSD2)</b>										
	<b>Source: 23E4380-02</b>				<b>Prepared &amp; Analyzed: 6/1/2023</b>					
Mercury	0.682	J1	0.0370	mg/kg dry	0.463	0.361	69.5	80-120	17.7	20



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### Quality Control (Continued)

#### General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE3555 - Percent Solids</b>										
<b>Blank (BGE3555-BLK1)</b>										
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	<0.100	U	0.100	%						
<b>Duplicate (BGE3555-DUP1)</b>										
						Source: 23E4424-01				
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	1.68		0.100	%		1.67			0.399	20
<b>Reference (BGE3555-SRM1)</b>										
						Prepared: 5/22/2023 Analyzed: 5/23/2023				
% Solids	0.367		0.100	%	0.350		105	78.9-118		
<b>Batch: BGE3627 - Solid Anions No Prep</b>										
<b>Duplicate (BGE3627-DUP1)</b>										
						Source: 23E4380-01				
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	3870		115	mg/kg dry		3880			0.119	15
<b>MRL Check (BGE3627-MRL1)</b>										
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	0.128		0.125	mg/kg wet	0.100		128	50-150		
<b>Matrix Spike (BGE3627-MS1)</b>										
						Source: 23E4380-01				
						Prepared & Analyzed: 5/22/2023				
Nitrate as N	4070		128	mg/kg dry	205	3880	92.2	80-120		
<b>Batch: BGE4355 - NH3-N T</b>										
<b>Blank (BGE4355-BLK1)</b>										
						Prepared: 5/26/2023 Analyzed: 5/30/2023				
Ammonia as N	<9.98	U	9.98	mg/kg wet						
<b>LCS (BGE4355-BS1)</b>										
						Prepared: 5/26/2023 Analyzed: 5/30/2023				
Ammonia as N	92.6		9.96	mg/kg wet	99.6		93.0	85-115		



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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGE4355 - NH3-N T (Continued)</b>										
<b>Duplicate (BGE4355-DUP1)</b>			<b>Source: 23D4568-16</b>		Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	179	J1	29.5	mg/kg dry		143			22.1	20
<b>MRL Check (BGE4355-MRL1)</b>					Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	10.8		9.92	mg/kg wet	9.92		109	50-150		
<b>Matrix Spike (BGE4355-MS1)</b>			<b>Source: 23D4568-16</b>		Prepared: 5/26/2023 Analyzed: 5/30/2023					
Ammonia as N	460		29.5	mg/kg dry	295	143	107	85-115		
<b>Batch: BGE4886 - NH3-N T</b>										
<b>Blank (BGE4886-BLK1)</b>					Prepared: 5/31/2023 Analyzed: 6/1/2023					
Total Kjeldahl Nitrogen - (TKN)	<10.0	U	10.0	mg/kg wet						
<b>LCS (BGE4886-BS1)</b>					Prepared: 5/31/2023 Analyzed: 6/1/2023					
Total Kjeldahl Nitrogen - (TKN)	10.0		9.92	mg/kg wet	20.0		49.9	85-115		
<b>Batch: BGF0371 - TKN T</b>										
<b>Blank (BGF0371-BLK1)</b>					Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	<9.99	U	9.99	mg/kg wet						
<b>LCS (BGF0371-BS1)</b>					Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	97.1		9.97	mg/kg wet	99.7		97.4	85-115		
<b>Duplicate (BGF0371-DUP1)</b>			<b>Source: 23E1320-54</b>		Prepared: 6/2/2023 Analyzed: 6/6/2023					
Ammonia as N	240	J1	29.0	mg/kg dry		190			23.1	20





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**Quality Control**  
(Continued)

**General Chemistry (Continued)**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF0371 - TKN T (Continued)**

**MRL Check (BGF0371-MRL1)**

Prepared: 6/2/2023 Analyzed: 6/6/2023

Ammonia as N	9.77	U	9.97	mg/kg wet	9.97		98.0	50-150		
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**Matrix Spike (BGF0371-MS1)**

**Source: 23E1320-54**

Prepared: 6/2/2023 Analyzed: 6/6/2023

Ammonia as N	511		29.0	mg/kg dry	290	190	111	85-115		
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**Batch: BGF0406 - NH3-N T**

**Blank (BGF0406-BLK1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	<9.88	U	9.88	mg/kg wet						
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**LCS (BGF0406-BS1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	17.8		9.92	mg/kg wet	20.0		88.7	85-115		
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**Duplicate (BGF0406-DUP1)**

**Source: 23E3943-01RE2**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	65500		1870	mg/kg dry		76300			15.3	20
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**Matrix Spike (BGF0406-MS1)**

**Source: 23E3943-01RE2**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Total Kjeldahl Nitrogen - (TKN)	84800		1870	mg/kg dry	7500	76300	113	85-115		
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**Quality Control**  
(Continued)

**TCLP**

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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**Batch: BGF0431 - SW-7471 TCLP**

**Duplicate (BGF0431-DUP1)**

**Source: 23E4999-01**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	<0.200	U	0.200	mg/L		<0.200				200
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**BGF0102-LBK1 (BGF0431-LBK1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	<0.200	U	0.200	mg/L						
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**MDL Check (BGF0431-MRL1)**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	0.000211	U	0.200	mg/L	0.000200		106			
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**Matrix Spike (BGF0431-MS1)**

**Source: 23E4999-01**

Prepared: 6/2/2023 Analyzed: 6/5/2023

Mercury	0.00499	U	0.200	mg/L	0.00500	<0.200	99.9	80-120		
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**Batch: BGF0509 - EPA 200.2 TCLP**

**Blank (BGF0509-BLK1)**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	<100	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

**LCS (BGF0509-BS1)**

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	0.501	U	5.00	mg/L	0.500		100	80-120		
Barium	0.500	U	100	mg/L	0.500		100	80-120		
Cadmium	0.0497	U	1.00	mg/L	0.0500		99.5	80-120		
Chromium	0.254	U	5.00	mg/L	0.250		102	80-120		
Lead	0.255	U	5.00	mg/L	0.250		102	80-120		
Selenium	0.515	U	1.00	mg/L	0.500		103	80-120		
Silver	0.0493	U	5.00	mg/L	0.0500		98.6	80-120		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0509 - EPA 200.2 TCLP (Continued)

##### Duplicate (BGF0509-DUP1)

Source: 23E4999-01

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L		<5.00				20
Barium	1.02	U	100	mg/L		1.14			10.2	20
Cadmium	<1.00	U	1.00	mg/L		<1.00				20
Chromium	<5.00	U	5.00	mg/L		<5.00				20
Lead	<5.00	U	5.00	mg/L		<5.00				20
Selenium	<1.00	U	1.00	mg/L		<1.00				20
Silver	<5.00	U	5.00	mg/L		<5.00				20

##### BGF0102-BLK1 (BGF0509-LBK1)

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	<5.00	U	5.00	mg/L						
Barium	0.830	U	100	mg/L						
Cadmium	<1.00	U	1.00	mg/L						
Chromium	<5.00	U	5.00	mg/L						
Lead	<5.00	U	5.00	mg/L						
Selenium	<1.00	U	1.00	mg/L						
Silver	<5.00	U	5.00	mg/L						

##### Matrix Spike (BGF0509-MS1)

Source: 23E4999-01

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	0.525	U	5.00	mg/L	0.500	<5.00	105	75-125		
Barium	1.50	J1, U	100	mg/L	0.500	1.14	73.2	75-125		
Cadmium	0.0527	U	1.00	mg/L	0.0500	<1.00	105	75-125		
Chromium	0.259	U	5.00	mg/L	0.250	<5.00	103	75-125		
Lead	0.251	U	5.00	mg/L	0.250	<5.00	100	75-125		
Selenium	0.532	U	1.00	mg/L	0.500	<1.00	106	75-125		
Silver	0.0414	U	5.00	mg/L	0.0500	<5.00	82.7	75-125		

##### Post Spike (BGF0509-PS1)

Source: 23E4999-01

Prepared: 6/5/2023 Analyzed: 6/6/2023

Arsenic	530			ug/L	500	9.53	104	80-120		
Barium	1450	J1		ug/L	500	1110	68.2	80-120		
Cadmium	54.1			ug/L	50.0	0.400	107	80-120		
Chromium	265			ug/L	250	1.96	105	80-120		
Lead	253			ug/L	250	3.06	99.9	80-120		
Selenium	536			ug/L	500	2.94	107	80-120		
Silver	53.1			ug/L	50.0	0.478	105	80-120		



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32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0509 - EPA 200.2 TCLP (Continued)</b>										
<b>Dilution Check (BGF0509-SRL1)</b>			<b>Source: 23E4999-01</b>			Prepared: 6/5/2023 Analyzed: 6/6/2023				
Arsenic	<5.00	U	5.00	mg/L		<5.00				10
Barium	1.14	U	100	mg/L		1.14			0.00	10
Cadmium	<1.00	U	1.00	mg/L		<1.00				10
Chromium	<5.00	U	5.00	mg/L		<5.00				10
Lead	<5.00	U	5.00	mg/L		<5.00				10
Selenium	<1.00	U	1.00	mg/L		<1.00				10
Silver	<5.00	U	5.00	mg/L		<5.00				10

#### Batch: BGF0530 - SW-3511

##### Blank (BGF0530-BLK1)

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr			0.0224	mg/L	0.0250		90	70-130		

##### LCS (BGF0530-BS1)

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.00627	U	10.0	mg/L	0.00515		122	70-130		
Silvex (2,4,5-TP)	0.00536	U	1.00	mg/L	0.00500		107	70-130		
Surrogate: DCAA-surr	S		0.0345	mg/L	0.0250		138	70-130		

##### LCS Dup (BGF0530-BSD1)

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.00648	U	10.0	mg/L	0.00515		126	70-130	3	30
Silvex (2,4,5-TP)	0.00579	U	1.00	mg/L	0.00500		116	70-130	8	30
Surrogate: DCAA-surr	S		0.0370	mg/L	0.0250		148	70-130		

##### BGF0102-BLK1 (BGF0530-LBK1)

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	<10.0	U	10.0	mg/L						
Silvex (2,4,5-TP)	<1.00	U	1.00	mg/L						
Surrogate: DCAA-surr	S		0.144	mg/L	0.100		144	70-130		





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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0530 - SW-3511 (Continued)

##### Matrix Spike (BGF0530-MS1)

Source: 23E5251-01

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.0247	U	10.0	mg/L	0.0206	<10.0	120	70-130		
Silvex (2,4,5-TP)	0.0209	U	1.00	mg/L	0.0200	0.000702	101	70-130		
Surrogate: DCAA-surr	S		0.147	mg/L	0.100		147	70-130		

##### Matrix Spike Dup (BGF0530-MSD1)

Source: 23E5251-01

Prepared: 6/5/2023 Analyzed: 7/9/2023

2,4-D	0.0257	U	10.0	mg/L	0.0206	<10.0	125	70-130	4	30
Silvex (2,4,5-TP)	0.0228	U	1.00	mg/L	0.0200	0.000702	111	70-130	9	30
Surrogate: DCAA-surr	S		0.149	mg/L	0.100		149	70-130		

#### Batch: BGF0708 - SW-3511

##### Blank (BGF0708-BLK1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000126	mg/L	0.000120		105	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140		

##### TOX LCS (BGF0708-BS1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Toxaphene (Chlorinated Camphene)	0.000998	U	0.500	mg/L	0.00120		83.2	60-140		
Surrogate: 2,4,5,6			0.000107	mg/L	0.000120		89.5	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000124	mg/L	0.000120		103	60-140		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0708 - SW-3511 (Continued)</b>										
<b>LCS (BGF0708-BS2)</b>										
						Prepared: 6/6/2023 Analyzed: 6/29/2023				
Chlordane (Total)	0.000293	U	0.0300	mg/L	0.000480		61.1	60-140		
Endrin	8.34E-5	U	0.0200	mg/L	0.000120		69.5	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	9.12E-5	U	0.400	mg/L	0.000120		76.0	60-140		
Heptachlor	6.58E-5	J1, U	0.00800	mg/L	0.000120		54.9	60-140		
Heptachlor epoxide	7.53E-5	U	0.00800	mg/L	0.000120		62.8	60-140		
Methoxychlor	7.67E-5	U	10.0	mg/L	0.000120		63.9	60-140		
Surrogate: 2,4,5,6			0.000130	mg/L	0.000120		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000123	mg/L	0.000120		103	60-140		
<b>TOX LCSD (BGF0708-BSD1)</b>										
						Prepared: 6/6/2023 Analyzed: 6/29/2023				
Toxaphene (Chlorinated Camphene)	0.000920	U	0.500	mg/L	0.00120		76.7	60-140	8.12	40
Surrogate: 2,4,5,6			0.000116	mg/L	0.000120		96.6	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000119	mg/L	0.000120		98.8	60-140		
<b>LCS Dup (BGF0708-BSD2)</b>										
						Prepared: 6/6/2023 Analyzed: 6/29/2023				
Chlordane (Total)	0.000308	U	0.0300	mg/L	0.000480		64.2	60-140	4.99	40
Endrin	8.43E-5	U	0.0200	mg/L	0.000120		70.2	60-140	1.04	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	8.20E-5	U	0.400	mg/L	0.000120		68.3	60-140	10.7	40
Heptachlor	6.67E-5	J1, U	0.00800	mg/L	0.000120		55.6	60-140	1.30	40
Heptachlor epoxide	8.19E-5	U	0.00800	mg/L	0.000120		68.3	60-140	8.39	40
Methoxychlor	7.98E-5	U	10.0	mg/L	0.000120		66.5	60-140	3.90	40
Surrogate: 2,4,5,6			0.000118	mg/L	0.000120		98.1	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		
<b>BGF0102-BLK1 (BGF0708-LBK1)</b>										
						Prepared: 6/6/2023 Analyzed: 6/29/2023				
Chlordane (Total)	<0.0300	U	0.0300	mg/L						
Endrin	<0.0200	U	0.0200	mg/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.400	U	0.400	mg/L						
Heptachlor	<0.00800	U	0.00800	mg/L						
Heptachlor epoxide	<0.00800	U	0.00800	mg/L						
Methoxychlor	<10.0	U	10.0	mg/L						
Toxaphene (Chlorinated Camphene)	<0.500	U	0.500	mg/L						
Surrogate: 2,4,5,6			0.000751	mg/L	0.000600		125	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000540	mg/L	0.000600		89.9	60-140		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0708 - SW-3511 (Continued)

##### TOX MRL (BGF0708-MRL1)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Toxaphene (Chlorinated Camphene)	0.000676	U	0.500	mg/L	0.000300		225			
Surrogate: 2,4,5,6			0.000113	mg/L	0.000120		94.2	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000127	mg/L	0.000120		106	60-140		

##### MRL Check (BGF0708-MRL2)

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	3.24E-5	U	0.0300	mg/L	4.80E-5		67.5			
Endrin	7.60E-6	U	0.0200	mg/L	1.20E-5		63.3			
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	7.71E-6	U	0.400	mg/L	1.20E-5		64.2			
Heptachlor	6.98E-6	U	0.00800	mg/L	1.20E-5		58.1			
Heptachlor epoxide	8.05E-6	U	0.00800	mg/L	1.20E-5		67.1			
Methoxychlor	8.32E-6	U	10.0	mg/L	1.20E-5		69.4			
Surrogate: 2,4,5,6			0.000122	mg/L	0.000120		101	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000126	mg/L	0.000120		105	60-140		

##### Matrix Spike (BGF0708-MS1)

Source: 23E5597-01

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.00183	U	0.0300	mg/L	0.00240	<0.0300	76.3	60-140		
Endrin	0.000507	U	0.0200	mg/L	0.000600	<0.0200	84.6	60-140		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000514	U	0.400	mg/L	0.000600	<0.400	85.6	60-140		
Heptachlor	0.000455	U	0.00800	mg/L	0.000600	<0.00800	75.8	60-140		
Heptachlor epoxide	0.000486	U	0.00800	mg/L	0.000600	<0.00800	81.0	60-140		
Methoxychlor	0.000444	U	10.0	mg/L	0.000600	<10.0	74.0	60-140		
Surrogate: 2,4,5,6			0.000646	mg/L	0.000600		108	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000633	mg/L	0.000600		106	60-140		

##### Matrix Spike Dup (BGF0708-MSD1)

Source: 23E5597-01

Prepared: 6/6/2023 Analyzed: 6/29/2023

Chlordane (Total)	0.00196	U	0.0300	mg/L	0.00240	<0.0300	81.8	60-140	7.02	40
Endrin	0.000534	U	0.0200	mg/L	0.000600	<0.0200	89.1	60-140	5.18	40
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.000532	U	0.400	mg/L	0.000600	<0.400	88.7	60-140	3.58	40
Heptachlor	0.000465	U	0.00800	mg/L	0.000600	<0.00800	77.5	60-140	2.23	40
Heptachlor epoxide	0.000524	U	0.00800	mg/L	0.000600	<0.00800	87.3	60-140	7.49	40
Methoxychlor	0.000459	U	10.0	mg/L	0.000600	<10.0	76.5	60-140	3.41	40
Surrogate: 2,4,5,6			0.000706	mg/L	0.000600		118	60-140		
Tetrachloro-m-xylene-surr										
Surrogate: Decachlorobiphenyl-surr			0.000632	mg/L	0.000600		105	60-140		





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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0760 - SW-3511

##### MB SV (BGF0760-BLK1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.00950	mg/L	0.0100		95.0	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0171	mg/L	0.0200		85.4	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0169	mg/L	0.0200		84.5	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00971	mg/L	0.0100		97.1	52-162		
Surrogate: Phenol-d5-surr			0.0170	mg/L	0.0200		84.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00794	mg/L	0.0100		79.4	51.9-147		

##### BS SV (BGF0760-BS1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	0.0188	U	400	mg/L	0.0200		93.9	60-140		
2,4,6-Trichlorophenol	0.0202	U	2.00	mg/L	0.0200		101	60-140		
2,4-Dinitrotoluene (2,4-DNT)	0.00935	U	0.130	mg/L	0.0100		93.5	60-140		
2-Methylphenol	0.0169	U	200	mg/L	0.0200		84.3	60-140		
3,4-Methylphenol	0.0319	U	200	mg/L	0.0400		79.7	60-140		
Hexachlorobenzene	0.00810	U	0.130	mg/L	0.0100		81.0	60-140		
Hexachlorobutadiene	0.00498	J1, U	0.500	mg/L	0.0100		49.8	60-140		
Hexachloroethane	0.00546	J1, U	3.00	mg/L	0.0100		54.6	60-140		
Nitrobenzene	0.00946	U	2.00	mg/L	0.0100		94.6	60-140		
Pentachlorophenol	0.0176	U	100	mg/L	0.0200		87.8	36.8-149		
Pyridine	0.0204	U	5.00	mg/L	0.0500		40.7	2.5-101		
Surrogate: 2-Fluorobiphenyl-surr			0.00964	mg/L	0.0100		96.4	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0177	mg/L	0.0200		88.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0159	mg/L	0.0200		79.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0103	mg/L	0.0100		103	52-162		
Surrogate: Phenol-d5-surr			0.0188	mg/L	0.0200		94.2	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00827	mg/L	0.0100		82.7	51.9-147		





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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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#### Batch: BGF0760 - SW-3511 (Continued)

##### BSD SV (BGF0760-BS01)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	0.0191	U	400	mg/L	0.0200		95.4	60-140	1.62	40
2,4,6-Trichlorophenol	0.0208	U	2.00	mg/L	0.0200		104	60-140	3.21	40
2,4-Dinitrotoluene (2,4-DNT)	0.00960	U	0.130	mg/L	0.0100		96.0	60-140	2.55	40
2-Methylphenol	0.0165	U	200	mg/L	0.0200		82.5	60-140	2.10	40
3,4-Methylphenol	0.0307	U	200	mg/L	0.0400		76.8	60-140	3.64	40
Hexachlorobenzene	0.00825	U	0.130	mg/L	0.0100		82.5	60-140	1.87	40
Hexachlorobutadiene	0.00440	J1, U	0.500	mg/L	0.0100		44.0	60-140	12.3	40
Hexachloroethane	0.00492	J1, U	3.00	mg/L	0.0100		49.2	60-140	10.3	40
Nitrobenzene	0.00961	U	2.00	mg/L	0.0100		96.1	60-140	1.54	40
Pentachlorophenol	0.0177	U	100	mg/L	0.0200		88.4	36.8-149	0.712	40
Pyridine	0.0203	U	5.00	mg/L	0.0500		40.6	2.5-101	0.451	40
Surrogate: 2-Fluorobiphenyl-surr			0.00948	mg/L	0.0100		94.8	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0171	mg/L	0.0200		85.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0159	mg/L	0.0200		79.3	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.00939	mg/L	0.0100		93.9	52-162		
Surrogate: Phenol-d5-surr			0.0180	mg/L	0.0200		90.1	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.00863	mg/L	0.0100		86.3	51.9-147		

##### BFG0102-BLK1 (BGF0760-LBK1)

Prepared: 6/6/2023 Analyzed: 6/21/2023

2,4,5-Trichlorophenol	<400	U	400	mg/L						
2,4,6-Trichlorophenol	<2.00	U	2.00	mg/L						
2,4-Dinitrotoluene (2,4-DNT)	<0.130	U	0.130	mg/L						
2-Methylphenol	<200	U	200	mg/L						
3,4-Methylphenol	<200	U	200	mg/L						
Hexachlorobenzene	<0.130	U	0.130	mg/L						
Hexachlorobutadiene	<0.500	U	0.500	mg/L						
Hexachloroethane	<3.00	U	3.00	mg/L						
Nitrobenzene	<2.00	U	2.00	mg/L						
Pentachlorophenol	<100	U	100	mg/L						
Pyridine	<5.00	U	5.00	mg/L						
Surrogate: 2-Fluorobiphenyl-surr			0.0464	mg/L	0.0400		116	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0663	mg/L	0.0800		82.9	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0689	mg/L	0.0800		86.1	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0441	mg/L	0.0400		110	52-162		
Surrogate: Phenol-d5-surr			0.0768	mg/L	0.0800		96.0	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0221	mg/L	0.0400		55.1	51.9-147		



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### Quality Control (Continued)

#### TCLP (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch: BGF0760 - SW-3511 (Continued)</b>										
<b>23E4427-01 MS (BGF0760-MS1)</b>			<b>Source: 23E4427-01</b>		Prepared: 6/6/2023 Analyzed: 6/21/2023					
2,4,5-Trichlorophenol	0.0753	U	400	mg/L	0.0800	<400	94.2	44.9-171		
2,4,6-Trichlorophenol	0.0711	U	2.00	mg/L	0.0800	<2.00	88.9	34.7-143		
2,4-Dinitrotoluene (2,4-DNT)	0.0368	U	0.130	mg/L	0.0400	<0.130	91.9	50.3-144		
2-Methylphenol	0.0710	U	200	mg/L	0.0800	<200	88.8	17.3-182		
3,4-Methylphenol	0.131	U	200	mg/L	0.160	<200	81.7	43.4-188		
Hexachlorobenzene	0.0344	U	0.130	mg/L	0.0400	<0.130	86.0	56.1-137		
Hexachlorobutadiene	0.0187	U	0.500	mg/L	0.0400	<0.500	46.8	33.1-110		
Hexachloroethane	0.0208	U	3.00	mg/L	0.0400	<3.00	52.0	36.2-106		
Nitrobenzene	0.0374	U	2.00	mg/L	0.0400	<2.00	93.6	54.9-156		
Pentachlorophenol	0.0737	U	100	mg/L	0.0800	<100	92.1	42.2-151		
Pyridine	0.0485	U	5.00	mg/L	0.200	<5.00	24.3	2-87.4		
Surrogate: 2-Fluorobiphenyl-surr			0.0384	mg/L	0.0400		95.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0713	mg/L	0.0800		89.2	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0674	mg/L	0.0800		84.2	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0400	mg/L	0.0400		99.9	52-162		
Surrogate: Phenol-d5-surr			0.0770	mg/L	0.0800		96.3	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0328	mg/L	0.0400		82.1	51.9-147		
<b>23E4427-01 MSD (BGF0760-MSD1)</b>										
<b>Source: 23E4427-01</b>			Prepared: 6/6/2023 Analyzed: 6/21/2023							
2,4,5-Trichlorophenol	0.0763	U	400	mg/L	0.0800	<400	95.4	44.9-171	1.30	40
2,4,6-Trichlorophenol	0.0746	U	2.00	mg/L	0.0800	<2.00	93.3	34.7-143	4.80	40
2,4-Dinitrotoluene (2,4-DNT)	0.0357	U	0.130	mg/L	0.0400	<0.130	89.2	50.3-144	2.99	40
2-Methylphenol	0.0713	U	200	mg/L	0.0800	<200	89.1	17.3-182	0.364	40
3,4-Methylphenol	0.133	U	200	mg/L	0.160	<200	83.2	43.4-188	1.84	40
Hexachlorobenzene	0.0293	U	0.130	mg/L	0.0400	<0.130	73.2	56.1-137	16.1	40
Hexachlorobutadiene	0.0180	U	0.500	mg/L	0.0400	<0.500	45.1	33.1-110	3.78	40
Hexachloroethane	0.0207	U	3.00	mg/L	0.0400	<3.00	51.6	36.2-106	0.667	40
Nitrobenzene	0.0364	U	2.00	mg/L	0.0400	<2.00	91.0	54.9-156	2.85	40
Pentachlorophenol	0.0668	U	100	mg/L	0.0800	<100	83.5	42.2-151	9.83	40
Pyridine	0.0487	U	5.00	mg/L	0.200	<5.00	24.4	2-87.4	0.420	40
Surrogate: 2-Fluorobiphenyl-surr			0.0376	mg/L	0.0400		93.9	54.6-148		
Surrogate: 2-Fluorophenol-surr			0.0643	mg/L	0.0800		80.3	55-152		
Surrogate: 2,4,6-Tribromophenol-surr			0.0589	mg/L	0.0800		73.7	52.4-136		
Surrogate: Nitrobenzene-d5-surr			0.0389	mg/L	0.0400		97.3	52-162		
Surrogate: Phenol-d5-surr			0.0767	mg/L	0.0800		95.9	58.7-152		
Surrogate: p-Terphenyl-d14-surr			0.0314	mg/L	0.0400		78.5	51.9-147		



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Sample Condition Checklist

Work Order: 23E4380

### Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted



Inframark  
32259 Morton Road  
Brookshire, TX 77423

Project: Treschwig JP - Non Potable - Sewage Sludge Annual  
Project Number: 50  
Project Manager: Gregory Camp

**Reported:**  
07/25/2023 11:49

## Term and Qualifier Definitions

Item	Definition
C+	The associated calibration QC is higher than the established quality control criteria for accuracy - no hit in sample; data not affected and acceptable to report.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
V	Analyte was detected in both sample and method blank.
V2	The analyte was detected in the sample and the associated leach blank.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.





