# 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

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# 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

## Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS**

**DOMESTIC WASTEWATER**

*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.*
The City of Tahoka (CN601097934 ) operates the Tahoka wastewater treatment plant RN103138079. a facultative lagoon system with land application disposal features. The facility is located 1 mile southeast of the city limits, in Tahoka, Lynn County, Texas 79373.

This new application is for land application of 360,000 gallons per day of treated domestic wastewater. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain 5-day Biochemical Oxygen Demand and a limited range of pH.Domestic wastewater will be treated by anaerobic process through a facultative lagoon and multiple holding ponds. Pre-treatment units include a manual bar screen.

SPANISH translation below

La ciudad de Tahoka (CN601097934) opera la planta de tratamiento de aguas residuales de Tahoka RN103138079. un sistema lagunar facultativo con características de disposición de aplicación terrestre. La instalación está ubicada a 1 milla al sureste de los límites de la ciudad, en Tahoka, condado de Lynn, Texas 79373.

Esta nueva solicitud es para la aplicación terrestre de 360,000 galones por día de aguas residuales domésticas tratadas. Este permiso no autorizará una descarga de contaminantes al agua del estado.

Se espera que las descargas de la instalación contengan una demanda bioquímica de oxígeno de 5 días y un rango limitado de pH. Las aguas residuales domésticas serán tratadas mediante un proceso anaeróbico a través de una laguna facultativa y múltiples estanques de retención. Las unidades de pretratamiento incluyen una criba de barras manual.

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT**

**PROPOSED PERMIT NO. WQ0010298003**

**APPLICATION.** City of Tahoka, P.O. Box 300, Tahoka, Texas 79373, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0010298003 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 360,000 gallons per day via surface application on 143 acres of land. The domestic wastewater facility and disposal area are located Approximately 1 mile southeast of the intersection of County Road 24 and Highway 87, near the city of Tahoka, in Lynn County, Texas 79373. Authorization for disposal was previously permitted by expired Permit No. WQ0010298002. TCEQ received this application on March 25, 2024. The permit application will be available for viewing and copying at Tahoka City Hall, Office of the City Secretary, 1807 N. Main Street, Tahoka, in Lynn 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/tlap-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.

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

**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. 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 **https://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. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from City of Tahoka at the address stated above or by calling Mr. Derek Stephens, City Administrator, at (806) 561-4211.

Issuance Date: June 7, 2024

# Comisión de Calidad Ambiental del Estado de Texas

**AVISO DE RECIBO DE LA SOLICITUD E**
**INTENCION DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA**

**PERMISO PROPUESTO NO. WQ0010298003**

**SOLICITUD**. City of Tahoka, P.O. Box 300, Tahoka, TX 79373 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para el propuesto Permiso No. WQ0010298003 de disposición de aguas residuales para autorizar la eliminación de aguas residuales tratadas en un volumen que no exceda el diario flujo promedio de 360,000 galones por día mediante aplicación superficial en 143 acres de tierra. lo domestico La instalación de aguas residuales y el área de eliminación están ubicadas aproximadamente 1 milla al sureste de la intersección de County Road 24 y Highway 87, cerca de la ciudad de Tahoka, en el condado de Lynn, Texas 79373. Autorización para su eliminación estaba previamente permitido por el Permiso No. WQ0010298002 vencido. TCEQ recibió esto solicitud el 25 de marzo de 2024. La solicitud de permiso estará disponible para ver y copiar en Ayuntamiento de Tahoka, Oficina del Secretario de la Ciudad, 1807 N. Main Street, Tahoka, en el condado de Lynn, Texas antes de la fecha este aviso se encuentra publicado en el periódico. La aplicación, incluidas las actualizaciones, y Los avisos asociados están disponibles electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications.

**AVISO ADICIONAL.** El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.**

**COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud.** El

propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

**OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.** Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud. Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

**PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.**

**Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados**

**posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.**

**LISTA DE CORREO.** Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

**CONTACTOS E INFORMACIÓN DE LA TCEQ. Todos los comentarios escritos del público y los para pedidos una reunión deben ser presentados a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet at www.tceq.texas.gov/about/comments.html.** Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Si necesita más información en Español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: www.tceq.texas.gov.

También se puede obtener información adicional del City of Tahoka a la dirección indicada arriba o llamando a Sr. Derek Stephens al (806) 561-4211.

Fecha de emisión 19 de junio de 2024

**Adjacent Landowners List**

**City of Tahoka, Texas WWTP**

| Map ID # | Property Owner |
|---|---|
| 1 | City of Tahoka<br>PO Box 300<br>Tahoka, TX 79373 |
| 3 | Leslie & Pamela Paris<br>PO Box 515<br>Tahoka, TX 79373 |
| 5 | Sybert Montgomery Family Trust<br>4318 18th Street<br>Lubbock, Tx 79416 |
| 7 | Willie Edwards<br>c/o Crawford Edwards<br>4200 South Hulen St.<br>Ft Worth, TX 76109-4913 |
| 9 | Tome Alvarado<br>PO Box 299<br>Tahoka, TX 79373 |
| 11 | Tahoka Cemetery Assn.<br>c/o City of Tahoka<br>PO Box 300<br>Tahoka, TX 79373 |
| 13 | Glen & Marci Gandy<br>PO Box 892<br>Tahoka, TX 79373 |
| 15 | Terri Anderson<br>1924 CR 280<br>Floydada, TX 79235 |
| 17 | Doyle Willis<br>PO Box 333<br>Tahoka, TX 79373 |

| Map ID # | Property Owner |
|---|---|
| 2 | Dennis & Mary Belew<br>PO Box 487<br>Tahoka, TX 79373 |
| 4 | Connie Braddock<br>PO Box 1661<br>Tahoka, TX 79373 |
| 6 | Howell Lands, LLC<br>409 E 57th Street<br>Odessa, TX 79762 |
| 8 | Justin Antu<br>7822 Ave V<br>Lubbock, TX 79423 |
| 10 | Betty Sue Ehlers<br>2313 Lockwood<br>Tahoka, TX 79373 |
| 12 | Taylor & Cassidy Allison<br>PO Box 147<br>Tahoka, TX 79373 |
| 14 | Faustino & Rosa De Leon<br>PO Box 1593<br>Tahoka, TX 79373 |
| 16 | Raymond & Janet Lara<br>PO Box 463<br>Tahoka, TX 79373 |
| | |

Prepared: 6/7/2024

DENNIS & MARY BELEW
PO BOX 487
TAHOKA TX 79373

LESLIE & PAMELA PARIS
PO BOX 515
TAHOKA TX 79373

CONNIE BRADDOCK
PO BOX 1661
TAHOKA TX 79373

SYBERT MONTGOMERY FAMILY TRUST
4218 18TH STREET
LUBBOCK TX 79416

HOWELL LANDS, LLC
409 E 57TH STREET
ODESSA TX 79762

WILLIE EDWARDS C/O CRAWFORD EDWARDS
4200 SOUTH HULEN ST
FORT WORTHTX 76109-4913

JUSIN ANTU
7822 AVE V
LUBBOCK TX 79423

TOME ALVARADO
PO BOX 299
TAHOKA TX 79373

BETTY SUE EHLERS
2313 LOCKWOOD
TAHOKA TX 79373

TAYLOR & CASSIDY ALLISON
PO BOX 147
TAHOKA TX 79373

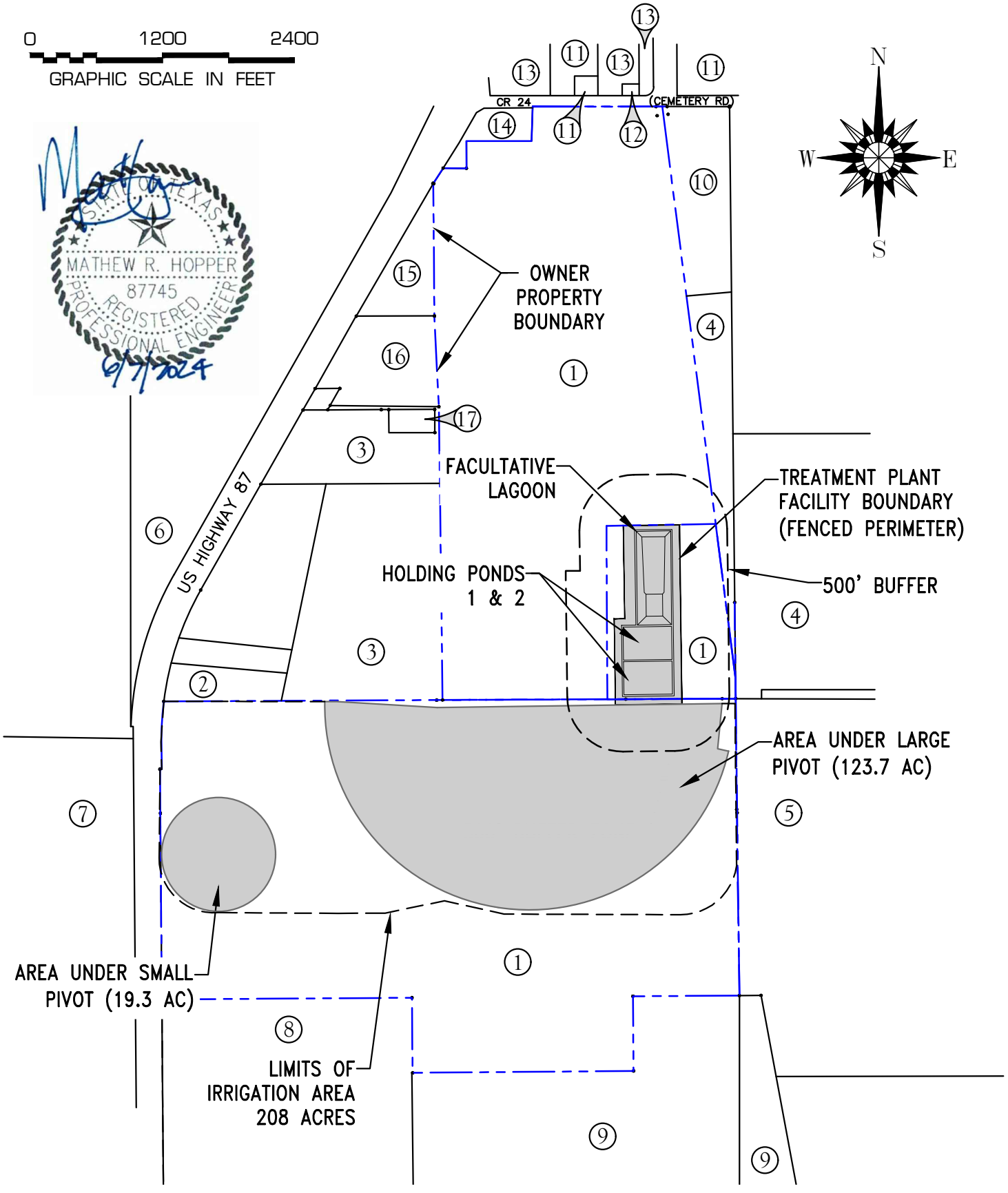
GLEN & MARCI GANDI
PO BOX 892
TAHOKA TX 79373

FAUSTINO & ROSA DE LEON
PO BOX 1593
TAHOKA TX 79373

TERRI ANDERSON
1925 CR 280
FLOYDADA TX 79235

RAYMOND & JANET LARA
PO BOX 463
TAHOKA TX 79373

DOYLE WILLIS
PO BOX 333
TAHOKA TX 79373




June 2024

Sheet: 1 of 1

Permit Application for Wastewater Treatment
FOR
City of Tahoka, Texas

LANDOWNERS MAP

Texas Registered Engineering Firm No. 15119

CIVIL360

8553 N Beach Street
Suite 186
Keller, Texas 76244
(214) 773-2966

# APPLICATION FOR A DOMESTIC WASTEWATER PERMIT

## CITY OF TAHOKA

**May 2024**

**City of Tahoka, Texas**
**Permit No. WQ0010298002**

PO Box 300
Tahoka, TX 79373
(806) 561-4211
Lynn County

Prepared By:

8553 N Beach Street, Suite 186
Keller, Texas 76244 (214) 773-2966
Texas Registered Engineering Firm # 15119

May 28, 2024

Texas Commission on Environmental Quality
**Abesha Michael MC-148**
Water Quality Division
Applications Review and Processing Team
P.O. Box 13087
Austin, TX 78711-3087

**Re: City of Tahoka, Texas (CN601097934)**
**Permit No. WQ 0010298003 (RN103138079)**
**Proposed WWTP Permit Renewal Application**
**Administrative & Technical Notice of Deficiency 1**

Dear Ms. Michael,

Civil 360 is responding to your correspondence dated April 10, 2024 for items deficient for a complete permit application. The items you requested primarily relate to a 'New' application for permit, however, this treatment facility has been in operation since 2002, and has been previously permitted until March 1, 2024. Unfortunately, the city allowed the facility's permit to expire. Several exceptions have been requested to address the various requirements of the permittee, and we appreciate your consideration in each instance.

Reproduced below are your original comments/questions/requests, and this office's response immediately follows in italics.

1. Section 1, on page 2 of the administrative report. Thank you for providing the payment information for the application fee. However, the existing permit has expired, and because of this, we must issue a new permit. The application fee for the new/proposed permit is $1.250.00. Please submit the remaining $35.00 to: TCEQ, Revenue Section (MC 214), P.O. Box 13088, Austin, Texas 78711-3088. Also, email a copy of the check or any form of proof of payment along with the response.

   *An additional check to supplement the original $1,250.00 already transmitted for the first 'renewal' attempt has been sent to the appropriate Revenue Section of TCEQ. Page 2 of the Administrative Report has been revised accordingly.*

2. Section 3, Item C on Page 4 of the Administrative Report: We couldn't locate the Core Data Form (CDF) in the application. The CDF is required. All items on the form must be completed to ensure that we have the most updated information. Please complete and submit a signed CDF.

   *An updated Core Data Form has been prepared and can be found in Attachment 1.0*

3. Section 2, application type on page 2 of the application. Since the existing permit has expired, we must issue a new permit and the whole application has to be for a proposed/new

permit application. Please follow the instructions pages to complete a proposed permit application and submit the missing pages to complete a new permit a*pplication.*

*Please find a fully revised/modified Administrative Report and Technical Report, with applicable sections for a 'New' application enclosed with this letter.*

4. Section 8, item F, Public Involvement Plan Form (PIP), on page 8 of the administrative report: Please complete this form which is a requirement for new and major amendment applications.

   *A Public Involvement Plan Form is included with the updated permit application, however, due to the existing treatment facility and effluent disposal infrastructure, public opposition will be limited or non-existent.*

5. Section 15. Plain Language Summary (PLS) on pages 14 and 15. Please complete the English and Spanish language PLS.

   *Pages 14 and 15 regarding the PLS have been completed and translated to Spanish.*

6. Section 8, item F, Public Involvement Plan Form (PIP), on page 8 of the administrative report: Please complete this form which is a requirement for new applications.

   *See reply from #4 above.*

7. Sections 1, 2, and 3. Affected Landowner Information, items A-E on page 16 of the administrative report: These sections have to be completed for a new/proposed permit application. Please follow the instructions page to complete this section.

   *An affected Landowner's Map and list of corresponding landowner information has been created to comply with Sections 1, 2 and 3 of the Administrative Report.*

8. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

   APPLICATION. City of Tahoka, (Mailing address - pending Core Data Form), has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Land Application Permit (TLAP) No. WQ0010298003 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 360,000 gallons per day via surface application on ~~209~~ 143 acres of land. The domestic wastewater facility and disposal area are located Approximately 1 mile southeast of the intersection of County Road 24 and Highway 87, near the city of Tahoka, in Lynn County, Texas 79373. Authorization for disposal was previously permitted by expired Permit No. WQ0010298002. TCEQ received this application on March 25, 2024. The permit application will be available for viewing and copying at Tahoka City Hall, Office of the City Secretary, 1807 N. Main Street,

Tahoka, in Lynn County, Texas prior to the date this notice is published in the newspaper. 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=-101.7924,33.13845&level=18
Further information may also be obtained from City of Tahoka at the address stated above or by calling Mr. Derek Stephens, City Administrator, at (806) 561-4211.

*The above NORI text is accurate with the exception of the acreage of irrigation land available. The revision is made above with a highlight and strikeout notation*.

This correspondence also addresses NOD comments prepared by Ms. Julie Rueckheim in a separate email. Those comments included the following,

GEOLOGY

1. Domestic Worksheet 3.0, Section 3. Storage and Evaporation Lagoons/Ponds: Please provide information for the facultative lagoon in the Table 3.0(2).

   *This requested information has been added to Table 3.0.*

2. Worksheet 3.0, Section 7: The Groundwater Quality Technical Report must assess the impact of the wastewater disposal system on the uses of local groundwater resources. In the Groundwater Quality Report found in Attachment G, please provide information on the wastewater pond liners and applying effluent at agronomic rates. An example Groundwater Quality Report can be provided upon request.

   *The original groundwater quality report has been amended to further elaborate on the groundwater well information discovered in the driller's logs and additional discussion of the liner system for the pond system.*

3. Worksheet 3.1 was not identified in the application materials. Please provide a complete and accurate Worksheet 3.1.

   *Worksheet 3.1 has been completed as requested.*

SOILS & AGRONOMY

4. Domestic Worksheet 3.0 - Section 2 - Land Application Site: The submitted information shows only a warm season crop utilized. According to the permit and revisions made in May 29, 2014 (page 32, Special Provision 15), the site is required to grow a cool season crop if effluent will be land applied during the cool season months. Please include the specified cool season crops, such as, Wheat, Ryegrass, and Winter Ryegrass in the Agronomic Management Plan (Section 5) and resubmit the revised permit application pages.

*The original cropping plan has been modified significantly to address each item in Section 2 of Domestic Worksheet 3.0. A cool-season grass has been added, and a more detailed explanation of the livestock grazing events for the crops has been included.*

5. Domestic Worksheet 3.1, Section A. Irrigation – See 30 TAC § 309.20, Please provide a current water balance with the data sources (e.g. source of evapotranspiration data, CN, EC values, etc..). Follow instructions from form TCEQ-10053 (ins).

   *A water balance has been prepared as required. Since the cool-season grasses are only proposed to be cultivated between November and February, the water balance does take their evapotranspiration rates into account.*

   *One item of note - the lab results of 2/22/2024 for TKN in the effluent demonstrated a result of 128mg/l, however, Nitrate Nitrogen was 'not detected'. This was unusual, as both constituents should have measured a level of nitrogen with the TKN having a slightly higher concentration over Nitrate-Nitrogen. This is the trend typically seen in these water samples. Therefore, due to the inconsistency and unusually high level of TKN, the tested value from the single grab sample was disregarded, and a concentration of 20mg/l was used to estimate the nitrogen content in the effluent within the water balance.*

Since this application is for an existing treatment facility, this office is requesting an exception to the following items within the Administrative Report of the application.

A. Administrative Report 1.0, Section 13, in lieu of an original, full-size USGS quadrangle map, this office is submitting location maps and other material using only a portion of a digitally sourced USGS quadrangle map.

B. Administrative Report 1.1, Section 2, this office is including only a few aerial photographs of the facility and effluent irrigation area flown by drone for reference.

C. Administrative Report 1.1, Section 3, Buffer Zone Map; this exhibit displays compliance of the buffer zone requirement via ownership, with the exception of the east line. In the original permit, a 300-foot easement that once belonged to the BN&S.F. Railroad bordered the east side of the property, however, since that time, the easement has been relinquished to adjoining landowners, and the exhibit now appears to show non-compliance with ownership on this east side by extending into the adjoining landowner by 98'. This cannot be avoided and is a circumstance of the previous easement abandonment, and not a design error or omission.

The following items are being addressed in the Technical Report of the application as well.

D. Domestic Technical Report 1.1, Section 1, Justification for Permit; this permit application has not been provided with information related to correspondence from the city (and related cost analysis), utility CCN areas, or nearby wastewater treatment facilities since this is an existing facility.

E. Domestic Technical Report 1.1, Section 2, Proposed Organic Loading; since the previous permit did not require repeated influent BOD sampling, the operator was only able to take one (1) grab sample to comply with this application requirement. It was taken on May 15, 2024 so as to have some data to address this section of the application.

   In addition, the proposed organic loading was not broken out into individual sources in Table 1.1.

F. Domestic Technical Report 3.0, Section 2, Land Application Site; in the prior permit and water balance, 208 acres of area was designated for irrigation, utilizing two (2) center pivot systems, both of which were to be mobilized to other pivot risers in order to reach all 208 acres.

In order to remove these mobilization requirements, this office is proposing a reduction in area to 143 acres and relies on the two (2) pivot systems to remain in place. The current water balance with updated evaporation data successfully supports the reduced number of irrigation acreage with a required storage of 20.02 acre-ft, which is less than the provided 35.76 acre-ft.

G. Design Calculations, TAC §217.205(b)(3); where the remainder of the facultative lagoon (not the deepest end) must have a minimum depth of 8' cannot be met. The depths range from 6' to 9', and therefore request an exception to this design requirement.

H. According to TAC §217.203(d)(1)(B), Maximum Liner Permeability, this rule requires a 3.0 feet thick soil liner for depths > 8.0 feet. Since this existing plant has only a 2.0 feet thick liner for all ponds and facultative lagoon where the depth reaches 12', this office requests an exception to this requirement.

Pg 32 of the recently expired permit (see below) states that a 2-foot clay soil liner was required.

City of Tahoka — Permit No. WQ0010298002

10. Spray fixtures for the irrigation system shall be of such design that they cannot be operated by unauthorized personnel.

11. Permanent transmission lines shall be installed from the holding pond to each tract of land to be irrigated utilizing effluent from that pond.

12. Facilities for the retention of treated or untreated wastewater shall be adequately lined to control seepage. The following methods of pond lining are acceptable.

    a. In-situ clay soils or placed and compacted clay soils meeting the following requirements:

        1) More than 30% passing a No. 200 mesh sieve
        2) Liquid limit greater than 30%
        3) Plasticity index greater than 15
        4) A minimum thickness of 2 feet
        5) Permeability equal to or less than $1x10^{-7}$ cm/sec (*)
        6) Soil compaction will be 95% standard proctor at optimum moisture content (*)

        (*) For new and/or modified ponds only.

    b. Membrane lining with a minimum thickness of 20 mils and an underdrain leak detection system.

    c. An alternate method of pond lining may be utilized with prior approval from the Executive Director.

Record Drawings, signed and sealed by the original engineer responsible for the treatment plant are also included with this application. The drawings verify that a 2-foot thick liner was constructed with the plant.

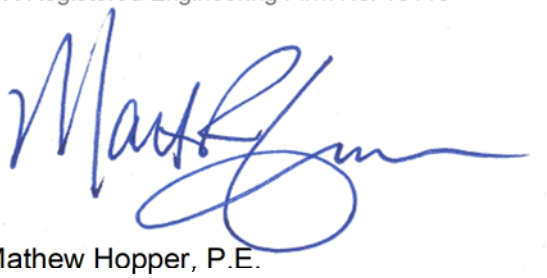
In addition, this office only has in its possession a draft letter from the original Engineer dated April 17, 2002, certifying completion of the plant on March 29, 2002 and notifying the TNRCC of the official startup. A signed/sealed certification has not been located. This office requests an exception to this current application requirement and would like to avoid field testing to prove the effectiveness of the soil liner.

Please contact this office if you require any additional information or clarification of the application content

.

Sincerely,

**Civil 360, PLLC**
TX Registered Engineering Firm No. 15119



Mathew Hopper, P.E.
mhopper@civil-360.net

SET NUMBER

CITY OF TAHOKA, TEXAS

# WASTEWATER TREATMENT PLANT IMPROVEMENTS

## SRF CONTRACT No. 3689-01

CONTRACTOR: RICE CONSTRUTION COMPANY, INC.
COMPLETION DATE: SEPTEMBER 2002

OEI Project #2034.97

OLLER ENGINEERING, INC.

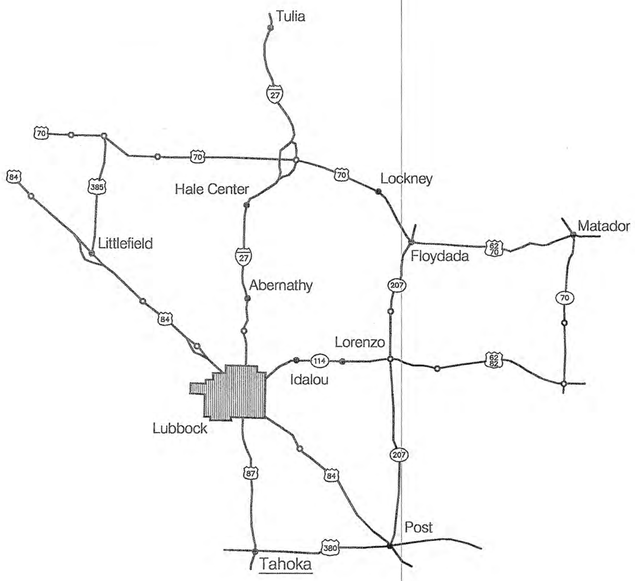
WASTEWATER TREATMENT PLANT
IMPROVEMENTS

CITY OF TAHOKA, TEXAS

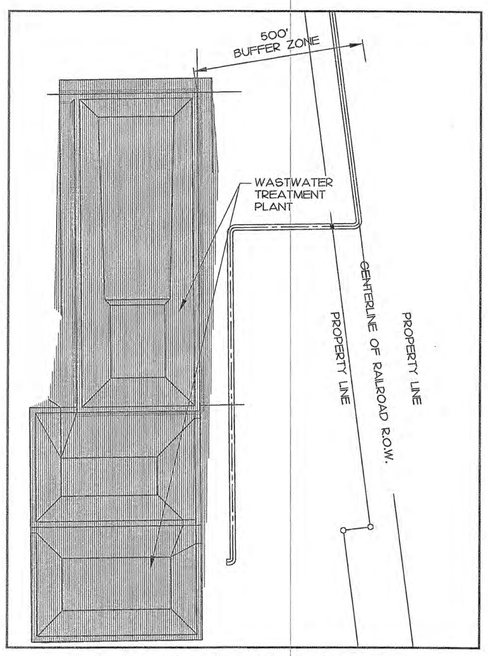
RECORD DRAWING

SHEET INDEX

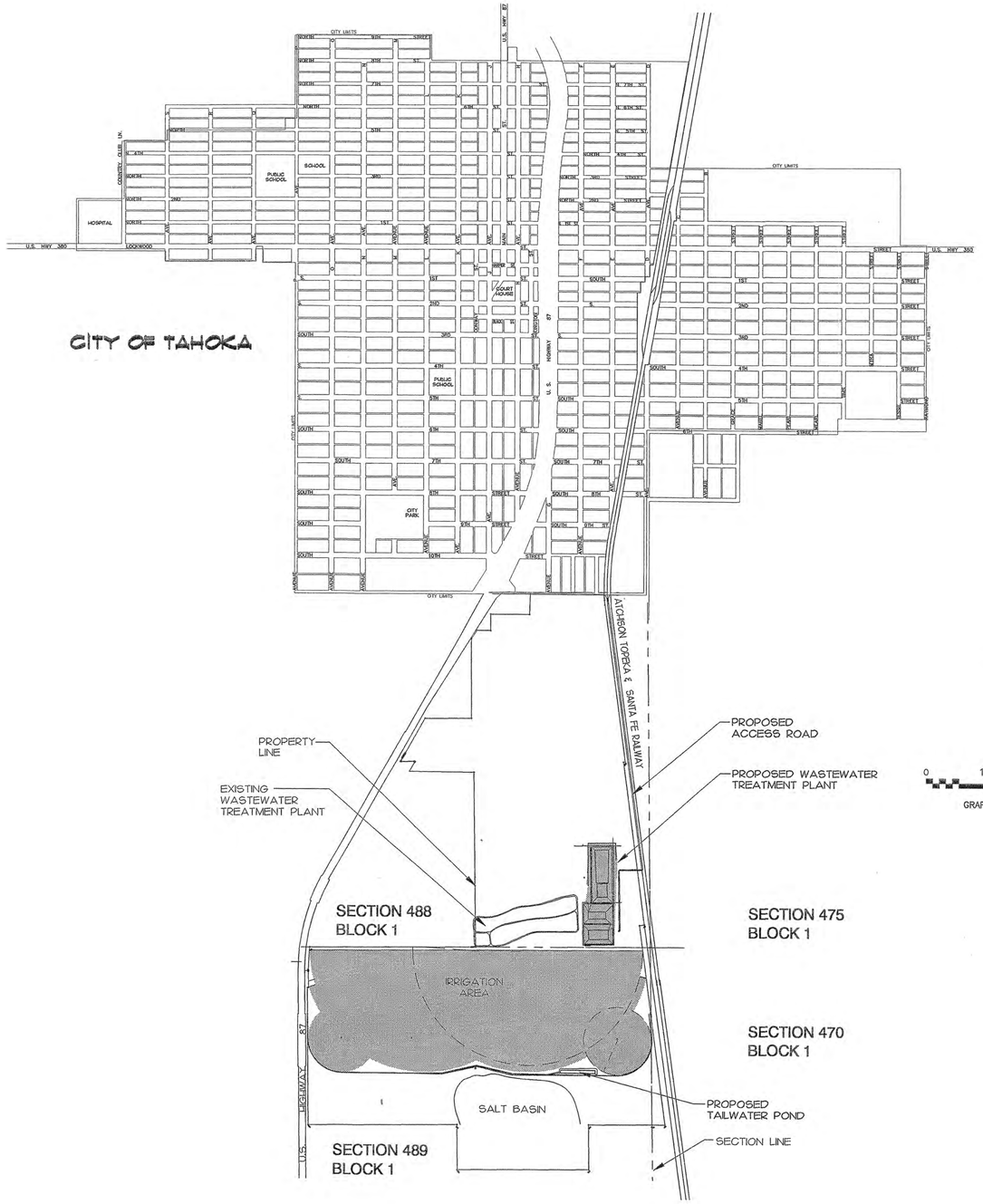

| SHEET No. | TITLE SHEET |
|---|---|
| | |
| | COVER SHEET |
| 1 | GENERAL LOCATION MAP + VICINITY MAP |
| 2 | NEW 12" SEWER LINE TO WWTP - PLAN + PROFILE |
| 3 | PLANT POND GRADING + PIPING PLAN |
| 4 | POND SECTIONS + DETAILS |
| 5 | ENTRANCE STRUCTURE |
| 6 | TRANSFER STRUCTURE #1 - FACULTATIVE LAGOON |
| 7 | TRANSFER STRUCTURE #2 - HOLDING POND #1 |
| 8 | IRRIGATION STRUCTURE |
| 9 | IRRIGATION LAYOUT PLAN |
| 10 | NETTING FENCE LAYOUT + DETAILS |
| 11 | OPERATIONS STATION BUILDING |
| 12 | FENCING LAYOUT PLAN + DETAILS - WWTP |
| 13 | FENCING LAYOUT PLAN + DETAILS - IRRIGATION AREA |
| 14 | ELECTRICAL LAYOUT PLAN + DETAILS |
| 15 | TAILWATER POND |
| 16 | TAILWATER STRUCTURE |
| 17 | MISC. SEWER DETAILS |