# CHAIN OF CUSTODY RECORD

North Water District Laboratory Services  
130 S. Trade Center Pkwy, Conroe Tx 77385  
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39



Page 1 of 3

23E4380

<b>Lab PM :</b> Deena Higginbotham		<b>Project Name :</b> Treschwig JP - Non Potable - Sewage Sludge Annual		<b>Schedule Comments:</b>			
<b>Inframark</b> Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966		<b>Project Comments:</b> 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper					
Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
23E4380-01	Digester 1		5/22/2023	S Grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCPT-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C	



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Page 2 of 3

23E4380

(Continued)

Lab PM : Deena Higginbotham		Project Name : Treschwig JP - Non Potable - Sewage Sludge Annual		Schedule Comments:	
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966		Project Comments: 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper			
23E4380-02	Digester 2	5/22/2023	S grab	A Glass 250mL w/ Teflon-lined Lid B HDPE IC 250mL C HDPE MET 250mL D HDPE WC 250mL E Glass Wide 1L w/ Teflon-lined Lid F HDPE 250mL G Glass VOA 60mL	Arsenic ICP 6010 4°C Arsenic ICP TCLP 4°C Barium ICP TCLP 4°C Cadmium ICP 6010 4°C Cadmium ICP TCLP 4°C Chromium ICP 6010 4°C Chromium ICP TCLP 4°C Copper ICP 6010 4°C Hg-7471 4°C Hg-7471-TCLP 4°C Lead ICP 6010 4°C Lead ICP TCLP 4°C Molybdenum ICP 6010 4°C Nickel ICP 6010 4°C Potassium ICP 6010 4°C Selenium ICP 6010 4°C Selenium ICP TCLP 4°C Silver ICP TCLP 4°C Total Phosphorus ICP 6010 4°C Zinc ICP 6010 4°C HERB-TCLP 4°C OCB-TCLP 4°C PCB-8082 4°C SVOA-TCLP 4°C TCLP Bottle 4°C TCLP ZHE 4°C VOA-TCLP 4°C NH3-N T-350.2 4°C Nitrate as N IC 9056 4°C TKN T-351.3 4°C TS-2540 G 4°C



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TCEQ T104704238-23-39



Page 3 of 3

23E4380

(Continued)

Lab PM : Deena Higginbotham	Project Name : Treschwig JP - Non Potable - Sewage Sludge Annual	Schedule Comments:
Inframark Gregory Camp 32259 Morton Road Brookshire, TX 77423 Phone: (281) 902-0966	Project Comments: 4414 Treschwig Rd - Spring 77373 Gate 1515 in the event of on-site chemical release call 911 and operator Laura Zito - 832-302-4323 Chris - 713-657-5188 EDP helper	

Field Remarks:		Lab Preservation: H2SO4	HNO3	NaOH	Other:
		(Circle and Write ID Below)			
Sampler (Signature)	STS	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Print Name	Sub T Smith	Relinquished By: (Signature)	Received By: (Signature)	Date/Time	Date/Time
Affiliation	NWDLS	Relinquished To Lab By: (Signature)	Received for Laboratory By: (Signature)	Date/Time	Date/Time
Custody Seal : Yes / No	COC Labels Agree: Yes / No	Appropriate Volume: Yes / No	Received on Ice: Yes / No	Temperature: °C	
Container Intact : Yes / No	Appropriate Containers: Yes / No	Coolers Intact: Yes / No	Samples Accepted: Yes / No	Thermometer ID:	

Spring South

wko\_NWDLS\_COC\_LS Revision 4.1 Effective: 2/17/2022



# Laboratory Analysis Report

Total Number of Pages: 8

Job ID : 23053102



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, <http://www.ablabs.com>

**Client Project Name :**  
**23E4380**

**Report To :** Client Name: NWDLS P.O.#.: 23E4380  
Attn: Deena Higginbotham Sample Collected By:  
Client Address: 130 S Trade Center Pkwy Date Collected: 05/22/23  
City, State, Zip: Conroe, Texas, 77385

**A&B Labs has analyzed the following samples...**

Client Sample ID	Matrix	A&B Sample ID
23E4380-01	Sludge	23053102.01
23E4380-02	Sludge	23053102.02

A handwritten signature in cursive script, appearing to read 'ashute'.

Released By: Amanda Shute

Title: Project Manager

Date: 6/5/2023



This Laboratory is NELAP (T104704213-23-31) accredited. Effective: 04/13/2023; Expires: 3/31/2024

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Results apply to the sample as received. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

ab-q210-0321

Date Received : 05/26/2023 13:25



# LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID : 23053102

Date: 6/5/2023

## General Term Definition

Back-Wt	Back Weight	Post-Wt	Post Weight
BRL	Below Reporting Limit	ppm	parts per million
cfu	colony-forming units	Pre-Wt	Previous Weight
Conc.	Concentration	Q	Qualifier
D.F.	Dilution Factor	RegLimit	Regulatory Limit
Front-Wt	Front Weight	RPD	Relative Percent Difference
LCS	Laboratory Check Standard	RptLimit	Reporting Limit
LCSD	Laboratory Check Standard Duplicate	SDL	Sample Detection Limit
MS	Matrix Spike	surr	Surrogate
MSD	Matrix Spike Duplicate	T	Time
MW	Molecular Weight	TNTC	Too numerous to count
J	Estimation. Below calibration range but above MDL	MQL	Minimum Quantitation Limit

## Qualifier Definition

M2	Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference."The sample randomly selected as QC for this batch was not part of your project. Therefore, this sample matrix is not applicable to your project samples."
----	--



## LABORATORY TEST RESULTS

Job ID : 23053102

Date 6/5/2023

Client Name: NWDLS

Project Name: 23E4380

Attn: Deena Higginbotham

Client Sample ID: 23E4380-01

Date Collected: 05/22/23

Time Collected: 08:40

Other Information:

Job Sample ID: 23053102.01

Sample Matrix Sludge

% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	05/31/23 04:09	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	05/31/23 04:09	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	05/31/23 04:09	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	05/31/23 04:09	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	05/31/23 04:09	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	05/31/23 04:09	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	05/31/23 04:09	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	05/31/23 04:09	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	05/31/23 04:09	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	05/31/23 04:09	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	05/31/23 04:09	ZQ
	1,2-Dichloroethane-d4(surr)	104	%	1.00		70-130			05/31/23 04:09	ZQ
	Dibromofluoromethane(surr)	98.6	%	1.00		70-130			05/31/23 04:09	ZQ
	p-Bromofluorobenzene(surr)	96.7	%	1.00		70-130			05/31/23 04:09	ZQ
	Toluene-d8(surr)	94.2	%	1.00		70-130			05/31/23 04:09	ZQ

ab-q212-0321



## LABORATORY TEST RESULTS

Date 6/5/2023

Job ID : 23053102

Client Name: NWDLS  
Project Name: 23E4380

Attn: Deena Higginbotham

Client Sample ID: 23E4380-02  
Date Collected: 05/22/23  
Time Collected: 08:40  
Other Information:

Job Sample ID: 23053102.02  
Sample Matrix: Sludge  
% Moisture

Test Method	Parameter/Test Description	Result	Units	DF	SDL	SQL	Reg Limit	Q	Date Time	Analyst
SW-846 8260C	TCLP VOC									
	1,1-Dichloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.6	U	05/31/23 04:27	ZQ
	1,2-Dichloroethane	<0.026	mg/L	1.00	0.026	0.125	0.5	U	05/31/23 04:27	ZQ
	1,4-Dichlorobenzene	<0.018	mg/L	1.00	0.018	0.125	7.5	U	05/31/23 04:27	ZQ
	Benzene	<0.016	mg/L	1.00	0.016	0.125	0.5	U	05/31/23 04:27	ZQ
	Carbon tetrachloride	<0.043	mg/L	1.00	0.043	0.125	0.5	U	05/31/23 04:27	ZQ
	Chlorobenzene	<0.017	mg/L	1.00	0.017	0.125	70	U	05/31/23 04:27	ZQ
	Chloroform	<0.018	mg/L	1.00	0.018	0.125	6	U	05/31/23 04:27	ZQ
	MEK	<0.072	mg/L	1.00	0.072	0.125	200	U	05/31/23 04:27	ZQ
	Tetrachloroethylene	<0.017	mg/L	1.00	0.017	0.125	0.7	U	05/31/23 04:27	ZQ
	Trichloroethylene	<0.020	mg/L	1.00	0.020	0.125	0.5	U	05/31/23 04:27	ZQ
	Vinyl Chloride	<0.021	mg/L	1.00	0.021	0.125	0.2	U	05/31/23 04:27	ZQ
	1,2-Dichloroethane-d4(surr)	103	%	1.00		70-130			05/31/23 04:27	ZQ
	Dibromofluoromethane(surr)	95.8	%	1.00		70-130			05/31/23 04:27	ZQ
	p-Bromofluorobenzene(surr)	95.4	%	1.00		70-130			05/31/23 04:27	ZQ
	Toluene-d8(surr)	94.9	%	1.00		70-130			05/31/23 04:27	ZQ

ab-q212-0321

# QUALITY CONTROL CERTIFICATE



Job ID : 23053102

Date : 6/5/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23053101

Created Date : 05/30/23

Created By : Zeeshan

Samples in This QC Batch : 23053102.01,02

Sample Preparation : PB23053101

Prep Method : SW-846 5030C

Prep Date : 05/30/23 10:00

Prep By : Zeeshan

TCLP Prep : PB23052801

Prep Method : SW-846 1311

Prep Date : 05/27/23 13:26

Prep By : Msoria

## QC Type: Method Blank

Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
1,1-Dichloroethylene	75-35-4	< MDL	mg/L	1.00	0.125	0.0165	
1,2-Dichloroethane	107-06-2	< MDL	mg/L	1.00	0.125	0.026	
1,4-Dichlorobenzene	106-46-7	< MDL	mg/L	1.00	0.125	0.018	
Benzene	71-43-2	< MDL	mg/L	1.00	0.125	0.0158	
Carbon tetrachloride	56-23-5	< MDL	mg/L	1.00	0.125	0.0433	
Chlorobenzene	108-90-7	< MDL	mg/L	1.00	0.125	0.0173	
Chloroform	67-66-3	< MDL	mg/L	1.00	0.125	0.018	
MEK	78-93-3	< MDL	mg/L	1.00	0.125	0.0715	
Tetrachloroethylene	127-18-4	< MDL	mg/L	1.00	0.125	0.0165	
Trichloroethylene	79-01-6	< MDL	mg/L	1.00	0.125	0.0198	
Vinyl Chloride	75-01-4	< MDL	mg/L	1.00	0.125	0.0205	
1,2-Dichloroethane-d4(surr)	17060-07-0	106	%	1.00			
Dibromofluoromethane(surr)	1868-53-7	104	%	1.00			
p-Bromofluorobenzene(surr)	460-00-4	95.4	%	1.00			
Toluene-d8(surr)	2037-26-5	94.5	%	1.00			

## QC Type: LCS and LCSD

Parameter	LCS Spk Added	LCS Result	LCS % Rec	LCSD Spk Added	LCSD Result	LCSD % Rec	RPD	RPD CtrlLimit	%Recovery CtrlLimit	Qual
1,1-Dichloroethylene	1	1.01	101	1	0.968	96.8	3.8	35	70-130	
1,2-Dichloroethane	1	0.985	98.5	1	0.945	94.5	4.1	35	70-130	
1,4-Dichlorobenzene	1	0.934	93.4	1	0.911	91.1	2.5	35	70-130	
Benzene	1	1.01	101	1	0.952	95.2	5.4	35	70-130	
Carbon tetrachloride	1	1.04	104	1	0.994	99.4	4.1	35	70-130	
Chlorobenzene	1	1.04	104	1	0.969	96.9	7	35	70-130	
Chloroform	1	0.994	99.4	1	0.961	96.1	3.4	35	70-130	
MEK	1	0.802	80.2	1	0.728	72.8	9.7	35	70-130	
Tetrachloroethylene	1	1.06	106	1	0.980	98	8	35	70-130	
Trichloroethylene	1	1.05	105	1	0.993	99.3	5.9	35	70-130	
Vinyl Chloride	1	0.943	94.3	1	0.925	92.5	1.9	35	70-130	

## QC Type: MS and MSD

QC Sample ID: 23052883.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,1-Dichloroethylene	BRL	1	0.928	92.8						70-130	

ab-q213-0321

Refer to the Definition page for terms.



# QUALITY CONTROL CERTIFICATE



Job ID : 23053102

Date : 6/5/2023

Analysis : TCLP VOC

Method : SW-846 8260C

Reporting Units : mg/L

QC Batch ID : Qb23053101

Created Date : 05/30/23

Created By : Zeeshan

Samples in This QC Batch : 23053102.01,02

QC Type: MS and MSD

QC Sample ID: 23052883.01

Parameter	Sample Result	MS Spk Added	MS Result	MS % Rec	MSD Spk Added	MSD Result	MSD % Rec	RPD	RPD CtrlLimit	%Rec CtrlLimit	Qual
1,2-Dichloroethane	BRL	1	0.928	92.8						70-130	M2
1,4-Dichlorobenzene	BRL	1	0.854	85.4						70-130	
Benzene	BRL	1	0.919	91.9						70-130	
Carbon tetrachloride	BRL	1	0.964	96.4						70-130	
Chlorobenzene	BRL	1	0.940	94						70-130	
Chloroform	BRL	1	0.923	92.3						70-130	
MEK	BRL	1	0.667	66.7						70-130	
Tetrachloroethylene	BRL	1	0.888	88.8						70-130	
Trichloroethylene	BRL	1	0.983	98.3						70-130	
Vinyl Chloride	BRL	1	0.873	87.3						70-130	



Job ID: 23053102  
05/28/2023 NWDLS AMS

# SUBCONTRACT ORDER

## Sending Laboratory:

North Water District Laboratory Services, Inc.  
130 South Trade Center Parkway  
Conroe, TX 77385  
Phone: 936-321-6060  
Fax: 936-321-6061

Project Manager: Deena Higginbotham

## Subcontracted Laboratory:

A & B Labs  
10100 East Freeway, Suite 100  
Houston, TX 77029  
Phone: (713) 453-6060  
Fax: (713) 453-6091

## Work Order: 23E4380

Analysis	Due	Expires	Comments
----------	-----	---------	----------

Sample ID: 23E4380-01 Solid Sampled: 05/22/2023 08:40

TCLP ZHE 06/05/2023 06/05/2023 08:40 Auto-Included

VOA-TCLP 06/05/2023 06/05/2023 08:40

### Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Sample ID: 23E4380-02 Solid Sampled: 05/22/2023 08:40

TCLP ZHE 06/05/2023 06/05/2023 08:40 Auto-Included

VOA-TCLP 06/05/2023 06/05/2023 08:40

### Analyte(s):

1,1-Dichloroethylene	1,2-Dichloroethane (Ethylene dichloride)	1,2-Dichloroethane-d4-surr
1,4-Dichlorobenzene (p-Dichlorobenzene)	2-Butanone (Methyl ethyl ketone, MEK)	4-Bromofluorobenzene-surr
Benzene	Carbon tetrachloride	Chlorobenzene
Chloroform	Dibromofluoromethane-surr	Tetrachloroethylene (Perchloroethylene)
Toluene-d8-surr	Trichloroethene (Trichloroethylene)	Vinyl chloride (Chloroethene)

Containers Supplied:

Released By

Date

Received By

Date

Juan Keady 1325

5-26-23

*[Signature]*

05/26/23 1325

3.9



## Sample Condition Checklist

A&B JobID : <b>23053102</b>	Date Received : <b>05/26/2023</b>	Time Received : <b>1:25PM</b>
Client Name : <b>NWDLS</b>		
Temperature : <b>3.9°C</b>	Sample pH : <b>NA</b>	
Thermometer ID : <b>IR5</b>	pH Paper ID : <b>NA</b>	
Perservative :		

	Check Points	Yes	No	N/A											
1.	Cooler Seal present and signed.		X												
2.	Sample(s) in a cooler.	X													
3.	If yes, ice in cooler.	X													
4.	Sample(s) received with chain-of-custody.	X													
5.	C-O-C signed and dated.	X													
6.	Sample(s) received with signed sample custody seal.		X												
7.	Sample containers arrived intact. (If No comment)	X													
8.	Matrix: <table style="display: inline-table; vertical-align: middle;"> <tr> <td>Water <input type="checkbox"/></td> <td>Soil <input type="checkbox"/></td> <td>Liquid <input type="checkbox"/></td> <td>Sludge <input type="checkbox"/></td> <td>Solid <input checked="" type="checkbox"/></td> <td>Cassette <input type="checkbox"/></td> <td>Tube <input type="checkbox"/></td> <td>Bulk <input type="checkbox"/></td> <td>Badge <input type="checkbox"/></td> <td>Food <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> </table>	Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>			
Water <input type="checkbox"/>	Soil <input type="checkbox"/>	Liquid <input type="checkbox"/>	Sludge <input type="checkbox"/>	Solid <input checked="" type="checkbox"/>	Cassette <input type="checkbox"/>	Tube <input type="checkbox"/>	Bulk <input type="checkbox"/>	Badge <input type="checkbox"/>	Food <input type="checkbox"/>	Other <input type="checkbox"/>					
9.	Samples were received in appropriate container(s)	X													
10.	Sample(s) were received with Proper preservative			X											
11.	All samples were tagged or labeled.	X													
12.	Sample ID labels match C-O-C ID's.	X													
13.	Bottle count on C-O-C matches bottles found.	X													
14.	Sample volume is sufficient for analyses requested.	X													
15.	Samples were received within the hold time.	X													
16.	VOA vials completely filled.			X											
17.	Sample accepted.	X													
18.	Has client been contacted about sub-out			X											

**Comments : Include actions taken to resolve discrepancies/problem:**

COC shows solid, recieved sludge. ~JE 05/26/23

Received by : Jedralin

Check in by/date : ASmith / 05/26/2023

ab-s005-0321







P.O. Box 1089 Coldspring Tx 77331

Website: eastexlabs.com

Email: eastexlab@eastex.net

Tel: 936 653 3249



December 21, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

F/S - 12/21  
TCLP - 12/12  
PCB  
Metal

RE: Waller Digester

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K7384. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager

ENTERED DEC 28 2023

Pass

- ☐ Sludge Manager
- ☒ Master Spreadsheet
- ☒ TCLP
- ☒ PCB
- ☒ Metals
- ☒ F/S
- ☒ & Solid



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Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Waller, City of  
1218 Farr St  
Waller TX, 77484

### Case Narrative

40 CFR 503 Criterion for Fecal Coliform Class B = 2,000,000 MPN/g. for Class A = 1,000 MPN/g  
40 CFR 503 Criterion for Vector Class B = <1.5mg/O<sub>2</sub>/g Solids/hr  
\*Fecal Coliform result is a geometric mean of seven individual samples.

### LABORATORY ANALYTICAL REPORT

Project: Waller Digester b  
Client Matrix: Waste

Sample Date & Time: 11/28/2023 13:25

Collector: JMY

Sample Type: Grab

Print Date: 12/21/2023

#### Digester

C3K7384-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
---------	--------	-----------------	-------	--------------	-------	----------------------	--------	-------

#### Microbiological Lab

Fecal Coliform IDEXX	147687	1000	mpn/gram	N	B3K4594	11/28/2023 16:05	Colilert 1R	
Vector	1.0	0.1	mg O <sub>2</sub> /hr/g	N	B3K4740	11/28/2023 16:55	TAC 312.83(b)(4)	

#### Wet Lab

Percent Solid	1.5	0.1	%	A	B3K4607	11/29/2023 16:03	SM 2540G	
Volatile Percent Solid	59.8	0.1	%	A	B3K4603	11/30/2023 14:09	SM 2540G	



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Email: eastexlab@eastex.net  
Tel: 936 653 3249



Waller, City of  
1218 Farr St  
Waller TX, 77484

**Colilert 18 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3K4594 - No Prep Micro</b> <b>Prepared: 11/28/23 16:05</b>										
<b>Blank (B3K4594-BLK1)</b>					<b>Analyzed: 11/28/2023 4:05:00PM</b>					
Fecal Coliform IDEXX	ND	1000	mpn/gram							
<b>Duplicate (B3K4594-DUP1)</b>					<b>Source: C3K4659-01      Analyzed: 11/28/2023 4:05:00PM</b>					
Fecal Coliform IDEXX	98700	1000	mpn/gram		148300			40.2	200	
<b>Batch B3K4603 - No Prep</b> <b>Prepared: 11/30/23 14:09</b>										
<b>Blank (B3K4603-BLK1)</b>					<b>Analyzed: 11/30/2023 2:09:00PM</b>					
Volatile Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4603-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/30/2023 2:09:00PM</b>					
Volatile Percent Solid	82.3	0.1	%		83.0			0.847	10	
<b>Batch B3K4607 - No Prep</b> <b>Prepared: 11/29/23 16:03</b>										
<b>Blank (B3K4607-BLK1)</b>					<b>Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4607-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	1.30	0.1	%		1.30			0.00	20	
<b>Batch B3K4740 - No Prep Micro</b> <b>Prepared: 11/28/23 16:55</b>										
<b>Blank (B3K4740-BLK1)</b>					<b>Analyzed: 11/28/2023 4:55:00PM</b>					
Vector	ND	0.1	mg O2/hr/g							
<b>Duplicate (B3K4740-DUP1)</b>					<b>Source: C3K7384-01      Analyzed: 11/28/2023 4:55:00PM</b>					
Vector	0.800	0.1	mg O2/hr/g		1.00			22.2	200	



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Waller, City of  
1218 Farr St  
Waller TX, 77484

#### Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference





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Tel: 936 653 3249



December 12, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

RE: **Waller Digester**

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K6938. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

Generated 12/8/2023 4:07:05 PM

## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62517-1

# Eurofins Houston

## 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



Generated  
12/8/2023 4:07:05 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Qualifiers

#### GC/MS Semi VOA

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.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Job ID: 860-62517-1

Laboratory: Eurofins Houston

### Narrative

#### Job Narrative 860-62517-1

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.

#### Receipt

The sample was received on 11/30/2023 9:58 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

#### GC/MS VOA

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

#### GC/MS Semi VOA

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

#### Herbicides

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

#### Pesticides

Method 8081B: The DCB Decachlorobiphenyl (Surr) surrogate recovery for the following samples was outside acceptance limits (low biased) on the primary column: (LCS 860-133535/2-A) and (LCSD 860-133535/3-A). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8081B: The following sample was diluted due to the nature of the sample matrix: Waller Digester c Digester (860-62517-1). Elevated reporting limits (RLs) are provided.