## VICINITY MAP
NOT TO SCALE




## 500' BUFFER ZONE
NOT TO SCALE




## GENERAL LOCATION MAP
SCALE: 1" = 1000'

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT :
CITY OF TAHOKA, TEXAS

OEI PROJECT :
WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS
RICH OLLER
61831
REGISTERED PROFESSIONAL ENGINEER
1/27/04
Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-01.DWG | Drawn by : | J.T.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

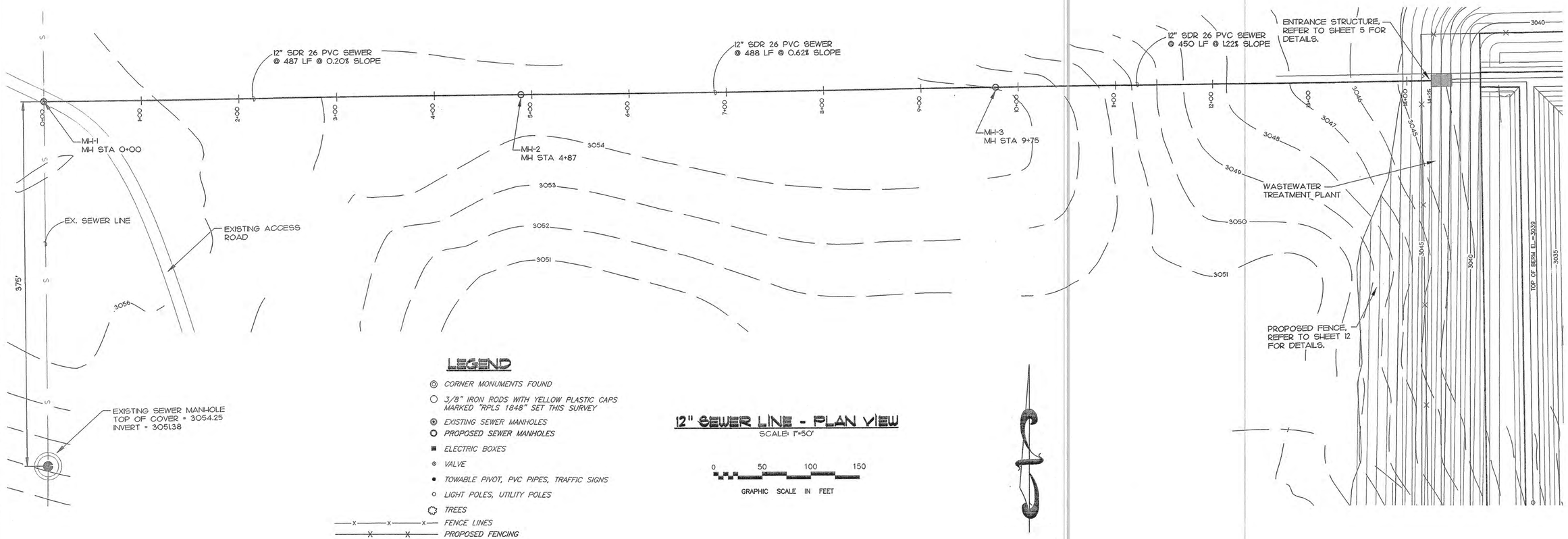
Notes

SHEET TITLE :

# GENERAL LOCATION & VICINITY MAP

SHEET 1

OF 17 SHEETS




## LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES

## 12" SEWER LINE - PLAN VIEW

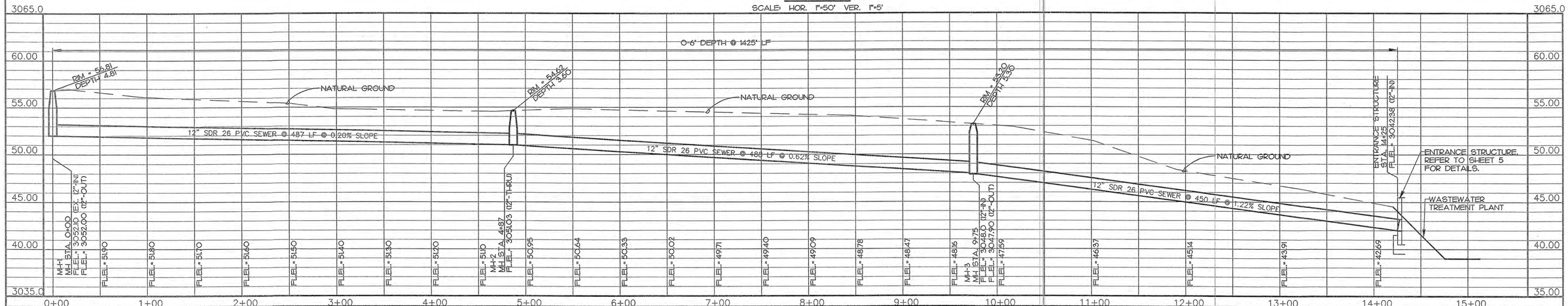
SCALE: 1"=50'

0 50 100 150

GRAPHIC SCALE IN FEET

## PROFILE

SCALE: HOR. 1"=50' VER. 1"=5'




OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/02 Date

| Date | Revision | Notes |
|---|---|---|
| | | |

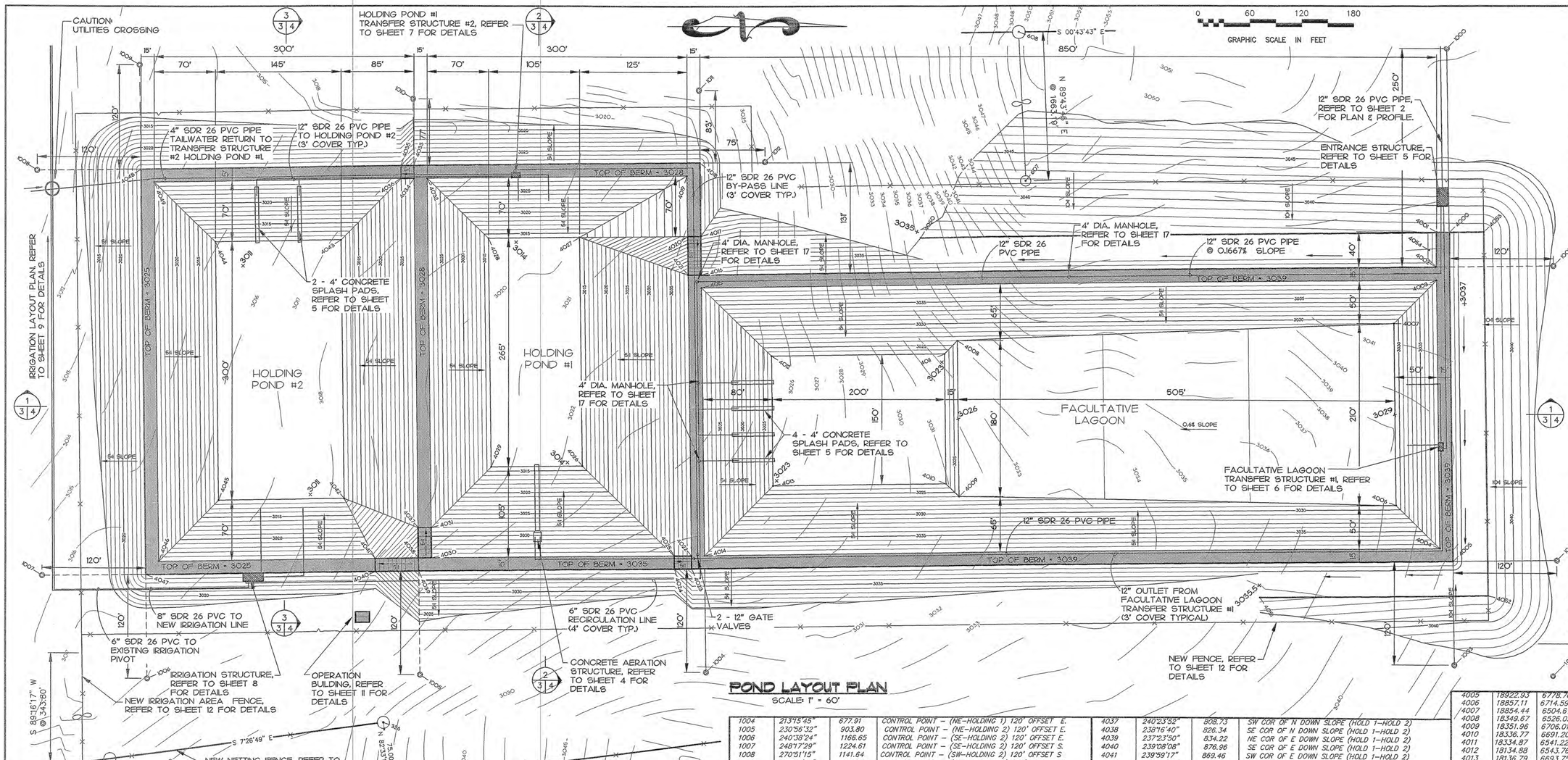
| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-02.DWG | Drawn by : | J.I.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

SHEET TITLE :

RECORD DRAWING

# NEW 12" SEWER LINE TO WWTP
# PLAN & PROFILE

SHEET 2 OF 17 SHEETS




## ESTIMATED EARTH VOLUME QUANTITIES

*Original Surface Model:* MERGE_EXISTING
*Final Surface Model:* POND1

| | |
|---|---|
| *CUT: Raw cut volumes include the volume from existing grade to finish grade (includes 6" top soil).* | 104,500.00 cu yds. |
| *RAW Fill Volume* | 76,000.00 cu yds. |
| *25% Compaction on Fill* | + 19,000.00 cu yds. |
| *FILL: Raw fill volumes include the volume from existing grade to finish grade (includes 6" top soil).* | 95,000.00 cu yds. |
| *CUT – Compacted FILL (104,500 – 95,000)* | 9,500.00 cu yds. |
| *CLAY LINER: Volume of liner (2' below finish grade extended to maximum water level).* | 31,500.00 cu yds. |
| *Assume 30% compaction for clay liner (32,000 x .30)* | 9,450.00 cu yds. |
| *CUT – FILL Excess to be used for 30% compaction of clay liner.* | 9,500.00 cu yds. – 9,450.00 cu yds. |
| | 50.00 cu yds. |

## LEGEND

- *CORNER MONUMENTS FOUND*
- *3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY*
- *EXISTING SEWER MANHOLES*
- *PROPOSED SEWER MANHOLES*
- *ELECTRIC BOXES*
- *VALVE*
- *TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS*
- *LIGHT POLES, UTILITY POLES*
- *TREES*
- *FENCE LINES*
- *PROPOSED FENCING*
- *EXISTING CONTOURS*
- *PROPOSED CONTOURS*
- *OVERHEAD UTILITY LINES*
- *SECTION LINES*
- *BLOCK LINES*
- *UNDERGROUND SEWER MAIN LINES*
- *CONTROL POINT*
- *NODE POINTS*

## POND LAYOUT PLAN

SCALE: 1" = 60'

## PLANT NODE STAKEOUT

*Occupied Point:* Node # 326, Northing-(y) 17713.91, Easting-(x) 7184.28, Elevation-(z) -999999.00
*Backsight:* 325, 17723.63, 7258.64, 0.00
*BS Direction:* N 82°33'11" E

| Node # | Angle | Distance | Description |
|---|---|---|---|
| 1004 | 238°59'11" | 441.38 | CONTROL POINT – (NE–HOLDING 1) 120' OFFSET E. |
| 1005 | 190°45'31" | 270.78 | CONTROL POINT – (NE–HOLDING 2) 120' OFFSET E. |
| 1006 | 139°06'27" | 400.66 | CONTROL POINT – (SE–HOLDING 2) 120' OFFSET E. |
| 1007 | 139°53'03" | 570.24 | CONTROL POINT – (SE–HOLDING 2) 120' OFFSET S. |
| 1008 | 160°54'41" | 955.40 | CONTROL POINT – (SW–HOLDING 2) 120' OFFSET S. |
| 1009 | 169°55'04" | 1023.81 | CONTROL POINT – (SW–HOLDING 2) 120' OFFSET W. |
| 1010 | 187°53'04" | 937.30 | CONTROL POINT – (SW–HOLDING 1) 77' OFFSET W. |
| 1011 | 207°01'46" | 1005.64 | CONTROL POINT – (NW–HOLDING 1) 85' OFFSET W. |
| 1012 | 212°57'50" | 958.97 | CONTROL POINT – (NW–HOLDING 1) 75' OFFSET N. |
| 4014 | 227°28'10" | 534.76 | SE COR OF FAC LAGOON |
| 4015 | 212°44'15" | 795.76 | SW COR OF FAC LAGOON |
| 4016 | 212°16'18" | 809.27 | NE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4017 | 210°57'47" | 850.09 | NW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4018 | 208°48'29" | 928.25 | NW COR OF POND (HOLD 1) |
| 4019 | 208°17'15" | 908.75 | NW COR OF HOLD 1 |
| 4020 | 210°02'05" | 844.04 | SW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4021 | 211°18'23" | 802.90 | SE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4022 | 226°13'46" | 525.09 | NE COR OF HOLD 1 |
| 4023 | 227°17'58" | 513.61 | NW COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4024 | 225°33'21" | 500.83 | SE COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4025 | 224°30'16" | 512.60 | SW COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4026 | 209°00'20" | 551.30 | BOTTOM – NE COR OF HOLD 1 |
| 4027 | 201°48'50" | 802.81 | BOTTOM – NW COR OF HOLD 1 |
| 4028 | 194°21'57" | 782.07 | BOTTOM – SW COR OF HOLD 1 |
| 4029 | 198°15'00" | 520.62 | BOTTOM – SE COR OF HOLD 1 |
| 4030 | 191°31'36" | 406.54 | SE COR OF HOLD 1 |
| 4031 | 191°08'45" | 441.43 | NW COR OF N DOWN SLOPE (HOLD1–HOLD 2) |
| 4032 | 189°01'39" | 845.80 | NW COR OF HOLD1 |
| 4033 | 187°59'20" | 860.32 | NW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4034 | 188°00'41" | 845.33 | NE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4035 | 186°59'24" | 860.12 | SW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4036 | 186°59'41" | 845.12 | SE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4037 | 189°12'02" | 440.52 | SW COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4038 | 189°24'53" | 405.56 | SE COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4039 | 189°31'05" | 390.58 | NE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4040 | 182°11'11" | 391.33 | SE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4041 | 182°21'12" | 406.29 | SW COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4042 | 178°49'08" | 479.66 | BOTTOM – NE COR OF HOLD 2 |
| 4043 | 181°51'25" | 777.91 | BOTTOM – NW COR OF HOLD 2 |
| 4044 | 171°29'44" | 803.30 | BOTTOM – SW COR OF HOLD 2 |
| 4045 | 162°46'47" | 519.82 | BOTTOM – SE COR OF HOLD 2 |
| 4046 | 151°58'45" | 492.98 | SE COR OF HOLD 2 |
| 4047 | 149°32'09" | 489.65 | SE COR OF PONDS |
| 4048 | 167°43'57" | 909.59 | SW COR OF PONDS |
| 4049 | 168°19'52" | 890.58 | SW COR OF HOLD 2 |
| 4050 | 224°26'50" | 985.72 | WEST DRAINAGE (END) |
| 4051 | 257°15'18" | 1050.75 | EAST DRAINAGE (END) |
| 4052 | 261°07'11" | 1302.03 | EAST DRAINAGE (NE) |
| 4053 | 245°09'53" | 1471.66 | EAST DRAINAGE (NW) |
| 4054 | 243°48'10" | 1417.21 | WEST DRAINAGE (BEGIN) |

## PLANT NODE STAKEOUT

*Occupied Point:* Node # 607, Northing-(y) 18428.67, Easting-(x) 6341.15, Elevation-(z) -999999.00
*Backsight:* 608, 18420.81, 4677.98, 0.00
*BS Direction:* S89°43'46"W

| Node # | Angle Right | Distance | Description |
|---|---|---|---|
| 1000 | 72°53'30" | 510.05 | CONTROL POINT – (NW) 250' OFFSET W. |
| 1001 | 99°13'30" | 617.46 | CONTROL POINT – (NW) 120' OFFSET N. |
| 1002 | 125°38'34" | 753.31 | CONTROL POINT – (NE) 120' OFFSET N. |
| 1003 | 138°37'42" | 746.14 | CONTROL POINT – (NE) 120' OFFSET E. |
| 1004 | 213°15'45" | 677.91 | CONTROL POINT – (NE–HOLDING 1) 120' OFFSET E. |
| 1005 | 230°56'32" | 903.80 | CONTROL POINT – (NE–HOLDING 2) 120' OFFSET E. |
| 1006 | 240°38'24" | 1166.65 | CONTROL POINT – (SE–HOLDING 2) 120' OFFSET E. |
| 1007 | 248°17'29" | 1224.61 | CONTROL POINT – (SE–HOLDING 2) 120' OFFSET S. |
| 1008 | 270°51'15" | 1141.64 | CONTROL POINT – (SW–HOLDING 2) 120' OFFSET S. |
| 1009 | 277°41'07" | 1031.74 | CONTROL POINT – (SW–HOLDING 2) 120' OFFSET W. |
| 1010 | 277°51'00" | 713.83 | CONTROL POINT – (SW–HOLDING 1) 77' OFFSET W. |
| 1011 | 285°42'54" | 391.85 | CONTROL POINT – (NW–HOLDING 1) 85' OFFSET W. |
| 1012 | 274°30'02" | 302.47 | CONTROL POINT – (NW–HOLDING 1) 75' OFFSET N. |
| 4000 | 96°56'36" | 493.41 | NW COR OF EXTENDED BERM |
| 4001 | 97°08'47" | 478.51 | SW COR OF EXTENDED BERM |
| 4002 | 101°54'33" | 484.91 | NW COR OF PONDS |
| 4003 | 103°37'42" | 488.35 | NW COR OF FAC LAGOON |
| 4004 | 131°42'00" | 638.96 | NE COR OF FAC LAGOON |
| 4005 | 131°47'28" | 660.15 | NE COR OF POND |
| 4006 | 131°29'47" | 568.35 | BOTTOM – NE COR OF FAC LAGOON |
| 4007 | 111°16'21" | 456.07 | BOTTOM – NW COR OF FAC LAGOON |
| 4008 | 203°24'24" | 201.04 | BOTTOM – SW COR OF FAC LAG – N |
| 4009 | 192°08'35" | 372.84 | BOTTOM – SE COR OF FAC LAG – N |
| 4010 | 194°58'47" | 361.91 | BOTTOM – NE COR OF FAC LAG – S |
| 4011 | 205°23'25" | 220.96 | BOTTOM – NW COR OF FAC LAG – S POND |
| 4012 | 235°40'43" | 356.88 | BOTTOM – SW COR OF FAC LAG – S POND |
| 4013 | 219°53'18" | 457.73 | BOTTOM – SE COR OF FAC LAG – S POND |
| 4014 | 220°48'37" | 570.57 | SE COR OF FAC LAGOON |
| 4015 | 252°00'53" | 394.66 | SW COR OF FAC LAGOON |
| 4016 | 254°06'52" | 390.41 | NE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4017 | 260°39'12" | 380.91 | NW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4018 | 273°30'57" | 377.25 | NW COR OF POND (HOLD 1) |
| 4019 | 271°10'23" | 391.50 | NW COR OF HOLD 1 |
| 4020 | 260°59'20" | 395.74 | SW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4021 | 254°40'36" | 404.89 | SE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4022 | 221°55'23" | 580.57 | NE COR OF HOLD 1 |
| 4023 | 220°56'39" | 591.74 | NE COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4024 | 222°21'52" | 605.15 | SE COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4025 | 223°20'51" | 594.24 | SW COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4026 | 237°26'43" | 609.50 | BOTTOM – NE COR OF HOLD 1 |
| 4027 | 263°02'20" | 519.68 | BOTTOM – NW COR OF HOLD 1 |
| 4028 | 264°07'51" | 624.12 | BOTTOM – SW COR OF HOLD 1 |
| 4029 | 242°30'45" | 700.67 | BOTTOM – SE COR OF HOLD 1 |
| 4030 | 237°43'46" | 813.55 | SE COR OF HOLD 1 |
| 4031 | 239°52'18" | 795.66 | NW COR OF N DOWN SLOPE (HOLD1–HOLD 2) |
| 4032 | 270°27'56" | 691.43 | NW COR OF HOLD1 |
| 4033 | 271°39'42" | 706.82 | NW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4034 | 270°26'45" | 706.43 | NE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4035 | 271°37'04" | 721.81 | SW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4036 | 270°25'37" | 721.42 | SE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4037 | 240°23'52" | 808.73 | SW COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4038 | 238°16'40" | 826.34 | SE COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4039 | 237°23'50" | 834.22 | NE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4040 | 239°08'08" | 876.96 | SE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4041 | 239°59'17" | 869.46 | SW COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4042 | 245°08'55" | 868.90 | BOTTOM – NE COR OF HOLD 2 |
| 4043 | 265°17'18" | 793.52 | BOTTOM – NW COR OF HOLD 2 |
| 4044 | 265°56'43" | 938.19 | BOTTOM – SW COR OF HOLD 2 |
| 4045 | 248°34'21" | 1002.75 | BOTTOM – SE COR OF HOLD 2 |
| 4046 | 246°27'38" | 1093.91 | SE COR OF HOLD 2 |
| 4047 | 246°03'11" | 1113.62 | SE COR OF PONDS |
| 4048 | 271°00'30" | 1021.67 | SW COR OF PONDS |
| 4049 | 270°10'35" | 1006.40 | SW COR OF HOLD 2 |
| 4050 | 245°34'13" | 133.77 | WEST DRAINAGE (END) |
| 4051 | 150°48'25" | 551.81 | EAST DRAINAGE (END) |
| 4052 | 132°00'30" | 716.66 | EAST DRAINAGE (NE) |
| 4053 | 96°25'45" | 532.50 | EAST DRAINAGE (NW) |
| 4054 | 97°22'23" | 468.66 | WEST DRAINAGE (BEGIN) |

## PLANT NODE COORDINATES

| Node # | Northing | Easting | Description |
|---|---|---|---|
| 325 | 17723.63 | 7258.64 | PROPERTY CORNER |
| 326 | 17713.91 | 7184.28 | PROPERTY CORNER |
| 607 | 18428.67 | 6341.15 | PROPERTY CORNER |
| 608 | 18420.81 | 4677.98 | PROPERTY CORNER |
| 1000 | 18915.43 | 6188.81 | CONTROL POINT – (NW) 250' OFFSET W. |
| 1001 | 19038.60 | 6437.26 | CONTROL POINT – (NW) 120' OFFSET N. |
| 1002 | 19042.92 | 6777.23 | CONTROL POINT – (NE) 120' OFFSET N. |
| 1003 | 18924.46 | 6898.75 | CONTROL POINT – (NE) 120' OFFSET E. |
| 1004 | 18059.53 | 6909.75 | CONTROL POINT – (NE–HOLDING 1) 120' OFFS |
| 1005 | 17729.56 | 6913.94 | CONTROL POINT – (NE–HOLDING 2) 120' OFFS |
| 1006 | 17414.58 | 6917.95 | CONTROL POINT – (SE–HOLDING 2) 120' OFFS |
| 1007 | 17293.07 | 6799.49 | CONTROL POINT – (SE–HOLDING 2) 120' OFFS |
| 1008 | 17287.09 | 6329.52 | CONTROL POINT – (SW–HOLDING 2) 120' OFFS |
| 1009 | 17405.55 | 6208.01 | CONTROL POINT – (SW–HOLDING 2) 120' OFFS |
| 1010 | 17721.07 | 6247.00 | CONTROL POINT – (SW–HOLDING 1) 77' OFFSE |
| 1011 | 18050.97 | 6236.80 | CONTROL POINT – (NW–HOLDING 1) 85' OFFSE |
| 1012 | 18127.02 | 6318.84 | CONTROL POINT – (NW–HOLDING 1) 75' OFFSE |
| 4000 | 18918.74 | 6398.49 | NW COR OF EXTENDED BERM |
| 4001 | 18903.74 | 6398.44 | SW COR OF EXTENDED BERM |
| 4002 | 18903.61 | 6438.98 | NW COR OF PONDS |
| 4003 | 18903.80 | 6453.98 | NW COR OF FAC LAGOON |
| 4004 | 18907.74 | 6763.95 | NE COR OF FAC LAGOON |
| 4005 | 18922.93 | 6778.76 | NE COR OF POND |
| 4006 | 18857.11 | 6714.59 | BOTTOM – NE COR OF FAC LAGOON |
| 4007 | 18854.44 | 6504.61 | BOTTOM – NW COR OF FAC LAGOON |
| 4008 | 18349.67 | 6526.03 | BOTTOM – SW COR OF FAC LAG – N |
| 4009 | 18351.96 | 6706.01 | BOTTOM – SE COR OF FAC LAG – N |
| 4010 | 18336.77 | 6691.20 | BOTTOM – NE COR OF FAC LAG – S |
| 4011 | 18334.87 | 6541.22 | BOTTOM – NW COR OF FAC LAG – S POND |
| 4012 | 18134.88 | 6543.76 | BOTTOM – SW COR OF FAC LAG – S POND |
| 4013 | 18136.79 | 6693.75 | BOTTOM – SE COR OF FAC LAG – S POND |
| 4014 | 18057.81 | 6774.76 | SE COR OF FAC LAGOON |
| 4015 | 18053.67 | 6464.78 | SW COR OF FAC LAGOON |
| 4016 | 18053.68 | 6449.79 | NE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4017 | 18053.11 | 6404.79 | NW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4018 | 18052.03 | 6319.80 | NW COR OF POND (HOLD 1) |
| 4019 | 18037.22 | 6334.99 | NW COR OF HOLD 1 |
| 4020 | 18038.11 | 6404.98 | SW COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4021 | 18038.68 | 6449.99 | SE COR OF W DOWN SLOPE (FAC–HOLD 1) |
| 4022 | 18042.81 | 6774.35 | NE COR OF HOLD 1 |
| 4023 | 18043.00 | 6789.95 | NE COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4024 | 18023.01 | 6790.20 | SE COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4025 | 18022.82 | 6775.20 | SW COR OF E DOWN SLOPE (FAC–HOLD 1) |
| 4026 | 17916.49 | 6671.55 | BOTTOM – NE COR OF HOLD 1 |
| 4027 | 17913.12 | 6406.57 | BOTTOM – NW COR OF HOLD 1 |
| 4028 | 17808.13 | 6407.90 | BOTTOM – SW COR OF HOLD 1 |
| 4029 | 17811.50 | 6672.88 | BOTTOM – SE COR OF HOLD 1 |
| 4030 | 17742.84 | 6778.76 | SE COR OF HOLD 1 |
| 4031 | 17742.39 | 6743.77 | NW COR OF N DOWN SLOPE (HOLD1–HOLD 2) |
| 4032 | 17737.24 | 6338.80 | NW COR OF HOLD1 |
| 4033 | 17722.05 | 6323.99 | NW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4034 | 17722.24 | 6338.99 | NE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4035 | 17707.06 | 6324.18 | SW COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4036 | 17707.25 | 6339.18 | SE COR OF W DOWN SLOPE (HOLD 1–HOLD 2) |
| 4037 | 17727.39 | 6743.96 | SW COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4038 | 17727.84 | 6778.96 | SE COR OF N DOWN SLOPE (HOLD 1–HOLD 2) |
| 4039 | 17728.03 | 6793.96 | NE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4040 | 17678.03 | 6794.58 | SE COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4041 | 17677.84 | 6779.59 | SW COR OF E DOWN SLOPE (HOLD 1–HOLD 2) |
| 4042 | 17641.96 | 6710.04 | BOTTOM – NE COR OF HOLD 2 |
| 4043 | 17638.14 | 6410.07 | BOTTOM – NW COR OF HOLD 2 |
| 4044 | 17493.15 | 6411.91 | BOTTOM – SW COR OF HOLD 2 |
| 4045 | 17496.97 | 6711.89 | BOTTOM – SE COR OF HOLD 2 |
| 4046 | 17427.86 | 6782.77 | SE COR OF HOLD 2 |
| 4047 | 17413.06 | 6797.96 | SE COR OF PONDS |
| 4048 | 17407.08 | 6328.00 | SW COR OF PONDS |
| 4049 | 17422.27 | 6342.81 | SW COR OF HOLD 2 |
| 4050 | 18307.14 | 6397.05 | WEST DRAINAGE (END) |
| 4051 | 18700.09 | 6821.60 | EAST DRAINAGE (END) |
| 4052 | 18963.44 | 6818.25 | EAST DRAINAGE (NE) |
| 4053 | 18958.10 | 6398.26 | EAST DRAINAGE (NW) |
| 4054 | 18893.74 | 6399.10 | WEST DRAINAGE (BEGIN) |

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

RICH OLLER 61831 REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

OEI Project No. : 2034.97
OEI Drawing No. : 2034-03.DWG
Q.A. : R.M.O.
Checked by : R.S.
Plot: 1 = 1
Drawn by : J.I.R.
Scale : AS SHOWN
Date : AUGUST 2003

Notes

HORIZONTAL & VERTICAL BASES TAKEN FROM A SURVEY PREPARED BY HAGAR AND ASSOCIATES, PC LAND SURVEYORS, DATED AUGUST 1, 2000, PLAT # H3463.

CITY TO SET CONTROL POINTS 1000 THRU 1018 ONE TIME ONLY. CONTRACTOR'S RESPONSIBILITY TO MAINTAIN & PROTECT. ADDITIONAL & REPLACEMENT CONTROL POINTS WILL BE AT CONTRACTOR'S EXPENSE.

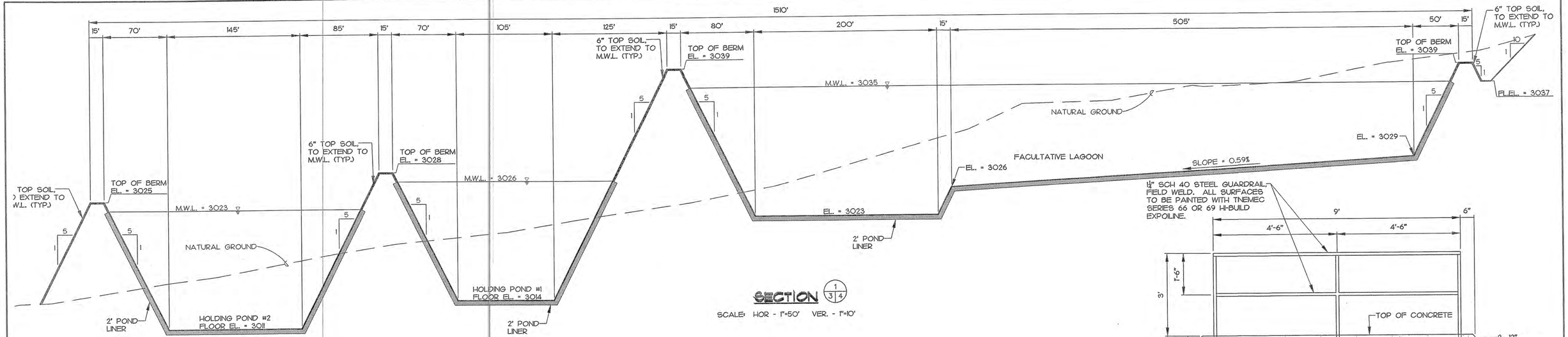
EARTH VOLUME QUANTITIES ARE ESTIMATED. ANY DISCREPANCY SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

SHEET TITLE :

RECORD DRAWING

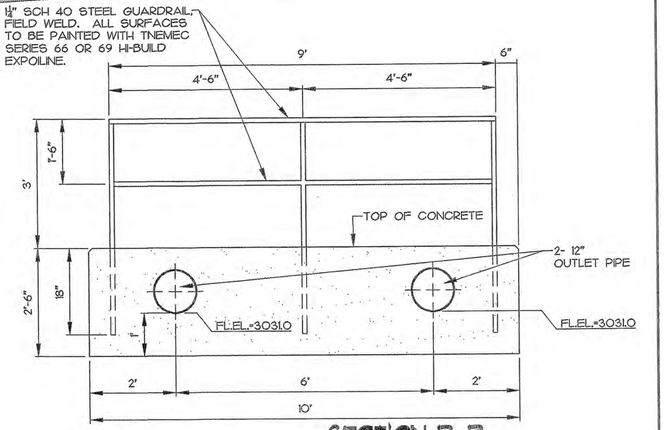
# PLANT POND GRADING & PIPING PLAN

SHEET 3 OF 17 SHEETS




SECTION 1/3|4

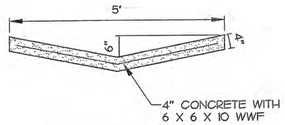
SCALE: HOR - 1"=50' VER. - 1"=10'




SECTION B-B

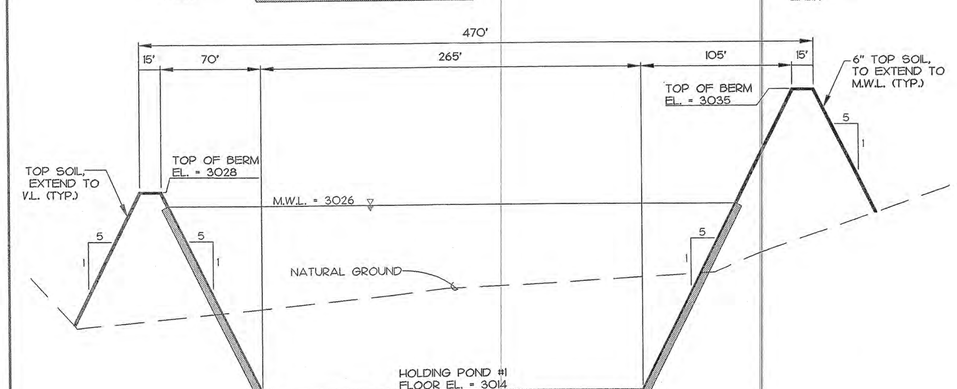
GUARD RAIL DETAIL

SCALE: 1"=2'



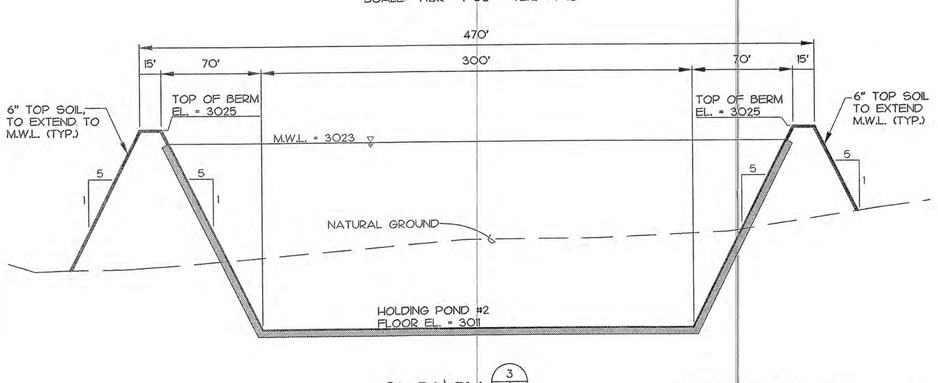

SECTION A-A

SCALE: 1"=2'



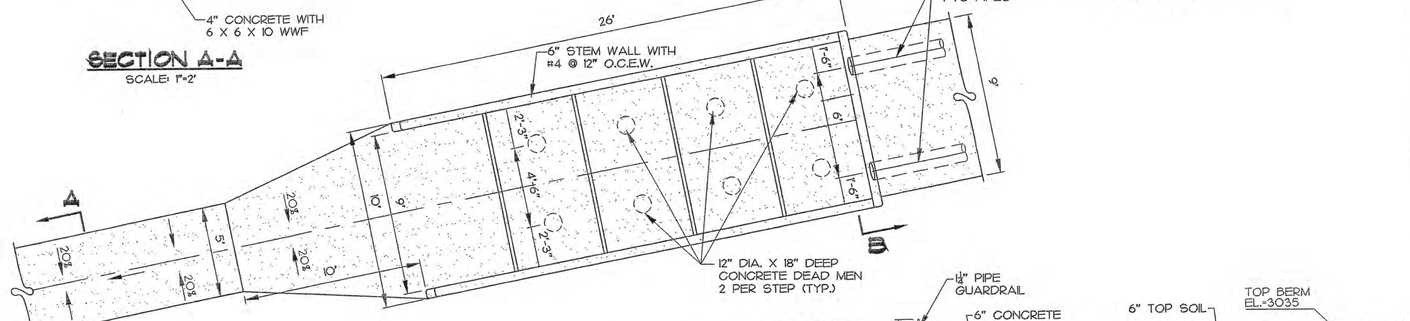

SECTION 2/3|4

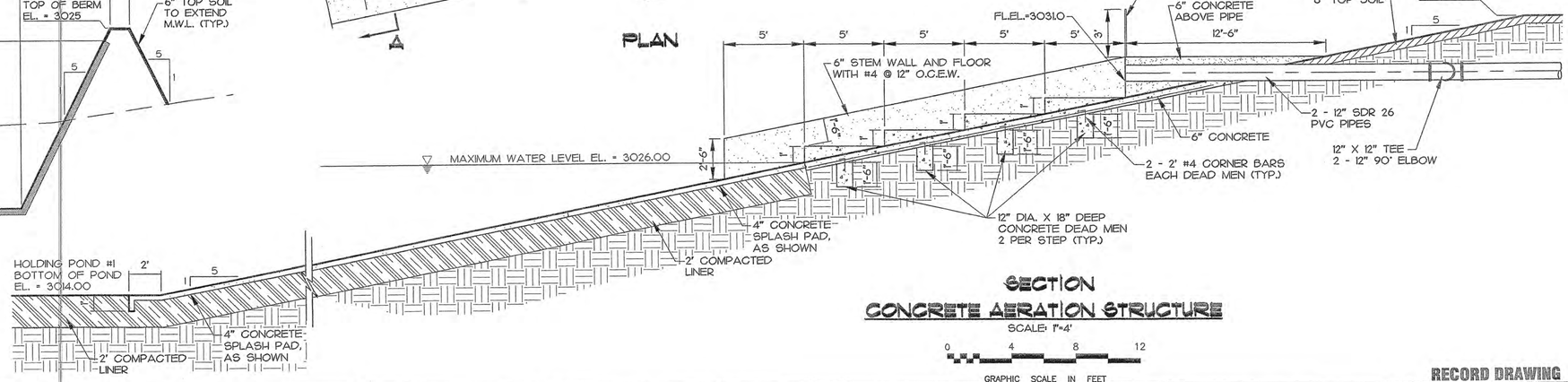
SCALE: HOR - 1"=50' VER. - 1"=10'




SECTION 3/3|4

SCALE: HOR - 1"=50' VER. - 1"=10'




SECTION

CONCRETE AERATION STRUCTURE

SCALE: 1"=4'

0 4 8 12

GRAPHIC SCALE IN FEET

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-04.DWG | Drawn by : | J.J.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

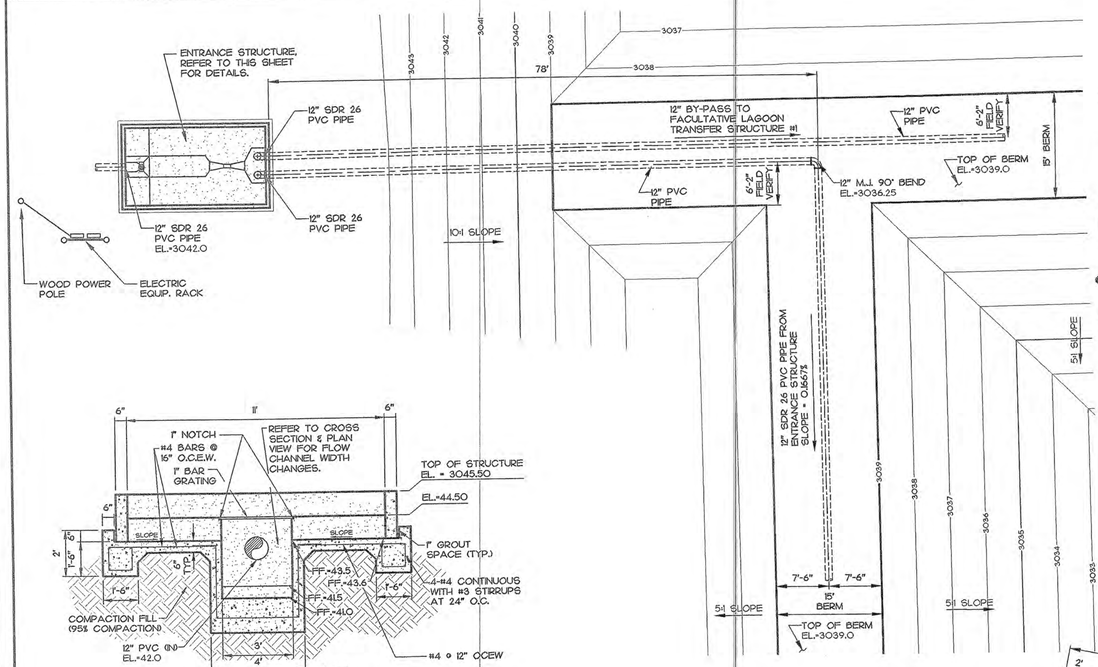
ALL REINFORCING STEEL TO BE GRADE 60. STEM WALL, FLOOR & STEPS MUST BE EITHER POURED MONOLITHIC OR WATERSTOPS MUST BE USED TO ENSURE A WATERTIGHT STRUCTURE. ALL EXPOSED CORNERS TO BE CHAMFERED. FINISH TO BE LIGHT BROOM. SPLASH PAD TO EXTEND 2 FEET ONTO THE POND FLOOR.

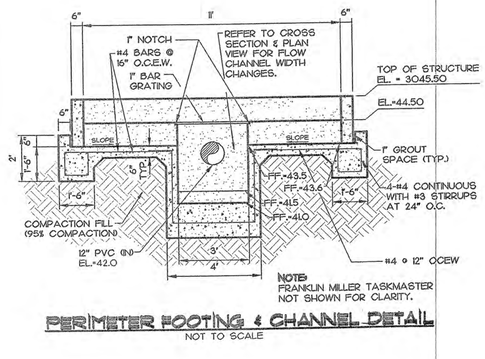
M.W.L. – MAXIMUM WATER LEVEL

SHEET TITLE :

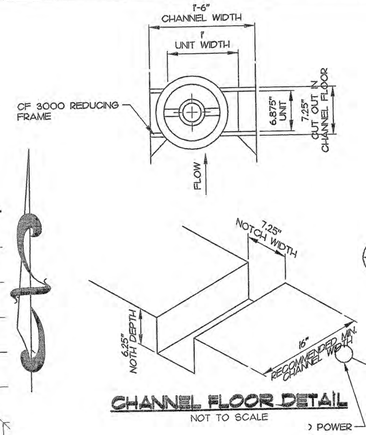
# POND SECTIONS & DETAILS

SHEET 4 OF 17 SHEETS

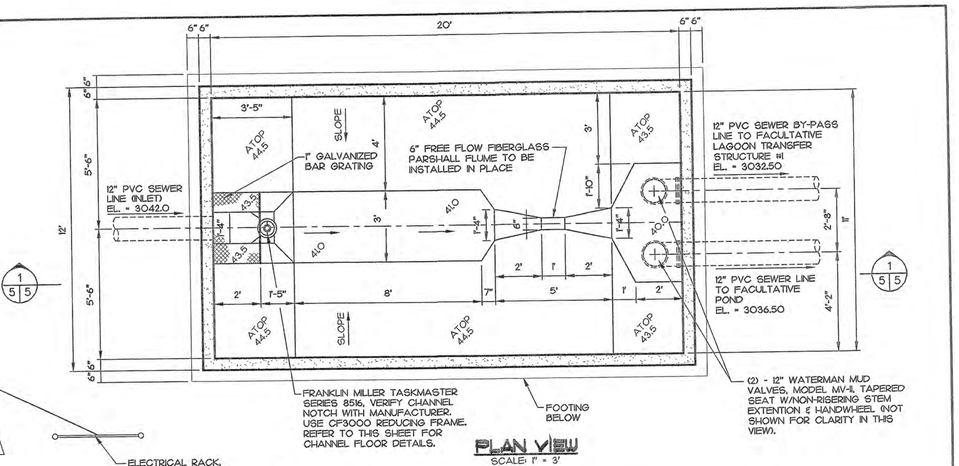


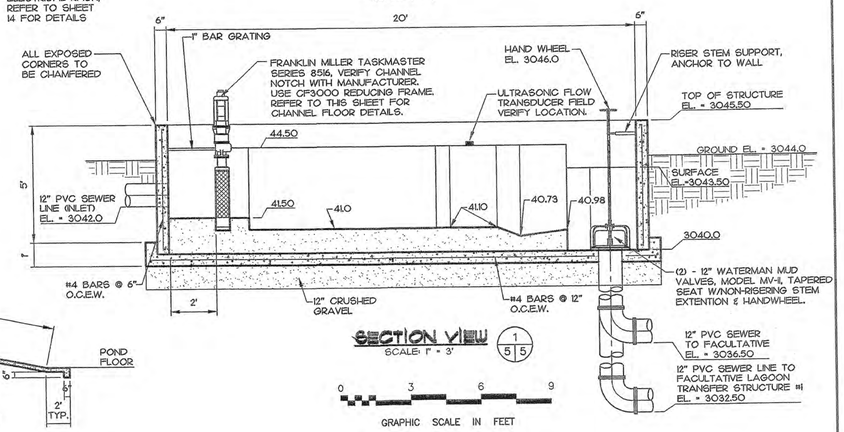

PERIMETER FOOTING & CHANNEL DETAIL
NOT TO SCALE




CHANNEL FLOOR DETAIL
NOT TO SCALE

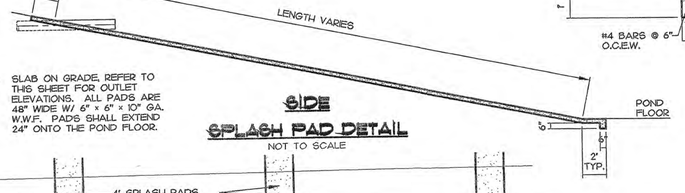



PLAN VIEW
SCALE: 1" = 3'




SECTION VIEW (1/5/5)
SCALE: 1" = 3'

0 3 6 9
GRAPHIC SCALE IN FEET

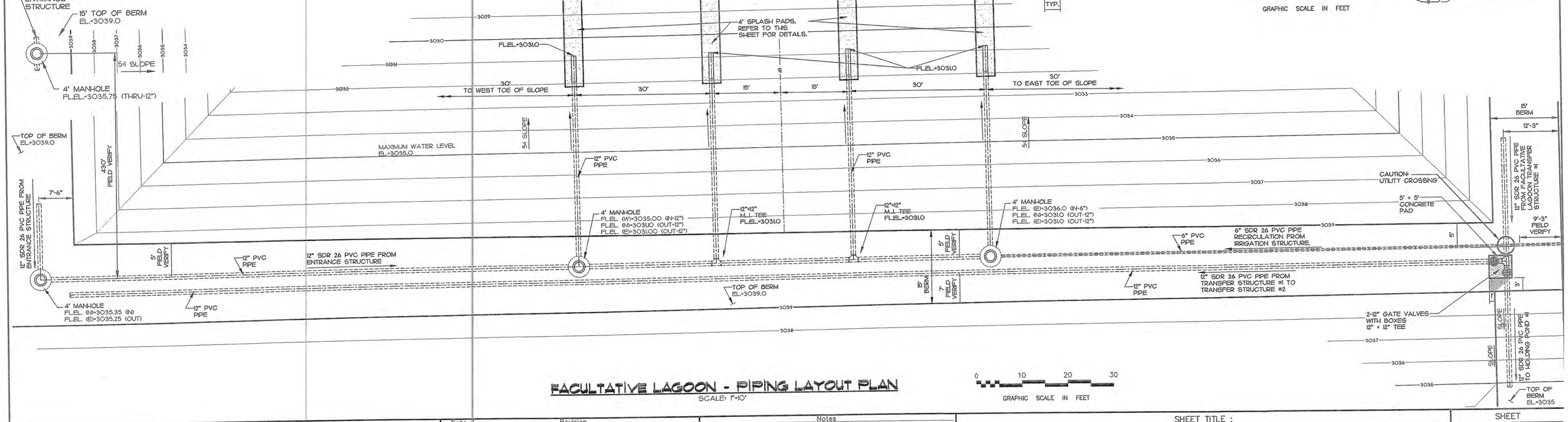



END
NOT TO SCALE

SLAB ON GRADE, REFER TO THIS SHEET FOR OUTLET ELEVATIONS. ALL PADS ARE 48" WIDE W/ 6" x 6" x 10" GA. W.W.F. PADS SHALL EXTEND 24" ONTO THE POND FLOOR.




SIDE
SPLASH PAD DETAIL
NOT TO SCALE




FACULTATIVE LAGOON - PIPING LAYOUT PLAN
SCALE: 1"=10'

0 10 20 30
GRAPHIC SCALE IN FEET

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-05.DWG | Drawn by : | J.L.R. |
| Q.A. | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.O. | Date : | AUGUST 2003 |

Notes

ALL INTERIORS OF MANHOLES TO BE EPOXY COATED. SPLASH PADS TO EXTEND 2 FEET ONTO THE FLOOR POND.

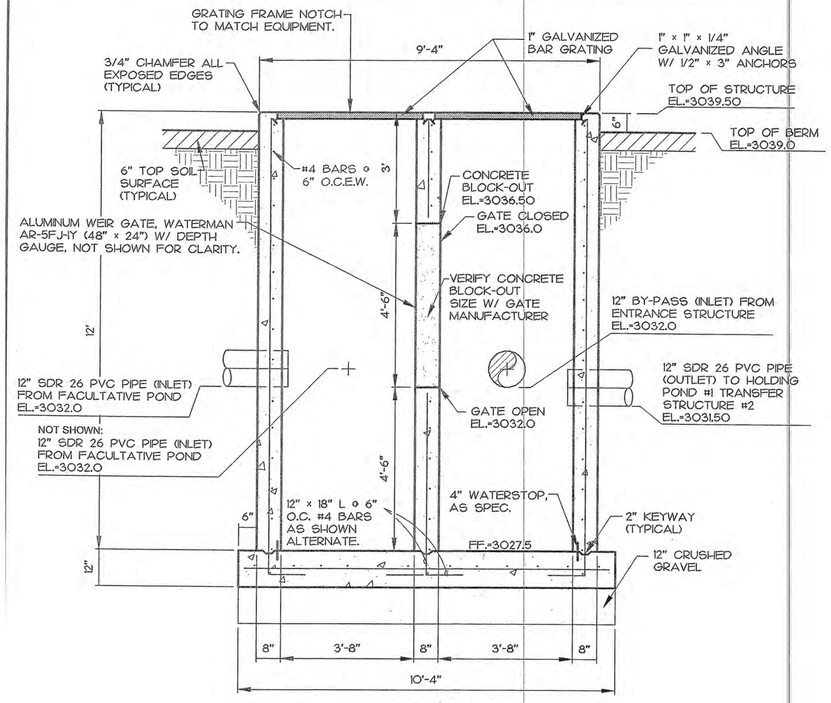
ALL PRECAST STRUCTURES TO BE PLACED ON TOP OF 1" CRUSHED GRAVEL.