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

#### Metals

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

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# Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.087		0.050		mg/L	1		6010D	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins Houston

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Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

## Client Sample Results

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Date Collected: 11/28/23 13:25

Lab Sample ID: 860-62517-1

Date Received: 11/30/23 09:58

Matrix: Water

### Method: SW846 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.050		mg/L			12/04/23 15:13	50
Carbon tetrachloride	ND		0.25		mg/L			12/04/23 15:13	50
Chlorobenzene	ND		0.050		mg/L			12/04/23 15:13	50
Chloroform	ND		0.050		mg/L			12/04/23 15:13	50
1,2-Dichloroethane	ND		0.050		mg/L			12/04/23 15:13	50
1,1-Dichloroethene	ND		0.050		mg/L			12/04/23 15:13	50
2-Butanone	ND		2.5		mg/L			12/04/23 15:13	50
Tetrachloroethene	ND		0.050		mg/L			12/04/23 15:13	50
Trichloroethene	ND		0.25		mg/L			12/04/23 15:13	50
Vinyl chloride	ND		0.10		mg/L			12/04/23 15:13	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		63 - 144		12/04/23 15:13	50
4-Bromofluorobenzene (Surr)	102		74 - 124		12/04/23 15:13	50
Dibromofluoromethane (Surr)	101		75 - 131		12/04/23 15:13	50
Toluene-d8 (Surr)	97		80 - 120		12/04/23 15:13	50

### Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4,5-Trichlorophenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4,6-Trichlorophenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2,4-Dinitrotoluene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
2-Methylphenol	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachlorobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachlorobutadiene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Hexachloroethane	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Nitrobenzene	ND		0.13		mg/L		12/04/23 06:37	12/04/23 15:05	5
Pentachlorophenol	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5
Pyridine	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5
3 & 4 Methylphenol	ND		0.25		mg/L		12/04/23 06:37	12/04/23 15:05	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	48		31 - 132	12/04/23 06:37	12/04/23 15:05	5
2-Fluorobiphenyl (Surr)	52		29 - 112	12/04/23 06:37	12/04/23 15:05	5
2-Fluorophenol (Surr)	45		21 - 114	12/04/23 06:37	12/04/23 15:05	5
Nitrobenzene-d5 (Surr)	48		26 - 110	12/04/23 06:37	12/04/23 15:05	5
p-Terphenyl-d14 (Surr)	85		20 - 141	12/04/23 06:37	12/04/23 15:05	5
Phenol-d5 (Surr)	38		16 - 117	12/04/23 06:37	12/04/23 15:05	5

### Method: SW846 8081B - Organochlorine Pesticides (GC) - TCLP - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.010		mg/L		12/04/23 08:52	12/05/23 11:31	10
Endrin	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Heptachlor	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Heptachlor epoxide	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
gamma-BHC (Lindane)	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Methoxychlor	ND		0.00051		mg/L		12/04/23 08:52	12/05/23 11:31	10
Toxaphene	ND		0.010		mg/L		12/04/23 08:52	12/05/23 11:31	10

Eurofins Houston

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# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Date Collected: 11/28/23 13:25

Matrix: Water

Date Received: 11/30/23 09:58

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	30		28 - 94	12/04/23 08:52	12/05/23 11:31	10
Tetrachloro-m-xylene	72		52 - 134	12/04/23 08:52	12/05/23 11:31	10

## Method: SW846 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 14:50	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 14:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	90		42 - 150	12/05/23 14:58	12/07/23 14:50	1

## Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Barium	0.087		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Cadmium	ND		0.025		mg/L		12/04/23 10:00	12/06/23 11:23	1
Chromium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Lead	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Nickel	ND		0.050		mg/L		12/04/23 10:00	12/06/23 11:23	1
Selenium	ND		0.15		mg/L		12/04/23 10:00	12/06/23 11:23	1
Silver	ND		0.10		mg/L		12/04/23 10:00	12/06/23 11:23	1
Beryllium	ND		0.020		mg/L		12/04/23 10:00	12/06/23 11:23	1
Antimony	ND		0.10		mg/L		12/04/23 10:00	12/06/23 11:23	1

## Method: SW846 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 17:10	1

Eurofins Houston

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
LCS 860-133533/3	Lab Control Sample	101	104	106	99
LCSD 860-133533/4	Lab Control Sample Dup	101	102	106	98
MB 860-133533/9	Method Blank	104	102	104	98
<b>Surrogate Legend</b>					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
TOL = Toluene-d8 (Surr)					

### Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (63-144)	BFB (74-124)	DBFM (75-131)	TOL (80-120)
860-62517-1	Waller Digester c Digester	105	102	101	97
860-62591-A-4-C MS	Matrix Spike	102	103	105	99
LB 860-133351/1-A	Method Blank	104	101	99	97
<b>Surrogate Legend</b>					
DCA = 1,2-Dichloroethane-d4 (Surr)					
BFB = 4-Bromofluorobenzene (Surr)					
DBFM = Dibromofluoromethane (Surr)					
TOL = Toluene-d8 (Surr)					

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LCS 860-133494/2-A	Lab Control Sample	99	77	43	77	114	31
LCSD 860-133494/3-A	Lab Control Sample Dup	99	85	47	85	109	34
MB 860-133494/1-A	Method Blank	58	74	38	76	120	22
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
TPHd14 = p-Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
860-62517-1	Waller Digester c Digester	48	52	45	48	85	38
860-62567-A-1-F MS	Matrix Spike	74	62	46	56	89	40

Eurofins Houston

## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (31-132)	FBP (29-112)	2FP (21-114)	NBZ (26-110)	TPHd14 (20-141)	PHL (16-117)
LB 860-133362/1-C	Method Blank	57	60	50	66	117	34
<b>Surrogate Legend</b>							
TBP = 2,4,6-Tribromophenol (Surr)							
FBP = 2-Fluorobiphenyl (Surr)							
2FP = 2-Fluorophenol (Surr)							
NBZ = Nitrobenzene-d5 (Surr)							
TPHd14 = p-Terphenyl-d14 (Surr)							
PHL = Phenol-d5 (Surr)							

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB2 (28-94)	TCX1 (52-134)
LCS 860-133535/2-A	Lab Control Sample	33	60
LCSD 860-133535/3-A	Lab Control Sample Dup	30	57
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (28-94)	TCX1 (52-134)
MB 860-133535/1-A	Method Blank	67	101
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

### Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Water

Prep Type: TCLP

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (28-94)	TCX1 (52-134)
860-62517-1 - DL	Waller Digester c Digester	30	72
LB 860-133362/1-E	Method Blank	55	85
<b>Surrogate Legend</b>			
DCB = DCB Decachlorobiphenyl (Surr)			
TCX = Tetrachloro-m-xylene			

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

**Method: 8151A - Herbicides (GC)**

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
LCS 860-133832/2-A	Lab Control Sample	102	
LCSD 860-133829/3-A	Lab Control Sample Dup	62	
LCSD 860-133832/3-A	Lab Control Sample Dup	99	
MB 860-133829/1-A	Method Blank	74	
MB 860-133832/1-A	Method Blank	81	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

**Method: 8151A - Herbicides (GC)**

Matrix: Water

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (42-150)	
860-62517-1	Waller Digester c Digester	90	
LB 860-133362/1-F	Method Blank	71	
<b>Surrogate Legend</b>			
DCPAA = 2,4-Dichlorophenylacetic acid			

1  
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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 860-133533/9

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010		mg/L			12/04/23 12:50	1
Carbon tetrachloride	ND		0.0050		mg/L			12/04/23 12:50	1
Chlorobenzene	ND		0.0010		mg/L			12/04/23 12:50	1
Chloroform	ND		0.0010		mg/L			12/04/23 12:50	1
1,2-Dichloroethane	ND		0.0010		mg/L			12/04/23 12:50	1
1,1-Dichloroethene	ND		0.0010		mg/L			12/04/23 12:50	1
2-Butanone	ND		0.050		mg/L			12/04/23 12:50	1
Tetrachloroethene	ND		0.0010		mg/L			12/04/23 12:50	1
Trichloroethene	ND		0.0050		mg/L			12/04/23 12:50	1
Vinyl chloride	ND		0.0020		mg/L			12/04/23 12:50	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 144		12/04/23 12:50	1
4-Bromofluorobenzene (Surr)	102		74 - 124		12/04/23 12:50	1
Dibromofluoromethane (Surr)	104		75 - 131		12/04/23 12:50	1
Toluene-d8 (Surr)	98		80 - 120		12/04/23 12:50	1

Lab Sample ID: LCS 860-133533/3

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.0500	0.0496		mg/L		99	75 - 125
Carbon tetrachloride	0.0500	0.0491		mg/L		98	70 - 130
Chlorobenzene	0.0500	0.0473		mg/L		95	65 - 135
Chloroform	0.0500	0.0537		mg/L		107	70 - 121
1,2-Dichloroethane	0.0500	0.0524		mg/L		105	72 - 130
1,1-Dichloroethene	0.0500	0.0488		mg/L		98	50 - 150
2-Butanone	0.250	0.299		mg/L		120	60 - 140
Tetrachloroethene	0.0500	0.0446		mg/L		89	71 - 125
Trichloroethene	0.0500	0.0438		mg/L		88	75 - 135
Vinyl chloride	0.0500	0.0453		mg/L		91	60 - 140

Surrogate	%Recovery	LCS LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		63 - 144
4-Bromofluorobenzene (Surr)	104		74 - 124
Dibromofluoromethane (Surr)	106		75 - 131
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: LCSD 860-133533/4

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.0500	0.0510		mg/L		102	75 - 125	3	25
Carbon tetrachloride	0.0500	0.0537		mg/L		107	70 - 130	9	25
Chlorobenzene	0.0500	0.0488		mg/L		98	65 - 135	3	25
Chloroform	0.0500	0.0548		mg/L		110	70 - 121	2	25

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 860-133533/4

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloroethane	0.0500	0.0532		mg/L		106	72 - 130	2	25
1,1-Dichloroethene	0.0500	0.0529		mg/L		106	50 - 150	8	25
2-Butanone	0.250	0.326		mg/L		130	60 - 140	8	25
Tetrachloroethene	0.0500	0.0513		mg/L		103	71 - 125	14	25
Trichloroethene	0.0500	0.0467		mg/L		93	75 - 135	7	25
Vinyl chloride	0.0500	0.0492		mg/L		98	60 - 140	8	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		63 - 144
4-Bromofluorobenzene (Surr)	102		74 - 124
Dibromofluoromethane (Surr)	106		75 - 131
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LB 860-133351/1-A

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Method Blank

Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050		mg/L			12/04/23 12:28	5
Carbon tetrachloride	ND		0.025		mg/L			12/04/23 12:28	5
Chlorobenzene	ND		0.0050		mg/L			12/04/23 12:28	5
Chloroform	ND		0.0050		mg/L			12/04/23 12:28	5
1,2-Dichloroethane	ND		0.0050		mg/L			12/04/23 12:28	5
1,1-Dichloroethene	ND		0.0050		mg/L			12/04/23 12:28	5
2-Butanone	ND		0.25		mg/L			12/04/23 12:28	5
Tetrachloroethene	ND		0.0050		mg/L			12/04/23 12:28	5
Trichloroethene	ND		0.025		mg/L			12/04/23 12:28	5
Vinyl chloride	ND		0.010		mg/L			12/04/23 12:28	5

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		63 - 144		12/04/23 12:28	5
4-Bromofluorobenzene (Surr)	101		74 - 124		12/04/23 12:28	5
Dibromofluoromethane (Surr)	99		75 - 131		12/04/23 12:28	5
Toluene-d8 (Surr)	97		80 - 120		12/04/23 12:28	5

Lab Sample ID: 860-62591-A-4-C MS

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		2.50	2.73		mg/L		109	66 - 142
Carbon tetrachloride	ND		2.50	2.70		mg/L		108	62 - 125
Chlorobenzene	ND		2.50	2.68		mg/L		107	60 - 133
Chloroform	ND		2.50	2.90		mg/L		116	70 - 130
1,2-Dichloroethane	ND		2.50	2.77		mg/L		111	68 - 127
1,1-Dichloroethene	ND		2.50	2.61		mg/L		104	59 - 172
2-Butanone	ND		12.5	15.5		mg/L		124	60 - 140
Tetrachloroethene	ND		2.50	2.69		mg/L		108	71 - 125

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 860-62591-A-4-C MS

Matrix: Water

Analysis Batch: 133533

Client Sample ID: Matrix Spike

Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	ND		2.50	2.41		mg/L		96	62 - 137
Vinyl chloride	ND		2.50	2.19		mg/L		88	60 - 140
Surrogate	MS %Recovery	MS Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	102		63 - 144						
4-Bromofluorobenzene (Surr)	103		74 - 124						
Dibromofluoromethane (Surr)	105		75 - 131						
Toluene-d8 (Surr)	99		80 - 120						

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 860-133494/1-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4,5-Trichlorophenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4,6-Trichlorophenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2,4-Dinitrotoluene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
2-Methylphenol	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachlorobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachlorobutadiene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Hexachloroethane	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Nitrobenzene	ND		0.0050		mg/L		12/04/23 06:37	12/04/23 20:20	1
Pentachlorophenol	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
Pyridine	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
3 & 4 Methylphenol	ND		0.010		mg/L		12/04/23 06:37	12/04/23 20:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	58		31 - 132				12/04/23 06:37	12/04/23 20:20	1
2-Fluorobiphenyl (Surr)	74		29 - 112				12/04/23 06:37	12/04/23 20:20	1
2-Fluorophenol (Surr)	38		21 - 114				12/04/23 06:37	12/04/23 20:20	1
Nitrobenzene-d5 (Surr)	76		26 - 110				12/04/23 06:37	12/04/23 20:20	1
p-Terphenyl-d14 (Surr)	120		20 - 141				12/04/23 06:37	12/04/23 20:20	1
Phenol-d5 (Surr)	22		16 - 117				12/04/23 06:37	12/04/23 20:20	1

Lab Sample ID: LCS 860-133494/2-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dichlorobenzene	0.0400	0.0253		mg/L		63	37 - 111
2,4,5-Trichlorophenol	0.0400	0.0354		mg/L		89	39 - 125
2,4,6-Trichlorophenol	0.0400	0.0332		mg/L		83	42 - 125
2,4-Dinitrotoluene	0.0400	0.0379		mg/L		95	41 - 128
2-Methylphenol	0.0400	0.0241		mg/L		60	36 - 105
Hexachlorobenzene	0.0400	0.0406		mg/L		101	39 - 128

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 860-133494/2-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	0.0400	0.0268		mg/L		67	31 - 120
Hexachloroethane	0.0400	0.0244		mg/L		61	37 - 109
Nitrobenzene	0.0400	0.0305		mg/L		76	37 - 114
Pentachlorophenol	0.0400	0.0281		mg/L		70	10 - 137
Pyridine	0.0400	0.00717	J	mg/L		18	5 - 130
3 & 4 Methylphenol	0.0400	0.0213		mg/L		53	35 - 116

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	99		31 - 132
2-Fluorobiphenyl (Surr)	77		29 - 112
2-Fluorophenol (Surr)	43		21 - 114
Nitrobenzene-d5 (Surr)	77		26 - 110
p-Terphenyl-d14 (Surr)	114		20 - 141
Phenol-d5 (Surr)	31		16 - 117

Lab Sample ID: LCSD 860-133494/3-A

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133494

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,4-Dichlorobenzene	0.0400	0.0289		mg/L		72	37 - 111	13	30
2,4,5-Trichlorophenol	0.0400	0.0383		mg/L		96	39 - 125	8	30
2,4,6-Trichlorophenol	0.0400	0.0367		mg/L		92	42 - 125	10	30
2,4-Dinitrotoluene	0.0400	0.0374		mg/L		94	41 - 128	1	30
2-Methylphenol	0.0400	0.0274		mg/L		69	36 - 105	13	30
Hexachlorobenzene	0.0400	0.0410		mg/L		102	39 - 128	1	30
Hexachlorobutadiene	0.0400	0.0319		mg/L		80	31 - 120	17	30
Hexachloroethane	0.0400	0.0288		mg/L		72	37 - 109	16	30
Nitrobenzene	0.0400	0.0358		mg/L		90	37 - 114	16	30
Pentachlorophenol	0.0400	0.0284		mg/L		71	10 - 137	1	40
Pyridine	0.0400	0.0103		mg/L		26	5 - 130	36	50
3 & 4 Methylphenol	0.0400	0.0246		mg/L		61	35 - 116	14	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol (Surr)	99		31 - 132
2-Fluorobiphenyl (Surr)	85		29 - 112
2-Fluorophenol (Surr)	47		21 - 114
Nitrobenzene-d5 (Surr)	85		26 - 110
p-Terphenyl-d14 (Surr)	109		20 - 141
Phenol-d5 (Surr)	34		16 - 117

Lab Sample ID: LB 860-133362/1-C

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133494

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2,4,5-Trichlorophenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1

Eurofins Houston



# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB 860-133362/1-C

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133494

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2,4-Dinitrotoluene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
2-Methylphenol	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachlorobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachlorobutadiene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Hexachloroethane	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Nitrobenzene	ND		0.025		mg/L		12/04/23 06:37	12/04/23 20:45	1
Pentachlorophenol	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1
Pyridine	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1
3 & 4 Methylphenol	ND		0.050		mg/L		12/04/23 06:37	12/04/23 20:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	57		31 - 132	12/04/23 06:37	12/04/23 20:45	1
2-Fluorobiphenyl (Surr)	60		29 - 112	12/04/23 06:37	12/04/23 20:45	1
2-Fluorophenol (Surr)	50		21 - 114	12/04/23 06:37	12/04/23 20:45	1
Nitrobenzene-d5 (Surr)	66		26 - 110	12/04/23 06:37	12/04/23 20:45	1
p-Terphenyl-d14 (Surr)	117		20 - 141	12/04/23 06:37	12/04/23 20:45	1
Phenol-d5 (Surr)	34		16 - 117	12/04/23 06:37	12/04/23 20:45	1

Lab Sample ID: 860-62567-A-1-F MS

Matrix: Water

Analysis Batch: 133626

Client Sample ID: Matrix Spike

Prep Type: TCLP

Prep Batch: 133494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,4-Dichlorobenzene	ND		0.200	ND		mg/L		50	37 - 111
2,4,5-Trichlorophenol	ND		0.200	ND		mg/L		48	39 - 125
2,4,6-Trichlorophenol	ND		0.200	ND		mg/L		48	42 - 125
2,4-Dinitrotoluene	ND		0.200	0.138		mg/L		69	41 - 128
2-Methylphenol	ND		0.200	ND		mg/L		46	36 - 105
Hexachlorobenzene	ND		0.200	0.148		mg/L		74	39 - 128
Hexachlorobutadiene	ND		0.200	ND		mg/L		53	31 - 120
Hexachloroethane	ND		0.200	0.147		mg/L		73	37 - 109
Nitrobenzene	ND		0.200	ND		mg/L		57	37 - 114
Pentachlorophenol	ND		0.200	ND		mg/L		56	10 - 137
Pyridine	ND		0.200	ND		mg/L		10	5 - 135
3 & 4 Methylphenol	ND		0.200	ND		mg/L		49	35 - 116

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	74		31 - 132
2-Fluorobiphenyl (Surr)	62		29 - 112
2-Fluorophenol (Surr)	46		21 - 114
Nitrobenzene-d5 (Surr)	56		26 - 110
p-Terphenyl-d14 (Surr)	89		20 - 141
Phenol-d5 (Surr)	40		16 - 117

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 860-133535/1-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133535

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 13:37	1
Endrin	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Heptachlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Heptachlor epoxide	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
gamma-BHC (Lindane)	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Methoxychlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 13:37	1
Toxaphene	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 13:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	67		28 - 94	12/04/23 08:52	12/04/23 13:37	1
Tetrachloro-m-xylene	101		52 - 134	12/04/23 08:52	12/04/23 13:37	1

Lab Sample ID: LCS 860-133535/2-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133535

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Endrin	0.00129	0.000989		mg/L		77	55 - 102
Heptachlor	0.00129	0.000718		mg/L		56	55 - 106
Heptachlor epoxide	0.00129	0.00100		mg/L		78	56 - 109
gamma-BHC (Lindane)	0.00129	0.000987		mg/L		77	59 - 107
Methoxychlor	0.00129	0.000852		mg/L		66	53 - 102

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	33		28 - 94
Tetrachloro-m-xylene	60		52 - 134

Lab Sample ID: LCSD 860-133535/3-A

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133535

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Endrin	0.00131	0.000972		mg/L		74	55 - 102	2	25
Heptachlor	0.00131	0.000716		mg/L		55	55 - 106	0	25
Heptachlor epoxide	0.00131	0.000981		mg/L		75	56 - 109	2	25
gamma-BHC (Lindane)	0.00131	0.000969		mg/L		74	59 - 107	2	25
Methoxychlor	0.00131	0.000849		mg/L		65	53 - 102	0	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	30		28 - 94
Tetrachloro-m-xylene	57		52 - 134

Lab Sample ID: LB 860-133362/1-E

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133535

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodane	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 14:33	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LB 860-133362/1-E

Matrix: Water

Analysis Batch: 133580

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133535

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Heptachlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Heptachlor epoxide	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
gamma-BHC (Lindane)	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Methoxychlor	ND		0.000051		mg/L		12/04/23 08:52	12/04/23 14:33	1
Toxaphene	ND		0.0010		mg/L		12/04/23 08:52	12/04/23 14:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	55		28 - 94				12/04/23 08:52	12/04/23 14:33	1
Tetrachloro-m-xylene	85		52 - 134				12/04/23 08:52	12/04/23 14:33	1

## Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 860-133829/1-A

Matrix: Water

Analysis Batch: 133924

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133829

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:31	12/06/23 11:48	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:31	12/06/23 11:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	74		42 - 150				12/05/23 14:31	12/06/23 11:48	1

Lab Sample ID: LCSD 860-133829/3-A

Matrix: Water

Analysis Batch: 133924

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-D	0.00201	0.00109		mg/L		54	45 - 124	7	25
2,4,5-TP (Silvex)	0.00201	0.00129		mg/L		64	45 - 124	10	25
Surrogate	%Recovery	Qualifier	Limits						
2,4-Dichlorophenylacetic acid	62		42 - 150						

Lab Sample ID: MB 860-133832/1-A

Matrix: Water

Analysis Batch: 134118

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 133832

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 10:55	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/05/23 14:58	12/07/23 10:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	81		42 - 150				12/05/23 14:58	12/07/23 10:55	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 860-133832/2-A  
Matrix: Water  
Analysis Batch: 134118

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 133832

Prep Batch: 13383

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	0.00200	0.00144		mg/L		72	45 - 124
2,4,5-TP (Silvex)	0.00200	0.00184		mg/L		92	45 - 124
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2,4-Dichlorophenylacetic acid	102		42 - 150				

Lab Sample ID: LCSD 860-133832/3-A  
Matrix: Water  
Analysis Batch: 134118

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 133832

Prep Batch: 133832

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D	0.00202	0.00144		mg/L		71	45 - 124	1	25
2,4,5-TP (Silvex)	0.00202	0.00184		mg/L		91	45 - 124	0	25

Lab Sample ID: LB 860-133362/1-F  
Matrix: Water  
Analysis Batch: 133924

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133495

Prep Batch: 133495

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-D	ND		0.00020		mg/L		12/04/23 13:07	12/06/23 13:34	1
2,4,5-TP (Silvex)	ND		0.00020		mg/L		12/04/23 13:07	12/06/23 13:34	1
Surrogate	LB	LB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
2,4-Dichlorophenylacetic acid	71		42 - 150				12/04/23 13:07	12/06/23 13:34	1

## Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-133556/1-A  
Matrix: Water  
Analysis Batch: 134049

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 133556

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Barium	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Cadmium	ND		0.0050		mg/L		12/04/23 10:00	12/05/23 21:02	1
Chromium	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Lead	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Nickel	ND		0.010		mg/L		12/04/23 10:00	12/05/23 21:02	1
Selenium	ND		0.030		mg/L		12/04/23 10:00	12/05/23 21:02	1
Silver	ND		0.020		mg/L		12/04/23 10:00	12/05/23 21:02	1
Beryllium	ND		0.0040		mg/L		12/04/23 10:00	12/05/23 21:02	1
Antimony	ND		0.020		mg/L		12/04/23 10:00	12/05/23 21:02	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-133556/2-A

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.00	0.961		mg/L		96	80 - 120
Barium	1.00	0.950		mg/L		95	80 - 120
Cadmium	1.00	0.944		mg/L		94	80 - 120
Chromium	1.00	0.969		mg/L		97	80 - 120
Lead	1.00	0.977		mg/L		98	80 - 120
Nickel	1.00	0.969		mg/L		97	80 - 120
Selenium	1.00	0.965		mg/L		97	80 - 120
Silver	0.500	0.484		mg/L		97	80 - 120
Beryllium	1.00	0.929		mg/L		93	80 - 120
Antimony	1.00	0.917		mg/L		92	80 - 120

Lab Sample ID: LCSD 860-133556/3-A

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	1.00	0.944		mg/L		94	80 - 120	2	20
Barium	1.00	0.933		mg/L		93	80 - 120	2	20
Cadmium	1.00	0.924		mg/L		92	80 - 120	2	20
Chromium	1.00	0.950		mg/L		95	80 - 120	2	20
Lead	1.00	0.959		mg/L		96	80 - 120	2	20
Nickel	1.00	0.951		mg/L		95	80 - 120	2	20
Selenium	1.00	0.937		mg/L		94	80 - 120	3	20
Silver	0.500	0.475		mg/L		95	80 - 120	2	20
Beryllium	1.00	0.911		mg/L		91	80 - 120	2	20
Antimony	1.00	0.928		mg/L		93	80 - 120	1	20

Lab Sample ID: 560-114411-J-1-A MSD

Matrix: Water

Analysis Batch: 134049

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 133556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125	1	20
Barium	0.52		1.00	1.49		mg/L		97	75 - 125	0	20
Cadmium	ND		1.00	1.02		mg/L		102	75 - 125	0	20
Chromium	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Lead	ND		1.00	1.00		mg/L		100	75 - 125	0	20
Nickel	ND		1.00	1.01		mg/L		101	75 - 125	0	20
Selenium	0.060		1.00	1.12		mg/L		106	75 - 125	3	20
Silver	ND		0.500	0.544		mg/L		109	75 - 125	1	20
Beryllium	ND		1.00	0.991		mg/L		99	75 - 125	1	20
Antimony	ND		1.00	1.04		mg/L		102	75 - 125	0	20

Lab Sample ID: LB 860-133362/1-D

Matrix: Water

Analysis Batch: 134055

Client Sample ID: Method Blank

Prep Type: TCLP

Prep Batch: 133556

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LB 860-133362/1-D  
Matrix: Water  
Analysis Batch: 134055

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133556

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Cadmium	ND		0.025		mg/L		12/04/23 10:00	12/06/23 10:51	1
Chromium	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Lead	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Nickel	ND		0.050		mg/L		12/04/23 10:00	12/06/23 10:51	1
Selenium	ND		0.15		mg/L		12/04/23 10:00	12/06/23 10:51	1
Silver	ND		0.10		mg/L		12/04/23 10:00	12/06/23 10:51	1
Beryllium	ND		0.020		mg/L		12/04/23 10:00	12/06/23 10:51	1
Antimony	ND		0.10		mg/L		12/04/23 10:00	12/06/23 10:51	1

Lab Sample ID: 860-62567-A-1-H MS  
Matrix: Water  
Analysis Batch: 134055

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 133556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Arsenic	ND		1.00	0.995		mg/L		100	75 - 125
Barium	1.4		1.00	2.38		mg/L		94	75 - 125
Cadmium	ND		1.00	1.02		mg/L		102	75 - 125
Chromium	ND		1.00	1.01		mg/L		101	75 - 125
Lead	ND		1.00	1.05		mg/L		105	75 - 125
Nickel	ND		1.00	1.05		mg/L		105	75 - 125
Selenium	ND		1.00	0.965		mg/L		97	75 - 125
Silver	ND		0.500	0.515		mg/L		103	75 - 125
Beryllium	ND		1.00	1.03		mg/L		103	75 - 125
Antimony	ND		1.00	0.995		mg/L		100	75 - 125

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 860-133489/10-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:25	1

Lab Sample ID: LCS 860-133489/11-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00200	0.00185		mg/L		92	80 - 120

Lab Sample ID: LCSD 860-133489/12-A  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 133489

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	0.00200	0.00187		mg/L		94	80 - 120	1	20

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# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LB 860-133184/1-F  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:29	1

Lab Sample ID: LB 860-133362/1-B  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Method Blank  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/03/23 21:45	12/04/23 16:56	1

Lab Sample ID: 860-62417-B-1-J MS  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Matrix Spike  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00200	0.00217		mg/L		109	75 - 125

Lab Sample ID: 860-62417-B-1-K MSD  
Matrix: Water  
Analysis Batch: 133676

Client Sample ID: Matrix Spike Duplicate  
Prep Type: TCLP  
Prep Batch: 133489

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00199		mg/L		99	75 - 125	9	20



## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### GC/MS VOA

#### Leach Batch: 133351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133351/1-A	Method Blank	TCLP	Water	1311	
860-62591-A-4-C MS	Matrix Spike	TCLP	Water	1311	

#### Analysis Batch: 133533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8260C	133351
LB 860-133351/1-A	Method Blank	TCLP	Water	8260C	133351
MB 860-133533/9	Method Blank	Total/NA	Water	8260C	
LCS 860-133533/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 860-133533/4	Lab Control Sample Dup	Total/NA	Water	8260C	
860-62591-A-4-C MS	Matrix Spike	TCLP	Water	8260C	133351

### GC/MS Semi VOA

#### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-C	Method Blank	TCLP	Water	1311	
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	1311	

#### Prep Batch: 133494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3510C	133362
LB 860-133362/1-C	Method Blank	TCLP	Water	3510C	133362
MB 860-133494/1-A	Method Blank	Total/NA	Water	3510C	
LCS 860-133494/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 860-133494/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	3510C	133362

#### Analysis Batch: 133584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8270D	133494

#### Analysis Batch: 133626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-C	Method Blank	TCLP	Water	8270D	133494
MB 860-133494/1-A	Method Blank	Total/NA	Water	8270D	133494
LCS 860-133494/2-A	Lab Control Sample	Total/NA	Water	8270D	133494
LCSD 860-133494/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	133494
860-62567-A-1-F MS	Matrix Spike	TCLP	Water	8270D	133494

### GC Semi VOA

#### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	1311	
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-E	Method Blank	TCLP	Water	1311	
LB 860-133362/1-F	Method Blank	TCLP	Water	1311	

Eurofins Houston



## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### GC Semi VOA

#### Prep Batch: 133495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-F	Method Blank	TCLP	Water	3511	133362

#### Prep Batch: 133535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	3511	133362
LB 860-133362/1-E	Method Blank	TCLP	Water	3511	133362
MB 860-133535/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-133535/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-133535/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Analysis Batch: 133580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-E	Method Blank	TCLP	Water	8081B	133535
MB 860-133535/1-A	Method Blank	Total/NA	Water	8081B	133535
LCS 860-133535/2-A	Lab Control Sample	Total/NA	Water	8081B	133535
LCSD 860-133535/3-A	Lab Control Sample Dup	Total/NA	Water	8081B	133535

#### Analysis Batch: 133720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1 - DL	Waller Digester c Digester	TCLP	Water	8081B	133535

#### Prep Batch: 133829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-133829/1-A	Method Blank	Total/NA	Water	3511	
LCSD 860-133829/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Prep Batch: 133832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3511	133362
MB 860-133832/1-A	Method Blank	Total/NA	Water	3511	
LCS 860-133832/2-A	Lab Control Sample	Total/NA	Water	3511	
LCSD 860-133832/3-A	Lab Control Sample Dup	Total/NA	Water	3511	

#### Analysis Batch: 133924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133362/1-F	Method Blank	TCLP	Water	8151A	133495
MB 860-133829/1-A	Method Blank	Total/NA	Water	8151A	133829
LCSD 860-133829/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	133829

#### Analysis Batch: 134118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	8151A	133832
MB 860-133832/1-A	Method Blank	Total/NA	Water	8151A	133832
LCS 860-133832/2-A	Lab Control Sample	Total/NA	Water	8151A	133832
LCSD 860-133832/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	133832

### Metals

#### Leach Batch: 133184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB 860-133184/1-F	Method Blank	TCLP	Water	1311	

Eurofins Houston

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

## Metals (Continued)

### Leach Batch: 133184 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	1311	
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	1311	

### Leach Batch: 133362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	1311	
LB 860-133362/1-B	Method Blank	TCLP	Water	1311	
LB 860-133362/1-D	Method Blank	TCLP	Water	1311	
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	1311	

### Prep Batch: 133489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	7470A	133362
LB 860-133184/1-F	Method Blank	TCLP	Water	7470A	133184
LB 860-133362/1-B	Method Blank	TCLP	Water	7470A	133362
MB 860-133489/10-A	Method Blank	Total/NA	Water	7470A	
LCS 860-133489/11-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 860-133489/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	7470A	133184
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	7470A	133184

### Prep Batch: 133556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	3010A	133362
LB 860-133362/1-D	Method Blank	TCLP	Water	3010A	133362
MB 860-133556/1-A	Method Blank	Total/NA	Water	3010A	
LCS 860-133556/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 860-133556/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
560-114411-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	3010A	133362

### Analysis Batch: 133676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	7470A	133489
LB 860-133184/1-F	Method Blank	TCLP	Water	7470A	133489
LB 860-133362/1-B	Method Blank	TCLP	Water	7470A	133489
MB 860-133489/10-A	Method Blank	Total/NA	Water	7470A	133489
LCS 860-133489/11-A	Lab Control Sample	Total/NA	Water	7470A	133489
LCSD 860-133489/12-A	Lab Control Sample Dup	Total/NA	Water	7470A	133489
860-62417-B-1-J MS	Matrix Spike	TCLP	Water	7470A	133489
860-62417-B-1-K MSD	Matrix Spike Duplicate	TCLP	Water	7470A	133489

### Analysis Batch: 134049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 860-133556/1-A	Method Blank	Total/NA	Water	6010D	133556
LCS 860-133556/2-A	Lab Control Sample	Total/NA	Water	6010D	133556
LCSD 860-133556/3-A	Lab Control Sample Dup	Total/NA	Water	6010D	133556
560-114411-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	6010D	133556

Eurofins Houston

## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Metals

#### Analysis Batch: 134055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62517-1	Waller Digester c Digester	TCLP	Water	6010D	133556
LB 860-133362/1-D	Method Blank	TCLP	Water	6010D	133556
860-62567-A-1-H MS	Matrix Spike	TCLP	Water	6010D	133556

# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Client Sample ID: Waller Digester c Digester

Lab Sample ID: 860-62517-1

Date Collected: 11/28/23 13:25

Matrix: Water

Date Received: 11/30/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			1.0 g	1.0 mL	133351	12/01/23 14:00	JCM	EET HOU
TCLP	Analysis	8260C		50	5 mL	5 mL	133533	12/02/23 06:00 <sup>1</sup>	NA	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3510C			200 mL	1.00 mL	133494	12/02/23 05:00 <sup>1</sup>	DR	EET HOU
TCLP	Analysis	8270D		5			133584	12/04/23 06:37	PXS	EET HOU
TCLP	Leach	1311	DL		1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3511	DL		48.7 mL	5 mL	133535	12/02/23 05:00 <sup>1</sup>	TH	EET HOU
TCLP	Analysis	8081B	DL	10			133720	12/04/23 08:52	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3511			49.7 mL	4 mL	133832	12/02/23 05:00 <sup>1</sup>	JN	EET HOU
TCLP	Analysis	8151A		1			134118	12/05/23 14:58	WP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/01/23 13:00	EMC	EET HOU
TCLP	Prep	3010A			10 mL	50 mL	133556	12/02/23 05:00 <sup>1</sup>	MD	EET HOU
TCLP	Analysis	8010D		1			134055	12/04/23 10:00	DP	EET HOU
TCLP	Leach	1311			1.0 g	1.0 mL	133362	12/06/23 11:23	EMC	EET HOU
TCLP	Prep	7470A			50 mL	50 mL	133489	12/01/23 13:00	AGR	EET HOU
TCLP	Analysis	7470A		1			133676	12/02/23 05:00 <sup>1</sup>	SHZ	EET HOU
								12/03/23 21:45		
								12/04/23 17:10		

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

## Laboratory References:

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

Eurofins Houston

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## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET HOU
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET HOU
8081B	Organochlorine Pesticides (GC)	SW846	EET HOU
8151A	Herbicides (GC)	SW846	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
7470A	Mercury (CVAA)	SW846	EET HOU
1311	TCLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET HOU
3511	Microextraction of Organic Compounds	SW846	EET HOU
5030C	Purge and Trap	SW846	EET HOU
7470A	Preparation, Mercury	SW846	EET HOU

### Protocol References:

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62517-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62517-1	Waller Digester c Digester	Water	11/28/23 13:25	11/30/23 09:58

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## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone: 936-653-3249  
eastexlab@eastex.net  
Project Manager: Daniel Bowen  
dbowen@eastexlabs.com

### Subcontracted Laboratory:

#### Eurofins Xenco LLC

4147 Greenbriar Dr.  
Stafford, TX 77477

Phone: 713-690-4444  
Fax: 713-690-5646

PO 113023D

Requested Turnaround / Days

Sample ID: Waller Digester c Digester

Sample No: C3K6938-01

Waste Sampled: 11/28/2023 13:25

2 TCLP SUBCONTRACT

Containers Supplied: 2

Special Instructions. FULL TCLP REPORT



860-62517 Chain of Custody

Temp: 0.9 (IR ID HOU-369)  
C/F -0.0  
Corrected Temp: 0.9

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller, City of

Released By \_\_\_\_\_

11/30/23 0917  
Date & Time

Y. C. R. S.  
Received By \_\_\_\_\_

11/30/23 958  
Date & Time



## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62517-1

Login Number: 62517

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	



P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



December 21, 2023

City of Waller  
Waller, City of  
1218 Farr St  
Waller, TX 77484

RE: **Waller Digester**

Enclosed are the results of analyses for samples received by the laboratory on 11/28/23 15:40, with Lab ID Number C3K6939. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Bourgeois  
Special Projects Manager



P.O. Box 1089 Coldspring Tx 77331  
Website: eastexlabs.com  
Email: eastexlab@eastex.net  
Tel: 936 653 3249



Waller, City of  
1218 Farr St  
Waller TX, 77484

## LABORATORY ANALYTICAL REPORT

Project: Waller Digester a  
Client Matrix: Waste

Sample Date & Time: 11/28/2023 13:25

Collector: JMY

Sample Type: Grab

Print Date: 12/21/2023

### Digester C3K6939-01 (Waste)

Analyte	Result	Reporting Limit	Units	Nelac Status	Batch	Analyzed Date & Time	Method	Notes
<b><u>Metals</u></b>								
Arsenic	7.87	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Cadmium	<6.67	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Chromium	43.4	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Copper	887	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Lead	115	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Mercury, Total	0.321	0.133	mg/Kg dry	A	B3L1437	12/12/2023 13:24	EPA SW 846-7471B	
Molybdenum	10.8	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Nickel	29.5	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Phosphorus, %	1.45	1.00	% dry	A	B3L0304	12/06/2023 16:14	EPA SW 846-6010, 3050	
Potassium, %	0.420	0.333	% dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Selenium	<6.67	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	
Zinc	953	6.67	mg/Kg dry	A	B3L0303	12/06/2023 12:10	EPA SW 846-6010, 3050	

### Wet Lab

NH3N %	<0.667	0.667	% dry	A	B3K3632	12/07/2023 12:17	EPA 350.2	
Nitrate-N, %	0.664	0.000133	% dry	N	B3K4988	11/30/2023 17:27	SM 4500 NO3 D	
Percent Solid	1.5	0.1	%	A	B3K4607	11/29/2023 16:03	SM 2540G	
pH-Sludge	5.59		std unit	A	B3L0021	12/01/2023 08:15	EPA SW 846-9040	
TKN %	<1.0	0.0667	% dry	N	B3L3576	12/13/2023 13:33	EPA 351.2	S



P.O. Box 1089 Coldspring Tx 77331  
 Website: eastexlabs.com  
 Email: eastexlab@eastex.net  
 Tel: 936 653 3249



Waller, City of  
 1218 Farr St  
 Waller TX, 77484

**EPA 350.2 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3K3632 - No Prep</b> <b>Prepared: 12/07/23 12:17</b>										
<b>Blank (B3K3632-BLK1)</b>					<b>Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	ND	0.0100	% wet							
<b>LCS (B3K3632-BS1)</b>					<b>Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	2.02		mg/L	2.00		101	80-120			
<b>Matrix Spike (B3K3632-MS1)</b>					<b>Source: C3K3103-01      Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	0.829	1.25	% dry	0.500	0.345	96.8	80-120			
<b>Matrix Spike Dup (B3K3632-MSD1)</b>					<b>Source: C3K3103-01      Analyzed: 12/7/2023 12:17:00PM</b>					
NH3N %	0.827	1.25	% dry	0.500	0.345	96.5	80-120	0.181	20	
<b>Batch B3K4607 - No Prep</b> <b>Prepared: 11/29/23 16:03</b>										
<b>Blank (B3K4607-BLK1)</b>					<b>Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	ND	0.1	%							
<b>Duplicate (B3K4607-DUP1)</b>					<b>Source: C3K6905-01      Analyzed: 11/29/2023 4:03:00PM</b>					
Percent Solid	1.30	0.1	%		1.30			0.00	20	
<b>Batch B3K4988 - No Prep</b> <b>Prepared: 11/30/23 17:27</b>										
<b>Blank (B3K4988-BLK1)</b>					<b>Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	ND	0.00000200	% wet							
<b>LCS (B3K4988-BS1)</b>					<b>Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	1.0123		mg/L	1.00		101	80-120			
<b>Matrix Spike (B3K4988-MS1)</b>					<b>Source: C3K3103-01      Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	0.7318749	0.000250	% dry	0.625	0.02125	114	80-120			
<b>Matrix Spike Dup (B3K4988-MSD1)</b>					<b>Source: C3K3103-01      Analyzed: 11/30/2023 5:27:00PM</b>					
Nitrate-N, %	0.7287499	0.000250	% dry	0.625	0.02125	113	80-120	0.428	20	
<b>Batch B3L0021 - No Prep</b> <b>Prepared: 12/01/23 08:15</b>										
<b>LCS (B3L0021-BS1)</b>					<b>Analyzed: 12/1/2023 8:15:00AM</b>					
pH-Sludge	6.88		std unit	6.86		100	0-200			
<b>Duplicate (B3L0021-DUP1)</b>					<b>Source: C3K6939-01      Analyzed: 12/1/2023 8:15:00AM</b>					
pH-Sludge	5.59		std unit		5.59			0.00	20	

Eastex Environmental Laboratory - Coldspring      *The results in this report apply to the samples analyzed in accordance with the chain of custody document.*  
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Waller, City of  
 1218 Farr St  
 Waller TX, 77484

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L0303 - SW846-3050</b>		<b>Prepared: 12/04/23 15:28</b>								
<b>Blank (B3L0303-BLK1)</b>		<b>Analyzed: 12/6/2023 11:32:54AM</b>								
Molybdenum	ND	0.100	mg/Kg wet							
Arsenic	ND	0.100	mg/Kg wet							
Cadmium	ND	0.100	mg/Kg wet							
Chromium	ND	0.100	mg/Kg wet							
Copper	ND	0.100	mg/Kg wet							
Lead	ND	0.100	mg/Kg wet							
Nickel	ND	0.100	mg/Kg wet							
Potassium, %	ND	0.00500	% wet							
Selenium	ND	0.100	mg/Kg wet							
Zinc	ND	0.100	mg/Kg wet							
<b>LCS (B3L0303-BS1)</b>		<b>Analyzed: 12/6/2023 11:36:21AM</b>								
Molybdenum	2.66	0.100	mg/Kg wet	2.50		106	80-120			
Arsenic	2.45	0.100	mg/Kg wet	2.50		98.0	80-120			
Cadmium	2.4	0.100	mg/Kg wet	2.50		95.6	80-120			
Chromium	2.62	0.100	mg/Kg wet	2.50		105	80-120			
Copper	2.68	0.100	mg/Kg wet	2.50		107	80-120			
Lead	2.55	0.100	mg/Kg wet	2.50		102	80-120			
Nickel	2.47	0.100	mg/Kg wet	2.50		98.8	80-120			
Potassium, %	0.0208	0.00500	% wet	0.0250		83.2	80-120			
Selenium	2.25	0.100	mg/Kg wet	2.50		90.0	80-120			
Zinc	2.51	0.100	mg/Kg wet	2.50		100	80-120			
<b>Matrix Spike (B3L0303-MS1)</b>		<b>Source: C3K3860-01</b>		<b>Analyzed: 12/6/2023 11:46:41AM</b>						
Molybdenum	255	10.0	mg/Kg dry	250	6.5	99.4	75-125			
Arsenic	244	10.0	mg/Kg dry	250	9.12	94.0	75-125			
Cadmium	230	10.0	mg/Kg dry	250	ND	92.8	75-125			
Chromium	270	10.0	mg/Kg dry	250	20.8	99.7	75-125			
Copper	509	10.0	mg/Kg dry	250	236	109	75-125			
Lead	250	10.0	mg/Kg dry	250	7.35	97.1	75-125			
Nickel	253	10.0	mg/Kg dry	250	17.9	94.0	75-125			
Potassium, %	3.40	0.500	% dry	2.50	0.877	101	75-125			
Selenium	222	10.0	mg/Kg dry	250	9.39	85.0	75-125			
Zinc	1680	10.0	mg/Kg dry	250	1460	88.0	75-125			
<b>Matrix Spike Dup (B3L0303-MSD1)</b>		<b>Source: C3K3860-01</b>		<b>Analyzed: 12/6/2023 11:50:10AM</b>						
Molybdenum	265	10.0	mg/Kg dry	250	6.5	103	75-125	3.85	20	

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Waller, City of  
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 Waller TX, 77484

**EPA SW 846-6010, 3050 - Quality Control**  
**Eastex Environmental Laboratory - Coldspring**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L0303 - SW846-3050 Prepared: 12/04/23 15:28</b>										
<b>Matrix Spike Dup (B3L0303-MSD1) Source: C3K3860-01 Analyzed: 12/6/2023 11:50:10AM</b>										
Arsenic	250	10.0	mg/Kg dry	250	9.12	96.4	75-125	2.43	20	
Cadmium	240	10.0	mg/Kg dry	250	ND	96.0	75-125	3.39	20	
Chromium	277	10.0	mg/Kg dry	250	20.8	102	75-125	2.56	20	
Copper	522	10.0	mg/Kg dry	250	236	114	75-125	2.52	20	
Lead	260	10.0	mg/Kg dry	250	7.35	101	75-125	3.92	20	
Nickel	261	10.0	mg/Kg dry	250	17.9	97.2	75-125	3.11	20	
Potassium, %	3.40	0.500	% dry	2.50	0.877	101	75-125	0.00	20	
Selenium	227	10.0	mg/Kg dry	250	9.39	87.0	75-125	2.23	20	
Zinc	1700	10.0	mg/Kg dry	250	1460	96.0	75-125	1.18	20	
<b>Batch B3L0304 - SW846-3050 Prepared: 12/06/23 15:58</b>										
<b>Blank (B3L0304-BLK1) Analyzed: 12/6/2023 3:58:35PM</b>										
Phosphorus, %	ND	1.00	% wet							
<b>LCS (B3L0304-BS1) Analyzed: 12/6/2023 4:00:11PM</b>										
Phosphorus, %	0.00232	1.00	% wet	0.00252		91.9	80-120			
<b>Matrix Spike (B3L0304-MS1) Source: C3K3860-01 Analyzed: 12/6/2023 4:04:59PM</b>										
Phosphorus, %	2.73	1.00	% dry	0.252	2.48	99.1	75-125			
<b>Matrix Spike Dup (B3L0304-MSD1) Source: C3K3860-01 Analyzed: 12/6/2023 4:06:35PM</b>										
Phosphorus, %	2.70	1.00	% dry	0.252	2.48	88.3	75-125	1.00	20	
<b>Batch B3L1437 - SW 846-7471B Prepared: 12/11/23 10:14</b>										
<b>Blank (B3L1437-BLK1) Analyzed: 12/12/2023 12:56:37PM</b>										
Mercury, Total	ND	0.00200	mg/Kg wet							
<b>LCS (B3L1437-BS1) Analyzed: 12/12/2023 12:59:08PM</b>										
Mercury, Total	0.0255	0.00200	mg/Kg wet	0.0250		102	80-120			
<b>Matrix Spike (B3L1437-MS1) Source: C3K3860-01 Analyzed: 12/12/2023 1:07:37PM</b>										
Mercury, Total	2.64	0.200	mg/Kg dry	2.50	0.240	96.0	75-125			
<b>Matrix Spike Dup (B3L1437-MSD1) Source: C3K3860-01 Analyzed: 12/12/2023 1:11:06PM</b>										
Mercury, Total	2.72	0.200	mg/Kg dry	2.50	0.240	99.2	75-125	2.99	20	

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#### Notes and Definitions

S	Analysis performed by subcontract lab. Report available upon request.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.  
PO BOX 1089  
Coldspring, Texas 77331

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## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62514-1



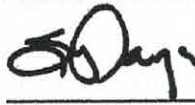
# Eurofins Houston

## 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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Authorized for release by  
Sylvia Garza, Project Manager  
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(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

**Job ID: 860-62514-1**

**Laboratory: Eurofins Houston**

### Narrative

#### Job Narrative 860-62514-1

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.

### Receipt

The sample was received on 11/30/2023 9:58 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.9°C

### PCBs

Method 8082A: liquid sludge, weighed to 5 grams

Waller Digester a Digester (860-62514-1)

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: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

☐ No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

# Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Percent Solids: 1.3

## Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1221	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1232	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1242	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1248	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1254	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
PCB-1260	ND		7.6		mg/Kg	□	12/06/23 16:18	12/07/23 18:44	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	69		35 - 140				12/06/23 16:18	12/07/23 18:44	1
DCB Decachlorobiphenyl (Surr)	131		37 - 142				12/06/23 16:18	12/07/23 18:44	1

## General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	98.7				%			12/04/23 17:38	1
Percent Solids (EPA Moisture)	1.3				%			12/04/23 17:38	1

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## Surrogate Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX1 (35-140)	DCB1 (37-142)
860-62514-1	Waller Digester a Digester	69	131
860-63062-D-1-I MS	Matrix Spike	85	126
860-63062-D-1-J MSD	Matrix Spike Duplicate	82	130
LCS 860-134047/4-A	Lab Control Sample	96	120
LCSD 860-134047/5-A	Lab Control Sample Dup	95	120
MB 860-134047/1-A	Method Blank	82	112
<b>Surrogate Legend</b>			
TCX = Tetrachloro-m-xylene			
DCB = DCB Decachlorobiphenyl (Surr)			

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 860-134047/1-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1221	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1232	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1242	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1248	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1254	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
PCB-1260	ND		0.017		mg/Kg		12/06/23 16:18	12/07/23 13:46	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		35 - 140				12/06/23 16:18	12/07/23 13:46	1
DCB Decachlorobiphenyl (Surr)	112		37 - 142				12/06/23 16:18	12/07/23 13:46	1

Lab Sample ID: LCS 860-134047/4-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	0.167	0.159		mg/Kg		95	27 - 121
PCB-1260	0.167	0.166		mg/Kg		99	27 - 139
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene	96		35 - 140				
DCB Decachlorobiphenyl (Surr)	120		37 - 142				

Lab Sample ID: LCSD 860-134047/5-A  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	0.167	0.164		mg/Kg		98	27 - 121	3	20
PCB-1260	0.167	0.182		mg/Kg		109	27 - 139	9	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Tetrachloro-m-xylene	95		35 - 140						
DCB Decachlorobiphenyl (Surr)	120		37 - 142						

Lab Sample ID: 860-63062-D-1-I MS  
Matrix: Solid  
Analysis Batch: 134121

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 134047

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	ND		0.200	0.154		mg/Kg	□	77	27 - 121
PCB-1260	ND		0.200	0.184		mg/Kg	□	92	27 - 139
Surrogate	MS %Recovery	MS Qualifier	Limits						
Tetrachloro-m-xylene	85		35 - 140						
DCB Decachlorobiphenyl (Surr)	126		37 - 142						

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## QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 860-63062-D-1-J MSD

Matrix: Solid

Analysis Batch: 134121

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 134047

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
PCB-1016	ND		0.200	0.150		mg/Kg	□	75	27 - 121	3	20
PCB-1260	ND		0.200	0.188		mg/Kg	□	94	27 - 139	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	82		35 - 140
DCB Decachlorobiphenyl (Surr)	130		37 - 142

### Method: Moisture - Percent Moisture

Lab Sample ID: MB 860-133677/1

Matrix: Solid

Analysis Batch: 133677

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	-0.08				%			12/04/23 17:38	1
Percent Solids	100.1				%			12/04/23 17:38	1

Lab Sample ID: 860-62669-C-15 DU

Matrix: Solid

Analysis Batch: 133677

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Percent Moisture	5.4		5.2		%		3	20
Percent Solids	94.6		94.8		%		0.2	20

# QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

## GC Semi VOA

### Prep Batch: 134047

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	3550C	
MB 860-134047/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 860-134047/4-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 860-134047/5-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
860-63062-D-1-I MS	Matrix Spike	Total/NA	Solid	3550C	
860-63062-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	

### Analysis Batch: 134121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	8082A	134047
MB 860-134047/1-A	Method Blank	Total/NA	Solid	8082A	134047
LCS 860-134047/4-A	Lab Control Sample	Total/NA	Solid	8082A	134047
LCSD 860-134047/5-A	Lab Control Sample Dup	Total/NA	Solid	8082A	134047
860-63062-D-1-I MS	Matrix Spike	Total/NA	Solid	8082A	134047
860-63062-D-1-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	134047

## General Chemistry

### Analysis Batch: 133677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62514-1	Waller Digester a Digester	Total/NA	Solid	Moisture	
MB 860-133677/1	Method Blank	Total/NA	Solid	Moisture	
860-82669-C-15 DU	Duplicate	Total/NA	Solid	Moisture	

Eurofins Houston

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			133677	12/04/23 17:38	JM	EET HOU

Client Sample ID: Waller Digester a Digester

Lab Sample ID: 860-62514-1

Date Collected: 11/28/23 13:25

Matrix: Solid

Date Received: 11/30/23 09:58

Percent Solids: 1.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			5.03 g	5 mL	134047	12/06/23 16:18	BH	EET HOU
Total/NA	Analysis	8082A		1			134121	12/07/23 18:44	WP	EET HOU

## Laboratory References:

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

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## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Eurofins Houston



## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Method	Method Description	Protocol	Laboratory
a xA	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
3550C	Ultrasonic Extraction	SW846	EET HOU

### Protocol References:

EPA = US Environmental Protection Agency

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

## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62514-1	Waller Digester a Digester	Solid	11/28/23 13:25	11/30/23 09:58

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## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone. 936-653-3249  
eastexlab@eastex.net  
Project Manager Daniel Bowen  
dbowen@eastexlabs.com

### Subcontracted Laboratory:

#### Eurofins Xenco LLC

4147 Greenbriar Dr.  
Stafford, TX 77477

Phone 713-690-4444  
Fax. 713-690-5646

PO 113023B

Requested Turnaround 10 Days

Sample ID: Waller Digester a Digester Sample No: C3K6939-01 Waste Sampled: 11/28/2023 13:25

PCB 8082

Containers Supplied: 1

Special Instructions PCB MG/KG & SOLIDS



860-62514 Chain of Custody

Temp: 0.9 IR ID HOU-369  
C/F: -0.0  
Corrected Temp: 0.9

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller City of

Released By [Signature]

11/30/23 0958  
Date & Time

[Signature]  
Received By

11/30/23 0958  
Date & Time

# Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62514-1

Login Number: 62514

List Number: 1

Creator: Rublo, Yuri

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	
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	

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Mark Bourgeois  
Eastex Environmental Laboratory Inc.