SHEET TITLE :

RECORD DRAWING

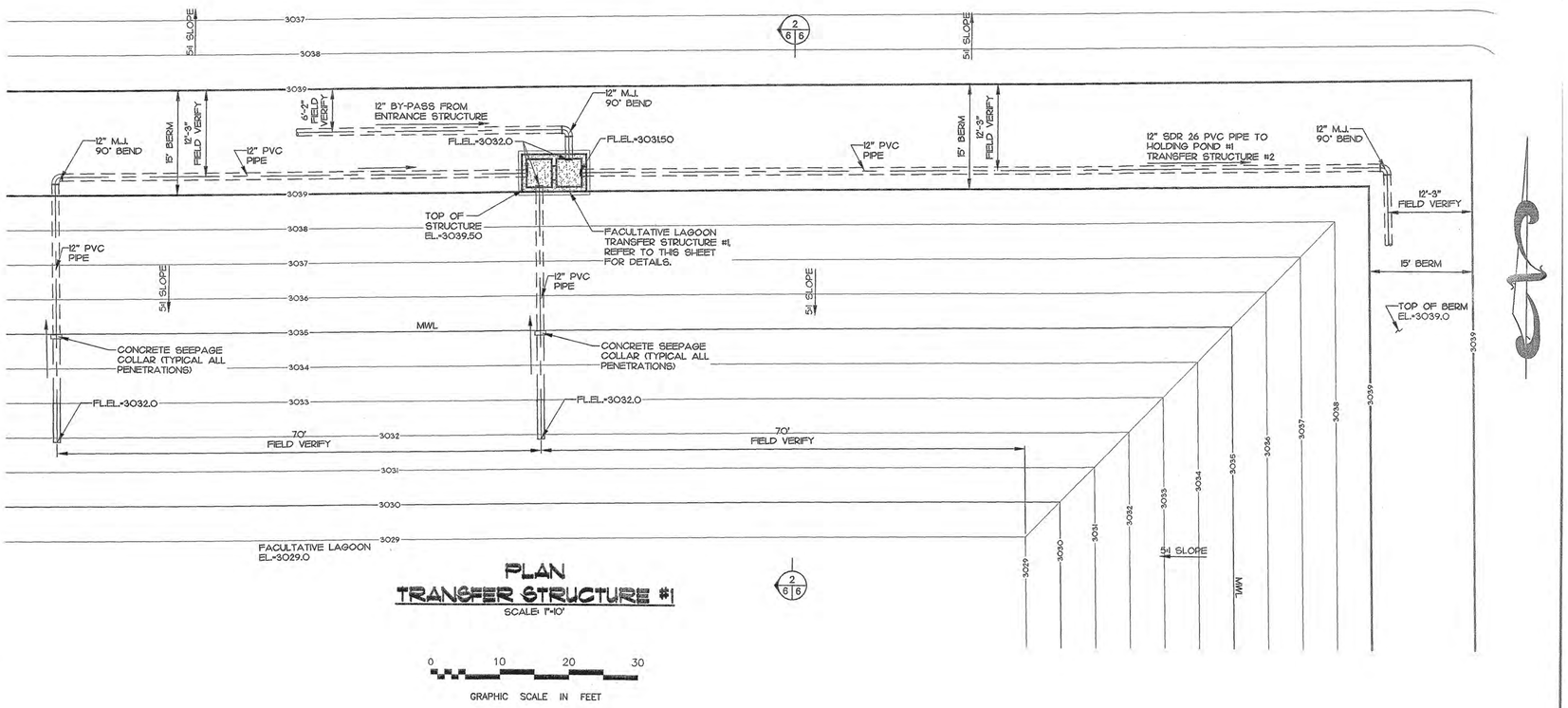
# ENTRANCE STRUCTURE

SHEET 5 OF 17 SHEETS



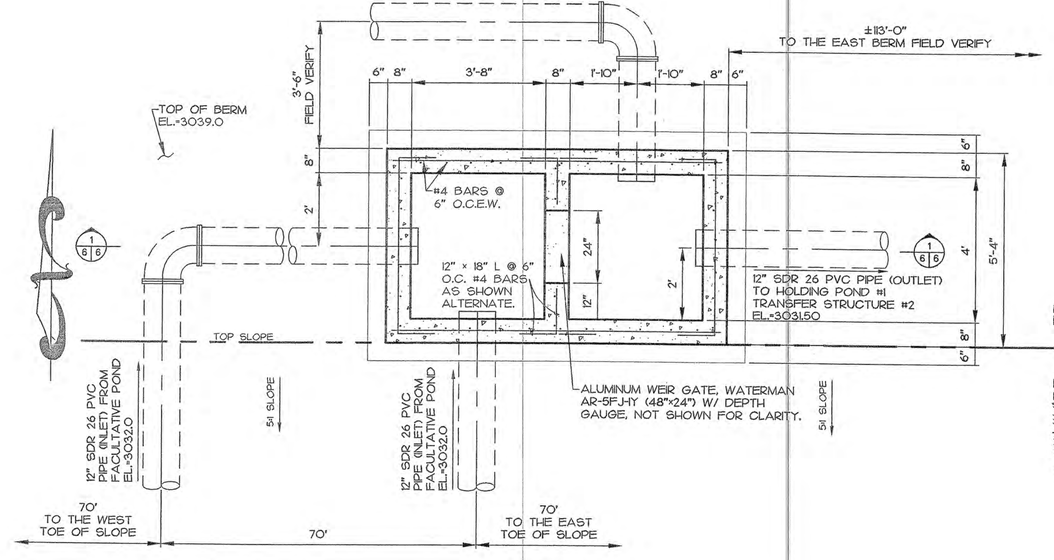

SECTION (1/6|6)
SCALE: 1"=2'

0 2 4 6
GRAPHIC SCALE IN FEET



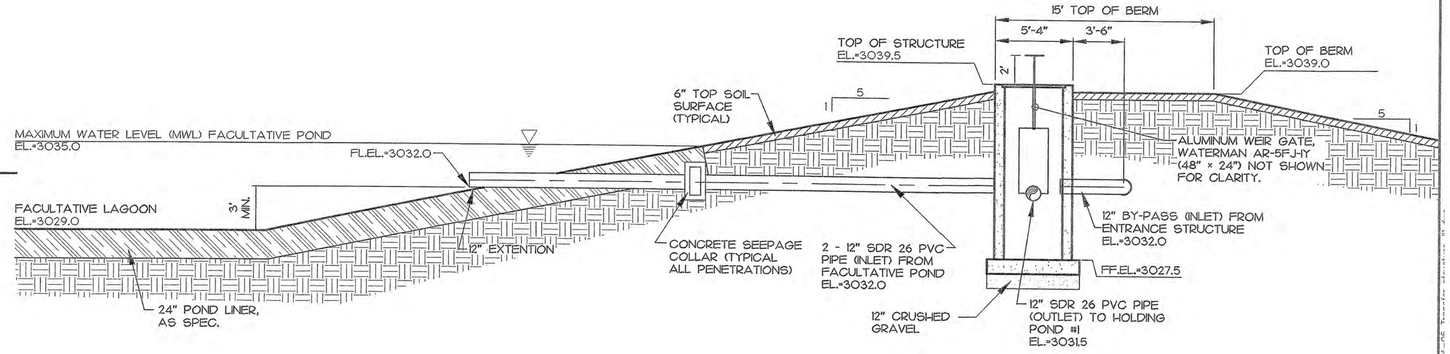

PLAN
TRANSFER STRUCTURE #1
SCALE: 1"=10'

0 10 20 30
GRAPHIC SCALE IN FEET




PLAN
SCALE: 1"=2'

0 2 4 6
GRAPHIC SCALE IN FEET




SECTION (2/6|6)
SCALE: 1"=5'

0 5 10 15
GRAPHIC SCALE IN FEET

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT :
CITY OF TAHOKA, TEXAS

OEI PROJECT :
WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS
RICH OLLER
61831
REGISTERED PROFESSIONAL ENGINEER
1/29/04 Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-06.DWG | Drawn by : | J.L.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

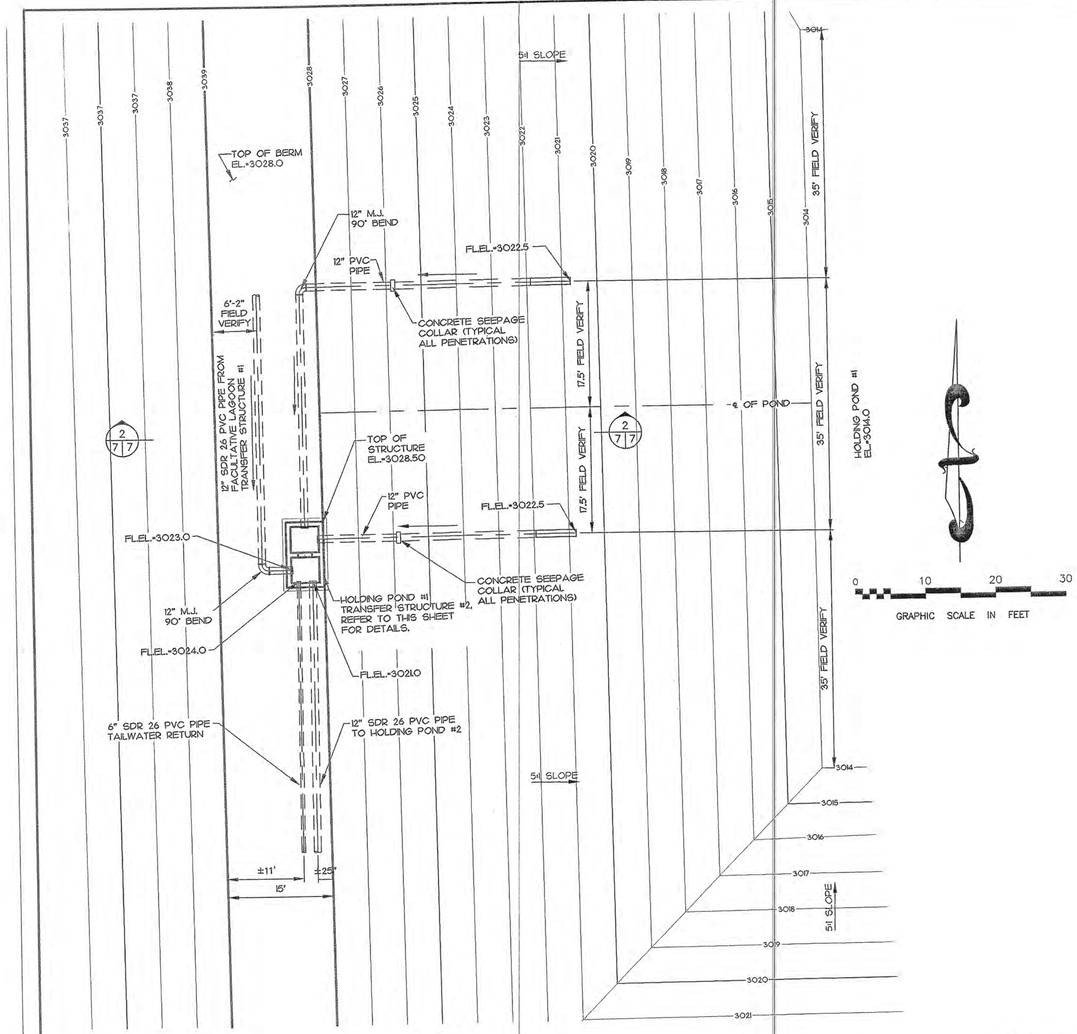
MAKE ALL OF THE APPROPRIATE BLOCK OUTS FOR GRATES, GATES AND MISC. ITEMS AS PER MANUFACTURES SPECIFICATIONS. VERIFY CONCRETE OPENING SIZE WITH GATE MANUFACTURER. PRECAST CONCRETE STRUCTURES ARE ACCEPTABLE WITH DESIGN CALCULATIONS. ALL PVC PIPE TO BE SDR 26. ALL FITTINGS TO BE MECHANICAL JOINTS.

ALL PRECAST STRUCTURES TO BE PLACED ON TOP OF 1' CRUSHED GRAVEL.

SHEET TITLE :

FACULTATIVE LAGOON
# TRANSFER STRUCTURE #1

SHEET
6
OF 17 SHEETS




PLAN

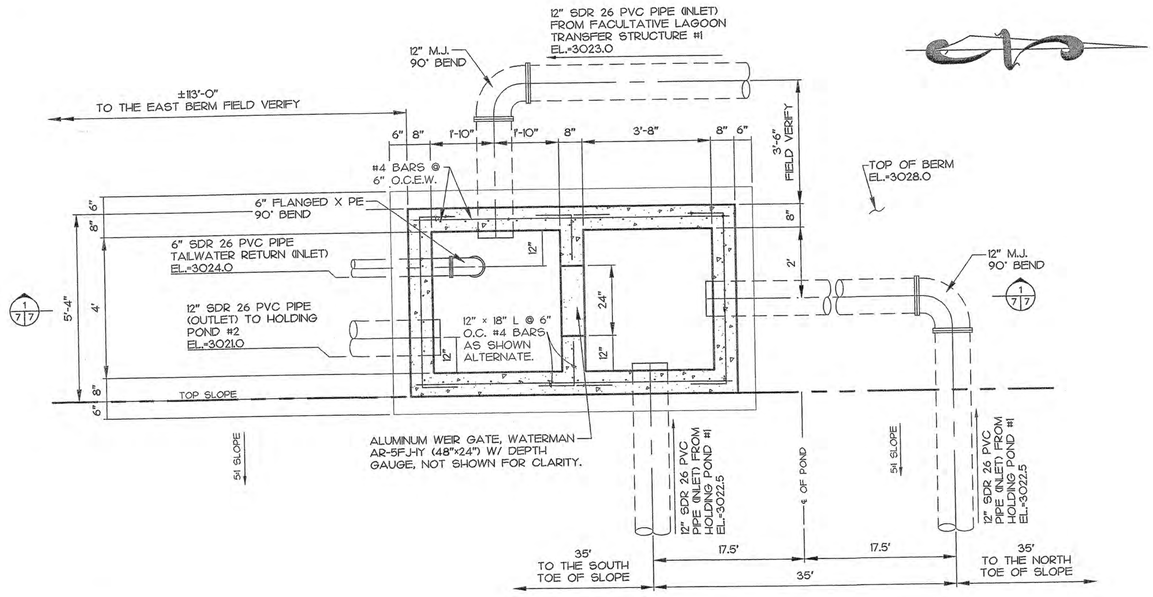
HOLDING POND #1 TRANSFER STRUCTURE

SCALE: 1"=10'



0 10 20 30

GRAPHIC SCALE IN FEET

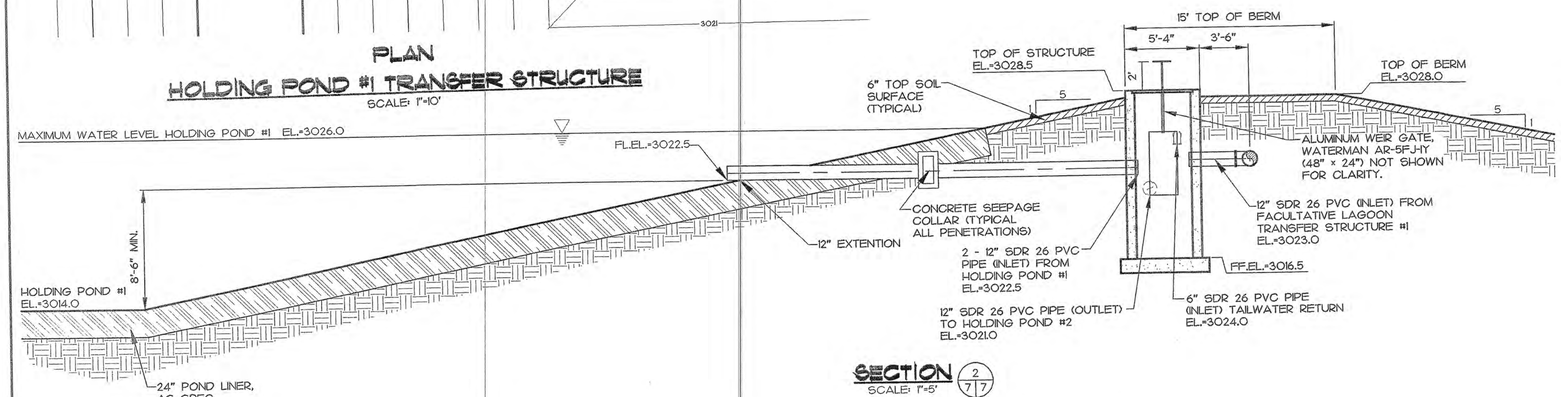



0 2 4 6

GRAPHIC SCALE IN FEET

PLAN

SCALE: 1"=2'

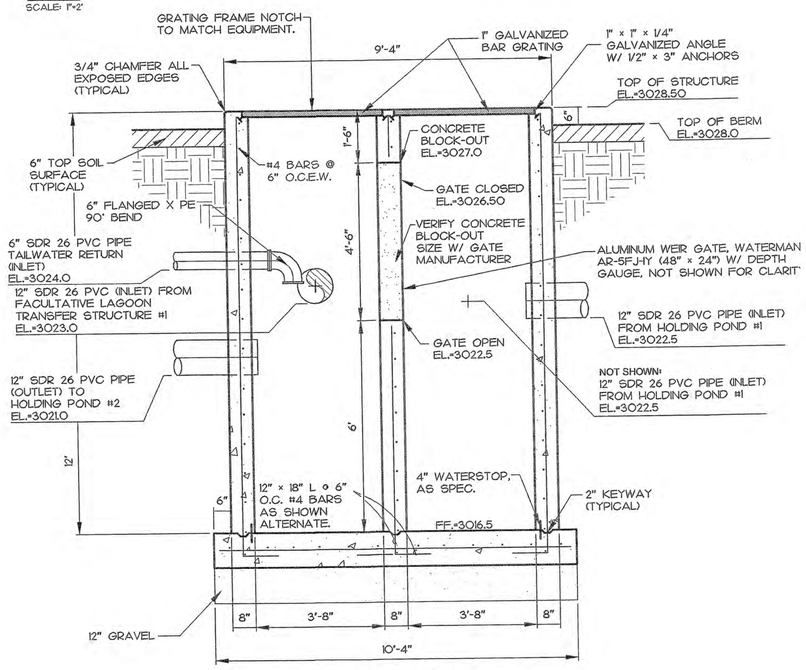



SECTION 2/7

SCALE: 1"=5'

0 5 10 15

GRAPHIC SCALE IN FEET




SECTION 1/7

SCALE: 1"=2'

RECORD DRAWIN

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS RICH OLLER 61831 REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-07.DWG | Drawn by : | J.I.R. |
| O.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

MAKE ALL OF THE APPROPRIATE BLOCK OUTS FOR GRATES, GATES AND MISC. ITEMS AS PER MANUFACTURES SPECIFICATIONS. VERIFY CONCRETE OPENING SIZE WITH GATE MANUFACTURER. PRECAST CONCRETE STRUCTURES ARE ACCEPTABLE WITH DESIGN CALCULATIONS. ALL PVC PIPE TO BE SDR 26. ALL FITTINGS TO BE MECHANICAL JOINTS.

ALL PRECAST STRUCTURES TO BE PLACED ON TOP OF 1' CRUSHED GRAVEL.

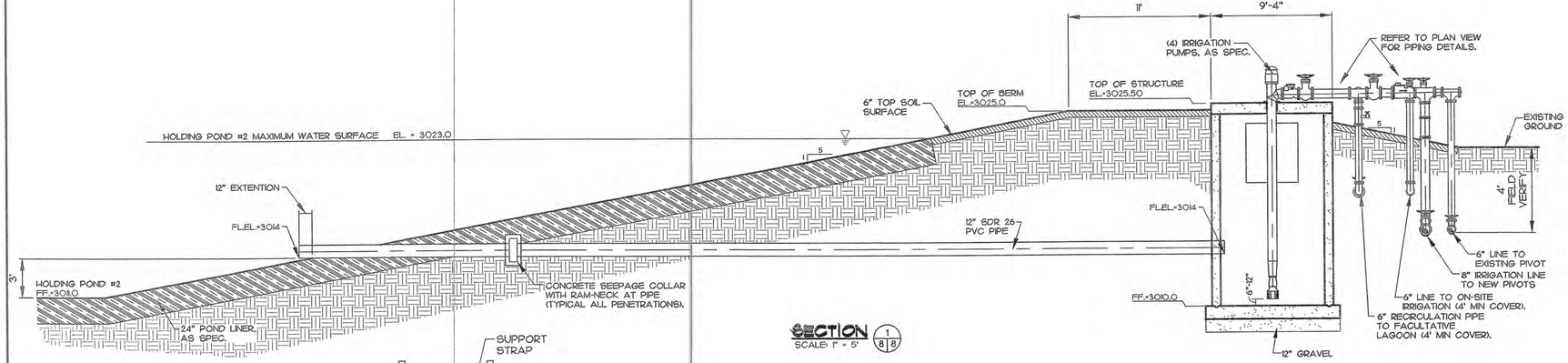
SHEET TITLE :

HOLDING POND #1

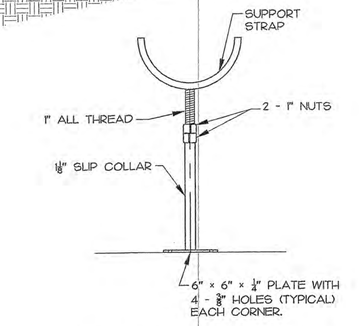
# TRANSFER STRUCTURE #2

SHEET 7

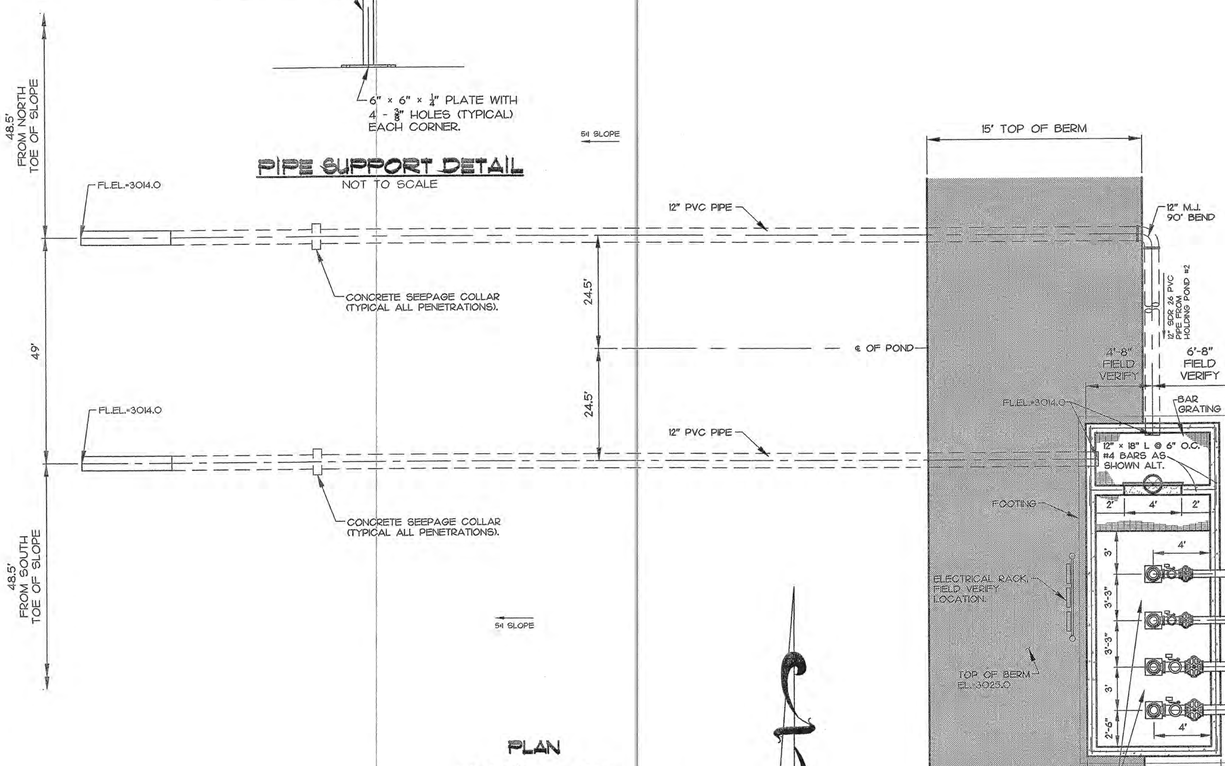
OF 17 SHE




SECTION (1/8|8)
SCALE: 1" = 5'



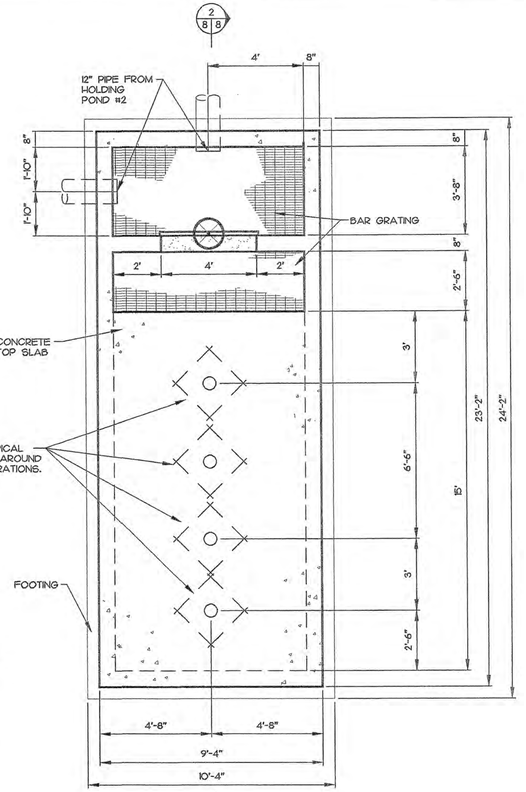

## PIPE SUPPORT DETAIL
NOT TO SCALE




## PLAN
## HOLDING POND IRRIGATION STRUCTURE LAYOUT
SCALE: 1" = 5'

0 5 10 15
GRAPHIC SCALE IN FEET



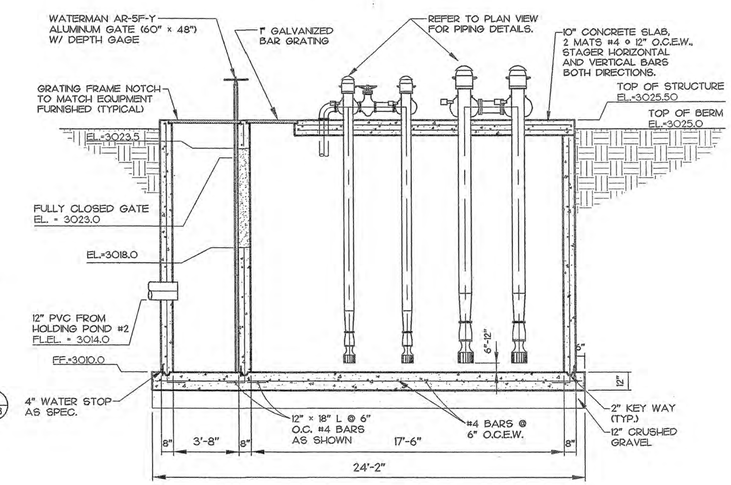



0 3 6 9
GRAPHIC SCALE IN FEET

2/8|8

* ALL DIMENSION FOR PUMP INSTALLATION ARE APPROXIMATE, CONTRACTOR MUST VERIFY WITH PUMP MANUFACTURER ON FINAL SELECTION OF IRRIGATION PUMPS TO BE INSTALLED.

## PLAN
SCALE: 1" = 3'




SECTION (2/8|8)

0 4 8 12
GRAPHIC SCALE IN FEET

## IRRIGATION STRUCTURE
SCALE: 1" = 4'

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61851 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-08.DWG | Drawn by : | J.J.R. |
| O.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

MAKE ALL OF THE APPROPRIATE BLOCK OUTS FOR GRATES, GATES AND MISC. ITEMS AS PER MANUFACTURES SPECIFICATIONS. ALL PIPING ABOVE GROUND SHALL BE DUCTILE IRON. ALL DUCTILE IRON PIPING SHALL BE PAINTED WITH TNEMEC SERIES 66 OR 69, HI-BUILD EPOXOLINE. ALL DUCTILE IRON FITTINGS ABOVE GROUND TO BE FLANGED.

REFER TO SPECIFICATIONS FOR EXACT PUMP SIZES.

ALL PRECAST STRUCTURES TO BE PLACED ON TOP OF 1" CRUSHED GRAVEL.