PO BOX 1089

Coldspring, Texas 77331

Generated 12/13/2023 5:40:43 PM

## JOB DESCRIPTION

Waller, City of

## JOB NUMBER

860-62703-1

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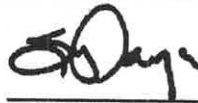
# Eurofins Houston

## 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



Generated  
12/13/2023 5:40:43 PM

Authorized for release by  
Sylvia Garza, Project Manager  
[Sylvia.Garza@et.eurofinsus.com](mailto:Sylvia.Garza@et.eurofinsus.com)  
(832)544-2004

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## Definitions/Glossary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### Qualifiers

#### General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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.

### 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
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Houston

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## Case Narrative

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

**Job ID: 860-62703-1**

**Laboratory: Eurofins Houston**

### Narrative

#### Job Narrative 860-62703-1

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.

### Receipt

The sample was received on 12/1/2023 9:11 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.4°C

### General Chemistry

Method 351.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-134764 and analytical batch 860-135028 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

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## Detection Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Client Sample ID: Waller Digester

Lab Sample ID: 860-62703-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Kjeldahl	494		49.0	24.1	mg/Kg	5.882		351.2	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

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## Client Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Client Sample ID: Waller Digester

Lab Sample ID: 860-62703-1

Date Collected: 11/28/23 13:25

Matrix: Waste

Date Received: 12/01/23 09:11

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl (EPA 351.2)	494		49.0	2N.1	mg/Kg		12/12/23 11:12	12/13/23 13:33	5.882

# QC Sample Results

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

## Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 860-134764/4-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<3.93	U	8.00	3.93	mg/Kg		12/12/23 11:12	12/13/23 13:04	1

Lab Sample ID: LCS 860-134764/6-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	83.3	83.52		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 860-134764/7-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	83.3	85.77		mg/Kg		103	90 - 110	3	20

Lab Sample ID: LLCS 860-134764/5-A  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	8.16	4.518	J	mg/Kg		55	50 - 150

Lab Sample ID: 860-62478-A-1-B MS  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrogen, Kjeldahl	6750		78.4	6753	4	mg/Kg		-0.8	90 - 110

Lab Sample ID: 860-62478-A-1-C MSD  
Matrix: Solid  
Analysis Batch: 135028

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 134764

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	6750		78.4	7194	4	mg/Kg		561	90 - 110	6	20

Eurofins Houston

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## QC Association Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### General Chemistry

#### Prep Batch: 134764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62703-1	Waller Digester	Total/NA	Waste	351.2	
MB 860-134764/4-A	Method Blank	Total/NA	Solid	351.2	
LCS 860-134764/6-A	Lab Control Sample	Total/NA	Solid	351.2	
LCSD 860-134764/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	
LLCS 860-134764/5-A	Lab Control Sample	Total/NA	Solid	351.2	
860-62478-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	
860-62478-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	

#### Analysis Batch: 135028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-62703-1	Waller Digester	Total/NA	Waste	351.2	134764
MB 860-134764/4-A	Method Blank	Total/NA	Solid	351.2	134764
LCS 860-134764/6-A	Lab Control Sample	Total/NA	Solid	351.2	134764
LCSD 860-134764/7-A	Lab Control Sample Dup	Total/NA	Solid	351.2	134764
LLCS 860-134764/5-A	Lab Control Sample	Total/NA	Solid	351.2	134764
860-62478-A-1-B MS	Matrix Spike	Total/NA	Solid	351.2	134764
860-62478-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	351.2	134764

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# Lab Chronicle

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

**Client Sample ID: Waller Digester**

**Lab Sample ID: 860-62703-1**

Date Collected: 11/28/23 13:25

Matrix: Waste

Date Received: 12/01/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			0.48 mL	20 mL	134764	12/12/23 11:12	LD	EET HOU
Total/NA	Analysis	351.2		5.882			135028	12/13/23 13:33	AA	EET HOU

## Laboratory References:

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

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## Accreditation/Certification Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

### Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	Slate	88-00759	08-03-24
Florida	NELAP	E871002	06-30-24
Louisiana (All)	NELAP	03054	06-30-24
Oklahoma	NELAP	1306	08-31-24
Oklahoma	State	2023-139	08-31-24
Texas	NELAP	T104704215-23-53	06-30-24
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

## Method Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Method	Method Description	Protocol	Laboratory
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU
351.2	Nitrogen, Total Kjeldahl	EPA	EET HOU

**Protocol References:**

EPA = US Environmental Protection Agency

**Laboratory References:**

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

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## Sample Summary

Client: Eastex Environmental Laboratory Inc.  
Project/Site: Waller, City of

Job ID: 860-62703-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-62703-1	Waller Digester	Waste	11/28/23 13:25	12/01/23 09:11

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## SUBCONTRACT ORDER

### Sending Laboratory:

Eastex Environmental Laboratory - Coldspring  
PO Box 1089  
Coldspring, TX 77331

Phone 936-653-3249  
eastexlab@eastex.net  
Project Manager: Daniel Bowen  
dbowen@eastexlabs.com

### Subcontracted Laboratory:

#### Eurofins Xenco LLC

4147 Greenbriar Dr  
Stafford, TX 77477

Phone: 713-690-4444  
Fax: 713-690-5646

PO 120123D

Requested Turnaround 10 Days

Sample ID: Waller Digester a Digester Sample No: C3K6939-01 Waste Sampled: 11/28/2023 13:25

TKN %

Containers Supplied: 1

Special Instructions



860-62703 Chain of Custody

Temp: 1.4 IR ID HOU-369  
C/F -0.0  
Corrected Temp: 1.4

☐ See Attached

Received Iced Y/N Temp \_\_\_\_\_

Waller City of

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Released By

12/11/23 09:56  
Date & Time

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Received By

12/11/23 9:11  
Date & Time

## Login Sample Receipt Checklist

Client: Eastex Environmental Laboratory Inc.

Job Number: 860-62703-1

Login Number: 62703

List Source: Eurofins Houston

List Number: 1

Creator: Rubio, Yuri

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	
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	

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

02 January 2024

Water District Management (WDM)  
c/o Myrtle Cruz, Inc. - Mary Jarmon  
1621 Milam, (3rd Floor)  
Houston, TX 77002

**WHCMUD #7**

Enclosed are the results of analyses for samples received by the laboratory on 14-Dec-23 15:15. 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 14

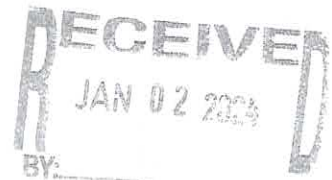
Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

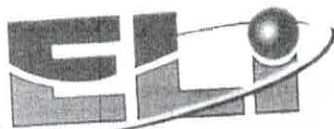
Laura Bonjonia For Brooke Milton  
Customer Service Representative



Certificate No: T104704265-22-20



☒ Sludge Manager  
☒ Master Spreadsheet  
☒ TCLP ☒ Metals  
☒ PCB ☒ % Solid



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

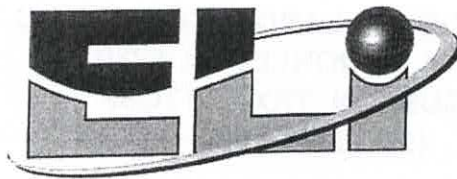
### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Effluent	23L1356-01	Water	14-Dec-23 07:00	14-Dec-23 15:15
Effluent (pH, DO)	23L1356-02	Water	14-Dec-23 07:00	14-Dec-23 15:15
Influent	23L1356-03	Water	14-Dec-23 06:50	14-Dec-23 15:15
Aeration #1	23L1356-04	Solids	14-Dec-23 06:52	14-Dec-23 15:15
Digester	23L1356-05	Solids	14-Dec-23 06:56	14-Dec-23 15:15
Aeration #2	23L1356-06	Solids	14-Dec-23 06:54	14-Dec-23 15:15

Envirodyne Laboratories, Inc.

Laura Bonjonia For Brooke Milton, Customer Service Representative

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# ENVIRODYNE LABORATORIES, INC.

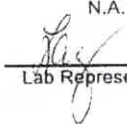
CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
DATE ANALYZED: 30-Dec-23

LAB NUMBER: 23L1356A  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

(\*) DENOTES: DRY WEIGHT BASIS

LOCATION:	DIGESTER @ 0656	METHOD	SLUDGE LIMITS		MDL (mg/l)
			Clean	Ceiling (mg/kg)	
PARAMETERS:					
pH (UNITS)	6.85	9045	> 6.00		
TOT.NITROGEN-N * (%)	1.02	Calc	N.A.		0.01
TKN-N * (%)	0.51	EPA 351.2	N.A.		0.01
NO3-N * (%)	0.51	SM 4500-NO3 E	N.A.		0.01
NH3-N * (%)	0.10	SM 4500-NH3 F	N.A.		0.01
NH4-N * (%)	0.11	Calc	N.A.		0.01
TOTAL PHOSPHORUS* (%)	0.61	SM 4500-P E	N.A.		0.01
PHOSPHORUS PENTOXIDE * (%)	0.27	Calc	N.A.		0.01
POTASSIUM * (%)	0.41	6010B	N.A.		0.002
ARSENIC * (mg/kg)	<10.20	6010B	< 41	/ < 75	0.001
CADMIUM * (mg/kg)	<10.20	6010B	< 39	/ < 85	0.001
COPPER * (mg/kg)	551.02	6010B	< 1,500	/ < 4,300	0.002
MOLYBDENUM * (mg/kg)	<10.20	6010B	Monitor Only		0.001
NICKEL * (mg/kg)	40.82	6010B	< 420	/ < 420	0.008
LEAD * (mg/kg)	20.41	6010B	< 300	/ < 840	0.005
CHROMIUM * (mg/kg)	51.02	6010B	< 1,200	/ < 3,000	0.005
MERCURY * (mg/kg)	<0.20	7471	< 17	/ < 57	0.0002
SELENIUM * (mg/kg)	<10.20	6010B	< 36	/ < 100	0.002
ZINC * (mg/kg)	969.39	6010B	< 2,800	/ < 7,500	0.001
PCB's (mg/kg)	< 1.0	8080	< 2 / 10		0.001
TOTAL SOLIDS (%)	0.98	SM 2540 B	N.A.		
VOLATILE SOLIDS (%)	0.79		N.A.		
Org.CONC. (%)	80.6		N.A.		

Ref. SW-846  
\*EPA CHEMICAL ANALYSIS

  
Lab Representative

ENVIRODYNE LABORATORIES, INC.  
11011 BROOKLET Dr. #230  
HOUSTON, TEXAS 77099  
(281) 568-7880

CERTIFICATE OF ANALYSIS

CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
LAB NUMBER: 23L1356B  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

SAMPLE TYPE: Processes to Significantly Reduce Pathogens (PSRP)

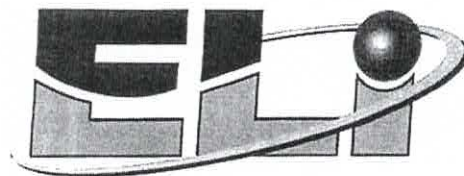
LOCATION:	DIGESTER	LIMITS
PARAMETERS:	@ 0656	
Microbial Populations		
Fecal Coliform (Colonies/gram) Dry Wt. (Geo Mean = 7)	35,000	2,000,000 CFU/g/TS
Vector Attraction Pontential		
Specific Oxygen Uptake Rate (mg Oxygen/gram solids/Hr.)	0.80	1.5 mgO <sub>2</sub> /gram/Hr.
Sludge Characteristics		
Total Solids (%)	0.98	N/A
Volatile Solids (%)	0.79	N/A
Organic Conc. (%)	80.6	
Soil pH - Measured in Water (Units)	6.85	> 5.50
Sample Temp. (C/F)	N/A	20/68 (+/- 10C)
Ambient Temp. (C/F)	N/A	N/A
Test Temp. - Start / Stop (C)	22/22	(+/- 1C) - Var.

SOUR diluted to TS <2.0%

Ref. STANDARD METHODS 21st Ed. & \*EPA SW-846  
9222D - F. COLI 2540G - TS & VS  
2710B - SOUR \*9045 - pH

  
CERTIFIED BY





# ENVIRODYNE LABORATORIES, INC.

## CERTIFICATE OF ANALYSIS

CLIENT: WHCMUD #7  
(WDM)  
DATE COLLECTED: 14-Dec-23  
DATE COMPLETED: 30-Dec-23  
Toxicity Characteristic Leaching Procedure  
EXTRACTION DATE: 15-Dec-23  
TESTING DATE: 30-Dec-23  
SAMPLE TYPE:

LAB NUMBER: 23L1356C  
DATE RECEIVED: 14-Dec-23  
SAMPLED BY: MB

LOCATION:	DIGESTER	T.C.L.P.
PARAMETERS:	@ 0656	MAXIMUM LIMIT
		(mg/l)
SW 846 1311 EPA 6010B		
ANTIMONY (mg/l)	<0.10	
ARSENIC (mg/l)	<0.05	5.0
BARIUM (mg/l)	0.18	100.0
BERYLLIUM (mg/l)	<0.02	0.080
CADMIUM (mg/l)	<0.025	1.0
CHROMIUM (mg/l)	<0.05	5.0
LEAD (mg/l)	<0.05	5.0
NICKEL (mg/l)	<0.05	70.0
SELENIUM (mg/l)	<0.150	1.0
SILVER (mg/l)	<0.100	5.0
SW 846 1311 EPA 7470		
MERCURY (mg/l)	<0.002	0.2
SW 846 1311 EPA 8260		
BENZENE (mg/l)	<0.05	0.5
CARBON TETRACHLORIDE (mg/l)	<0.25	0.5
CHLOROBENZENE (mg/l)	<0.05	100.0
CHLOROFORM (mg/l)	<0.05	6.0
METHYL ETHYL KETONE (mg/l)	<2.50	200.0
1,2-DICHLOROETHANE (mg/l)	<0.05	0.5
1,1-DICHLOROETHENE (mg/l)	<0.05	0.7
TETRACHLOROETHENE (mg/l)	<0.05	0.7
TRICHLOROETHENE (mg/l)	<0.250	0.5
VINYL CHLORIDE (mg/l)	<0.10	0.2
SW 846 1311 EPA 8270		
Total Cresol (mg/l)	<0.250	200.0
1,4-DICHLOROBENZENE (mg/l)	<0.125	7.5
2,4-DINITROTOLUENE (mg/l)	<0.125	0.13
HEXACHLOROBENZENE (mg/l)	<0.125	0.13
HEXACHLOROBUTADIENE (mg/l)	<0.125	0.5
HEXACHLOROETHANE (mg/l)	<0.125	3.0
NITROBENZENE (mg/l)	<0.125	2.0
PENTACHLOROPHENOL (mg/l)	<0.250	100.0
2,4,5-TRICHLOROPHENOL (mg/l)	<0.125	400.0
2,4,6-TRICHLOROPHENOL (mg/l)	<0.125	2.0
PYRIDINE (mg/l)	<0.250	5.0
2-Methylphenol (mg/l)	<0.250	200.0
3&4 Methylphenol (mg/l)	<0.250	200.0
SW 846 1311 EPA 8081		
CHLORDANE (mg/l)	<0.00102	0.03
ENDRIN (mg/l)	<0.00005	0.02
HEPTACHLOR (mg/l)	<0.00005	0.008
HEPTACHLOR EPOXIDE (mg/l)	<0.00005	0.008
LINDANE (mg/l)	<0.00005	0.4
METHOXYCHLOR (mg/l)	<0.00005	10.0
TOXAPHENE (mg/l)	<0.00102	0.5
PCBs (mg/l)	<0.0005	
SW 846 1311 EPA 8150		
2,4-D (mg/l)	<0.000201	10.0
2,4,5-TP (Silvex) (mg/l)	<0.000201	1.0

Ref. EPA SW-846

Qual: Analyzed by NELAC Certified lab T104704215

Lab Representative



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

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5088 - Inorganics</b>										
<b>Duplicate (B3L5088-DUP1)</b>		<b>Source: 23L1518-08</b>		<b>Prepared &amp; Analyzed: 18-Dec-23</b>						
Total Solids	0.740	0.01	%		0.730			1.36	20	
Volatile Solids	0.570	0.01	"		0.370			0.00	20	
<b>Batch B3L5098 - Inorganics</b>										
<b>Blank (B3L5098-BLK1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	<2.0	2.0	mg/L							Q
VSS	<2.0	2.0	"							Q
<b>LCS (B3L5098-BS1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	95.0		mg/L	100		95.0	80-120			Q
<b>Duplicate (B3L5098-DUP1)</b>		<b>Source: 23L1284-03</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>						
TSS	160	2.0	mg/L		198			21.2	20	Q
VSS	153	2.0	"		156			1.94	20	Q
<b>Batch B3L5100 - Inorganics</b>										
<b>Blank (B3L5100-BLK1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	<2.00	2.00	mg/L							
VSS	<2.0	2.0	"							
<b>LCS (B3L5100-BS1)</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>								
TSS	86.0		mg/L	100		86.0	80-120			
<b>Duplicate (B3L5100-DUP1)</b>		<b>Source: 23L0986-02</b>		<b>Prepared &amp; Analyzed: 19-Dec-23</b>						
VSS	4710	2.0	mg/L		4110			13.6	20	
TSS	5540	2.00	"		5190			6.52	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

Laura Bonjonia For Brooke Milton, Customer Service Representative

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Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5167 - Inorganics</b>										
Blank (B3L5167-BLK1)				Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	<0.20	0.20	mg/L							
I.CS (B3L5167-BS1)				Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.06		mg/L	1.00		106	90-110			
Matrix Spike (B3L5167-MS1)				Source: 23L1342-01 Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.05	0.20	mg/L	1.00	ND	105	90-110			
Matrix Spike Dup (B3L5167-MSD1)				Source: 23L1342-01 Prepared & Analyzed: 19-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	1.04	0.20	mg/L	1.00	ND	104	90-110	0.957	20	
<b>Batch B3L5194 - Inorganics</b>										
Blank (B3L5194-BLK1)				Prepared & Analyzed: 19-Dec-23						
TSS	<2.0	2.0	mg/L							Q
I.CS (B3L5194-BS1)				Prepared & Analyzed: 19-Dec-23						
TSS	87.0		mg/L	100		87.0	80-120			Q
Duplicate (B3L5194-DUP1)				Source: 23L1268-01 Prepared & Analyzed: 19-Dec-23						
TSS	216	2.0	mg/L		142			41.3	20	Q
<b>Batch B3L5261 - Inorganics</b>										
Blank (B3L5261-BLK1)				Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH <sub>3</sub> -N)	<10.0	10.0	mg/L							

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Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5261 - Inorganics</b>										
<b>LCS (B3L5261-BS1)</b>				Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	19.1		mg/L	20.0		95.5	90-110			
<b>Matrix Spike (B3L5261-MS1)</b>				Source: 23L1457-03 Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	65.6	20.0	mg/L	32.8	33.4	98.2	80-120			
<b>Matrix Spike Dup (B3L5261-MSD1)</b>				Source: 23L1457-03 Prepared & Analyzed: 20-Dec-23						
Ammonia-N (NH3-N)	65.4	20.0	mg/L	32.8	33.4	97.6	80-120	0.305	20	
<b>Batch B3L5272 - Inorganics</b>										
<b>Blank (B3L5272-BLK1)</b>				Prepared & Analyzed: 14-Dec-23						
BOD-5	<2.0	2.0	mg/L							
<b>LCS (B3L5272-BS1)</b>				Prepared & Analyzed: 14-Dec-23						
BOD-5	195		mg/L	198		98.6	84.6-115.4			
<b>Duplicate (B3L5272-DUP1)</b>				Source: 23L1374-02 Prepared & Analyzed: 14-Dec-23						
BOD-5	311	2.0	mg/L		306			1.62	20	
<b>Batch B3L5640 - Inorganics</b>										
<b>Blank (B3L5640-BLK1)</b>				Prepared & Analyzed: 15-Dec-23						
CBOD-5	<2.0	2.0	mg/L							
<b>LCS (B3L5640-BS1)</b>				Prepared & Analyzed: 15-Dec-23						
CBOD-5	195		mg/L	198		98.4	84.6-115.4			

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www.envirodyne.com

Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

Wet Chemistry - Quality Control  
Envirodyne Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L5640 - Inorganics</b>										
Duplicate (B3L5640-DUP1)				Source: 23L1339-01		Prepared & Analyzed: 15-Dec-23				
CBOD-5	2.90	2.0	mg/L		2.50			14.8	20	
<b>Batch B3L6074 - Inorganics</b>										
Blank (B3L6074-BLK1)				Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	<0.10	0.10	mg/L							
LCS (B3L6074-BS1)				Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.10		mg/L	1.00		110	80-120			
Matrix Spike (B3L6074-MS1)				Source: 23L1062-01 Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.38	0.10	mg/L	1.00	0.290	109	80-120			
Matrix Spike Dup (B3L6074-MSD1)				Source: 23L1062-01 Prepared & Analyzed: 29-Dec-23						
Phosphorus, Total	1.34	0.10	mg/L	1.00	0.290	105	80-120	2.94	20	
<b>Batch B3L6075 - Inorganics</b>										
Blank (B3L6075-BLK1)				Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	<0.10	0.10	mg/L							
LCS (B3L6075-BS1)				Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	1.01		mg/L	1.00		101	80-120			
Matrix Spike (B3L6075-MS1)				Source: 23L1356-01 Prepared: 28-Dec-23 Analyzed: 29-Dec-23						
Phosphorus, Total	1.09	0.10	mg/L	1.00	ND	109	80-120			

Envirodyne Laboratories, Inc.

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Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B3L6075 - Inorganics</b>										
<b>Matrix Spike Dup (B3L6075-MSD1)</b>										
<b>Source: 23L1356-01</b>										
<b>Prepared: 28-Dec-23 Analyzed: 29-Dec-23</b>										
Phosphorus, Total	1.12	0.10	mg/L	1.00	ND	112	80-120	2.71	20	

Envirodyne Laboratories, Inc.

*Laura Bonjonia*

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Client: Water District Management (WDM)  
Project: WHCMUD #7  
Work Order: 23L1356

Reported:  
02-Jan-24 09:39

#### Notes and Definitions

Q QC did not meet ELI acceptance criteria  
I Greater than 30% difference between highest and lowest values  
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

Envirodyne Laboratories, Inc.

A handwritten signature in cursive script, reading 'Laura Bonjonia', is written over a horizontal line.