SHEET TITLE :

**RECORD DRAWING**

# IRRIGATION STRUCTURE

SHEET

8

OF 17 SHEETS

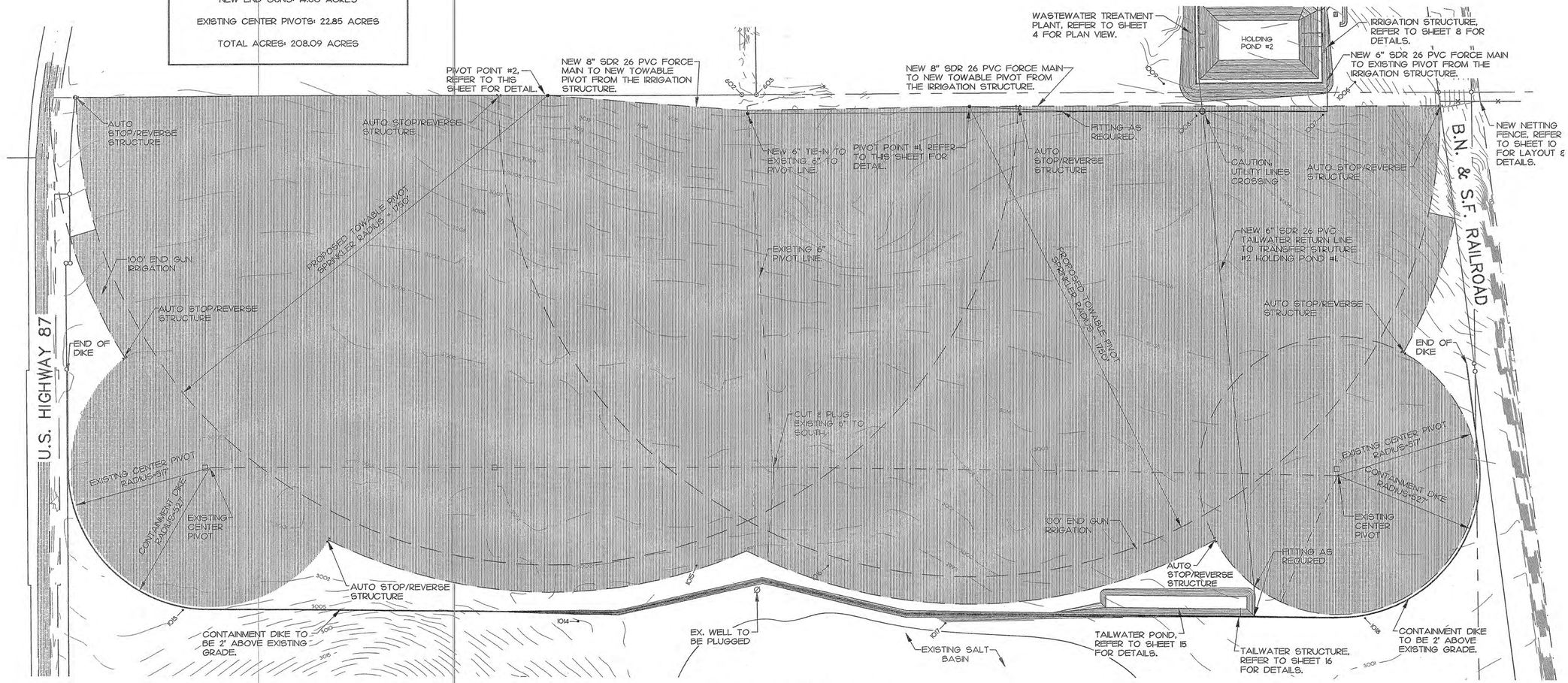
Jan 21, 2004 14:10:59 C:\Users\RICHARD\AppData\Local\Temp\AcPublish_9724\2034-08.dwg

## TOTAL IRRIGATED AREA

NEW CENTER PIVOT: 170.64 ACRES
NEW END GUNS: 14.60 ACRES

EXISTING CENTER PIVOTS: 22.85 ACRES

TOTAL ACRES: 208.09 ACRES

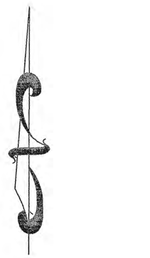



## IRRIGATION LAYOUT PLAN

SCALE: 1"=200'

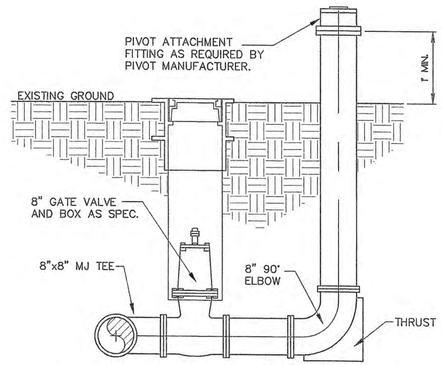
### LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES
- CONTROL POINT
- NODE POINTS



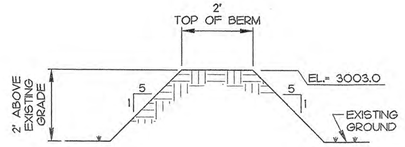
0 200 400 600

GRAPHIC SCALE IN FEET




### CENTER PIVOT RISER DETAIL

NOT TO SCALE




### TYPICAL CONTAINMENT DIKE SECTION

NTS

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 6183 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-09.DWG | Drawn by : | J.I.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

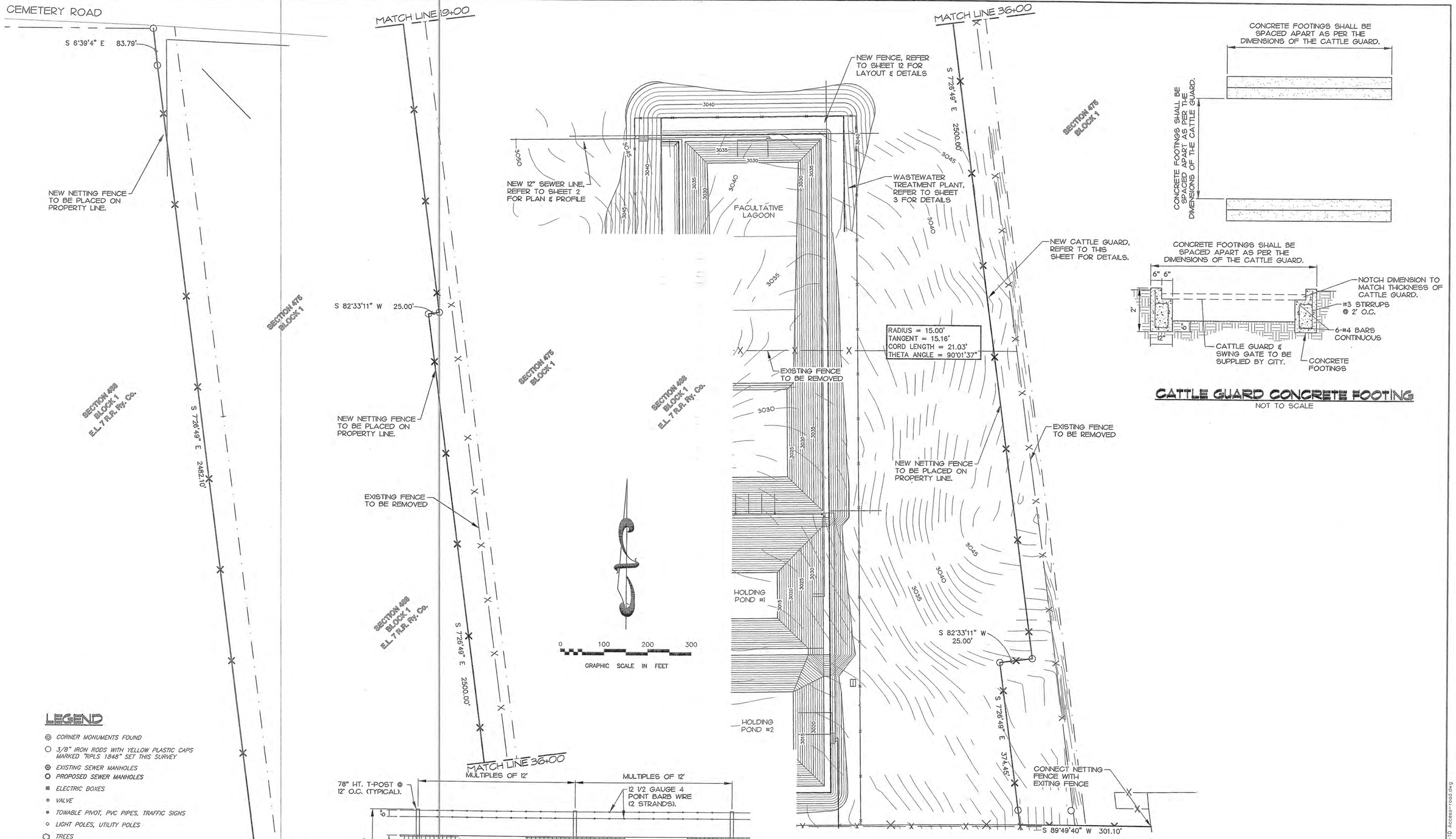
FOR WASTEWATER TREATMENT PLANT NODE LIST, REFER TO SHEET 3.
FOR TAILWATER POND NODE LIST, REFER TO SHEET 15.

SHEET TITLE :

# IRRIGATION LAYOUT PLAN

SHEET 9 OF 17 SHEETS

S:\PANEL Client\KOREN\TAHOKA\WWTP\2034-09 Irrigation-Layout.dwg Jan 21, 2004 04:14p



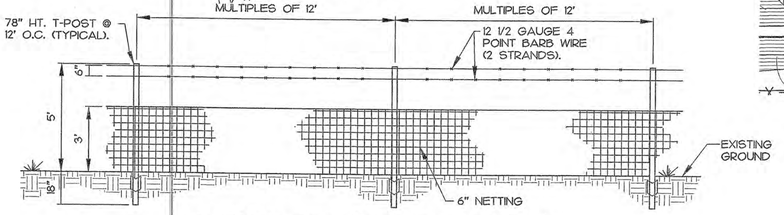




## CATTLE GUARD CONCRETE FOOTING
NOT TO SCALE

## LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES




## TYPICAL NETTING FENCE DETAIL
NOT TO SCALE

## NETTING FENCE LAYOUT
SCALE: 1"=100'

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-10.DWG | Drawn by : | J.L.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

NO ACCESS ROAD WAS CONSTRUCTED.

CONTRACTOR TO CONSTRUCT FOOTINGS ONLY. CITY TO PROVIDE CATTLE GUARD – VERIFY DIMENSIONS WITH ACTUAL GUARD.

ALL POSTS TO BE 2 7/8" DIAMETER. ALL WELDS TO BE 3/8" FILLET WITH 7018 WELDING RODS. STRETCH BRACE TO BE PLACED EVERY 1/4 MILE. CORNERS AND BRACE POSTS TO BE CONSTRUCTED SIMILAR TO BARB WIRE FENCE BRACES AND CORNERS.

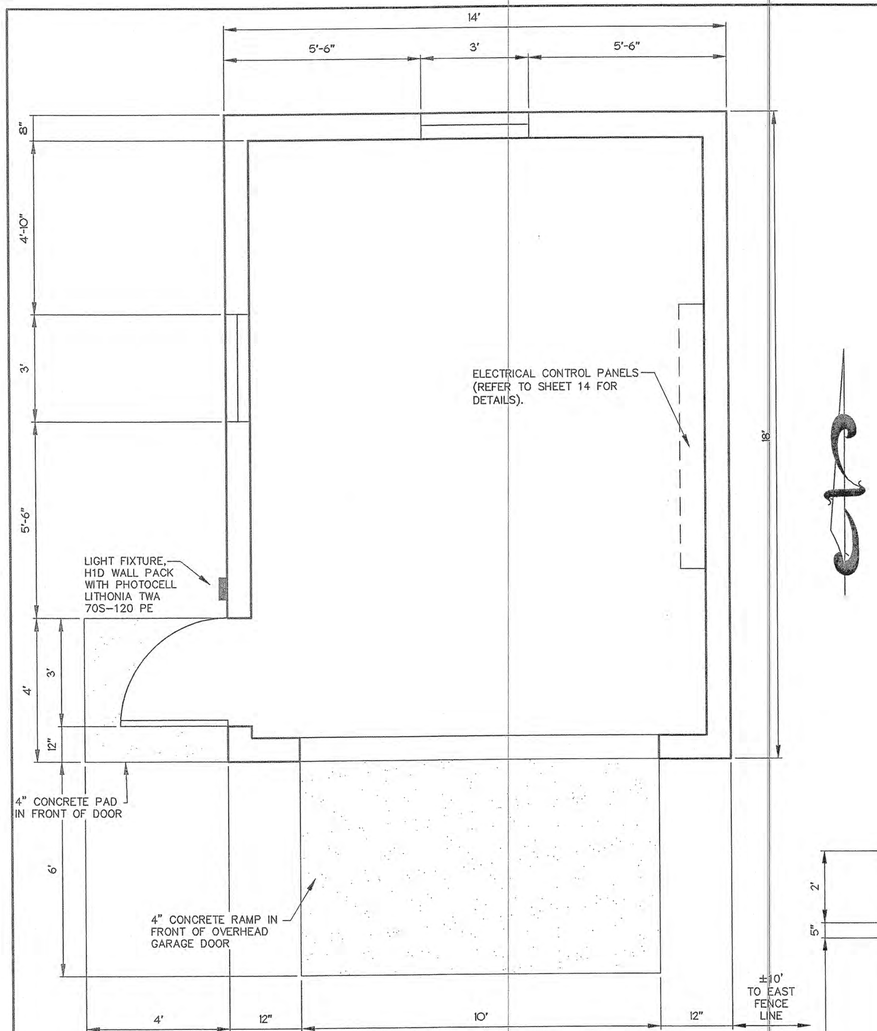
RECORD DRAWING

SHEET TITLE :

# NETTING FENCE LAYOUT & DETAILS

SHEET 10 OF 17 SHEETS

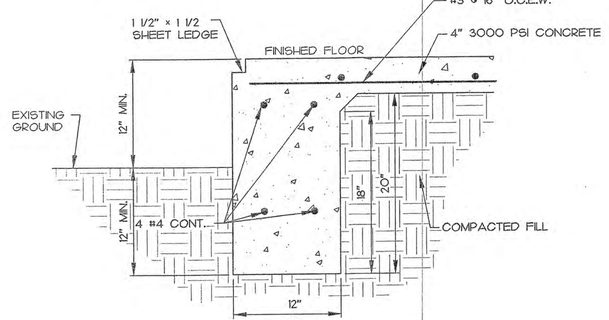
F:\SHARE\client\ENGINEER\TAHOKA\WWTP\2034-97\CADD DWGS\2034-10 Access-road.dwg




## PLAN VIEW

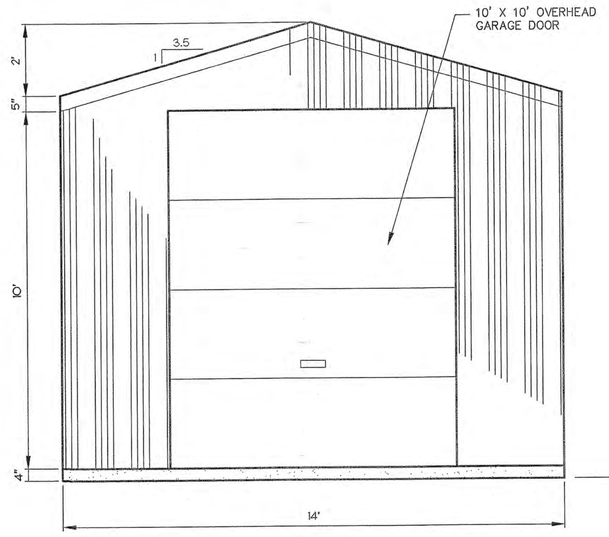
SCALE: 1" = 2'

GRAPHIC SCALE IN FEET



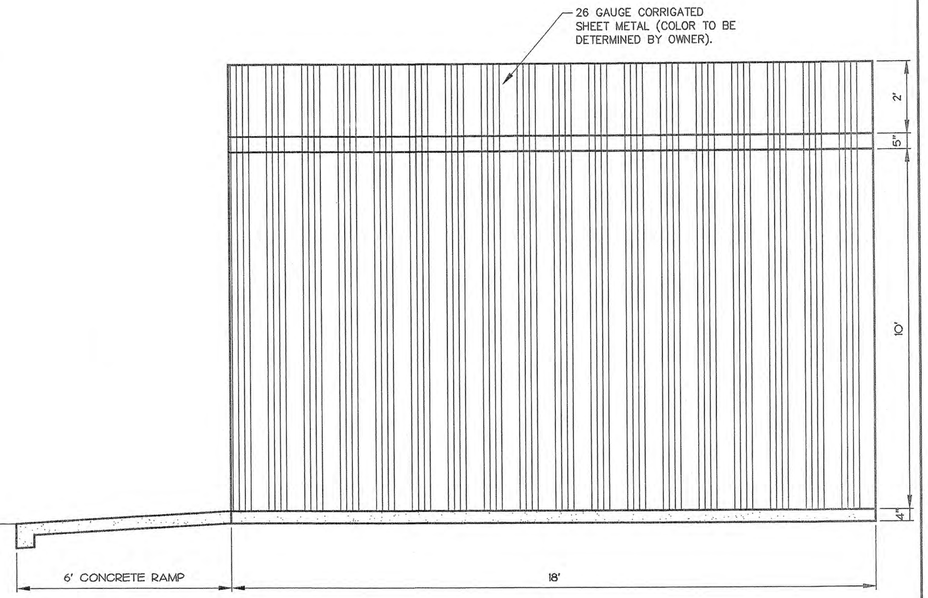

## TYPICAL FOOTING DETAIL

NOT TO SCALE



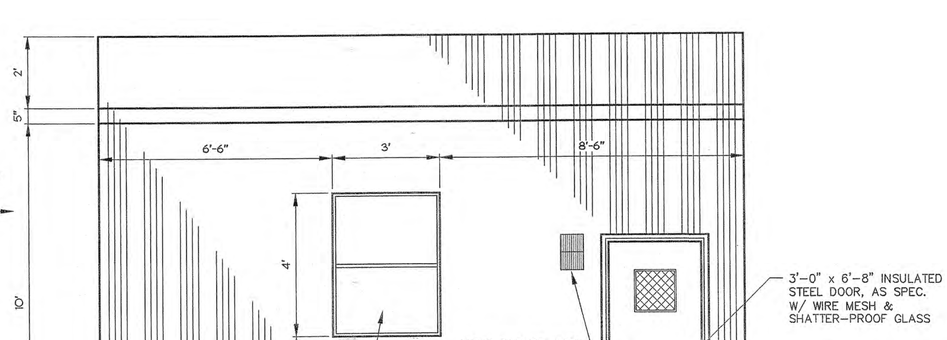

## SOUTH VIEW

SCALE: 1" = 2'



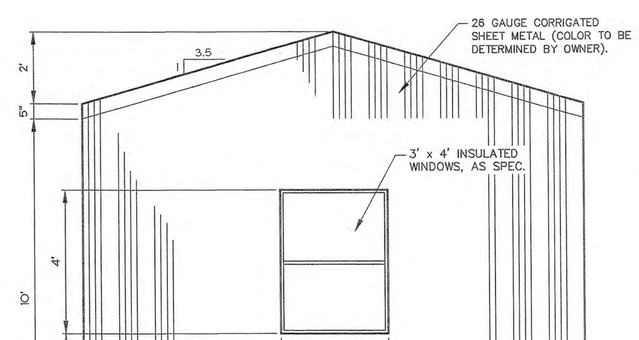

## EAST VIEW

SCALE: 1" = 2'




## WEST VIEW

SCALE: 1" = 2'




## NORTH VIEW

SCALE: 1" = 2'

**RECORD DRAWING**

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|

Notes: OPERATIONS BUILDING TO HAVE 3" VINYL BACK INSULATION SUPPORTED BY CHICKEN WIRE.

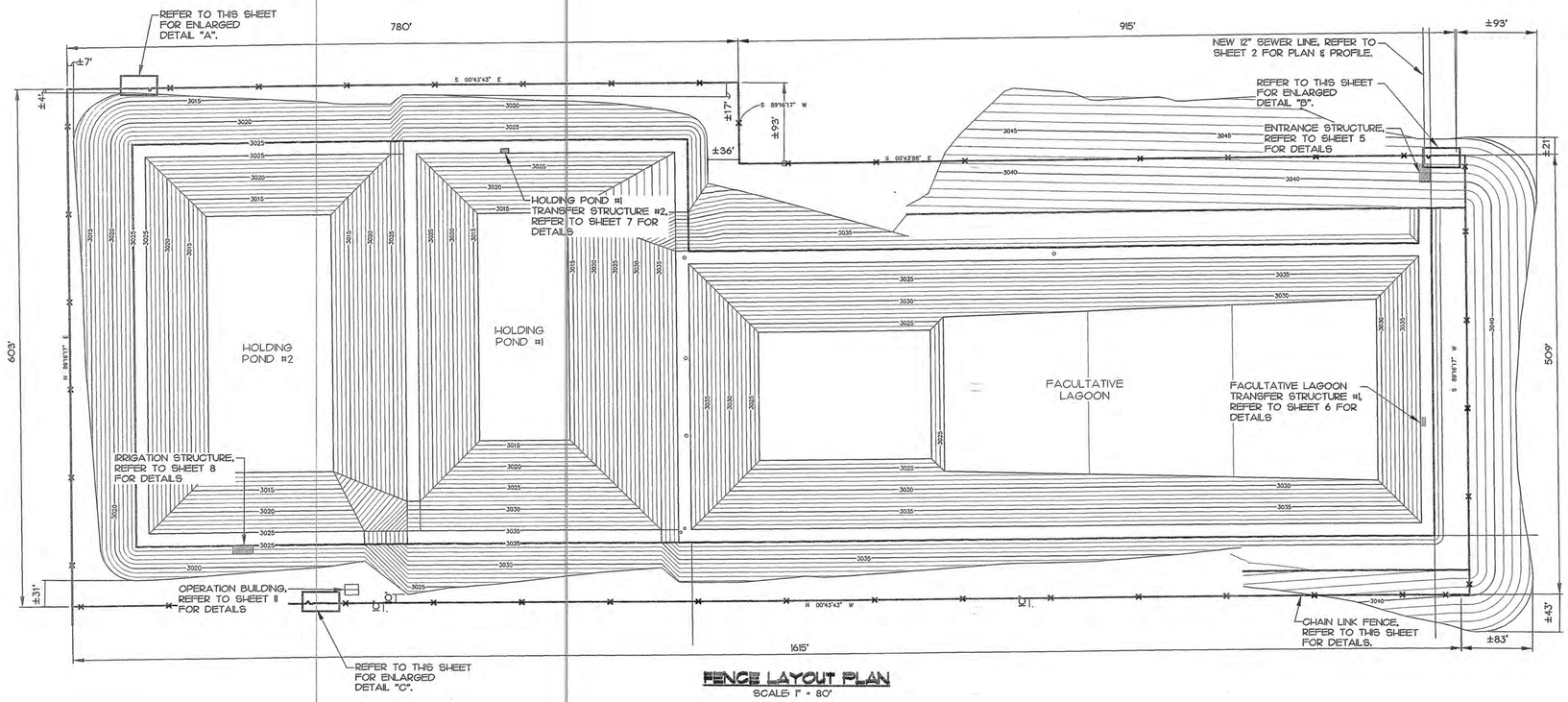
| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-11.DWG | Drawn by : | J.J.R. |
| O.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

SHEET TITLE :

# OPERATIONS STATION BUILDING

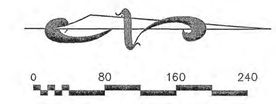
SHEET 11 OF 17 SHEETS

S:\AUTOCAD\ENGINEER\TAHOKA\WWTP\2034\97\DWG\2034-11 ops building.dwg Jan 21, 2004 04:45p




## FENCE LAYOUT PLAN

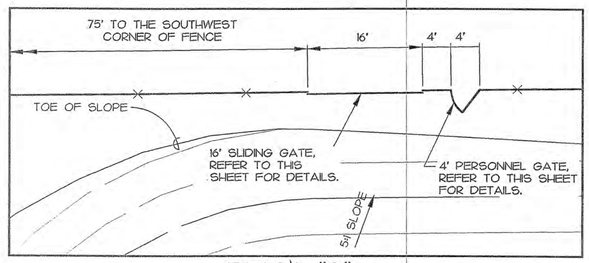
SCALE: 1" = 80'




GRAPHIC SCALE IN FEET

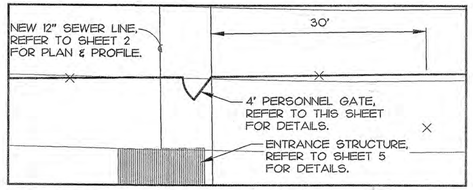
## LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES



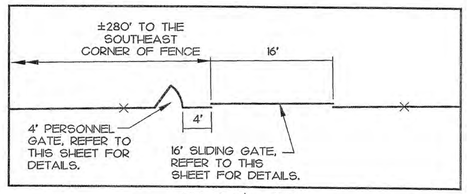

## DETAIL "A"

SCALE: 1" = 10'



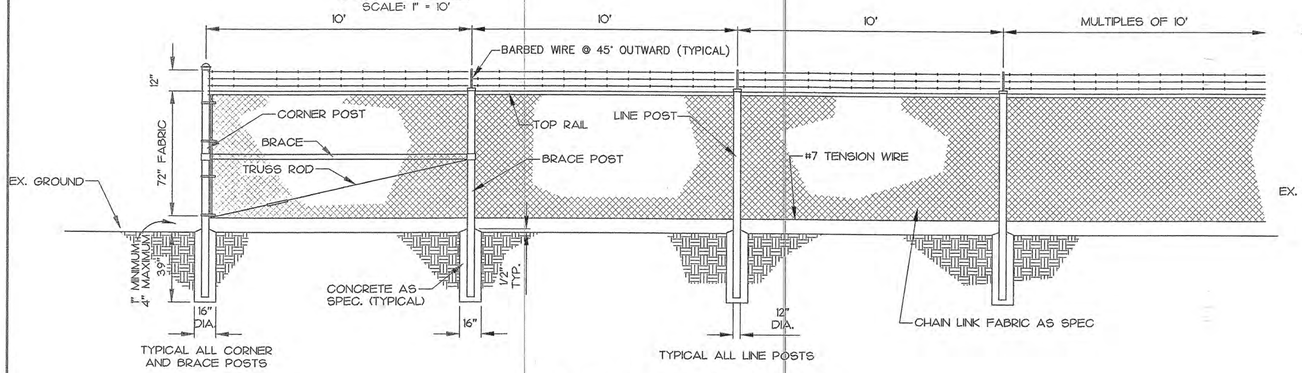

## DETAIL "B"

SCALE: 1" = 10'



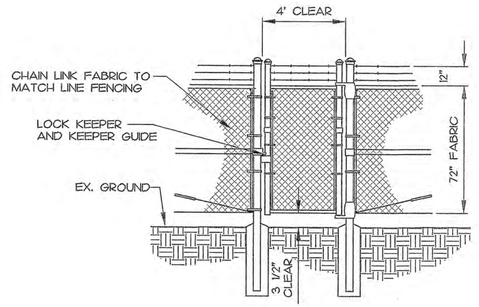

## DETAIL "C"

SCALE: 1" = 10'



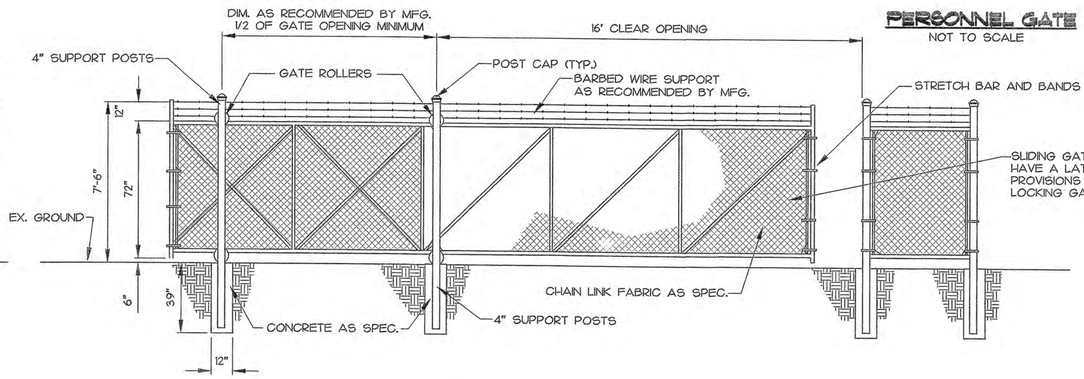

## TYPICAL FENCE SECTION

NOT TO SCALE




## PERSONNEL GATE

NOT TO SCALE




## 16' SLIDING GATE DETAIL

NOT TO SCALE

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision | Notes |
|---|---|---|
| | | |

OEI Project No. : 2034.97 | Plot: 1 = 1
OEI Drawing No. : 2034-12.DWG | Drawn by : J.J.R.
Q.A. : R.M.O. | Scale : AS SHOWN
Checked by : R.S. | Date : AUGUST 2002

SHEET TITLE :

WASTEWATER TREATMENT PLANT

# FENCING LAYOUT PLAN & DETAILS

SHEET 12 OF 17 SHEETS

F:\SHARE\client\ENGINEER\TAHOKA\WWTP\2034-97\CAD DWGS\2034-12 fence layout.dwg Jan 27, 2004 04:48p

CONNECT NEW IRRIGATION AREA FENCING TO EXISTING FENCING.

PIVOT POINT #2

N 9d24'14" E @ 112.2'

S 03°18'36" W

358'

N 00°28'00" W

257'

N 89°32'00" W 16' (LENGTH)

NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

N 00°28'00" W

EXISTING FENCE TO BE REMOVED BY OTHERS.

EXISTING CENTER PIVOT

1794'

N 00°28'00" W

REMOVE AND REPLACE EXISTING FENCE WITH NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

CONTAINMENT DIKE TO BE 2' ABOVE EXISTING GRADE.

REPLACE EXISTING BRACE AND EXISTING ENTRANCE GATE TO REMAIN.

U.S. HIGHWAY 87

NEW PLANT FENCE, REFER TO SHEET 12 FOR DETAILS.

WASTEWATER TREATMENT PLANT, REFER TO SHEET 3 FOR PLAN VIEW.

HOLDING POND #2

IRRIGATION STRUCTURE, REFER TO SHEET 8 FOR DETAILS.

CONNECT IRRIGATION AREA FENCE WITH PLANT FENCE AT CORNER.

S 89°16'17" W

344'

NEW NETTING FENCE, REFER TO SHEET 10 FOR DETAILS.

PIVOT POINT #1

CAUTION: UTILITY LINES CROSSING

REMOVE AND REPLACE EXISTING FENCE WITH NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

S 07°26'49" E

B.N. & S.F. RAILROAD

2651'

EXISTING FENCE TO BE REMOVED BY OTHERS.

NEW 6" SDR 26 PVC TAILWATER RETURN LINE TO TRANSFER STRUCTURE #2 HOLDING POND #1

EXISTING CENTER PIVOT

S 07°26'49" E

CONTAINMENT DIKE TO BE 2' ABOVE EXISTING GRADE.

EX. WELL TO BE PLUGGED

TAILWATER POND, REFER TO SHEET 15 FOR DETAILS.

TAILWATER STRUCTURE, REFER TO SHEET 16 FOR DETAILS.

REMOVE AND REPLACE EXISTING FENCE WITH NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

EXISTING SALT BASIN

S 89°36'58" W

1162'

NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

68'

N 00°28'18" W

S 89°31'42" W

2005'

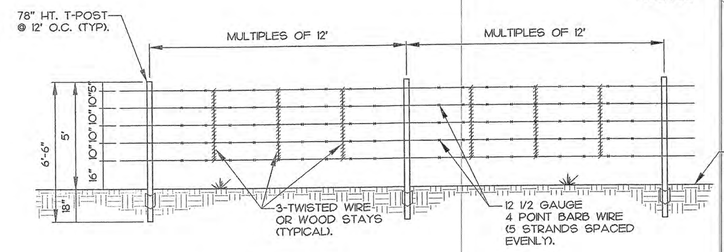
NEW BARB WIRE FENCE, REFER TO THIS SHEET FOR DETAILS.

S 00°28'18" E

678'

## LEGEND

- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES
- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES




TYPICAL BARBED WIRE FENCE

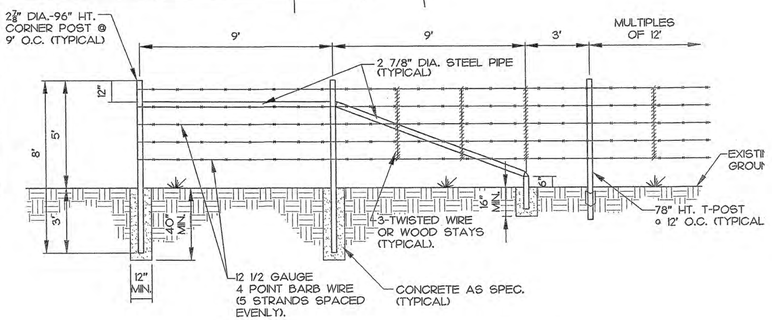
NOT TO SCALE

FENCE LAYOUT PLAN

SCALE: 1"=200'

0 200 400 600

GRAPHIC SCALE IN FEET




TYPICAL CORNER POST DETAIL

NOT TO SCALE

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS RICH OLLER 61831 REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-13.DWG | Drawn by : | J.J.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

ALL PIPES ARE 2 7/8" DIAMETER. ALL WELDS ARE 3/8" FILLET WELDS WITH 7018 ROD. ALL POSTS TO BE CAPPED WITH 1/4" STEEL PLATE OR CONCRETE.

STRETCH BRACE TO BE PLACED EVERY 1/4 MILE.

FENCE TO BE PLACED ON THE PROPERTY LINE.

SHEET TITLE :

RECORD DRAWING

IRRIGATION AREA

# FENCING LAYOUT PLAN & DETAILS

SHEET 13 OF 17 SHEETS

## PANEL "A"

SERVICE: 120/240, 1PH, 3W
MAINS: 30A/2P MCB
MOUNTING: SURFACE
INTERRUPTING RATING: 10,000A

| CIRCUIT | SERVES | LOAD (KVA) | CIRCUIT BREAKER | CONDUCTOR | CONDUIT |
|---|---|---|---|---|---|
| 1 | LIGHTS | .5 | 20A/1P | 2-#12 + #12 GR. | 1/2" |
| 2 | RECEPTACLES | 1.0 | 20A/1P | 2-#12 + #12 GR. | 1/2" |
| 3-4 | SPARES | -- | 20A/1P | -- | -- |
| 5-8 | SPACE | -- | -- | -- | -- |

## PANEL "C"

SERVICE: 120/240, 1PH, 3W
MAINS: 30A/2P MCB
MOUNTING: SURFACE, NEMA 3R
INTERRUPTING RATING: 10,000A

| CIRCUIT | SERVES | LOAD (KVA) | CIRCUIT BREAKER | CONDUCTOR | CONDUIT |
|---|---|---|---|---|---|
| 1 | RECEPTACLES | 1.0 | 20A/1P | 2-#12 + #12 GR. | 1/2" |
| 2-4 | SPARES | -- | 20A/1P | -- | -- |
| 5-8 | SPACE | -- | -- | -- | -- |

## PANEL "DP"

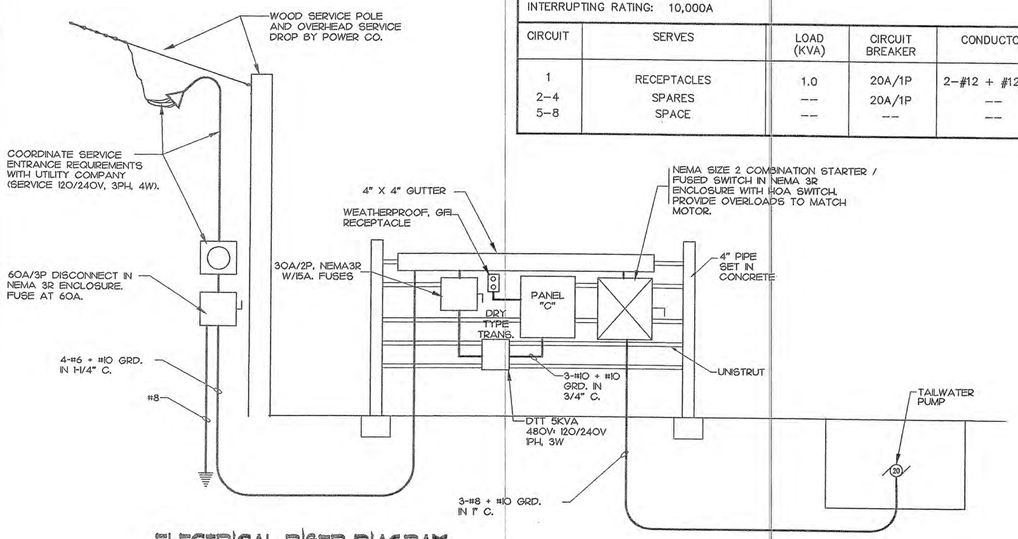
SERVICE: 480/277, 3PH, 4W
MAINS: 400A MLO
MOUNTING: SURFACE
INTERRUPTING RATING: 14,000A

| CIRCUIT | SERVES | LOAD (KVA) | CIRCUIT BREAKER | CONDUCTOR | CONDUIT |
|---|---|---|---|---|---|
| 1, (3, 5) | 50 HP PUMP | 54 | 125A/3P | 3-#4 + #6 GR. | 1 1/4" |
| 2, (4, 6) | 50 HP PUMP | 54 | 125A/3P | 3-#4 + #6 GR. | 1 1/4" |
| 7, (9, 11) | 20 HP PUMP | 22.4 | 60A/3P | 3-#8 + #10 GR. | 1" |
| 8,(10,12) | 20 HP PUMP | 22.4 | 60A/3P | 3-#8 + #10 GR. | 1" |
| 13,(15) | DTT - PANEL "A" | 5.0 | 15A/2P | 2-#12 + #12 GR. | 1/2" |
| 17 | SPARE | -- | 20A/1P | -- | -- |
| 14(16,18) | NEW PIVOT | 10 | 40A/3P | -- | -- |
| 20(22,24) | EXISTING PIVOT | 10 | 40A/3P | -- | -- |
| 19(21,23) | SPACE | -- | -- | -- | -- |

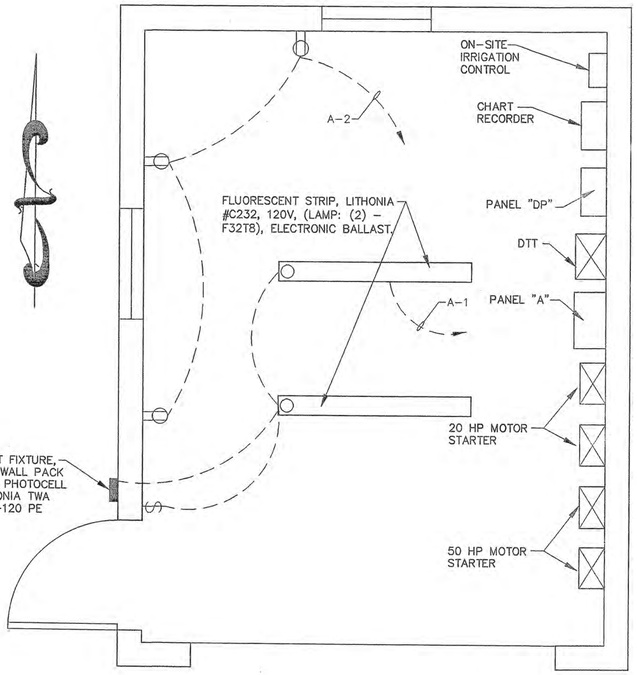
## PANEL "B"

SERVICE: 120/240, 1PH, 3W
MAINS: 30A/2P MCB
MOUNTING: SURFACE, NEMA 3R
INTERRUPTING RATING: 10,000A

| CIRCUIT | SERVES | LOAD (KVA) | CIRCUIT BREAKER | CONDUCTOR | CONDUIT |
|---|---|---|---|---|---|
| 1 | TOTALIZER | .5 | 20A/1P | 2-#12 + #12 GR. | 1/2" |
| 2 | RECEPTACLES | 1.0 | 20A/1P | 2-#12 + #12 GR. | 1/2" |
| 3-4 | SPARES | -- | 20A/1P | -- | -- |
| 5-8 | SPACE | -- | -- | -- | -- |

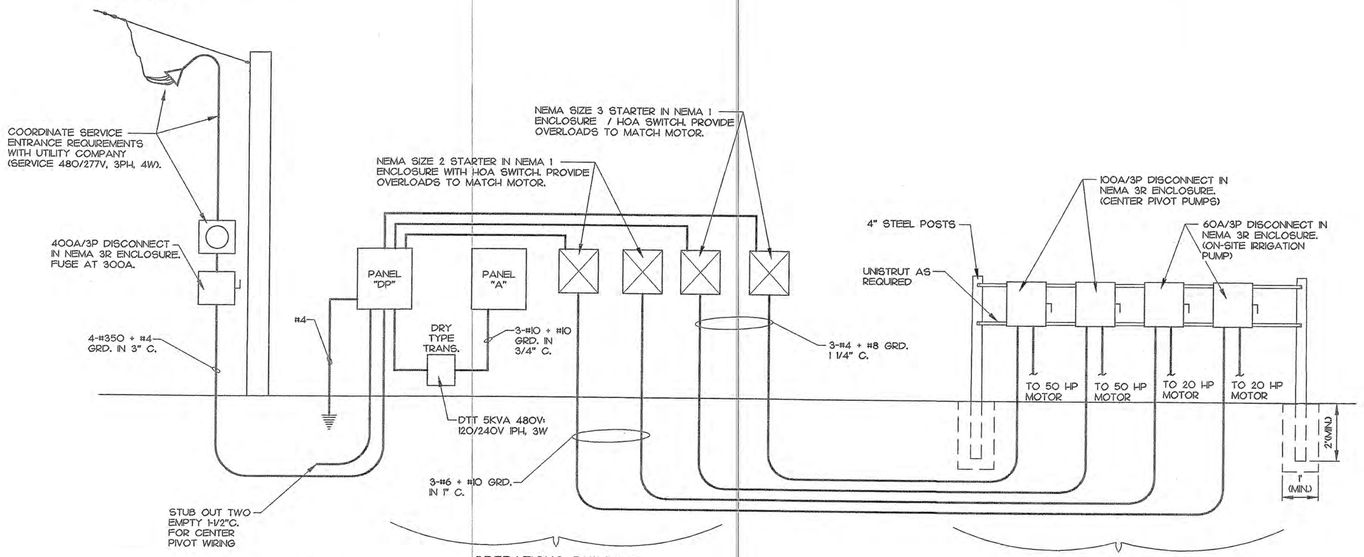



**ELECTRICAL RISER DIAGRAM**
TAILWATER STRUCTURE
NOT TO SCALE

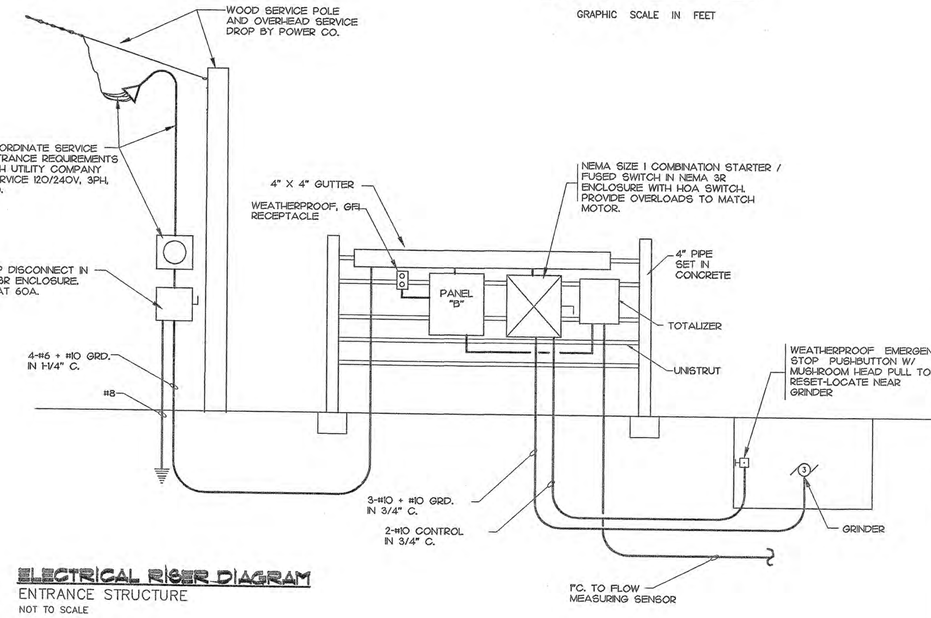



**OPERATIONS BUILDING**
SCALE: 1" = 2'

GRAPHIC SCALE IN FEET (0, 2, 4, 6)




**ELECTRICAL RISER DIAGRAM**
NOT TO SCALE




**ELECTRICAL RISER DIAGRAM**
ENTRANCE STRUCTURE
NOT TO SCALE

OLLER ENGINEERING, INC.

CLIENT :
CITY OF TAHOKA, TEXAS

OEI PROJECT :
WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision |
|---|---|
| | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-14.DWG | Drawn by : | J.L.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

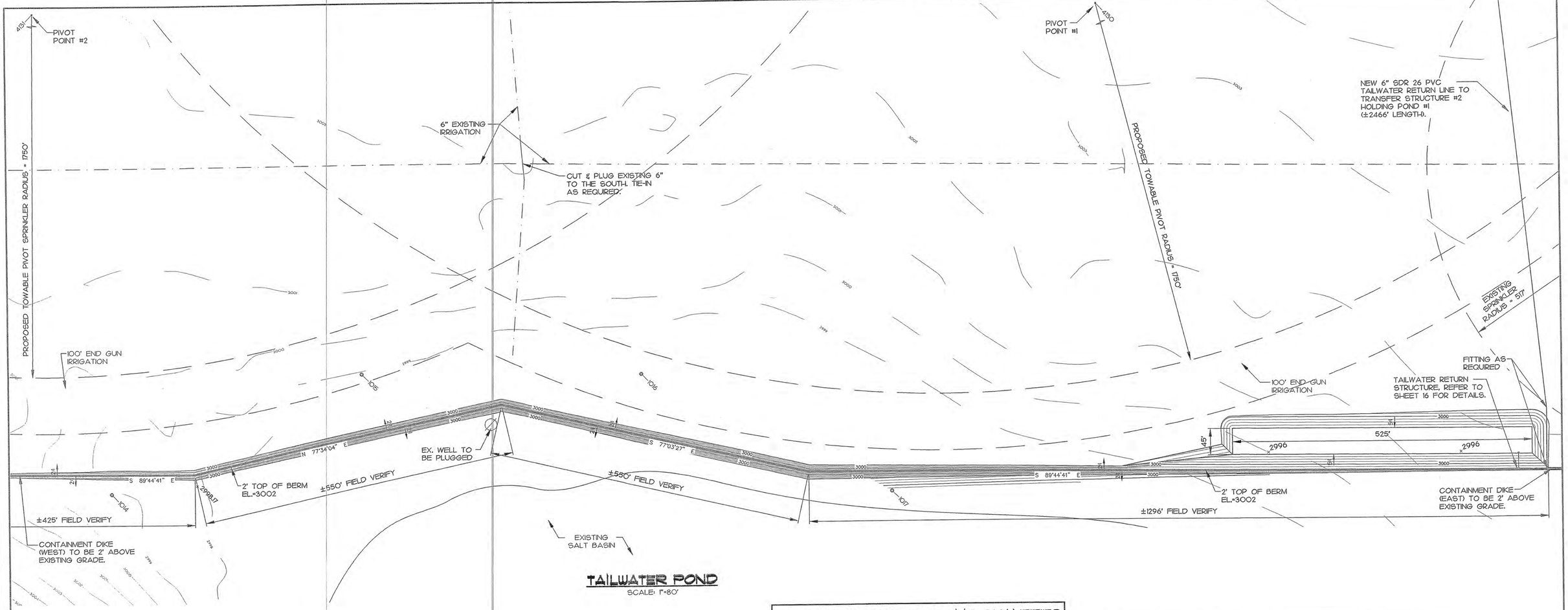
Notes
ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, NFPA, ALL APPLICABLE CODES AND JURISDICTIONS.
ALL ELECTRICAL BOXES TO BE LABELED W/ 2" X 1" BLACK PLASTIC W/ WHITE LETTERING LABELS.

RECORD DRAWING

SHEET TITLE :
OPERATIONS BUILDING, TAILWATER STRUCTURE & IRRIGATION STRUCTURE PANEL
# ELECTRICAL LAYOUT PLAN & DETAILS

SHEET 14 OF 17 SHEETS

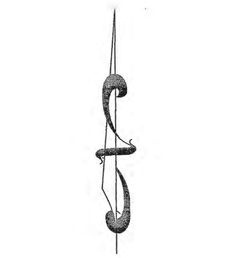
S:\SHARE\client\ENGINEER\TAHOKA\WWTP\2034.97\CADD DWGS\2034-14 Electrical Plan.dwg Jan 27 2004 04:52p




## TAILWATER POND
SCALE: 1"=80'

## LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES
- 1000 – CONTROL POINT
- 4000 – NODE POINTS



0 80 160 240

GRAPHIC SCALE IN FEET

## ESTIMATED EARTH VOLUME QUANTITIES

PRISMOIDAL METHOD

Original Surface Model: IRRIGATION_EXISTING
Final Surface Model: TAIL_5_29

| | |
|---|---|
| CUT: Raw cut volumes include the volume from existing grade to finish grade. | 7,178.00 cu yds. |
| RAW Fill Volume | 4,680.26 cu yds. |
| 25% Compaction on Fill | + 1,170.06 cu yds. |
| FILL: Raw fill volumes include the volume from existing grade to finish grade. | 5,850.32 cu yds. |
| CUT – Compacted FILL (7,178.00 – 5,850.32) | 1,327.68 cu yds. ~ EXCESS |
| CLAY LINER: Volume of liner (2' below finish grade extended to maximum water level). | 3,992.91 cu yds. |
| Assume 30% compaction for clay liner (3,992.91 x .30) | 1,197.88 cu yds. ~ DEFICIT |
| CUT – FILL Excess to be used for 30% compaction of clay liner. | 1,327.68 cu yds. ~ EXCESS<br>– 1,197.88 cu yds. ~ DEFICIT |
| | 129.80 cu yds. ~ NET EXCESS |

QUANTITIES ARE ESTIMATED. ANY DISCREPANCY SHOULD BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY.

QUANTITIES SHOWN HEREIN DO NOT INCLUDE VOLUMES FOR CONTAINMENT DIKES. CONTAINMENT DIKES ARE EXTENTIONS FROM THE TAILWATER POND AND BERMS. CONTAINMENT DIKES TO BE CONSTRUCTED WITH EXISTING INPLACE MATERIALS.

## TAILWATER POND NODE STAKEOUT

| | Node # | Northing–(y) | Easting–(x) | Elevation–(z) |
|---|---|---|---|---|
| Occupied Point: | 602 | 17365.08 | 4637.27 | –999999.00 |
| Backsight: | 603 | 17365.34 | 4691.40 | 0.00 |
| BS Direction: | N 89°43'46" E | | | |

| Node # | Angle | Distance | Description |
|---|---|---|---|
| 1013 | 137°28'08" | 2826.87 | CONTROL POINT – (W) 100' OFFSET W. |
| 1014 | 107°29'52" | 2052.19 | CONTROL POINT – (SW) 750' OFFSET SW. |
| 1015 | 95°46'01" | 1761.53 | CONTROL POINT – (NW) 250' OFFSET NW. |
| 1016 | 79°56'32" | 1784.52 | CONTROL POINT – (NE) 250' OFFSET NE. |
| 1017 | 69°12'36" | 2106.95 | CONTROL POINT – (SE) 750' OFFSET SE. |
| 1018 | 40°12'56" | 3022.04 | CONTROL POINT – (E) 100' OFFSET E. |
| 4130 | 03°22'38" | 848.78 | PIVOT POINT #1 |
| 4131 | 176°01'57" | 722.63 | PIVOT POINT #2 |

## TAILWATER POND NODE COORDINATES

| Node # | Northing | Easting | Description |
|---|---|---|---|
| 602 | 17365.08 | 4637.27 | PROPERTY CORNER |
| 603 | 17365.34 | 4691.40 | PROPERTY CORNER |
| 1013 | 15444.33 | 2563.17 | CONTROL POINT – (W) 100' OFFSET W. |
| 1014 | 15404.96 | 4029.49 | CONTROL POINT – (SW) 750' OFFSET SW. |
| 1015 | 15611.65 | 4468.55 | CONTROL POINT – (NW) 250' OFFSET NW. |
| 1016 | 15809.48 | 4957.21 | CONTROL POINT – (NE) 250' OFFSET NE. |
| 1017 | 15398.88 | 5394.41 | CONTROL POINT – (SE) 750' OFFSET SE. |
| 1018 | 15424.78 | 6954.15 | CONTROL POINT – (E) 100' OFFSET E. |
| 4130 | 17319.09 | 5484.80 | PIVOT POINT #1 |
| 4131 | 17311.68 | 3916.62 | PIVOT POINT #2 |

NOTES:
1. HORIZONTAL AND VERTICAL BASES TAKEN FROM A SURVEY PREPARED BY HAGAR AND ASSOCIATES, PC LAND SURVEYORS, DATED AUGUST 1, 2000, PLAT # H3463.

2. CITY TO SET CONTROL POINTS, 1000 THRU 1018 ONE TIME ONLY. CONTRACTOR'S RESPONSIBILITY TO MAINTAIN & PROTECT. ADDITIONAL & REPLACEMENT CONTROL POINTS WILL BE AT AN ADDITIONAL COST TO CONTRACTOR.

**RECORD DRAWING**

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS — RICH OLLER — 61831 — REGISTERED PROFESSIONAL ENGINEER

1/24/04 Date

| Date | Revision |
|---|---|
| | |

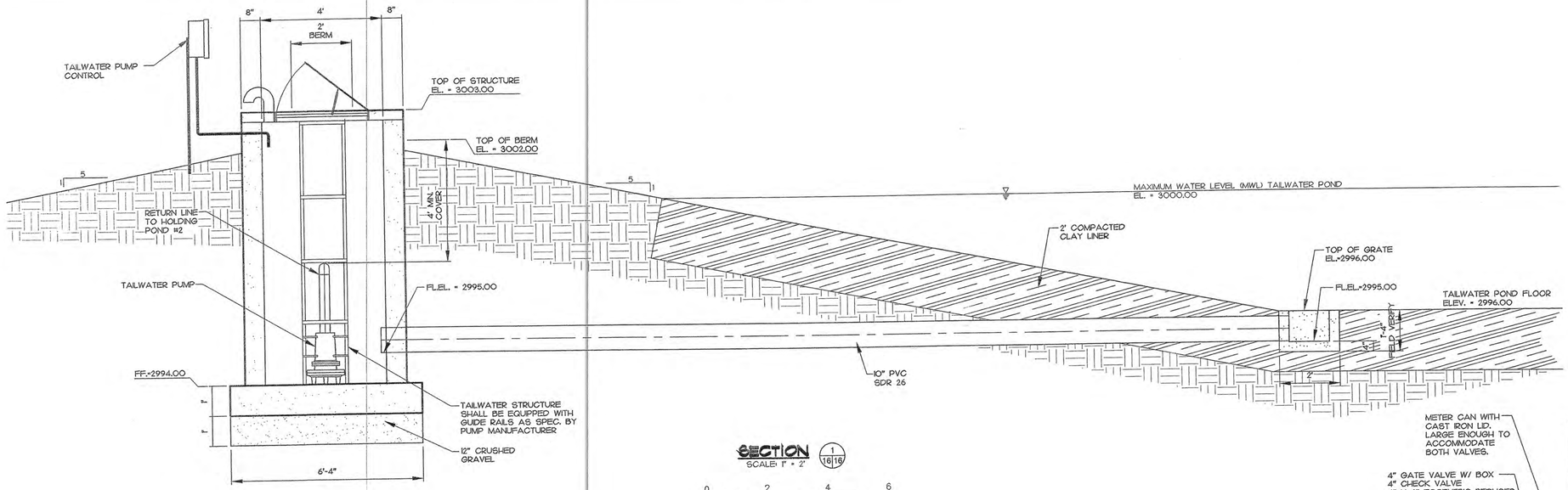
| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-15.DWG | Drawn by : | J.L.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes
EXISTING WELL TO BE PLUGGED AS SPECIFIED BY TNRCC.

SHEET TITLE :

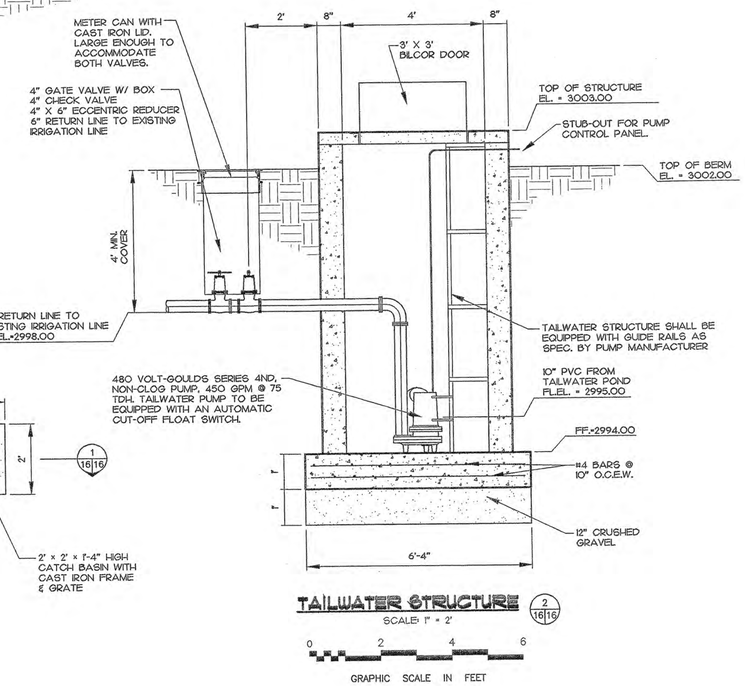
# TAILWATER POND

SHEET 15 OF 17 SHEETS



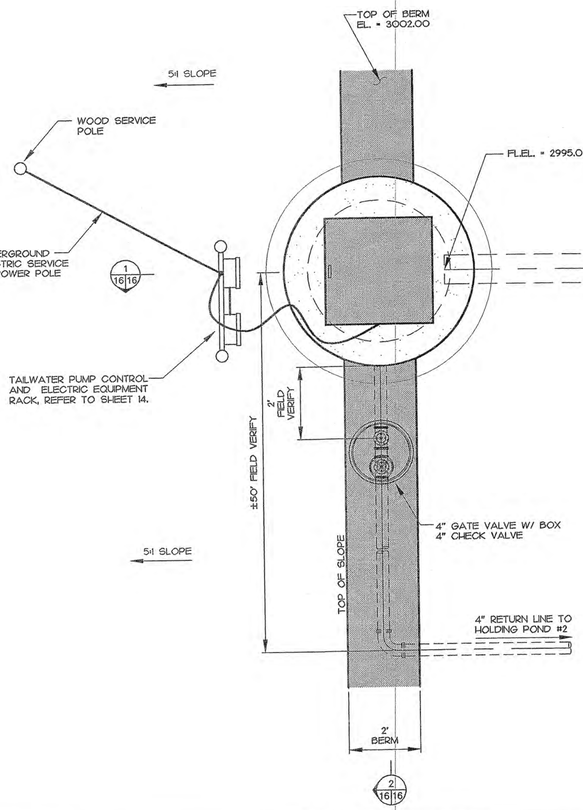

SECTION (1/16|16)
SCALE: 1" = 2'

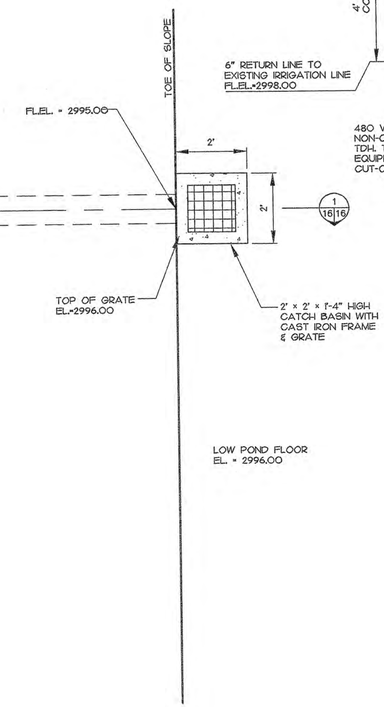
0 2 4 6
GRAPHIC SCALE IN FEET




TAILWATER STRUCTURE (2/16|16)
SCALE: 1" = 2'

0 2 4 6
GRAPHIC SCALE IN FEET






PLAN
TAILWATER STRUCTURE
SCALE: 1" = 2'

RECORD DRAWING

OLLER ENGINEERING, INC.