Laura Bonjonia For Brooke Milton, Customer Service Representative

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Lab ID No.	Field Sample No./ Identification	Date & Time	Comp	Sample Container (Size/Qty)	Sample Type (Liquid, Sludge, etc.)	Preservative	ANALYSIS REQUESTED	pH	D.O.	T	V
	Effluent	12/14/23 07:00	✓	NA	Liquid	N/A	pH, DO, Temp	7.53	7.82	27	570
	Effluent	12/14/23 07:00	✓	1 G - P	Liquid	ICE	CBOD, TSS				
	Effluent		✓	500ml/P	Liquid	ICE, H2SO4	NH3-N				
	Effluent		✓	500ml/P	Liquid	ICE, H2SO4	Total Phosphorous				
	Influent	12/14/23 06:50	✓	1 LP	Liquid	ICE	pH, BOD, TSS, VSS, Org. Conc.	7.65			27065
	Influent		✓	500ml/P	Liquid	ICE, H2SO4	NH3-N				
	Influent		✓	500ml/P	Liquid	ICE, H2SO4	Total Phosphorous				
	Aeration 1	12/14/23 06:50	✓	250 ml P	Sludge	ICE	pH, TSS, VSS, Org. Conc.	6.82			27-203
	Digester	12/14/23 06:50	✓	250 ml P	Sludge	ICE	pH, TS, VS, Org. Conc.	6.85			27065
	Aeration 2	12/14/23 06:54	✓	250 ml P	Sludge	ICE	pH, TSS, VSS, Org. Conc.	6.81			27-203
Samples: (Signature)		Relinquished by: (Signature)		Date: Time:	Received by: (Signature)	Date: Time:	Seal Intact?				
Affiliation		Relinquished by: (Signature)		Date: Time:	Received by: (Signature)	Date: Time:	Seal Intact?				
		Relinquished by: (Signature)		Date: Time:	Received by Lab: (Signature)	Date: Time:	Seal Intact?				
Remarks:		PLANT	Arrival Temp.	Date Results To:	Laboratory No.						
		Water Sampling	1.								
		Gas Sampling	Site Representative:	Date: Time:							
		Water Connection									
		Gas Connection									



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC 26

TCEQ Authorization Number: WQ0011406001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg  dry weight	Test Results, mg/kg  dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.23	11/17/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.969	11/17/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	30.7	11/17/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	240	11/17/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	14.3	11/17/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.299	11/17/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	7.74	11/17/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	15.1	11/17/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	13.3	11/17/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	1160	11/17/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00121	11/17/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.31	11/17/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.28	11/17/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.00655	11/17/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.52	11/17/2023	0.01	SM 4500-P E
Total Potassium (K)	0.289	11/17/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC WCID 92

TCEQ Authorization Number: WQ0010908001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	11.1	7/7/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	11.1	7/7/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	14.2	7/7/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	240	7/7/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	11.1	7/7/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.373	7/7/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	11.1	7/7/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	11.1	7/7/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	11.1	7/7/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	838	7/7/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	7/7/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	4.87	7/7/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.457	7/7/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	4.44	7/7/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.54	7/7/2023	0.01	SM 4500-P E
Total Potassium (K)	0.556	7/7/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Allens Creek - Sealy WWTP

TCEQ Authorization Number: WQ0010276001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	5	10/11/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	2.5	10/11/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	34	10/11/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	308	10/11/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	37.4	10/11/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	1.52	10/11/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	6.1	10/11/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	16.4	10/11/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	8.4	10/11/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	6737.4	10/11/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	1	10/11/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	1.6702	10/11/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.1032	10/11/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.0151	10/11/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.0068	10/11/2023	0.01	SM 4500-P E
Total Potassium (K)	0.1391	10/11/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Rosenberg #1A WWTP

TCEQ Authorization Number: WQ0010607003

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	0.25	8/28/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.25	8/28/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	24.6	8/28/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	303	8/28/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	34.9	8/28/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.02	8/28/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	0.25	8/28/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	0.25	8/28/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	0.25	8/28/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	846	8/28/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	8/28/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.1	8/28/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.01	8/28/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.01	8/28/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	0.08	8/28/2023	0.01	SM 4500-P E
Total Potassium (K)	0.46	8/28/2023	0.002	SW-3050- 6010B



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Treschwig Central D1 WWTF

TCEQ Authorization Number: WQ0011141001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	6.32	7/25/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.922	7/25/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	26.5	7/25/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	245	7/25/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	18.8	7/25/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.366	7/25/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	5.01	7/25/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	13.8	7/25/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	10.1	7/25/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	1060	7/25/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00184	7/25/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	4.53	7/25/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.354	7/25/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.388	7/25/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.6	7/25/2023	0.01	SM 4500-P E
Total Potassium (K)	0.48	7/25/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: FB 30

TCEQ Authorization Number: WQ0012068001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.14	6/9/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	7.14	6/9/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	15.5	6/9/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	194	6/9/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	7.14	6/9/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.28	6/9/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	8.07	6/9/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	15.1	6/9/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	8.14	6/9/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	786	6/9/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.0062	6/9/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	3.32	6/9/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	2.86	6/9/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	1.07	6/9/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.63	6/9/2023	0.01	SM 4500-P E
Total Potassium (K)	0.525	6/9/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Pecan Grove WWTF

TCEQ Authorization Number: WQ0011655001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	2.39	8/28/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.42	8/28/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	13.02	8/28/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	193.78	8/28/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	7.46	8/28/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.02	8/28/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	3	8/28/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	7.28	8/28/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	0.25	8/28/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	347.34	8/28/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	8/28/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.25	8/28/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.01	8/28/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.2	8/28/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	2.8	8/28/2023	0.01	SM 4500-P E
Total Potassium (K)	0.16	8/28/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Tomball South

TCEQ Authorization Number: WQ0010616002

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	4.44	8/1/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.54	8/1/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	17.6	8/1/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	316	8/1/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	11.7	8/1/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.491	8/1/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	4.87	8/1/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	11.3	8/1/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	4.47	8/1/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	737	8/1/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.00015	8/1/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	5.08	8/1/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.588	8/1/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.00888	8/1/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	0.895	8/1/2023	0.01	SM 4500-P E
Total Potassium (K)	0.17	8/1/2023	0.002	SW-3050- 6010B



**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: Waller WWTP

TCEQ Authorization Number: WQ0010310001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.87	12/21/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	6.67	12/21/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	43.4	12/21/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	887	12/21/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	115	12/21/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.321	12/21/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	10.8	12/21/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	29.5	12/21/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	6.67	12/21/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	953	12/21/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	12/21/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	1	12/21/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	0.667	12/21/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.664	12/21/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.45	12/21/2023	0.01	SM 4500-P E
Total Potassium (K)	0.42	12/21/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: HC 200

TCEQ Authorization Number: WQ0012294001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	7.3	5/24/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	0.717	5/24/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	9.47	5/24/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	264	5/24/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	5.37	5/24/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.211	5/24/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	5.95	5/24/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	13.4	5/24/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	4.12	5/24/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	744	5/24/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	2.25	5/24/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	8.6	5/24/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.85	5/24/2023	0.01	NH <sub>3</sub> -N T
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.0014	5/24/2023	0.01	EPA 300.0 SM4500-NO <sub>3</sub> E
Total Phosphorus (P)	1.81	5/24/2023	0.01	SM 4500-P E
Total Potassium (K)	0.612	5/24/2023	0.002	SW-3050- 6010B

**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: WHC 7

TCEQ Authorization Number: WQ0012140001

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75	10.2	12/30/2023	0.001	SW-3050- 6010B
Cadmium (Cd)	85	10.2	12/30/2023	0.001	SW-3050- 6010B
Chromium (Cr)	3000	51.02	12/30/2023	0.005	SW-3050- 6010B
Copper (Cu)	4300	551.02	12/30/2023	0.002	SW-3050- 6010B
Lead (Pb)	840	20.41	12/30/2023	0.005	SW-3050- 6010B
Mercury (Hg)	57	0.2	12/30/2023	0.0002	SW-3050-6010/ 7471
Molybdenum (Mo)	75	10.2	12/30/2023	0.001	SW-3050- 6010B
Nickel (Ni)	420	40.82	12/30/2023	0.008	SW-3050- 6010B
Selenium (Se)	100	10.2	12/30/2023	0.002	SW-3050- 6010B
Zinc (Zn)	7500	969.39	12/30/2023	0.001	SW-3050- 6010B
PCB (ppm)	50.0 ppm	0.001	12/30/2023	0.001	SW-3570 8080

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)	0.51	12/30/2023	0.01	TKN T EPA 351.2
Ammonium Nitrogen (NH4-N)	0.11	12/30/2023	0.01	NH3-N T
Nitrate Nitrogen (NO3-N)	0.51	12/30/2023	0.01	EPA 300.0 SM4500-NO3 E
Total Phosphorus (P)	0.61	12/30/2023	0.01	SM 4500-P E
Total Potassium (K)	0.41	12/30/2023	0.002	SW-3050- 6010B

Source  Facility  Name	TCEQ  Authorization  Number	Pollutant Concentration mg/kg										Nutrient Concentration %				
		As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH <sub>4</sub> -N	NO <sub>3</sub> -N	P	K
HC 26	WQ0011406001	6.23	0.969	30.7	240	14.3	0.299	7.74	15.1	13.3	1160	5.31	1.28	0.00655	1.52	0.289
HC WCID 92	WQ0010908001	11.1	11.1	14.2	240	11.1	0.373	11.1	11.1	11.1	838	4.87	0.457	4.44	1.54	0.556
Allens Creek - Sealy WWTP	WQ0010276001	5	2.5	34	308	37.4	1.52	6.1	16.4	8.4	6737.4	1.6702	0.1032	0.0151	1.0068	0.1391
Rosenberg #1A WWTP	WQ0010607003	0.25	0.25	24.6	303	34.9	0.02	0.25	0.25	0.25	846	0.1	0.01	0.01	0.08	0.46
Treschwig Central D1 WWTF	WQ0011141001	6.32	0.922	26.5	245	18.8	0.366	5.01	13.8	10.1	1060	4.53	0.354	0.388	1.6	0.48
FB 30	WQ0012068001	7.14	7.14	15.5	194	7.14	0.28	8.07	15.1	8.14	786	3.32	2.86	1.07	1.63	0.525
Pecan Grove WWTF	WQ0011655001	2.39	0.42	13.02	193.78	7.46	0.02	3	7.28	0.25	347.34	0.25	0.01	0.2	2.8	0.16
Tomball South	WQ0010616002	4.44	0.54	17.6	316	11.7	0.491	4.87	11.3	4.47	737	5.08	0.588	0.00888	0.895	0.17
Waller WWTP	WQ0010310001	7.87	6.67	43.4	887	115	0.321	10.8	29.5	6.67	953	1	0.667	0.664	1.45	0.42
HC 200	WQ0012294001	7.3	0.717	9.47	264	5.37	0.211	5.95	13.4	4.12	744	8.6	1.85	0.0014	1.81	0.612
WHC 7	WQ0012140001	10.2	10.2	51.02	551.02	20.41	0.2	10.2	40.82	10.2	969.39	0.51	0.11	0.51	0.61	0.41



TCEQ Authorization Number	Estimated Dry Metric Tons	Pollutant Concentrations mg/kg X Estimated Dry Metric Tons									
		As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn
WQ0011406001	46.883	292.078	45.429	1439.294	11251.812	670.420	14.018	362.871	707.927	623.538	54383.758
WQ0010908001	14.679	162.942	162.942	208.448	3523.072	162.942	5.475	162.942	162.942	162.942	12301.394
WQ0010276001	2.783	13.915	6.957	94.621	857.159	104.084	4.230	16.976	45.641	23.377	18750.066
WQ0010607003	27.915	6.979	6.979	686.720	8458.383	974.249	0.558	6.979	6.979	6.979	23616.475
WQ0011141001	29.359	185.548	27.069	778.012	7192.939	551.948	10.745	147.088	405.153	296.525	31120.472
WQ0012068001	25.307	180.690	180.690	392.255	4909.517	180.690	7.086	204.226	382.133	205.997	19891.138
WQ0011655001	39.359	94.069	16.531	512.458	7627.050	293.621	0.787	118.078	286.536	9.840	13671.067
WQ0010616002	20.093	89.211	10.850	353.628	6349.237	235.083	9.865	97.851	227.045	89.814	14808.188
WQ0010310001	34.864	274.378	232.541	1513.086	30924.134	4009.330	11.191	376.528	1028.480	232.541	33225.140
WQ0012294001	98.425	718.502	70.571	932.085	25984.200	528.542	20.768	585.629	1318.895	405.511	73228.199
WQ0012140001	7.340	74.865	74.865	374.473	4044.340	149.804	1.468	74.865	299.608	74.865	7115.065
<b>Total</b>	347.01	2093.18	835.43	7285.08	111121.84	7860.71	86.19	2154.03	4871.34	2131.93	302110.96
<b>Units</b>		mg/kg									
<b>Metal</b>		<b>As</b>	<b>Cd</b>	<b>Cr</b>	<b>Cu</b>	<b>Pb</b>	<b>Hg</b>	<b>Mo</b>	<b>Ni</b>	<b>Se</b>	<b>Zn</b>
<b>Volume Weighted Means</b>		<b>6.032</b>	<b>2.408</b>	<b>20.994</b>	<b>320.230</b>	<b>22.653</b>	<b>0.248</b>	<b>6.207</b>	<b>14.038</b>	<b>6.144</b>	<b>870.620</b>
<b>Pounds Per Ton</b>		<b>0.0121</b>	<b>0.0048</b>	<b>0.0420</b>	<b>0.6405</b>	<b>0.0453</b>	<b>0.0005</b>	<b>0.0124</b>	<b>0.0281</b>	<b>0.0123</b>	<b>1.7412</b>

TCEQ Authorization Number	Estimated Dry Metric Tons	Nutrient Concentrations % X Estimated Dry Metric Tons				
		TKN	NH <sub>4</sub> -N	NO <sub>3</sub> -N	P	K
WQ0011406001	46.883	248.946	60.010	0.307	71.261	13.549
WQ0010908001	14.679	71.489	6.709	65.177	22.606	8.162
WQ0010276001	2.783	4.648	0.287	0.042	2.802	0.387
WQ0010607003	27.915	2.792	0.279	0.279	2.233	12.841
WQ0011141001	29.359	132.996	10.393	11.391	46.974	14.092
WQ0012068001	25.307	84.019	72.377	27.078	41.250	13.286
WQ0011655001	39.359	9.840	0.394	7.872	110.206	6.297
WQ0010616002	20.093	102.070	11.814	0.178	17.983	3.416
WQ0010310001	34.864	34.864	23.254	23.150	50.552	14.643
WQ0012294001	98.425	846.455	182.086	0.138	178.149	60.236
WQ0012140001	7.340	3.743	0.807	3.743	4.477	3.009
<b>Total</b>	347.01	1541.86	368.41	139.36	548.50	149.92
<b>Units</b>		<b>%</b>				
<b>Nutrient</b>		<b>TKN</b>	<b>NH4-N</b>	<b>NO3-N</b>	<b>P</b>	<b>K</b>
<b>Volume Weighted Means</b>		<b>4.443</b>	<b>1.062</b>	<b>0.402</b>	<b>1.581</b>	<b>0.432</b>
<b>Pounds Per Ton</b>		<b>88.866</b>	<b>21.234</b>	<b>8.032</b>	<b>31.613</b>	<b>8.641</b>

If more than one source of biosolids or residuals are land applied, complete Table 2.

**K. Agronomic Rate Calculations (Appendix A)**

Determine the agronomic application rate by completing and attaching Appendix A.

**L. Pathogen Reduction Options (Appendix B)**

Identify the pathogen reduction options by completing and attaching Appendix B.

**M. Vector Attraction Reduction Options (Appendix C)**

Identify the vector attraction reduction options by completing and attaching Appendix C.

**N. On-Site Storage (Appendix D)**

If on-site storage will occur at this site, complete and attach Appendix D.

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$



## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb N/ton of forage, Texas Agricultural Extension Service Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 502.52

2C. Nitrogen amount still needed

Line 2A - Line 2B 37.48

\*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 * \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth}) + 6 * \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 37.48

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 1.03

## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	0.012064201	0.0124	N/A	2984.04
Cadmium	35	1.7	0.00481504	0.0049	N/A	7268.89
Chromium	2677	134	0.041988161	0.0431	N/A	63756.07
Copper	1339	67	0.640459727	0.6571	N/A	2090.69
Lead	268	13	0.045305854	0.0465	N/A	5915.35
Mercury	15	0.76	0.000496778	0.0005	N/A	30194.60
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.028076355	0.0288	N/A	13356.43
Selenium	89	4.5	0.012287547	0.0126	N/A	7243.11
Zinc	2500	125	1.741240965	1.7866	N/A	1435.76
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{SAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 12.43

6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.33

6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)  
1.03

6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 1387

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\* N/A

1B. Nitrogen available in soil\*\* N/A

1C. Nitrogen amount still needed N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B =  $2 \times \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 \times \text{NO}_3\text{-N(ppm)}(\text{in the 6-24" soil depth})$

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C N/A

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B N/A



## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb N/ton of forage, Texas Agricultural Extension Service Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 407.72

2C. Nitrogen amount still needed

Line 2A - Line 2B 132.28

\*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 * \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth)} + 6 * \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth)}$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 132.28

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 3.62



## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS ( $SAR_M$ )

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	0.012064201	0.0437	N/A	2984.04
Cadmium	35	1.7	0.00481504	0.0174	N/A	7268.89
Chromium	2677	134	0.041988161	0.1520	N/A	63756.07
Copper	1339	67	0.640459727	2.3193	N/A	2090.69
Lead	268	13	0.045305854	0.1641	N/A	5915.35
Mercury	15	0.76	0.000496778	0.0018	N/A	30194.60
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.028076355	0.1017	N/A	13356.43
Selenium	89	4.5	0.012287547	0.0445	N/A	7243.11
Zinc	2500	125	1.741240965	6.3054	N/A	1435.76
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{SAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 11.97

6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.79

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)  
3.62

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 393

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\* N/A

1B. Nitrogen available in soil\*\* N/A

1C. Nitrogen amount still needed N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B =  $2 \times \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 \times \text{NO}_3\text{-N (ppm)}(\text{in the 6-24" soil depth})$

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C N/A

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B N/A

## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX A

### AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/ acre/year**

#### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS POUNDS PER TON.

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)	4.443321406	x 20	88.86642812
Ammonium Nitrogen (NH <sub>4</sub> -N)	1.06168258	x 20	21.2336516
Nitrate Nitrogen (NO <sub>3</sub> -N)	0.401593333	x 20	8.031866655
Total Phosphorus (P)	1.580648167	x 20	31.61296334
Total Potassium (K)	0.432034556	x 20	8.640691124

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)	6.032100564	x 0.002	0.012064201
Total Cadmium (Cd)	2.407519881	x 0.002	0.00481504
Total Chromium (Cr)	20.99408038	x 0.002	0.041988161
Total Copper (Cu)	320.2298634	x 0.002	0.640459727
Total Lead (Pb)	22.65292717	x 0.002	0.045305854
Total Mercury (Hg)	0.24838882	x 0.002	0.000496778
Total Molybdenum (Mo)	6.207471953	x 0.002	0.012414944
Total Nickel (Ni)	14.03817739	x 0.002	0.028076355
Total Selenium (Se)	6.143773354	x 0.002	0.012287547
Total Zinc (Zn)	870.6204825	x 0.002	1.741240965

\*\* Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$



## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): Improved Coastal Bermuda Grass

Yield Goal: 7.2 DT/A & Grazing Nitrogen Requirement, in lb/yr: 360

Cool Season Intended Crop(s): Winter Pasture

Yield Goal: 3.6 DT/A & Grazing Nitrogen Requirement, in lb/yr: 180

Provide the data source for the nitrogen requirement above.

Crop nutrient need is based on 50 lb N/ton of forage, Texas Agricultural Extension Service Fertilizing Summer

Perennial Pastures, Publication L-2210.

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* 540

2B. Nitrogen available in soil\*\* 366.7

2C. Nitrogen amount still needed

Line 2A - Line 2B 173.3

\*Line 2A = Sum of the nitrogen requirement for the specified yeild goals for the warm season crop and cool season crop

\*\* Line 2B =  $2 * \text{NO}_3\text{-N (ppm)}(0\text{-}6\text{"soil depth}) + 6 * \text{NO}_3\text{-N(ppm)}(6\text{-}24\text{"soil depth})$

**Step 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN)  
PROVIDED BY THE BIOSOLIDS AND RESIDUALS**

Use the TKN, NH<sub>4</sub>-N, and NO<sub>3</sub>-N from Step 1.

Organic Nitrogen = TKN - (NH<sub>4</sub>-N + NO<sub>3</sub>-N) 59.60091

Mineralization Rate (%)\* 30%

**3A.** Organic Nitrogen x Mineralization Rate 17.880273

**3B.** Ammonium Nitrogen = (NH<sub>4</sub>-N) x V 10.616826

V= 0.5 if biosolids are left on soil surface

V= 1.0 if biosolids are worked into the soil

**3C.** Nitrate Nitrogen (NO<sub>3</sub>-N) = 8.0318667

**3D.** Total PAN = (Line 3A + Line 3B + Line 3C)= 36.528965

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Bio Solids	40%
Aerobically Digested Biosolids	30%
Anaerobically Digested Biosolids	20%
Composted Biosolids	10%

**Step 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED  
ON CROP NITROGEN NEEDS (SAR<sub>N</sub>)**

**4A.** Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C. 173.3

**4B.** Total PAN (lbs/ton)

Enter amount from Step 3D. 36.528965

**4C.** Biosolids Application Rate (BAR<sub>N</sub>) (tons/acre/year)

Line 4A ÷ Line 4B 4.74

## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals in Biosolids (lbs/ton)  (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/ac/yr)  $C \times SAR_N$	E Metals Applied Annually at $\overline{SAR}_M$ (lb./ac./yr)  $B/C$	F Max Sludge Loading Rate (ton/ac.)  $A/C$
Arsenic	36	1.8	0.012064201	0.0572	N/A	2984.04
Cadmium	35	1.7	0.00481504	0.0228	N/A	7268.89
Chromium	2677	134	0.041988161	0.1992	N/A	63756.07
Copper	1339	67	0.640459727	3.0385	N/A	2090.69
Lead	268	13	0.045305854	0.2149	N/A	5915.35
Mercury	15	0.76	0.000496778	0.0024	N/A	30194.60
Molybdenum	Monitor	Monitor				
Nickel	375	18.7	0.028076355	0.1332	N/A	13356.43
Selenium	89	4.5	0.012287547	0.0583	N/A	7243.11
Zinc	2500	125	1.741240965	8.2608	N/A	1435.76
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D ( $B > D$ ), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than value in column D ( $B < D$ ), then the  $\overline{SAR}_M$  dictates the maximum biosolids application rate and the value of  $E = B \div C$ .

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre) 1435.76

6B. Previous applications of biosolids (tons/acre) 11.97

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A - Line 6B (tons/acre) 1423.79

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)  
4.74

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C  $\div$  Line 6D (years) 300

## APPENDIX A, PART 2. SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s) N/A

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Cool Season Intended Crop(s): Winter Pasture/fescue hay

Yield Goal: N/A Nitrogen Requirement, in lb/yr: N/A

Provide the data source for the nitrogen requirements.

N/A

N/A

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\* N/A

1B. Nitrogen available in soil\*\* N/A

1C. Nitrogen amount still needed N/A

Line A - Line B

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B =  $2 \times \text{NO}_3\text{-N (ppm)}(\text{in the 0-6" soil depth}) + 6 \times \text{NO}_3\text{-N (ppm)}(\text{in the 6-24" soil depth})$

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C N/A

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A ÷ Line 2B N/A



## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### Biosolids:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

### Domestic Septage:

A. Biosolids Application Rate (tons/acre/year)

N/A

B. Percentage of plant nutrient supplied by the biosolids

=  $\frac{100}{100} \div 100$

N/A

C. Multiple Line A by Line B (tons/acre/year)

N/A

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

**For each source**, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

[illegible]

## APPENDIX C

## VECTOR ATTRACTION REDUCTION REQUIREMENTS

**For each source**, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

[illegible]

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

---

For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Vector Attraction Reduction Alternative Used*	Monitoring Criteria and results needed for alternative

\*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.



## LABORATORY ACCREDITATION

All laboratory tests performed must meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*, unless the laboratory meets the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements.

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ;
  - located in another state and is accredited or inspected by that state;
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application.

## CERTIFICATION

I certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, *Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: Andy Drennan

Title: COO/VP

Signature:  Date: 5-8-2024

## SITE OPERATOR SIGNATURE PAGE

If co-applicants are necessary, each co-applicant must submit an original, separate signature page.

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP


I understand that I am responsible for operating the site described in this permit application in accordance with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the Texas Commission on Environmental Quality.

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory Name: Andy Drennan

Title: COO/VP

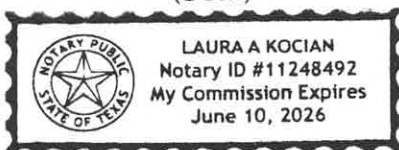
Signature (use blue ink):  Date: 5-8-2024

SUBSCRIBED AND SWORN to before me by the said Andy Drennan on  
this 8<sup>th</sup> day of May, 20 24

My commission expires on the 10<sup>th</sup> day of June, 20 26



(Seal)



Notary Public

Waller

County, Texas

## LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Ruth Miller Smith

Title: Landowner

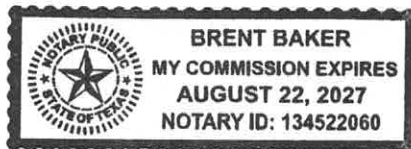
Signature (use blue ink): Ruth Miller Smith Date: 4-17-24

SUBSCRIBED AND SWORN to before me by the said Ruth Miller Smith on

this 17<sup>th</sup> day of April, 2024

My commission expires on the 22<sup>nd</sup> day of August, 2027

(Seal)



[Signature]  
Notary Public

Travis  
County, Texas



## LANDOWNER SIGNATURE PAGE

Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Terry Pinkering

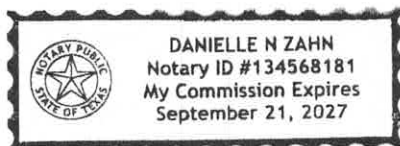
Title: Landowner

Signature (use blue ink): Terry Pinkering Date: 4/18/24

SUBSCRIBED AND SWORN to before me by the said Terry Pinkering on this 18th day of April, 20 24

My commission expires on the 21st day of September, 20 27

(Seal)



Danielle N Zahn  
Notary Public

Waller  
County, Texas



LANDOWNER SIGNATURE PAGE

**Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.**

Permit Number: WQ0004450000

Applicant: K-3 Resources, LP

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of Wastewater Treatment Plant, Water Treatment (identify the type(s) of waste). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Miller, Wanda White

Title: Landowner

Signature (use blue ink):  Date: Feb. 16, 2024

SUBSCRIBED AND SWORN to before me by the said Wanda White on  
this 16<sup>th</sup> day of February, 20 24

My commission expires on the 16<sup>th</sup> day of September, 20 24



Renee D Torn

Notary Public

Waller County

County, Texas

## Attachment 1 Individual Information

---

Complete this attachment if the applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): N/A

Full Legal Name, including middle name: N/A

Driver's License or State Identification Number: N/A

State that Issued the License or Identification Number: N/A

Date of Birth: N/A

Mailing Address: N/A

City, State, and Zip Code: N/A

Phone Number: N/A Fax Number: N/A

E-mail Address: N/A

For TCEQ Use Only

Customer Number \_\_\_\_\_

Regulated Entity Number \_\_\_\_\_

Permit Number \_\_\_\_\_

## TECHNICAL REPORT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

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Note: The term “biosolids” also includes the combination of water treatment plant residuals with Class B Biosolids material.