CLIENT : CITY OF TAHOKA, TEXAS

OEI PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS
RICH OLLER
61831
REGISTERED PROFESSIONAL ENGINEER
1/29/04 Date

| Date | Revision |
|---|---|
| | |

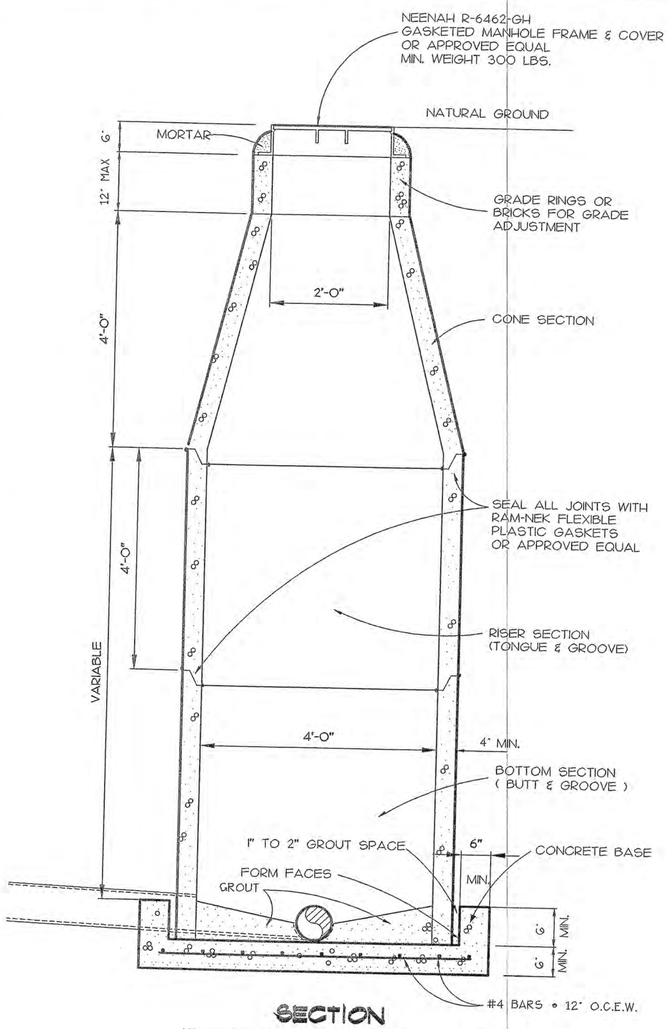
| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-16.DWG | Drawn by : | J.J.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes
PRECAST STRUCTURES TO BE PLACED ON TOP OF 1' CRUSHED GRAVEL.

SHEET TITLE :

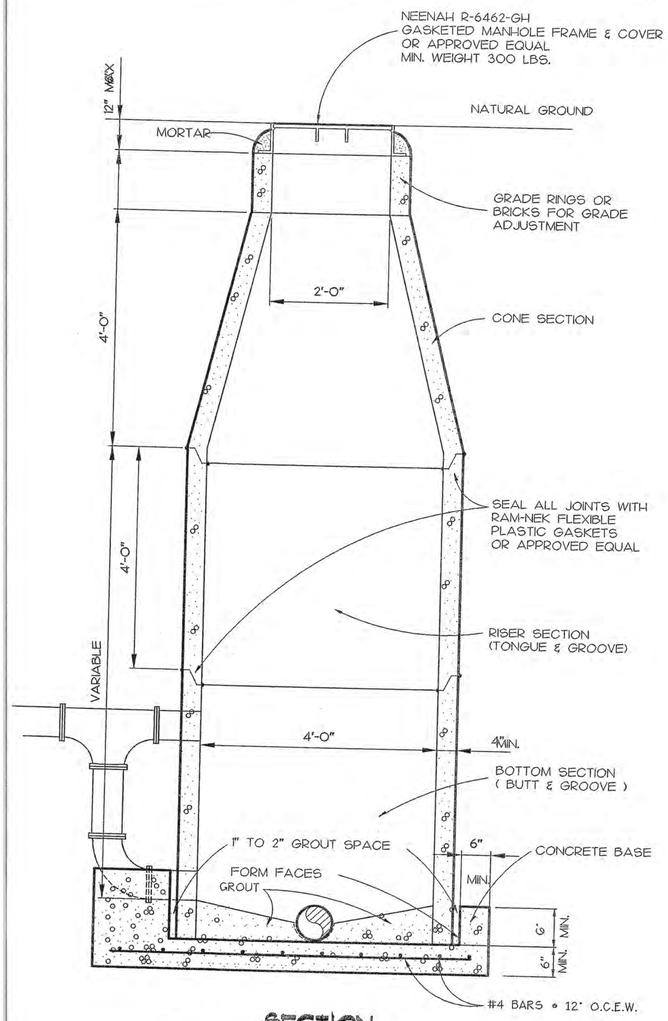
# TAILWATER STRUCTURE

SHEET 16 OF 17 SHEE




## SECTION
## PRECAST REINFORCED CONCRETE MANHOLE

NOT TO SCALE



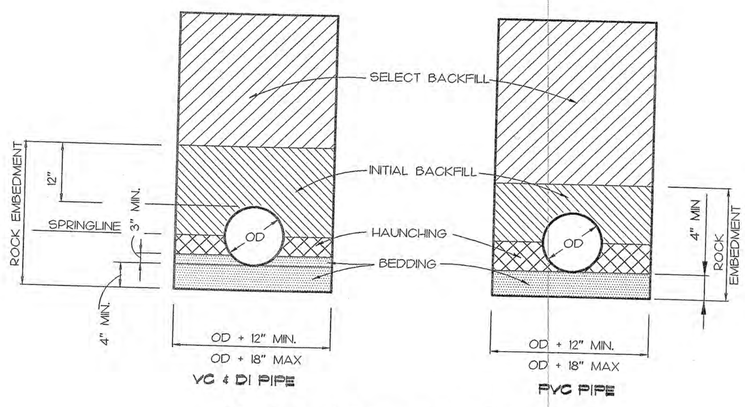

## SECTION
## PRECAST REINFORCED CONCRETE DROP MANHOLE

NOT TO SCALE

NOTES:

TRENCH BOXES SHALL BE CAPABLE OF RESISTING A UNIFORM LATERAL PRESSURE EQUAL TO 35 PSF TIMES THE DEPTH OF CUT.
P= 35 H
OR COMPLY WITH THE FOLLOWING TABLE:

| DEPTH OF TRENCH | UNIFORM PRESSURE |
|---|---|
| 5'-10' | 350 PSF |
| 10'-15' | 525 PSF |
| 15'-20' | 700 PSF |

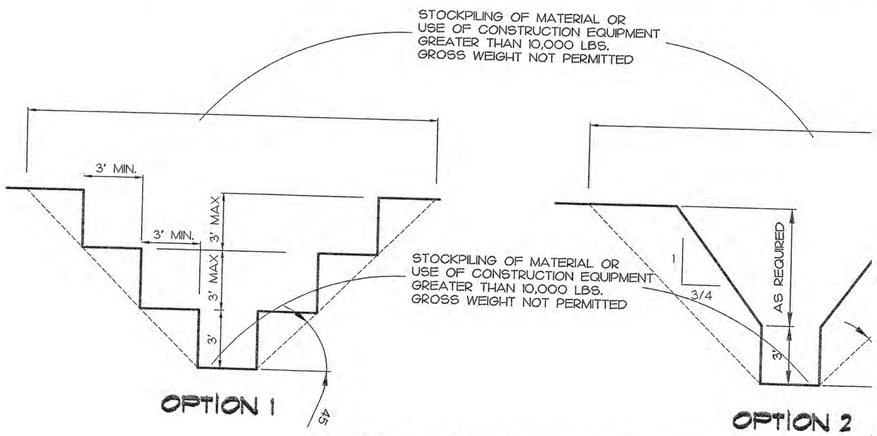



## SEWER LINE TRENCH DETAILS

NOT TO SCALE

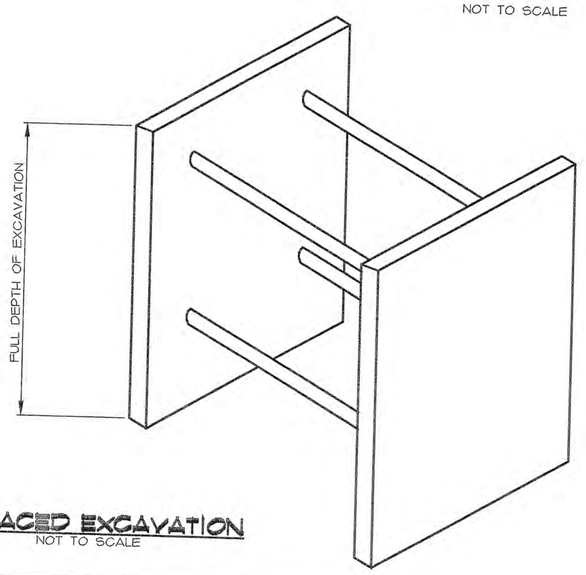
## TRENCH SAFETY
## GENERAL NOTES

1. WHERE TRENCHES ARE LESS THAN 5 FEET DEEP, THE CONTRACTOR SHALL PROVIDE TRENCH SAFETY IN COMPLIANCE WITH OSHA PART 1926 SUBPART P. WHERE EXCAVATIONS ARE SHOWN ON THE CONTRACT DOCUMENTS TO BE LESS THAN 5 FEET DEEP BUT ACTUAL GROUND CONDITIONS REQUIRE DEPTHS IN EXCESS OF 5 FEET, THE CONTRACTOR SHALL USE TRENCH SAFETY SYSTEM TYPE 1 OR TYPE 2.
2. WHEN THE DISTANCE BETWEEN PARALLEL TRENCHES IS LESS THAN THE DEPTH OF THE DEEPER TRENCH, THE FIRST TRENCH SHALL BE BACKFILLED BEFORE EXCAVATION OF THE SECOND TRENCH IS BEGUN.
3. TRENCH SAFETY SYSTEMS ARE DESIGNED ASSUMING THAT ALL TRENCHES WILL BE ABOVE THE WATER TABLE. IF WATER SEEPAGE IS NOTED IN ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
4. CONTRACTOR SHALL PROVIDE ADEQUATE SAFETY MEASURES FOR ALL WORKERS DURING INSTALLATION AND REMOVAL OF SHORING SYSTEMS AND SHALL PROVIDE LADDERS OR OTHER MEANS OF EGRESS IN ALL TRENCHES SPACED AT 25 FEET O.C. MAXIMUM.
5. SHORING SHALL BE INSTALLED AS SOON AS POSSIBLE AFTER THE TRENCH IS EXCAVATED AND TRENCHES SHALL BE LEFT OPEN ONLY AS LONG AS IS ABSOLUTELY NECESSARY.
6. AT CONTRACTOR'S OPTION, A WOOD BRACED SHEETING SYSTEM MAY BE SUBSTITUTED FOR TRENCH BOXES. CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO USING A SUBSTITUTE SYSTEM. SHEETING FOR WOOD BRACED SYSTEMS MAY BE EITHER WOOD OR STEEL SHEET PILING.
7. TRENCH BOXES SHALL HAVE A CERTIFIED DEPTH RATING INCLUDING DESIGN PRESSURE ATTACHED TO EACH SEGMENT OF THE BOX.




## TRENCH SAFETY SYSTEM - TYPE 1
## CUT BACK METHOD

NOT TO SCALE




## BRACED EXCAVATION

NOT TO SCALE

OLLER ENGINEERING, INC.

NT : CITY OF TAHOKA, TEXAS

PROJECT : WASTEWATER TREATMENT PLANT

Designed by :

STATE OF TEXAS
RICH OLLER
61831
REGISTERED PROFESSIONAL ENGINEER

1/29/04 Date

| Date | Revision | Notes |
|---|---|---|
| | | |

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-17.DWG | Drawn by : | J.L.R. |
| Q.A. : | R.M.O. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

SHEET TITLE :

# MISC. SEWER DETAILS

April 17, 2002

TNRCC Applications Team
Wastewater Permits Section (MC 148)
Water Quality Division
Building F. Room 2101
12100 Park 35 Circle
Austin, Texas 78753

**RE: City of Tahoka WWTP, TNRCC WQ Permit No. 10298-002**

Dear Applications Team:

Construction of the domestic wastewater treatment facility permitted under WQ Permit No. 10298-002 was completed in March 29, 2002. The treatment facility is scheduled to receive water on April 19, 2002. This serves as the formal notice to the Texas Natural Resource Conservation Commission on the official date of operation of the Tahoka wastewater treatment plant. If you have any questions regarding this matter please feel free to call.

Sincerely,

OLLER ENGINEERING, INC.

_____

David Esquivel, E.I.T.
Project Manager

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

**Complete and submit this checklist with the application.**

APPLICANT: City of Tahoka

PERMIT NUMBER: WQ0010298002

**Indicate if each of the following items is included in your application.**

| | Y | N | | Y | N |
|---|---|---|---|---|---|
| Administrative Report 1.0 | ☒ | ☐ | Original USGS Map | ☒ | ☐ |
| Administrative Report 1.1 | ☒ | ☐ | Affected Landowners Map | ☒ | ☐ |
| SPIF | ☐ | ☒ | Landowner Disk or Labels | ☒ | ☐ |
| Core Data Form | ☒ | ☐ | Buffer Zone Map | ☒ | ☐ |
| Public Involvement Plan Form | ☒ | ☐ | Flow Diagram | ☒ | ☐ |
| Technical Report 1.0 | ☒ | ☐ | Site Drawing | ☒ | ☐ |
| Technical Report 1.1 | ☒ | ☐ | Original Photographs | ☐ | ☒ |
| Worksheet 2.0 | ☐ | ☒ | Design Calculations | ☒ | ☐ |
| Worksheet 2.1 | ☐ | ☒ | Solids Management Plan | ☐ | ☒ |
| Worksheet 3.0 | ☒ | ☐ | Water Balance | ☒ | ☐ |
| Worksheet 3.1 | ☒ | ☐ | | | |
| Worksheet 3.2 | ☐ | ☒ | | | |
| Worksheet 3.3 | ☐ | ☒ | | | |
| Worksheet 4.0 | ☐ | ☒ | | | |
| Worksheet 5.0 | ☐ | ☒ | | | |
| Worksheet 6.0 | ☒ | ☐ | | | |
| Worksheet 7.0 | ☐ | ☒ | | | |

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

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

## Section 1. Application Fees (Instructions Page 29)

**Indicate the amount submitted for the application fee (check only one).**

| Flow | New/Major Amendment | Renewal |
|---|---|---|
| <0.05 MGD | $350.00 ☐ | $315.00 ☐ |
| ≥0.05 but <0.10 MGD | $550.00 ☐ | $515.00 ☐ |
| ≥0.10 but <0.25 MGD | $850.00 ☐ | $815.00 ☐ |
| ≥0.25 but <0.50 MGD | $1,250.00 ☒ | $1,215.00 ☐ |
| ≥0.50 but <1.0 MGD | $1,650.00 ☐ | $1,615.00 ☐ |
| ≥1.0 MGD | $2,050.00 ☐ | $2,015.00 ☐ |

Minor Amendment (for any flow) $150.00 ☐

**Payment Information:**

Mailed Check/Money Order Number: 1062

Check/Money Order Amount: $35.00 balance due

Name Printed on Check: Civil 360, PLLC

EPAY Voucher Number: Click here to enter text.

Copy of Payment Voucher enclosed? Yes ☒

## Section 2. Type of Application (Instructions Page 29)

☐ New TPDES ☒ New TLAP

☐ Major Amendment *with* Renewal ☐ Minor Amendment *with* Renewal

☐ Major Amendment *without* Renewal ☐ Minor Amendment *without* Renewal

☐ Renewal without changes ☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes: Click here to enter text.

**For existing permits**:

Permit Number: WQ0000102

EPA I.D. (TPDES only): TX Click here to enter text.

Expiration Date: Click here to enter text.

## Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

**A. The owner of the facility must apply for the permit.**

What is the Legal Name of the entity (applicant) applying for this permit?

City of Tahoka

*(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)*

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at http://www15.tceq.texas.gov/crpub/

CN: 601097934

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

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

First and Last Name: Ronny Jolly

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: Mayor

**B. Co-applicant information.** Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

Click here to enter text

*(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)*

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: http://www15.tceq.texas.gov/crpub/

CN: Click here to enter text

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): Click here to enter text

First and Last Name: Click here to enter text

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: Click here to enter text

Provide a brief description of the need for a co-permittee: Click here to enter text

**C. Core Data Form**

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

**Attachment:** 1.0

## Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

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

First and Last Name: Matt Hopper

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Consultant

Organization Name: Civil 360, PLLC

Mailing Address: 8553 N. Beach Street, Suite 186

City, State, Zip Code: Keller, TX 76244

Phone No.: (214) 773-2966 Ext.: Click here to enter text. Fax No.: n/a

E-mail Address: mhopper@civil-360.net

Check one or both: ☐ Administrative Contact ☒ Technical Contact

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Administrator

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: dstephens@tahoka.org

Check one or both: ☒ Administrative Contact ☐ Technical Contact

## Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

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

First and Last Name: Matt Hopper

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Consultant

Organization Name: Civil 360, PLLC

Mailing Address: 8553 N. Beach Street, Suite 186

City, State, Zip Code: Keller, TX 76244

Phone No.: (214) 773-2966 Ext.: Click here to enter text. Fax No.: n/a

E-mail Address: mhopper@civil-360.net

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

First and Last Name: Ronny Jolly

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Mayor

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: rjolly@tahoka.org

## Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Administrator

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: dstephens@tahoka.org

## Section 7. DMR/MER Contact Information (Instructions Page 31)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (EPA 3320-1) or maintain Monthly Effluent Reports.

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

First and Last Name: Raymond Vega

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Public Works Director

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 759-1222 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: rvega@tahoka.org

DMR data is required to be submitted electronically. Create an account at: https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

## Section 8. Public Notice Information (Instructions Page 31)

**A. Individual Publishing the Notices**

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

First and Last Name: Nacona Martinez

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Secretary

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: nmartinez@tahoka.org

**B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package**

Indicate by a check mark the preferred method for receiving the first notice and instructions:

☒ E-mail Address

☐ Fax

☐ Regular Mail

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

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Administrator

Organization Name: City of Tahoka

Phone No.: (806) 561-4211 Ext.: Click here to enter text.

E-mail: dstephens@tahoka.org

**D. Public Viewing Information**

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

Public building name: Tahoka City Hall

Location within the building: Office of the City Secretary

Physical Address of Building: 1807 N. Main Street

City: Tahoka County: Lynn

Contact Name: Nacona Martinez

Phone No.: (806) 561-4211 Ext.: Click here to enter text.

**E. Bilingual Notice Requirements:**

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal applications**.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

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

   ☒ Yes ☒ No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

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 question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

**F. Public Involvement Plan Form**

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

**Attachment:** 2.0

## Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

**A.** If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**103138079

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

**B.** Name of project or site (the name known by the community where located):

City of Tahoka Wastewater Treatment Plant

**C.** Owner of treatment facility: City of Tahoka

Ownership of Facility: ☒ Public ☐ Private ☐ Both ☐ Federal

**D.** Owner of land where treatment facility is or will be:

Prefix (Mr., Ms., Miss): Click here to enter text

First and Last Name: City of Tahoka

Mailing Address: Click here to enter text

City, State, Zip Code: Click here to enter text

Phone No.: Click here to enter text E-mail Address: Click here to enter text

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment:** Click here to enter text

**E.** Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): Click here to enter text

First and Last Name: City of Tahoka

Mailing Address: Click here to enter text

City, State, Zip Code: Click here to enter text

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment**: Click here to enter text.

**F.** Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment**: Click here to enter text.

## Section 10. TPDES Discharge Information (Instructions Page 34)

**A.** Is the wastewater treatment facility location in the existing permit accurate?

☐ Yes ☐ No

If **no**, **or a new permit application**, please give an accurate description:

Not applicable for this site

**B.** Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☐ Yes ☐ No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

Not applicable for this site

City nearest the outfall(s): Click here to enter text.

County in which the outfalls(s) is/are located: Click here to enter text.

Outfall Latitude: Click here to enter text. Longitude: Click here to enter text.

**C.** Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☐ No

If **yes**, indicate by a check mark if:

☐ Authorization granted ☐ Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

**Attachment:** Click here to enter text.

**D.** For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

Not applicable for this site

## Section 11. TLAP Disposal Information (Instructions Page 36)

**A.** For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☒ Yes ☐ No

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

0.3 miles east of the intersection of US Highway 87 and County Road 24, then 0.7 miles south on unpaved private access road

**B.** City nearest the disposal site: City of Tahoka, TX

**C.** County in which the disposal site is located: Lynn

**D.** Disposal Site Latitude: 33.136819 Longitude: 101.795119

**E.** For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

The effluent is contained in the holding pond prior to irrigation. The effluent is pumped to a center pivot for surface irrigation on non-public accessible grassland

**F.** For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

Double Mountain Fork Brazos River

## Section 12. Miscellaneous Information (Instructions Page 37)

**A.** Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes ☒ No

**B.** If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No ☒ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

Click here to enter text

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

☐ Yes ☒ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:

Click here to enter text

**D.** Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If **yes**, provide the following information:

Account number: Click here to enter text Amount past due: Click here to enter text

**E.** Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If **yes**, please provide the following information:

Enforcement order number: Click here to enter text Amount past due: Click here to enter text

## Section 13. Attachments (Instructions Page 38)

Indicate which attachments are included with the Administrative Report. Check all that apply:

☐ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

☒ Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary

- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: See Attachment A for USGS Map

| |
|---|
| Attachment A for USGS Map |
| Attachment B for Affected Landowners Map w/ Table |
| Attachment C for Original Photographs of irrigation area and treatment plant |
| Attachment D for Buffer Zone Map |

## Section 14. Signature Page (Instructions Page 39)

***If co-applicants are necessary, each entity must submit an original, separate signature page.***

Permit Number: WQ0010298002

Applicant: City of Tahoka, Texas

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the 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 and imprisonment for knowing violations.

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 (typed or printed): Ronny Jolly

Signatory title: Mayor

Signature: Ronny a. Jolly Date: 5.30.2024

(Use blue ink)

Subscribed and Sworn to before me by the said Mayor

on this 30 day of May, 2024.

My commission expires on the 13 day of July, 2025.

Nacona Martinez

Notary Public

NACONA MARTINEZ
NOTARY PUBLIC
STATE OF TEXAS
ID # 13439883-7
My Comm. Expires 06-08-2027

Lynn

County, Texas

CITY OF TAHOKA TEXAS

# Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS**

**DOMESTIC WASTEWATER**

*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.*
The City of Tahoka (CN601097934 ) operates the Tahoka wastewater treatment plant RN103138079. a facultative lagoon system with land application disposal features. The facility is located 1 mile southeast of the city limits, in Tahoka, Lynn County, Texas 79373.

This new application is for land application of 360,000 gallons per day of treated domestic wastewater. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain 5-day Biochemical Oxygen Demand and a limited range of pH.Domestic wastewater will be treated by anaerobic process through a facultative lagoon and multiple holding ponds. Pre-treatment units include a manual bar screen.

SPANISH translation below

La ciudad de Tahoka (CN601097934) opera la planta de tratamiento de aguas residuales de Tahoka RN103138079. un sistema lagunar facultativo con características de disposición de aplicación terrestre. La instalación está ubicada a 1 milla al sureste de los límites de la ciudad, en Tahoka, condado de Lynn, Texas 79373.

Esta nueva solicitud es para la aplicación terrestre de 360,000 galones por día de aguas residuales domésticas tratadas. Este permiso no autorizará una descarga de contaminantes al agua del estado.

Se espera que las descargas de la instalación contengan una demanda bioquímica de oxígeno de 5 días y un rango limitado de pH. Las aguas residuales domésticas serán tratadas mediante un proceso anaeróbico a través de una laguna facultativa y múltiples estanques de retención. Las unidades de pretratamiento incluyen una criba de barras manual.

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS TPDES o TLAP**

**AGUAS RESIDUALES DOMÉSTICAS**

*El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.*

1. Introduzca el nombre del solicitante aquí. (2. Introduzca el número de cliente aquí (es decir, CN6 #########). ) 3. Elija del menú desplegable. 4. Introduzca el nombre de la instalación aquí. 5. Introduzca el número de entidad regulada aquí (es decir, RN1 #########). 6. Elija del menú desplegable. 7. Introduzca la descripción de la instalación aquí. . La instalación 8. Elija del menú desplegable. ubicado 9. Introduzca la ubicación aquí. , en 10. Introduzca el nombre de la ciudad aquí. , Condado de 11. Introduzca el nombre del condado aquí. , Texas 12. Introduzca el código postal aquí. . 13. Introduzca el resumen de la solicitud de solicitud aquí. *<<Para las aplicaciones de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan14. Liste todos los contaminantes esperados aquí. . 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable. tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

# DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

## Section 1. Affected Landowner Information (Instructions Page 41)

**A.** Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- ☒ The applicant's property boundaries
- ☒ The facility site boundaries within the applicant's property boundaries
- ☒ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☒ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☒ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☒ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

**B.** ☒ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

**C.** Indicate by a check mark in which format the landowners list is submitted:

☒ USB Drive ☐ Four sets of labels

**D.** Provide the source of the landowners' names and mailing addresses: Lynn County Appraisal District, 1615 Main St, Tahoka TX, 79373, data compiled 5/20/2024

**E.** As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☒ No

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

Click here to enter text.

## Section 2. Original Photographs (Instructions Page 44)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

☒ At least one original photograph of the new or expanded treatment unit location

☐ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☒ At least one photograph of the existing/proposed effluent disposal site

☐ A plot plan or map showing the location and direction of each photograph

## Section 3. Buffer Zone Map (Instructions Page 44)

**A.** Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

**B.** Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

☒ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

**C.** Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☒ Yes ☐ No

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

## FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

**TCEQ USE ONLY:**

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

**This form applies to TPDES permit applications only.** (Instructions, Page 53)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

**Do not refer to a response of any item in the permit application form**. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: Click here to enter text

   Permit No. WQ00 Click here to enter text EPA ID No. TX Click here to enter text

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   Click here to enter text

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: Click here to enter text.

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: Click here to enter text.

2. List the county in which the facility is located: Click here to enter text.
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

Click here to enter text.

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

Click here to enter text.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future

☐ Sealing caves, fractures, sinkholes, other karst features

☐ Disturbance of vegetation or wetlands

6. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

Click here to enter text.

7. Describe existing disturbances, vegetation, and land use:

Click here to enter text.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

8. List construction dates of all buildings and structures on the property:

Click here to enter text.

9. Provide a brief history of the property, and name of the architect/builder, if known.

Click here to enter text.

# WATER QUALITY PERMIT

# PAYMENT SUBMITTAL FORM

**Use this form to submit the Application Fee, if the mailing the payment.**

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

**Mail this form and the check or money order to:**

*BY REGULAR U.S. MAIL*

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

*BY OVERNIGHT/EXPRESS MAIL*

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

**Fee Code: WQP** **Waste Permit No:** WQ 0010298002

1. Check or Money Order Number: 1062
2. Check or Money Order Amount: $ 35.00
3. Date of Check or Money Order: 5/24/2024
4. Name on Check or Money Order: TCEQ
5. APPLICATION INFORMATION

   Name of Project or Site: City of Tahoka Wastewater Treatment Plant

   Physical Address of Project or Site: n/a

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

**Staple Check or Money Order in This Space**

THIS PAGE INTENTIONALLY LEFT BLANK

## Section 1. Individual Information (Instructions Page 50)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): Click here to enter text.

Full legal name (first, middle, last): Click here to enter text.

Driver's License or State Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, and Zip Code: Click here to enter text.

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

CN: Click here to enter text.

**For Commission Use Only:**
Customer Number:
Regulated Entity Number:
Permit Number:

## CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of domestic wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate by checking Yes that each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until the items below have been addressed.

Core Data Form (TCEQ Form No. 10400) ☐ Yes
*(Required for all applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)*

Correct and Current Industrial Wastewater Permit Application Forms ☐ Yes
*(TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)*

Water Quality Permit Payment Submittal Form (Page 19) ☐ Yes
*(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)*

7.5 Minute USGS Quadrangle Topographic Map Attached ☐ Yes
*(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)*

Current/Non-Expired, Executed Lease Agreement or Easement Attached ☐ N/A ☐ Yes

Landowners Map ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

**Things to Know:**

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

Landowners Cross Reference List ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

Landowners Labels or USB Drive attached ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

Original signature per 30 TAC § 305.44 – Blue Ink Preferred ☐ Yes
*(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION**

# DOMESTIC TECHNICAL REPORT 1.0

**The Following Is Required For All Applications**

**Renewal, New, And Amendment**

## Section 1. Permitted or Proposed Flows (Instructions Page 51)

**A. Existing/Interim I Phase**

Design Flow (MGD): 0.36

2-Hr Peak Flow (MGD): 0.50

Estimated construction start date: n/a

Estimated waste disposal start date: n/a

**B. Interim II Phase**

Design Flow (MGD): n/a

2-Hr Peak Flow (MGD): Click here to enter text.