### SECTION 1. SITE HISTORY

Have biosolids or septage been previously land applied at this site?

☒ Yes      ☐ No

If Yes, provide a short narrative on the agricultural practices previously used at the site. The narrative must discuss the following elements:

- crops grown;
- tillage practices;
- previous biosolids application amount (dry tons) and rates (dry tons per acre); and
- previous septage application amount (gallons) and rates (gallons per acre).

Sewage sludge has been applied to all three fields for many years. The current crops that are being grown on the fields are Coastal Bermuda grass and a winter grass. The three fields are currently being used for hay cuttings and cattle grazing. The fields are tilled every couple of years as needed, to make sure all the nutrients are used as much as possible. Septage has not and will not be applied to any of the three fields. The average sludge application amount over the last five years for the entire three fields is approximately 1038.1 tons a year and the average rate is 6.32 tons an acre.

### SECTION 2. PROPOSED LAND APPLICATION ACTIVITIES

Provide a short narrative on the proposed land application activities at the site. The narrative must discuss the following elements:

- crops grown;
- planting dates;
- times per year applied;
- frequency of application; and
- tillage practices.

No Crops. Hay and Grazing only. Coastal Bermuda grass and winter rye grass are dominate. The rye grass will be seeded during the fall. Coastal Bermuda grass will be cut and bailed for hay during the summer months. The fields will be used for grazing when hay is not being cut and bailed and when sludge is not being applied. Application on all three fields may be applied all year around. Perched water may become present from December to March according the soil map in Field 1. Therefore, to apply in field 1 during those months we will check the monitoring station location in the field for perched water. In fields adjacent to surface water, sludge will be incorporated into the soil as it is applied. Additional tillage will occur as needed.

## SECTION 3. SOIL INFORMATION

### A. Soil Properties

Complete the table below using the Physical and Chemical Properties and the Engineering Tables found in the USDA Natural Resources Conservation Service (NRCS) soils descriptions.

Map Symbol	Soil Type	Slope	pH	Depth to Bedrock* (inches)	Depth to Groundwater (feet)	Permeability (inches/hour)	Soil Depth** (inches)
HoB	Hockley Loamy Fine Sand	1-3		>80	3-5	.20-.57	80
KaB	Katy Fine Sandy Loam	1-3		>80	1.5-3	.06-.20	80
LaD	Lake Charles Clay	3-8		>80	>6	0-0.01	80
MdB	Midfield Loam	1-3		>80	0.5-1.5	0-0.06	80
TefA	Telf Fine Sandy Loam	0-1		>80	>6	0-0.06	80
TefB	Telf Fine Sandy Loam	1-3		>80	>6	0-0.06	80

\* If depth to bedrock is not specified in the soil survey, use the maximum depth shown.

\*\* If soil depth is less than two feet, provide rationale for using these shallow soils. The rationale should include site specific investigation results.

### B. Restrictive Soil Characteristics

In the table below, identify all soils that have the following restrictive characteristics and the management practices to be used.

- Soils with at least an “occasional flooding” classification may flood between 5 to 50 times in 100 years;
- Soil permeability of >6 inches per hour; and
- Seasonal groundwater or groundwater table below the treatment zone at least:
  - 3 feet for soil with permeability of <2 inches per hour
  - 4 feet for soil with permeability of 2-6 inches per hour.

Soil Type	Restrictive Characteristic	Best Management Practices



Soil Type	Restrictive Characteristic	Best Management Practices
Hockley Loamy Fine Sand	Perched Water	Monitoring Stations Seasonal
Katy Fine Sandy Loam	Perched Water	Monitoring Stations Seasonal

## SECTION 4. WELL INFORMATION

In the table below, provide information about each well located on-site and within 500 feet of the application area. Water well information is available from the Texas Water Development Board, 512-936-0837. Oil and gas well information is available from the Texas Railroad Commission, 512-463-6851.

Well Type (Water Well, Oil Well, Injection Well)	Producing or Non-Producing	Open, Cased, or Capped*	Protective Measures**
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer
Water well	Producing	Cased	150ft vegetative buffer

\* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.

\*\* The following protective measures are required prior to initial biosolids/septage application:

- If the well is producing and cased, no action is needed.
- If the well is producing and not cased, the well must be cased or describe other protective measures.
- If the well is non-producing and cased, the well must be plugged or capped.
- If the well is non-producing and not cased, the well must be plugged.

## SECTION 5. HYDROLOGIC CHARACTERISTICS

Submit information listed below, or equivalent documentation, regarding the hydrologic characteristics of the surface and groundwater at the application site and within one-quarter mile of the site.

- Aquifer identification per Texas Water Development Board Report 345
- Location of the area according to the Geologic Atlas of Texas, published by the University of Texas, Bureau of Economic Geology.
- Any feature that exhibits a direct hydrologic connection between surface and subsurface water.
- List periods of seasonal perched and/or high water table, if any.

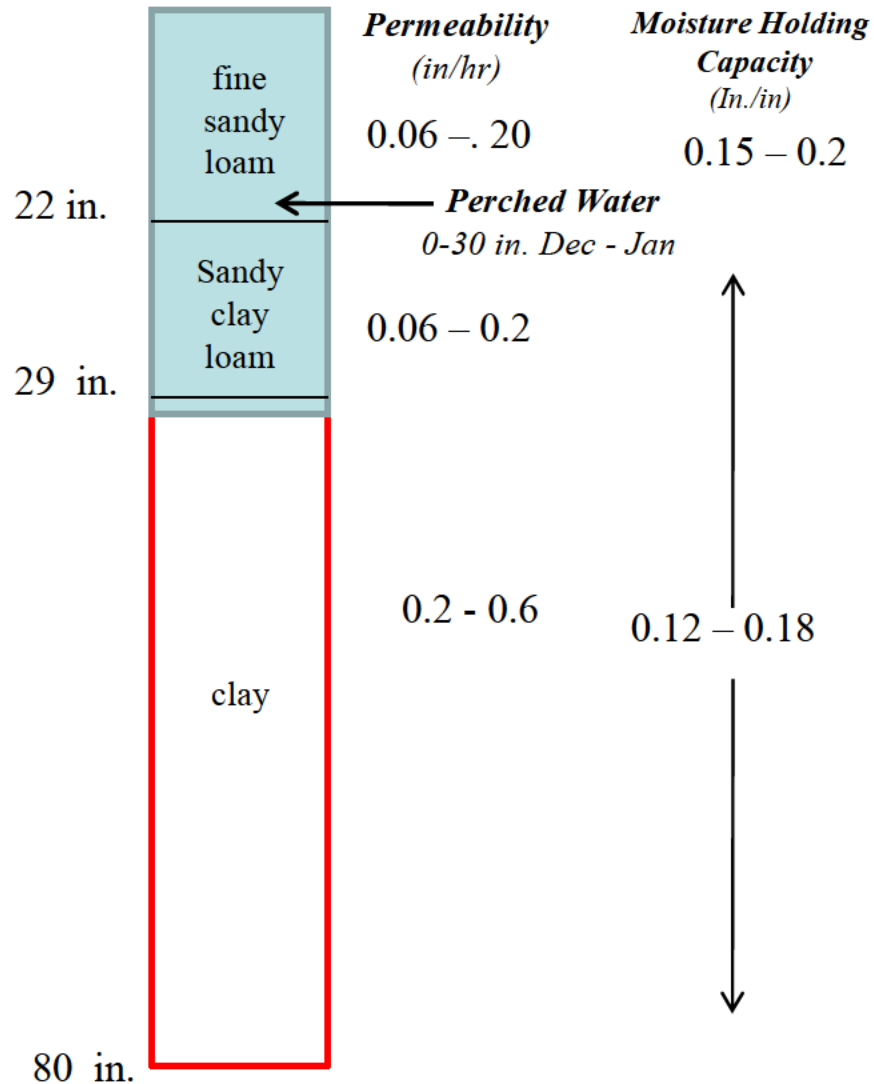
Attachment Number: 21

## **8. Hydrologic Characteristics Information.**

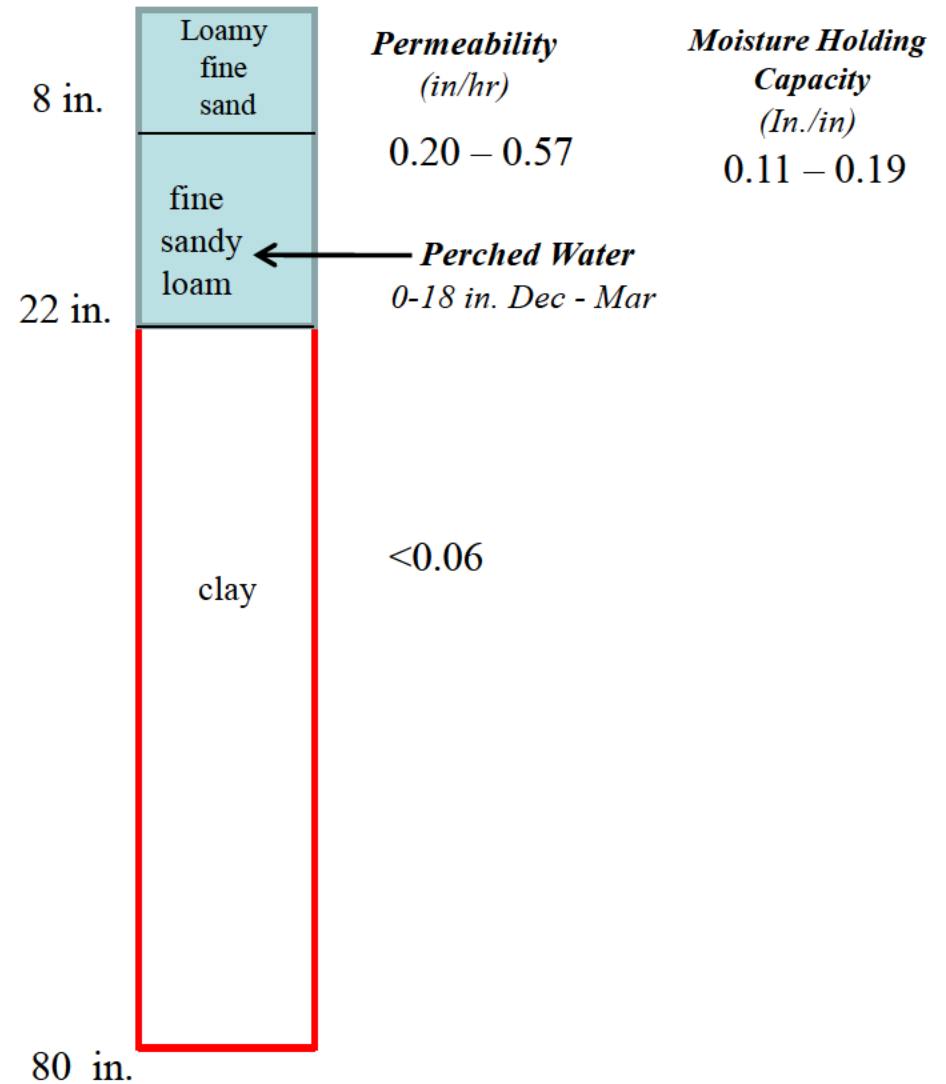
- a. According to the TWDB Report 345, the site is located in the area of the Gulf Coast Aquifer as it was in the last permit renewal. (See attached Description and Map from TWDB Report 345).
- b. According to the Geologic Atlas of Texas, the site is still located in the area of the Lissie formation and has not changed since the last permit renewal.
- c. Other than the four wells listed on page 20 of there is no direct hydrologic connection between the surface and subsurface within  $\frac{1}{4}$  mile of the site.
- d. As stated page 19, the Midfield Loam soil series has a seasonal perched water table a 1.0 foot depth.
- e. Perched Water monitoring stations are located in KaB (Katy fine sandy loam) and TefA (Telf fine sandy loam). There are currently no other monitoring stations.

## Seasonally perched water, Carl Miller Farms 710084

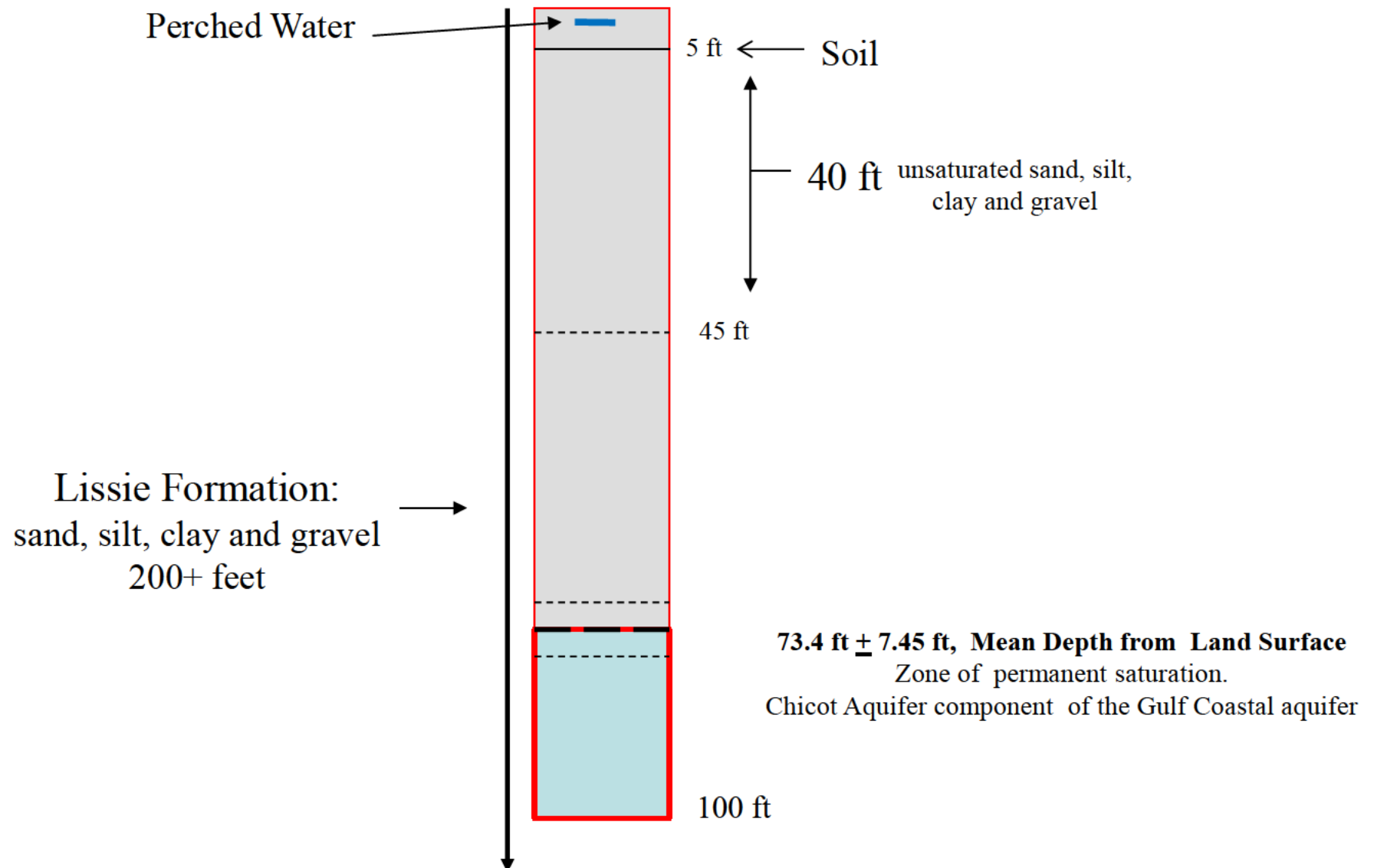
### Katy (4.1% of site soils)



### Hockey (14.7% of site soils)



**Figure 2. Hydro geologic conditions, Carl Miller Farms 710084  
Waller, County, TX**





**Table 1**  
**Pollutant and Nutrient Concentrations in**  
**Biosolids and Water Treatment Residuals (if applicable)**

Complete this table for each source of biosolids and residuals.

Facility Name: [Click here to enter text.](#)

TCEQ Authorization Number: [Click here to enter text.](#)

**POLLUTANT/METAL ANALYSIS**

Pollutant	Maximum Concentration, mg/kg dry weight	Test Results, mg/kg dry weight	Sample Date	Detection Level for Analysis	Sample Method
Arsenic (As)	75				
Cadmium (Cd)	85				
Chromium (Cr)	3000				
Copper (Cu)	4300				
Lead (Pb)	840				
Mercury (Hg)	57				
Molybdenum (Mo)	75				
Nickel (Ni)	420				
Selenium (Se)	100				
Zinc (Zn)	7500				
PCB (ppm)	50.0 ppm				

**NUTRIENT ANALYSIS**

Nutrient	Concentration (%)	Sample Date	Detection Level for Analysis	Sample Method
Total Kjeldahl Nitrogen (TKN)				
Ammonium Nitrogen (NH <sub>4</sub> -N)				
Nitrate Nitrogen (NO <sub>3</sub> -N)				
Total Phosphorus (P)				
Total Potassium (K)				

**TABLE 2**  
**Volume Weighted Average (Mean) of Nutrient and Pollutant Concentration**

Complete this table if more than one source is land applied at the site.

**Directions:**

1. For each pollutant, multiply the Pollutant Concentrations from Table 1 by the estimated number of dry tons you expect to apply from each facility.
2. Sum the individual columns. Enter results in last row of the table.
3. Divide the sum of each column by the dry tons sum (bottom of second column). Enter number in the appropriate Volume Weighted Average Box (row below table).
4. Use these final results to complete Appendix A, Step 1.

TCEQ Auth. Number	Est. Dry Tons*	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	TKN	NH <sub>4</sub> <sup>-</sup> N	NO <sub>3</sub> <sup>-</sup> N	P	K
Sum																
Volume Weighted Average																

\*Total estimated dry tons to be land applied from the source facility.

## APPENDIX A AGRONOMIC RATE CALCULATIONS

**Note: The maximum allowable agronomic rate for land application of Class B Biosolids is 12 tons/acre/year.**

### APPENDIX A, PART 1. APPLICATION RATE

#### STEP 1. CALCULATE QUANTITY OF NUTRIENTS AND METALS IN BIOSOLIDS AND RESIDUALS IN LBS/TON

Nutrient	Concentration (%)**	Conversion Factor	Pounds per Ton
Total Kjeldahl Nitrogen (TKN)		x 20	
Ammonium Nitrogen (NH <sub>4</sub> -N)		x 20	
Nitrate Nitrogen (NO <sub>3</sub> -N)		x 20	
Total Phosphorus (P)		x 20	
Total Potassium (K)		x 20	

Pollutant	Test Results, mg/kg dry weight	Conversion Factor	Pounds per Ton
Total Arsenic (As)		x 0.002	
Total Cadmium (Cd)		x 0.002	
Total Chromium (Cr)		x 0.002	
Total Copper (Cu)		x 0.002	
Total Lead (Pb)		x 0.002	
Total Mercury (Hg)		x 0.002	
Total Molybdenum (Mo)		x 0.002	
Total Nickel (Ni)		x 0.002	
Total Selenium (Se)		x 0.002	
Total Zinc (Zn)		x 0.002	

\*\*Values from laboratory analysis (dry weight only).

Conversions:

$$\text{mg/kg} \div 10,000 = \%$$

$$\text{ppm} = \text{mg/kg}$$

## STEP 2. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Cool Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Provide the data source for the nitrogen requirements above.

[Click here to enter text.](#)

Nitrogen needed by crop:

2A. Total Nitrogen Requirement\* [Click here to enter text.](#)

2B. Nitrogen available in soil\*\* [Click here to enter text.](#)

2C. Nitrogen amount still needed

Line 2A - Line 2B [Click here to enter text.](#)

\*Line 2A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 2B =  $2 \times \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 \times \text{NO}_3\text{-N(ppm)(in the 6-24" soil depth)}$



### STEP 3. CALCULATE THE PLANT AVAILABLE NITROGEN (PAN) PROVIDED BY THE BIOSOLIDS AND RESIDUALS

Use the TKN,  $\text{NH}_4\text{-N}$ , and  $\text{NO}_3\text{-N}$  from Step 1.

$$\text{Organic Nitrogen} = \text{TKN} - (\text{NH}_4\text{-N}) - (\text{NO}_3\text{-N})$$

[Click here to enter text.](#)

$$\text{Mineralization Rate (\%)} *$$

[Click here to enter text.](#)

3A. Organic Nitrogen x Mineralization Rate

[Click here to enter text.](#)

3B. Ammonium Nitrogen =  $(\text{NH}_4\text{-N}) \times V$

[Click here to enter text.](#)

$V = 0.5$  if biosolids are left on soil surface

$V = 1.0$  if biosolids are worked into the soil

3C. Nitrate Nitrogen ( $\text{NO}_3\text{-N}$ )

[Click here to enter text.](#)

3D. Total PAN = (Line 3A + Line 3B + Line 3C)=

[Click here to enter text.](#)

\*Mineralization Rates:

Treatment Method	Mineralization Rates
Unstabilized Primary and Waste Activated Biosolids	40 %
Aerobically Digested Biosolids	30 %
Anaerobically Digested Biosolids	20 %
Composted Biosolids	10 %

### STEP 4. CALCULATE MAXIMUM BIOSOLIDS APPLICATION RATES BASED ON CROP NITROGEN NEEDS ( $\text{SAR}_N$ )

4A. Nitrogen amount still needed (lbs/acre/year)

Enter amount from Step 2C.

[Click here to enter text.](#)

4B. Total PAN (lbs/ton)

Enter amount from Step 3D.

[Click here to enter text.](#)

4C. Biosolids Application Rate ( $\text{BAR}_N$ ) (tons/acre/year)

Line 4A  $\div$  Line 4B

[Click here to enter text.](#)

## STEP 5. CALCULATE MAXIMUM APPLICATION RATE BASED ON METALS (SAR<sub>M</sub>)

METAL	A Cumulative Metal Limits (lbs/ac)	B Max Loading Rate (lbs/ac/yr)	C Metals In Biosolids (lbs/ton) (Step 1)	D Metals Applied Yearly at $\overline{BAR}_N$ (lbs/acre/yr) (C x SAR <sub>N</sub> )	E Biosolids Applied Yearly at $\overline{BAR}_M$ (tons/acre/yr) (B ÷ C)	F Max Loading Rate (tons/acre) (A ÷ C)
Arsenic	36	1.8				
Cadmium	35	1.7				
Chromium	2677	134				
Copper	1339	67				
Lead	268	13				
Mercury	15	0.76				
Molybdenum	Monitor	Monitor				
Nickel	375	18.7				
Selenium	89	4.5				
Zinc	2500	125				
Other						

**Note:** For each metal, if the value in column B is greater than the value in column D (B>D), the  $\overline{BAR}_N$  dictates the maximum biosolids application rate. Enter N/A in column E. If the value in column B is less than the value in column D (B<D), then the  $\overline{BAR}_M$  dictates the maximum biosolids application rate and the value of E = B ÷ C.

## STEP 6. CALCULATE THE CUMULATIVE LOADING RATE

### 6A. Maximum allowable cumulative biosolids loading rate

Lowest value in Step 5, Column F (tons/acre)

[Click here to enter text.](#)

### 6B. Previous applications of biosolids (tons/acre)

[Click here to enter text.](#)

### 6C. Remaining biosolids application rate to reach metal limits

Line 6A – Line 6B (tons/acre)

[Click here to enter text.](#)

### 6D. Maximum allowable biosolids application rate

Lowest value of Step 4C and Step 5, Column E (tons/acre/year)

[Click here to enter text.](#)

### 6E. Years remaining to reach the maximum cumulative loading

Line 6C ÷ Line 6D (years)

[Click here to enter text.](#)

## APPENDIX A, PART 2: SEPTAGE APPLICATION RATE

Complete Part 2 and 3 if sewage and septage are both applied at the site.

### STEP 1. CROPPING PLAN AND NUTRIENT NEEDS

Warm Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Cool Season Intended Crop(s): [Click here to enter text.](#)

Yield Goal: [Click here to enter text.](#) Nitrogen Requirement, in lb/yr: [Click here to enter text.](#)

Provide the data source for the nitrogen requirements.

[Click here to enter text.](#)

Nitrogen needed by crop:

1A. Total Nitrogen Requirement\* [Click here to enter text.](#)

1B. Nitrogen available in soil\*\* [Click here to enter text.](#)

1C. Nitrogen amount still needed

Line A - Line B [Click here to enter text.](#)

\*Line 1A = Sum of the nitrogen requirement for the specified yield goals for the warm season crop and cool season crop

\*\*Line 1B =  $2 * \text{NO}_3\text{-N (ppm)(in the 0-6" soil depth)} + 6 * \text{NO}_3\text{-N (ppm)(in the 6-24" soil depth)}$

### STEP 2. CALCULATE ANNUAL APPLICATION RATE

The annual application rate is based on the nitrogen needs of the crop. It is calculated using the following equation:

$$\text{AAR} = \text{N} \div 0.0026$$

AAR = Annual application rate, in gallons per acre per 365 day period.

N = Nitrogen amount still needed for the crop, in pounds per acre per 365 day period.

2A. Enter amount from Step 1C [Click here to enter text.](#)

2B. Conversion Factor 0.0026

2C. Annual Application Rate (gal/acre/yr)

Line 2A  $\div$  Line 2B [Click here to enter text.](#)

## APPENDIX A, PART 3: PROPORTIONATE AGRONOMIC RATE

Complete if both sewage and septage are applied in the same year.

### **Biosolids:**

A. Biosolids Application Rate (tons/acre/year) [Click here to enter text.](#)

B. Percentage of plant nutrient supplied by the biosolids  
= [Click here to enter text.](#) ÷ 100 [Click here to enter text.](#)

C. Multiple Line A by Line B (tons/acre/year) [Click here to enter text.](#)

### **Domestic Septage:**

A. Biosolids Application Rate (tons/acre/year) [Click here to enter text.](#)

B. Percentage of plant nutrient supplied by the biosolids  
= [Click here to enter text.](#) ÷ 100 [Click here to enter text.](#)

C. Multiple Line A by Line B (tons/acre/year) [Click here to enter text.](#)



## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

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For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?**(Yes/No/NA)
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A
	Option 1: Density of Fecal Coliform			N/A

\*Applicable to Option 1 only.

\*\*Applicable to Option 2a – f.

If Other is selected as the Alternative Used, please explain: \_\_\_\_\_

## APPENDIX B

### PATHOGEN REDUCTION REQUIREMENTS

---

For each source, select the pathogen reduction alternative that will be used prior to land application of biosolids septage. Requirements for each alternative can be found in 30 TAC §312.82.

TCEQ Permit Number	Pathogen Reduction Alternative Used	Fecal Coliform Geometric Mean (cfu/gram total solids)*	Fecal Test Date*	Is PSRP Certification Attached?** (Yes/No/NA)
Example WQ11280-001	Option 1: Density of Fecal Coliform	300,000 cfu/g	12/2/98	NA
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			
	Choose an item.			

\*Applicable to Option 1 only.

\*\*Applicable to Option 2a – f.

If Other is selected as the Alternative Used, please explain: [Click here to enter text.](#)

## APPENDIX C

### VECTOR ATTRACTION REDUCTION REQUIREMENTS

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For each source, provide the vector attraction reduction option that will be used prior to or after land application of biosolids/septage. Requirements for each alternative can be found in 30 TAC §312.83.

TCEQ Permit Number	Vector Attraction Reduction Alternative Used*	Monitoring Criteria and results needed for alternative
Example WQ11280-001	Option 10: Incorporate within 6 hrs	Visual inspection of area after tilling
Example WQ13450-003	Option 4: SOUR ≤1.5 mg O <sub>2</sub> /hr/g total solids at 20C (<2% solids)	Aerobically digested, 2.0% solids, SOUR=1.3 mg/g
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	
	Choose an item.	

\*Options 1-8 are Class B biosolids treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

## APPENDIX D ON-SITE STORAGE

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If on-site storage will occur at the site, this Appendix must be completed in its entirety. On-site storage does not include staging of biosolids or septage for up to seven (7) days prior to applying it. On-site storage cannot exceed the 90-day maximum per 30 TAC §312.50 unless properly authorized for each instance. Construction of the storage area cannot begin until written authorization for this action is received from the TCEQ. Materials cannot be treated without proper authorization from the TCEQ.

- A. Provide a complete description of operational plans for the temporary storage, including all steps to be taken to control odors, vectors and other nuisance conditions.  
[Click here to enter text.](#)
- B. The location of the temporary storage area(s) must be accurately shown on the USGS topographic map submitted with the application, including all main features of the storage area(s) (e.g. berms, tanks, pads, liners, storm water retention, etc.).
- C. Provide a copy of the liner and storage tank certification as per 30 TAC §312.50(a)(4) or 312.50(a)(8).  
Attachment Number: [Click here to enter text.](#)
- D. Describe the proposed spill prevention and cleanup methods.  
[Click here to enter text.](#)
- E. Provide a certification that the berm(s) will hold the required volume(s) without discharging as per 30 TAC §312.50 (a)(7).  
Attachment Number: [Click here to enter text.](#)
- F. Describe the method for stormwater runoff collection and disposal.  
[Click here to enter text.](#)
- G. Describe methods to be used to ensure no loads of biosolids remain at the temporary storage site for longer than 90 days, including how exceptions to this restriction will be requested (as provided by 30 TAC §312.50), when needed.  
[Click here to enter text.](#)



# INSTRUCTIONS FOR PERMIT FOR BENEFICIAL LAND USE OF CLASS B BIOSOLIDS

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## GENERAL INFORMATION

### Purpose of the Application

This form is to be used to:

- Permit a new site for beneficial land use of Class B biosolids;
- Submit a Major Amendment to change acreage or to make any other substantive change to a permitted site for beneficial land use of Class B biosolids; or
- Renew an existing permitted site for beneficial land use of Class B biosolids.

**NOTE:** If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of Class B biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

### Who Should Apply?

This application must be submitted by the site operator. If there is more than one operator, then a co-applicant is required.

### When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed date of land application. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current registration.

### Where to Send the Application Form

**One original and three copies** of the application, including attachments, must be provided to the address below:

#### Regular U.S. Mail:

TCEQ  
ARP Team, MC 148  
PO Box 13087  
Austin TX 78711-3087

#### Express Mail or Hand Delivery:

TCEQ  
ARP Team, MC 148  
Building F Room 2101

12100 Park 35 Circle  
Austin TX 78753

## **TCEQ Contact List**

Permit Information and Application Forms: 512-239-4671  
Technical Information, Land Application Team,  
Attn: Biosolids Group: 512-239-4671  
Environmental Law Division: 512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

## **INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM**

### **Section 1. Type of Application**

Select the appropriate type of application.

For amendment applications, describe the proposed changes.

For existing permits, provide the TCEQ permit number.

### **Section 2. Application Fee**

The permit application fee varies from \$1,000 to \$5,000, based on the quantity of biosolids to be applied annually under the permit.

<b>Quantity of Biosolids Applied Annually</b>	<b>Application Fee</b>
2,000 dry tons or less	\$1,000
2,001 to 5,000 dry tons	\$2,000
5,001 to 10,000 dry tons	\$3,000
10,001 to 20,000 dry tons	\$4,000
20,001 dry tons or more	\$5,000

Application fees must be paid by check or money order made payable to the Texas Commission on Environmental Quality. Fees are to be sent under separate cover making reference to the type of application, name of applicant, and permit number of existing permit, and mailed to:

TCEQ  
Revenues Section (MC 214)  
P.O. Box 13088  
Austin, Texas 78711-3088

To verify receipt of payment or any other questions you may have regarding payment of fees to the TCEQ, you may call the Revenues Section, Cashiers Office at (512) 239-0357.

### **Section 3. Applicant Information**

Provide the full legal name of the site operator.

If the site operator is an existing TCEQ customer, provide the customer number (CN) for the site operator. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the site operator is not an existing TCEQ customer, leave blank.

Provide the following contact information for the site operator: mailing address, phone number, fax number, and email address.

### **Section 4. Co-Applicant Information**

If there is more than one operator, then a co-applicant is required. Provide the full legal name of the co-applicant.

If the co-applicant is an existing TCEQ customer, provide the customer number (CN) for the co-applicant. The Customer Number is available at the following website:

<http://www15.tceq.texas.gov/crpub/>. If the co-applicant is not an existing TCEQ customer, leave blank.

Provide the following contact information for the co-applicant: mailing address, phone number, fax number, and email address.

Explain the need for a co-applicant.

### **Section 5. Application Contact Information**

Provide the name and contact information for the person that TCEQ will contact if additional information is needed about this application. Provide one contact for the operator and one contact for the landowner.

### **Section 6. Permit Contact Information**

Provide the name and contact information for two individuals that TCEQ can contact if additional information is needed during the term of the permit.

### **Section 7. Billing Contact Information**

Provide the name and contact information for the person that TCEQ can contact regarding the annual fee invoices.

### **Section 8. Reporting Contact Information**

Provide the name and contact information for the person that TCEQ can contact regarding the annual biosolids land application reports.

## **Section 9. Notice Information**

### **A. Individual publishing the notices**

Provide the name, company name, mailing address, telephone number and fax number of the person that will publish the public notices required during the processing of the application. Only one name can be provided. This individual will be contacted to publish the required public notices in a newspaper of the largest general circulation in the county where the facility is/will be located. This person must be available during the application processing since the first public notice. The "Notice of Receipt of Application and Intent to Obtain a Water Quality Permit" must be published within 30 days of the application being declared Administratively Complete.

### **B. Method of Receiving Notice Package**

Provide the method of receiving the required public notice information. When the application is declared Administratively Complete, the notice package will be sent via the method selected. The notice package includes the TCEQ declaration of completeness, a notice ready for publication, instructions for publishing the notice, a publication affidavit, and a public notice verification form.

### **C. Contact Person in the Notice**

Provide the person's name, company name, mailing address, telephone number and fax number of the one individual that will be identified as the notice contact in the two public notices that are published as part of the permitting process. This individual may be contacted by the public to answer questions about all aspects of the permit application.

### **D. Public Viewing Location**

Provide the name and physical address for the public place where the complete application, draft permit, and Technical Summary/Fact Sheet will be made available for viewing and copying by the general public. Please verify with the proper authority they will make the application available for public viewing and copying. The address must be a physical address. Post office box addresses are not acceptable. The public place must be located within the county in which the facility is/will be located. If the facility is located in more than one county, a public viewing place for each county must be provided.

### **E. Bilingual Notice Requirement**

Bilingual notice may be required for new, major amendment, and renewal applications if an elementary school or middle school nearest to the facility is required to make a bilingual education program available to qualifying students.

The applicant is required to call the bilingual/ESL coordinator at the nearest elementary and middle schools to obtain answers to questions 1. – 4. These questions will determine if an alternative language notice is required.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language.



## **F. Public Involvement Plan Form**

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit. This form is not required for renewal or minor amendment applications.

## **Section 10. Regulated Entity (Site) Information**

- A. Provide the name of the site as known by the public in the area where the site is located.
- B. If the site is currently regulated by TCEQ, provide the regulated entity reference number (RN) for the site. The RN is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the site is not currently regulated by TCEQ, leave blank.
- C. If the location in the existing permit is not correct or if this is a new site, provide the physical address of the site. If a physical address is not available, provide a location description.
- D. Provide the county in which the site is located.
- E. Provide the latitude and longitude for the site.
- F. Provide the name and contact information for the landowner of the application site.
- G. Provide the name and contact information for the county judge in each county where the site is located. Attach an additional sheet if the site is located in more than one county.

## **Section 11. Land Application Information**

If the land application site is within or adjacent to a publicly-owned wastewater treatment plant (WWTP) and the site is owned or operated by the WWTP, the WWTP's existing wastewater discharge permit may be amended to authorize land application of biosolids. To amend the wastewater discharge permit, complete and submit this application form and the Domestic Wastewater Permit Application (TCEQ Form 10054).

- A. Provide the anticipated date that you plan to start applications on this site. This date must be at least 330 days from the date TCEQ receives this application form.
- B. Indicate by a checkmark if the beneficial land use area is within the city limits, within the extraterritorial jurisdiction, or outside the extraterritorial jurisdiction of a city. Provide the city or municipality name in the space provided.
- C. Identify the types of wastes that will be land applied at this site.
- D. For each source, provide the facility name, TCEQ authorization number, and the location. Add additional rows to the table, if necessary.
- E. Provide the total acreage of the property where the application site is located. Include the application area and the buffer zones.
- F. Provide the total acreage where biosolids may be applied. Do not include buffer zones.

NOTE: A minimum buffer of 500 feet is required for water wells and surface water

when land application of Class B Biosolids occurs in a county that borders the Gulf of Mexico (Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy Counties).

## **Section 12. Miscellaneous Information**

- A. Provide the name of each person that was previously employed by TCEQ and who was paid for services regarding this application.
- B. Identify if the application site is located on Indian lands. If the answer is yes, TCEQ does not have jurisdiction to process this application. Do not send this application to TCEQ. Contact the Land Application Team, Attn: Biosolids Group at 512-239-4671.
- C. Identify if any permanent school fund land is affected by this application. If yes, provide the location and potential impacts on the school fund land.
- D. Indicate if the site operator or co-applicant(s) owe fees or penalties to TCEQ. If yes, provide the amount owed, the type of fee or penalty, and the account number for fees or the TCEQ Docket number for penalties.

The following TCEQ website will help you determine if you owe any fees or penalties to the TCEQ and how to make a payment:

<https://www.tceq.texas.gov/agency/fees/delin/index.html>. For questions about delinquent fees and penalties, contact the Financial Administration Division, Revenue Section, at 512-239-0354.

**NOTE: TCEQ will not declare any application administratively complete or issue a permit if the applicant or co-applicant is delinquent on a fee or penalty.**

## **Section 13. Affected Landowner Information**

- A. Attach a landowner map or drawing that includes a scale, the applicant's property boundaries, the application area boundaries, the approximate property boundaries of all landowners located within 1/4 mile of the property boundaries. Assign a letter or number to each landowner.
- B. Attach a list of landowners that live on land within 1/4 mile of the property boundaries. The list must include the landowner's name and address, and include a cross-reference to the letter or number identified on the landowner map. The applicant may choose to attach a list of all landowners within 1/4 mile of the property boundary, regardless of whether the landowner lives on the land.
- C. Identify the format of the landowners list.
- D. Provide the source of the landowner's names and mailing addresses. Sources may include City or County Tax Records.

## **Section 14. Insurance Information**

**This information is not required for an applicant that is a political subdivision (e.g., city, county, state agency, water district, etc.).**

Note: The insurance policies required by this section must be maintained for the duration of the permit which is normally issued for a term of five years.

### **A. Commercial Liability Insurance**

Attach a copy of the certificate of insurance in regard to commercial liability, reflecting total coverage of not less than \$3 million per occurrence with an annual aggregate of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9145 (relating to Certificate of Insurance for Commercial Liability) or an endorsement worded identically to the wording specified in 30 TAC §37.9150 (relating to Endorsement for Commercial Liability). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

### **B. Environmental Impairment Insurance**

Attach a copy of the certificate of insurance in regard to environmental impairment, reflecting total coverage of not less than \$3 million per occurrence with a policy limit of not less than \$3 million, exclusive of legal defense costs. The certificate must be worded identically to the wording specified in 30 TAC §37.9155 (relating to Certificate of Insurance for Environmental Impairment). The certificate of insurance must be issued by an insurance company authorized to transact business in the State of Texas and that has a rating of A- or better by A.M. Best Company.

## **Section 15. Maps and Attachments**

- A.** Complete and submit the TCEQ Core Data Form (TCEQ-10400).
- B.** Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.
- C.** Submit an original General Highway (County) Map showing all boundaries of the site area and all areas within 1000 feet of the area boundaries. These can be ordered from the Texas Department of Transportation Map Sales from the following web site: [http://www.txdot.gov/travel/county\\_grid\\_search.htm](http://www.txdot.gov/travel/county_grid_search.htm)
- D.** Submit a full-sized USGS topographic map (1:24,000 scale). These are available by contacting the Texas Natural Resource Information System at 512-463-8337. The map must show:
  - the boundaries of the property(s) being permitted;
  - the boundaries of the application area within the property boundaries;
  - all areas within ¼ mile of the site (if the site is on the border of the USGS map, the adjoining map is also required); and
  - the location of all wells, springs, public water supply intakes, water treatment plants, potable water storage facilities, and wastewater treatment plants on-site and within ¼ mile of the application area (including off-site).

If the land application unit boundaries cannot fit or are too small to depict on the required USGS topographic map, a zoomed-in version must be submitted on a separate 8 1/2 X 12 map or larger. This map may be a zoomed-in version of the topographic map or an accurately self-generated map.

- E.** Submit a legible copy of a USDA Natural Resources Conservation Service (NRCS) Soil Map that shows the approximate application area boundaries, the soil legend,

necessary interpretative information, and the location of each grab sample of the composite soil sample(s) taken for analyses. If the specific county is not mapped, have a soil scientist identify the soils.

- F. Submit a copy of the Federal Emergency Management Agency (FEMA) Map that shows the approximate application area boundaries, the surrounding area within ¼ mile of the property boundaries, and the appropriate legend.
- G. Submit a copy of the nutrient management plan that has been prepared by a certified nutrient management specialist, in accordance with the practice standards of the USDA-NRCS.
- H. Submit a copy of the TCEQ transporters registration approval documents.
- I. Attach the soil laboratory analysis for the application area. Additional information about collecting and analyzing the soil samples is available at the end of these instructions.
- J. Attach a laboratory analysis for each source. Additional information about testing is available at the end of these instructions.
- K. Metal and Nutrient Concentrations (Table 1). Use the laboratory analyses to complete Table 1 for each source.
- L. Volume Weighted Averages of Metal and Nutrient Concentrations (Table 2). If more than one source of is land applied, complete Table 2.
- M. Agronomic Rate Calculations (Appendix A). Determine the agronomic application rate by completing and attaching Appendix A.
- N. Pathogen Reduction Requirements (Appendix B). Identify the pathogen reduction alternative for each source by completing and attaching Appendix B.
- O. Vector Attraction Reduction Requirements (Appendix C). Identify the vector attraction reduction alternative for each source by completing and attaching Appendix C.
- P. On-Site Storage (Appendix D). If on-site storage will occur at the site, complete and attach Appendix D.

## **Signature Page**

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making



functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

## SOIL TESTING INFORMATION

Soil samples shall be taken prior to any application of commercial fertilizer. Do not use a galvanized container as this could give a false reading on zinc. Samples will need to be taken within the same 45 day time-frame each year, or by an approved sampling plan and analyzed within 30 days of sample collection. The initial soil sample for application approval may be taken whenever necessary.

Obtain one composite sample for each soil depth per 80 acres and per uniform soil type (soils with the same characteristics and texture) within the 80 acres, or per approved soil sampling plan. Composite samples shall be comprised of 10 - 15 random sample cores taken from each of the following soil depth zones: 0-6 inches and 6-24 inches.

Soil samples shall be submitted to a soil testing laboratory along with a previous crop history of the site, intended crop growth and yield goal. Soil reports shall include fertilizer recommendations for the crop yield goal. Samples shall be analyzed for the parameters below:

Parameter (7)		0- 6 "	6 -24"
Nitrate Nitrogen (NO <sub>3</sub> -N, mg/kg)	(1)	x	x
Ammonium Nitrogen (NH <sub>4</sub> -N, mg/kg)	(1)	x	x
Total Kjeldahl Nitrogen (TKN, mg/kg)	(2)	x	x
Phosphorus (plant available, mg/kg)	(3)	x	x
Potassium (plant available, mg/kg)	(3)	x	x
Sodium (plant available, mg/kg)	(3)	x	x
Magnesium (plant available, mg/kg)	(3)	x	x
Calcium (plant available, mg/kg)	(3)	x	x
Electrical Conductivity	(4)	x	x
Soil Water pH (S.U.)	(5)	x	x
Total Arsenic (mg/kg)	(6)	x	N/A
Total Cadmium (mg/kg)	(6)	x	N/A
Total Chromium (mg/kg)	(6)	x	N/A
Total Copper (mg/kg)	(6)	x	N/A
Total Lead (mg/kg)	(6)	x	N/A
Total Mercury (mg/kg)	(6)	x	N/A
Total Molybdenum (mg/kg)	(6)	x	N/A
Total Nickel (mg/kg)	(6)	x	N/A
Total Selenium (mg/kg)	(6)	x	N/A
Total Zinc (mg/kg)	(6)	x	N/A

1. Determined in a 1 N KCl soil extract (<http://soiltesting.tamu.edu/webpages/swftlmethods1209.html>).
2. Determined by Kjeldahl digestion or an equivalent accepted procedure. Methods that rely on Mercury as a catalyst are not acceptable.
3. Mehlich III extraction (yields plant-available concentrations) with inductively coupled plasma.
4. Electrical Conductivity (EC) - determine from extract of 2:1 (volume/volume) water/soil mixture and expressed in dS/m (same as mmho/cm).
5. Soil pH must be analyzed by the electrometric method in Test Methods for Evaluating Solid Waste, EPA SW-846, 40 CFR 260.11; method 9045C - determine from extract of 2:1 (volume/volume) water/soil mixture.
6. Analysis for metals in soil must be performed according to methods outlined in Test Methods for Evaluating Solid Waste, EPA SW-846; method 3050.
7. All parameters must be analyzed on a dry weight basis, except Soil Water pH and Electrical Conductivity.

Please be advised that the maximum acceptable soil concentrations of metals are listed below. These rates are based on the maximum cumulative loading rates found in 30 TAC §312.43 Table 2- Cumulative Metal Loading Rate.

<b>Metal</b>	<b>Soil Concentration Limit (mg/kg)</b>
Total Arsenic	20.5
Total Cadmium	19.5
Total Chromium	1500
Total Copper	750
Total Lead	150
Total Mercury	8.5
Total Molybdenum	Monitor
Total Nickel	210
Total Selenium	50
Total Zinc	1,400

## BIOSOLIDS AND RESIDUALS TESTING INFORMATION

Testing Parameters (dry weight basis) for  
Class B Biosolids and Water Treatment Plant Residuals

Nutrients (%)	Metals (mg/kg)	Other
Total Kjeldahl Nitrogen Ammonium-Nitrogen Nitrate-Nitrogen Total Phosphorus Total Potassium	Total Arsenic Total Cadmium Total Chromium Total Copper Total Lead Total Mercury Total Molybdenum Total Nickel Total Selenium Total Zinc	Total PCBs

1. If accepting from multiple sources,
  - a) perform a new analysis on the mixed material if blended before land application, or
  - b) use Table 2 of the application form to determine the volume weighted average (mass balance) which will accurately reflect the amount of metals contributed by each facility.
2. The metal and nutrient tests shall be used to calculate the Maximum Biosolids Application Rate and Site Life in Appendix A of the application form. These tests and calculations will also be required in an annual report for the permitted site.
3. Copies of all laboratory test data with Quality Control (QA/QC) and Chain of Custody sheets must be kept on file at the site operator's place of business for at least five (5) years and can be requested by TCEQ at any time.
4. Include the most recent full Toxicity Characteristic Leaching Procedure (TCLP) analysis for each wastewater treatment plant source (Appendix E).

### **Maximum Metal Loadings & Concentrations**

If background soil concentrations exceed the values listed below, then land application is only possible if biosolids concentrations are below the concentrations found in Table 3 of 30 TAC §312.43(b)(3).

If the concentration of any metal in the biosolids exceeds the metal ceiling concentration, then the land application of that biosolids is prohibited.

Pollutant	Cumulative Loading (lbs/acre)	Table 3 §312.43(b)(3) (mg/kg)	Metal Ceiling Concentration (mg/kg)
Arsenic	36	41	75
Cadmium	35	39	85
Chromium	2,677	1,200	3,000



<b>Pollutant</b>	<b>Cumulative Loading (lbs/acre)</b>	<b>Table 3 §312.43(b)(3) (mg/kg)</b>	<b>Metal Ceiling Concentration (mg/kg)</b>
Copper	1,339	1,500	4,300
Lead	268	300	840
Mercury	15	17	57
Molybdenum	Monitor	Monitor	75
Nickel	375	420	420
Selenium	89	36	100
Zinc	2,500	2,800	7,500

## APPENDIX E

### Toxicity Characteristic Leaching Procedure (TCLP) Regulatory Levels

METALS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Arsenic	5.0	D004	7061
Barium	100.0	D005	7080
Cadmium	1.0	D006	7130
Chromium	5.0	D007	7190
Lead	5.0	D008	7420
Mercury	0.2	D009	7471
Selenium	1.0	D010	7741
Silver	5.0	D011	7760

VOLATILE ORGANICS	TCLP Regulatory Level, mg/L	EPA Hazardous Waste Number	Recommended Test Method
Benzene	0.5	D018	8260B
Carbon Tetrachloride	0.5	D019	8260B
Chlorobenzene	100.0	D021	8260B
Chloroform	6.0	D022	8260B
1,4-Dichlorobenzene	7.5	D027	8260B
1,2-Dichloroethane	0.5	D028	8260B
1,1-Dichloroethylene	0.7	D029	8260B
Methyl Ethyl Ketone	200.0	D035	8260B
Tetrachloroethylene	0.7	D039	8260B
Trichloroethylene	0.5	D040	8260B
Vinyl Chloride	0.2	D043	8260B

<b>SEMIVOLATILE ORGANICS</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
o-Cresol *	200	D023	8270C
m-Cresol *	200	D024	8270C
p-Cresol *	200	D025	8270C
Cresol *	200	D026	8270C
2,4-Dinitrotoluene	0.13	D030	8270C
Hexachlorobenzene	0.13	D032	8270C
Hexachlorobutadiene	0.5	D033	8270C
Hexachloroethane	3.0	D034	8270C
Nitrobenzene	2.0	D036	8270C
Pentachlorophenol	100.0	D037	8270C
Pyridine	5.0	D038	8270C
2,4,5-Trichlorophenol	400.0	D041	8270C
2,4,6-Trichlorophenol	2.0	D042	8270C

<b>ORGANOCHLORINE PESTICIDES</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
Chlordane	0.03	D020	8081A
Endrin	0.02	D012	8081A
Heptachlor (and its Epoxide)	0.008	D031	8081A
Lindane	0.4	D013	8081A
Methoxychlor	10.0	D014	8081A
Toxaphene	0.5	D015	8081A

<b>CHLOROPHENOXY ACID HERBICIDES</b>	<b>TCLP Regulatory Level, mg/L</b>	<b>EPA Hazardous Waste Number</b>	<b>Recommended Test Method</b>
2,4-D	10.0	D016	8150
2,4,5-TP (Silvex)	1.0	D017	8150

\* If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used.

Reference: 40 CFR 261, Appendix II, 1993 ed., as amended by 58 FR 46040, August 31, 1993.