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

**C. Final Phase**

Design Flow (MGD): n/a

2-Hr Peak Flow (MGD): Click here to enter text.

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

**D. Current operating phase: Existing**

Provide the startup date of the facility: Click here to enter text.

## Section 2. Treatment Process (Instructions Page 51)

**A. Treatment process description**

Provide a detailed description of the treatment process. **Include the type of**

**treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided**. Process description:

The treatment plant is a pond system. The City's wastewater is treated by a facultative lagoon. Effluent is stored in two holding ponds prior to irrigation of grassland.

Port or pipe diameter at the discharge point, in inches: n/a

### B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation**.

***Table 1.0(1) – Treatment Units***

| Treatment Unit Type | Number of Units | Dimensions (L x W x D) |
|---|---|---|
| Facultative Lagoon (aerobic end) | 1 | 270' x 810' x 6'-9' @ freeboard |
| Facultative Lagoon (anaerobic end) | 1 | 12' deep @ freeboard |
| Holding Pond #1 | 1 | 385' x 225' x 12' @ 2' freeboard |
| Holding Pond #2 | 1 | 420' x 265' x 12' @ 2' freeboard |
| | | |
| | | |
| | | |

### C. Process flow diagrams

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

**Attachment**: See Attachment E

## Section 3. Site Drawing (Instructions Page 52)

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

**Attachment**: See Attachment F

Provide the name and a description of the area served by the treatment facility.

The area served by the treatment facility is the City Limits of the City of Tahoka and its extra-territorial jurisdiction.

## Section 4. Unbuilt Phases (Instructions Page 52)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

Yes ☐ No ☒

**If yes**, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ?

Yes ☐ No ☐

**If yes**, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.

Click here to enter text.

## Section 5. Closure Plans (Instructions Page 53)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

Yes ☐ No ☒

**If yes**, was a closure plan submitted to the TCEQ?

Yes ☐ No ☐

**If yes**, provide a brief description of the closure and the date of plan approval.

Click here to enter text.

## Section 6. Permit Specific Requirements (Instructions Page 53)

**For applicants with an existing permit, check the *Other Requirements* or *Special Provisions* of the permit.**

### A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

Yes ☒ No ☐

**If yes**, provide the date(s) of approval for each phase: June 21, 2001

Provide information, including dates, on any actions taken to meet a requirement or provision pertaining to the submission of a summary transmittal letter. Provide a copy of an approval letter from the TCEQ, if applicable.

Click here to enter text.

**B. Buffer zones**

Have the buffer zone requirements been met?

Yes ☒ No ☐

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

The east buffer zone encroaches on adjoining property after a 150' railroad easement was abandoned and one-half of the easement transferred to each adjoining landowner. The original permit issuance satisfied the buffer zone requirements with the easement in place.

**C. Other actions required by the current permit**

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

Yes ☒ No ☐

**If yes**, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Annual soil monitoring from representative samples – last sample collection taken 3/23/2023 and results are provided with this application.

**D. Grit and grease treatment**

## *1. Acceptance of grit and grease waste*

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

Yes ☐ No ☒

**If No**, stop here and continue with Subsection E. Stormwater Management.

## *2. Grit and grease processing*

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

Click here to enter text

## *3. Grit disposal*

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

Yes ☐ No ☒

**If No**, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

Click here to enter text

## *4. Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

Describe how the decant and grease are treated and disposed of after grit separation.

Click here to enter text

## E. Stormwater management

### *1. Applicability*

Does the facility have a design flow of 1.0 MGD or greater in any phase?

Yes ☐ No ☒

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

Yes ☐ No ☒

**If no to both of the above**, then skip to Subsection F, Other Wastes Received.

### *2. MSGP coverage*

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

Yes ☐ No ☐

**If yes**, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 Click here to enter text or TXRNE Click here to enter text

**If no**, do you intend to seek coverage under TXR050000?

Yes ☐ No ☐

### *3. Conditional exclusion*

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

Yes ☐ No ☐

**If yes**, please explain below then proceed to Subsection F, Other Wastes Received:

Click here to enter text

### *4. Existing coverage in individual permit*

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

Yes ☐ No ☐

**If yes**, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

Click here to enter text

## *5. Zero stormwater discharge*

Do you intend to have no discharge of stormwater via use of evaporation or other means?

Yes ☐ No ☐

**If yes**, explain below then skip to Subsection F. Other Wastes Received.

Click here to enter text

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

## *6. Request for coverage in individual permit*

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

Yes ☐ No ☐

**If yes**, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to

the treatment plant headworks and indirectly discharge it to water in the state.

Click here to enter text.

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

**F. Discharges to the Lake Houston Watershed**

Does the facility discharge in the Lake Houston watershed?
Yes ☐ No ☐

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

**G. Other wastes received including sludge from other WWTPs and septic waste**

## *1. Acceptance of sludge from other WWTPs*

Does the facility accept or will it accept sludge from other treatment plants at the facility site?
Yes ☐ No ☐

**If yes, attach sewage sludge solids management plan. See Example 5 of the instructions.**

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the $BOD_5$ concentration of the sludge, and the design $BOD_5$ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

## *2. Acceptance of septic waste*

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☐

**If yes**, does the facility have a Type V processing unit?

Yes ☐ No ☐

**If yes**, does the unit have a Municipal Solid Waste permit?

Yes ☐ No ☐

**If yes to any of the above**, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the $BOD_5$ concentration of the septic waste, and the design $BOD_5$ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

## *3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)*

Is the facility accepting or will it accept wastes that are not domestic in nature excluding the categories listed above?

Yes ☐ No ☒

**If yes**, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also

note if this information has or has not changed since the last permit action.

Click here to enter text.

## Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☒ No ☐

**If no**, this section is not applicable. Proceed to Section 8.

**If yes**, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **W*ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

Note: The sample date must be within 1 year of application submission.

***Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities***

| **Pollutant** | **Average Conc.** | **Max Conc.** | **No. of Samples** | **Sample Type** | **Sample Date/Time** |
|---|---|---|---|---|---|
| $CBOD_5$, mg/l | 22.3 | 22.3 | 1 | Grab | 2/22/24 8:51 am |
| Total Suspended Solids, mg/l | 46.7 | 46.7 | 1 | Grab | same |
| Ammonia Nitrogen, mg/l | 9.65 | 9.65 | 1 | Grab | same |
| Nitrate Nitrogen, mg/l | <1.0 | <1.0 | 1 | Grab | same |
| Total Kjeldahl Nitrogen, mg/l | 128 | 128 | 1 | Grab | same |
| Sulfate, mg/l | 150 | 150 | 1 | Grab | same |
| Chloride, mg/l | 430 | 430 | 1 | Grab | same |
| Total Phosphorus, mg/l | 4.92 | 4.92 | 1 | Grab | same |
| pH, standard units | 7.70 | 7.70 | 1 | Grab | same |
| Dissolved Oxygen*, mg/l | -- | -- | -- | -- | -- |
| Chlorine Residual, mg/l | N/D | N/D | 1 | Grab | same |
| *E.coli* (CFU/100ml) freshwater | -- | -- | -- | -- | -- |

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| Entercocci (CFU/100ml) saltwater | -- | -- | -- | -- | -- |
| Total Dissolved Solids, mg/l | 1240 | 1240 | 1 | Grab | same |
| Electrical Conductivity, µmohs/cm, † | 2300 | 2300 | 1 | Grab | same |
| Oil & Grease, mg/l | -- | -- | -- | -- | -- |
| Alkalinity ($CaCO_3$)*, mg/l | -- | -- | -- | -- | -- |

*TPDES permits only

†TLAP permits only

***Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities***

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| Total Suspended Solids, mg/l | N/A | | | | |
| Total Dissolved Solids, mg/l | N/A | | | | |
| pH, standard units | N/A | | | | |
| Fluoride, mg/l | N/A | | | | |
| Aluminum, mg/l | N/A | | | | |
| Alkalinity ($CaCO_3$), mg/l | N/A | | | | |

## Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Raymond Vega

Facility Operator's License Classification and Level: Wastewater Operator D

Facility Operator's License Number: WW0002567

## Section 9. Sewage Sludge Management and Disposal (Instructions

## Page 60)

### A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☐ Permitted landfill
- ☐ Permitted or Registered land application site for beneficial use
- ☐ Land application for beneficial use authorized in the wastewater permit
- ☐ Permitted sludge processing facility
- ☐ Marketing and distribution as authorized in the wastewater permit
- ☐ Composting as authorized in the wastewater permit
- ☐ Permitted surface disposal site (sludge monofill)
- ☐ Surface disposal site (sludge monofill) authorized in the wastewater permit
- ☐ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.
- ☒ Other: Not applicable due to a facultative lagoon treatment system

### B. Sludge disposal site

Disposal site name: Click here to enter text.

TCEQ permit or registration number: Click here to enter text.

County where disposal site is located: Click here to enter text.

### C. Sludge transportation method

Method of transportation (truck, train, pipe, other): Click here to enter text.

Name of the hauler: Click here to enter text.

Hauler registration number: Click here to enter text.

Sludge is transported as a:

Liquid ☐ semi-liquid ☐ semi-solid ☐ solid ☐

## Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

### A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

Yes ☐ No ☒

**If yes**, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

Yes ☐ No ☐

**If yes**, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

Yes ☐ No ☐

### B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

| | | |
|---|---|---|
| Sludge Composting | Yes ☐ | No ☒ |
| Marketing and Distribution of sludge | Yes ☐ | No ☒ |
| Sludge Surface Disposal or Sludge Monofill | Yes ☐ | No ☒ |
| Temporary storage in sludge lagoons | Yes ☐ | No ☒ |

**If yes** to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

Yes ☐ No ☐

## Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

If yes, complete the remainder of this section. If no, proceed to Section 12.

### A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

  **Attachment**: Click here to enter text.

- USDA Natural Resources Conservation Service Soil Map:

  **Attachment**: Click here to enter text.

- Federal Emergency Management Map:

  **Attachment**: Click here to enter text.

- Site map:

  **Attachment**: Click here to enter text.

Discuss in a description if any of the following exist within the lagoon area.

Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands
- ☐ Located less than 60 meters from a fault
- ☐ None of the above

**Attachment**: Click here to enter text.

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

Click here to enter text.

### B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in Section 7 of Technical Report 1.0.

Nitrate Nitrogen, mg/kg: Click here to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click here to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click here to enter text.

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

Volume and frequency of sludge to the lagoon(s): Click here to enter text.

Total dry tons stored in the lagoons(s) per 365-day period: Click here to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click here to enter text.

### C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

Yes ☐ No ☐

**If yes**, describe the liner below. Please note that a liner is required.

Click here to enter text

### D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

Click here to enter text

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)

  **Attachment**: Click here to enter text

- Copy of the closure plan

  **Attachment**: Click here to enter text

- Copy of deed recordation for the site

  **Attachment**: Click here to enter text

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  **Attachment**: Click here to enter text

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  **Attachment**: Click here to enter text

- Procedures to prevent the occurrence of nuisance conditions

  **Attachment**: Click here to enter text

### E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

Yes ☐ No ☐

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: Click here to enter text

## Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

### A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

Yes ☐ No ☒

**If yes**, provide the TCEQ authorization number and description of the authorization:

Click here to enter text

### B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

Is the permittee required to meet an implementation schedule for compliance or enforcement?

Yes ☐ No ☒

**If yes** to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

Click here to enter text

## Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

### A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

Yes ☐ No ☒

### B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will

it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

Yes ☐ No ☒

### C. Details about wastes received

**If yes** to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: Click here to enter text.

## Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes 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; or
  - located in another state and is accredited or inspected by that state; or
  - 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. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

**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: Ronny Jolly

Title: Mayor

Signature: Ronny A. Jolly

Date: 5.30.2024

# DOMESTIC TECHNICAL REPORT 1.1

**The following is required for new and amendment applications**

## Section 1. Justification for Permit (Instructions Page 66)

### A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

The proposed permit will serve the entire city limits of the City of Tahoka. This 'new' permit is being requested due to the expiration of the original permit.

### B. Regionalization of facilities

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

#### *1. Municipally incorporated areas*

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

Yes ■ No ☐ Not Applicable ☐

**If yes**, within the city limits of: Tahoka

**If yes**, attach correspondence from the city.

Attachment: See exception request in cover letter

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: Click here to enter text

#### *2. Utility CCN areas*

Is any portion of the proposed service area located inside another utility's CCN area?

Yes ☐ No ■

**If yes**, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

**Attachment**: Click here to enter text.

### *3. Nearby WWTPs or collection systems*

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

Yes ☐ No ■

**If yes**, attach a list of these facilities that includes the permittee's name and permit number, and an area map showing the location of these facilities.

**Attachment**: Click here to enter text.

**If yes**, attach copies of your certified letters to these facilities **and** their response letters concerning connection with their system.

**Attachment**: Click here to enter text.

Does a permitted domestic wastewater treatment facility or a collection system located within three (3) miles of the proposed facility currently have the capacity to accept or is willing to expand to accept the volume of wastewater proposed in this application?

Yes ☐ No ■

**If yes**, attach an analysis of expenditures required to connect to a permitted wastewater treatment facility or collection system located within 3 miles versus the cost of the proposed facility or expansion.

Attachment: Click here to enter text.

## Section 2. Organic Loading (Instructions Page 67)

Is this facility in operation?

Yes ■ No ☐

**If no**, proceed to Item B, Proposed Organic Loading.

**If yes**, provide organic loading information in Item A, Current Organic Loading

### A. Current organic loading

Facility Design Flow (flow being requested in application): 0.360 MGD

Average Influent Organic Strength or $BOD_5$ Concentration in mg/l: 80.1

Average Influent Loading (lbs/day = total average flow X average $BOD_5$ conc. X 8.34): 240

Provide the source of the average organic strength or $BOD_5$ concentration.

| |
|---|
| Single grab sample taken May 15 2024. See Attachment S. |

### B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading.

***Table 1.1(1) – Design Organic Loading***

| Source | Total Average Flow (MGD) | Influent $BOD_5$ Concentration (mg/l) |
|---|---|---|
| Municipality | See exception request | in cover letter |
| Subdivision | | |
| Trailer park – transient | | |
| Mobile home park | | |
| School with cafeteria and showers | | |
| School with cafeteria, no showers | | |
| Recreational park, | | |

| Source | Total Average Flow (MGD) | Influent $BOD_5$ Concentration (mg/l) |
|---|---|---|
| overnight use | | |
| Recreational park, day use | | |
| Office building or factory | | |
| Motel | | |
| Restaurant | | |
| Hospital | | |
| Nursing home | | |
| Other | | |
| TOTAL FLOW from all sources | 0.360 MGD | |
| AVERAGE $BOD_5$ from all sources | | 80.1 mg/l |

## Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 68)

### A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 100

Total Suspended Solids, mg/l: n/a

Ammonia Nitrogen, mg/l: n/a

Total Phosphorus, mg/l: n/a

Dissolved Oxygen, mg/l: n/a

Other: pH 6.0-9.0

### B. Interim II Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click here to enter text.

Total Suspended Solids, mg/l: Click here to enter text.

Ammonia Nitrogen, mg/l: Click here to enter text.

Total Phosphorus, mg/l: Click here to enter text.

Dissolved Oxygen, mg/l: Click here to enter text.

Other: Click here to enter text.

### C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: Click here to enter text.

Total Suspended Solids, mg/l: Click here to enter text.

Ammonia Nitrogen, mg/l: Click here to enter text.

Total Phosphorus, mg/l: Click here to enter text.

Dissolved Oxygen, mg/l: Click here to enter text.

Other: Click here to enter text.

### D. Disinfection Method

Identify the proposed method of disinfection.

☐ Chlorine: Click here to enter text. mg/l after Click here to enter text. minutes detention time at peak flow

Dechlorination process: Click here to enter text.

☐ Ultraviolet Light: Click here to enter text. seconds contact time at peak flow

☐ Other: Click here to enter text.

## Section 4. Design Calculations (Instructions Page 68)

Attach design calculations and plant features for each proposed phase. Example 4 of the instructions includes sample design calculations and plant features.

**Attachment**: See Attachment G

## Section 5. Facility Site (Instructions Page 68)

### A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

Yes ■ No ☐

**If no**, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

Click here to enter text.

Provide the source(s) used to determine 100-year frequency flood plain.

Click here to enter text.

For a new or expansion of a facility, will a wetland or part of a wetland be filled?

Yes ☐ No ☐

**If yes**, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?

Yes ☐ No ☐

**If yes**, provide the permit number: Click here to enter text.

**If no,** provide the approximate date you anticipate submitting your application to the Corps: Click here to enter text.

### B. Wind rose

Attach a wind rose. **Attachment**: See Attachment H

## Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 69)

### A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

Yes ☐ No ■

**If yes**, attach the completed Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)

**Attachment**: Click here to enter text.

### B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

**If any of the above** sludge options are selected, attach a completed DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT (TCEQ Form No. 10056).

**Attachment**: Click here to enter text.

## Section 7. Sewage Sludge Solids Management Plan (Instructions Page 69)

Attach a solids management plan to the application.

Attachment: Click here to enter text.

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities
- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

# DOMESTIC WORKSHEET 3.0

**LAND DISPOSAL OF EFFLUENT**

**The following is required for all permit applications**

**Renewal, New, and Amendments**

## Section 1. Type of Disposal System (Instructions Page 77)

Identify the method of land disposal:

- ☒ Surface application
- ☐ Irrigation
- ☐ Drip irrigation system
- ☐ Evaporation
- ☐ Evapotranspiration beds
- ☐ Other (describe in detail): Click here to enter text
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system

**NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.**

For existing authorizations, provide Registration Number: Click here to enter text

## Section 2. Land Application Site(s) (Instructions Page 77)

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

***Table 3.0(1) – Land Application Site Crops***

| Crop Type & Land Use | Irrigation Area (acres) | Effluent Application (GPD) | Public Access? Y/N |
|---|---|---|---|
| Bermuda grass, pastureland (Mar-Oct) | 143 | 360,000 | N |

| Crop Type & Land Use | Irrigation Area (acres) | Effluent Application (GPD) | Public Access? Y/N |
|---|---|---|---|
| Bermuda grass, pastureland (Nov-Feb) | 123.7 | 306,000 | N |
| Winer ryegrass, pastureland (Nov-Feb) | 19.3 | 54,000 | N |
| | | | |

## Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 77)

*Table 3.0(2) – Storage and Evaporation Ponds*

| Pond Number | Surface Area (acres) | Storage Volume (acre-feet) | Dimensions | Liner Type |
|---|---|---|---|---|
| | | | | |
| Facultative Lagoon | 6.049 | 32.83 | 270' x 810' 6' – 12' depth | 24" Soil/Clay |
| Holding #1 | 1.989 | 15.10 | 385'x225'x12' | 24" Soil/Clay |
| Holding #2 | 2.555 | 20.66 | 420'x265'x12' | 24" Soil/Clay |

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.

**Attachment**: Not available; presumed April 2002 based on records. See exception request in cover letter.

## Section 4. Flood and Runoff Protection (Instructions Page 77)

Is the land application site within the 100-year frequency flood level?

Yes ☐ No ☐ ** Unknown

**If yes**, describe how the site will be protected from inundation.

The walls of the facultative pond and holding ponds are earthen berms that are at least two (2) feet above natural grade.

Provide the source used to determine the 100-year frequency flood level:

Unknown, the subject area remains unmapped by FEMA

Provide a description of tailwater controls and rainfall run-on controls used for the land application site.

Runoff from the irrigation site will be contained in a tailwater pond. A pump is used to return excessive stormwater to the holding ponds upon reaching a certain level in this tailwater pond. Stormwater runon is diverted away from the irrigation site by a small diversion berm.

## Section 5. Annual Cropping Plan (Instructions Page 77)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why.

**Attachment**: See Attachment I

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

## Section 6. Well and Map Information (Instructions Page 78)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation (on a separate page) indicating why.

**Attachment**: See Attachment J

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)
- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1 mile of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

***Table 3.0(3) – Water Well Data***

| Well ID | Well Use | Producing? Y/N | Open, cased, capped, or plugged? | Proposed Best Management Practice |
|---|---|---|---|---|
| | | | | |
| | | | | |

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

**Attachment**: See Attachment K for all well ID information

## Section 7. Groundwater Quality (Instructions Page 79)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

**Attachment**: See Attachment L

Are groundwater monitoring wells available onsite? Yes ☐ No ☒

Do you plan to install ground water monitoring wells or lysimeters around the land application site? Yes ☐ No ☒

**If yes**, then provide the proposed location of the monitoring wells or lysimeters on a site map.

**Attachment**: Click here to enter text.

## Section 8. Soil Map and Soil Analyses (Instructions Page 79)

### A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

**Attachment**: M

### B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

**Attachment**: N

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

***Table 3.0(4) – Soil Data***

| Soil Series | Depth from Surface | Permeability | Available Water Capacity | Curve Number |
|---|---|---|---|---|
| Acuff loam | 0-18 in | 1.276 in/hr | 0.17 | B 61 |
| | | | | |
| Estacado loam | 0-18 in | 0.959 in/hr | 0.15 | B 61 |
| Lenorah-Hindman complex | 0-18 in | 2.446 in/hr | 0.11 | C 74 |
| Potter soils | 0-18 in | 1.069 in/hr | 0.12 | C 74 |
| Portales loam | 0-18 in | 1.276 in/hr | 0.15 | B 61 |
| | | | | |

## Section 9. Effluent Monitoring Data (Instructions Page 80)

Is the facility in operation?

Yes ☒ No ☐

**If no**, this section is not applicable and the worksheet is complete.

**If yes**, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

***Table 3.0(5) – Effluent Monitoring Data***

| Date | 30 Day Avg Flow MGD | $BOD_5$ mg/l | TSS mg/l | pH | Chlorine Residual mg/l | Acres irrigated |
|---|---|---|---|---|---|---|
| Jan 2022 | - | 21 | 52 | 7.81 | n/a | 129.75 |
| Feb 2022 | - | 34 | 51 | 8.32 | n/a | 129.75 |
| Mar 2022 | - | 33 | 66 | 8.6 | n/a | 129.75 |
| Apr 2022 | - | 20 | 72 | 7.89 | n/a | 129.75 |
| May 2022 | - | 77 | 64 | 8.84 | n/a | 129.75 |
| June 2022 | - | 42 | 88 | 9.1 | n/a | 129.75 |
| July 2022 | 0.124 | 51 | 67 | 9.0 | n/a | 129.75 |
| Aug 2022 | 0.214 | 60.8 | 53 | 8.3 | n/a | 129.75 |
| Sept 2022 | 0.117 | 64.8 | 79 | 8.8 | n/a | 129.75 |
| Oct 2022 | 0.125 | 58.2 | 62 | 8.0 | n/a | 129.75 |
| Nov 2022 | 0.119 | 62.5 | 82 | 7.4 | n/a | 129.75 |
| Dec 2022 | 0.104 | 63.6 | 86 | 8.0 | n/a | 129.75 |
| Jan 2023 | 0.106 | < 2.0 | 86 | 8.3 | n/a | 129.75 |
| Feb 2023 | 0.094 | 31.2 | 64 | 7.5 | n/a | 129.75 |
| Mar 2023 | 0.089 | 31.6 | 40 | 7.5 | n/a | 129.75 |
| Apr 2023 | 0.101 | 52.0 | 159 | 8.8 | n/a | 129.75 |
| May 2023 | 0.109 | 38.5 | 121 | 9.0 | n/a | 129.75 |

| Date | 30 Day Avg Flow MGD | $BOD_5$ mg/l | TSS mg/l | pH | Chlorine Residual mg/l | Acres irrigated |
|---|---|---|---|---|---|---|
| June 2023 | 0.130 | 21.7 | 76.0 | 9.1 | n/a | 129.75 |
| July 2023 | 0.160 | 34.0 | 96.7 | 9.0 | n/a | 129.75 |
| Aug 2023 | 0.134 | 20.9 | 82.7 | 8.9 | n/a | 129.75 |
| Sep 2023 | 0.129 | 23.7 | 76.0 | 8.8 | n/a | 129.75 |
| Oct 2023 | 0.118 | 31.5 | 82.0 | 8.5 | n/a | 129.75 |
| Nov 2023 | 0.110 | 36.7 | 69.0 | 7.8 | n/a | 129.75 |
| Dec 2023 | 0.101 | 26.2 | 80.0 | 7.5 | n/a | 129.75 |

Provide a discussion of all persistent excursions above the permitted limits and any corrective actions taken.

See Attachment O for monthly records of daily meter logs. See Attachment P for chain of custody and original laboratory results.

# DOMESTIC WORKSHEET 3.1

**SURFACE LAND DISPOSAL OF EFFLUENT**

**The following is required for new and major amendment applications. Renewal and minor amendments applicants may be asked for the worksheet on a case by case basis.**

## Section 1. Surface Disposal (Instructions Page 81)

Complete the item that applies for the method of disposal being used.

### A. Irrigation

Area under irrigation, in acres: 143

Design application frequency:

hours/day 24.0 **And** days/week Four (4)

Land grade (slope):

average percent (%):2%

maximum percent (%): 3%

Design application rate in acre-feet/acre/year: 5.76

Design total nitrogen loading rate, in lbs N/acre/year: 313.2

Soil conductivity (mmhos/cm): 1.05 (max from samples)

Method of application: Center Pivot Irrigation

Attach a separate engineering report with the water balance and storage volume calculations, method of application, irrigation efficiency, and nitrogen balance.

Attachment: See Attachment Q

### B. Evaporation ponds

Daily average effluent flow into ponds, in gallons per day: Click here to enter text.

Attach a separate engineering report with the water balance and storage volume calculations.

Attachment: Click here to enter text.

### C. Evapotranspiration beds

Number of beds: Click here to enter text.

Area of bed(s), in acres: Click here to enter text.

Depth of bed(s), in feet: Click here to enter text.

Void ratio of soil in the beds: Click here to enter text.

Storage volume within the beds, in acre-feet: Click here to enter text.

Attach a separate engineering report with the water balance and storage volume calculations, and a description of the lining.

Attachment: Click here to enter text.

### D. Overland flow

Area used for application, in acres: Click here to enter text.

Slopes for application area, percent (%): Click here to enter text.

Design application rate, in gpm/foot of slope width: Click here to enter text.

Slope length, in feet: Click here to enter text.

Design $BOD_5$ loading rate, in lbs $BOD_5$/acre/day: Click here to enter text.

Design application frequency:

hours/day: Click here to enter text. **And** days/week: Click here to enter text.

Attach a separate engineering report with the method of application and design requirements according to *30 TAC Chapter 217*.

Attachment:

## Section 2. Edwards Aquifer (Instructions Page 82)

Is the facility subject to *30 TAC Chapter 213*, Edwards Aquifer Rules?

Yes ☐ No ■

**If yes**, attach a report concerning the recharge zone.

Attachment:

# DOMESTIC WORKSHEET 6.0

## INDUSTRIAL WASTE CONTRIBUTION

**The following is required for all publicly owned treatment works (POTWs)**

## Section 1. All POTWs (Instructions Page 99)

### A. Industrial users

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

**If there are no users, enter 0 (zero).**

Categorical IUs:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

Significant IUs – non-categorical:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

Other IUs:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

### B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

Yes ☐ No ☒

**If yes**, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click here to enter text.

### C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

Yes ☐ No ☒

**If yes**, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

Click here to enter text

### D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐ No ☒

**If yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☐

**If yes**, complete Section 2.c. and 2.d. only, and skip Section 3.

**If no to either question above**, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

## Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

### A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

Yes ☐ No ☐

**If yes**, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text

### B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

Yes ☐ No ☐

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text

### C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

**Table 6.0(1) – Parameters Above the MAL**

| Pollutant | Concentration | MAL | Units | Date |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

### D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

Yes ☐ No ☐

**If yes**, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

Click here to enter text

## Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

### A. General information

Company Name: Click here to enter text

SIC Code: Click here to enter text

Telephone number: Click here to enter text Fax number: Click here to enter text

Contact name: Click here to enter text

Address: Click here to enter text

City, State, and Zip Code: Click here to enter text

### B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

Click here to enter text.

### C. Product and service information

Provide a description of the principal product(s) or services performed.

Click here to enter text.

### D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

### E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

Yes ☐ No ☐

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

Yes ☐ No ☐

**If subject to categorical pretreatment standards**, indicate the applicable category and subcategory for each categorical process.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

## F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

Yes ☐ No ☐

**If yes**, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

Click here to enter text

# ATTACHMENT 1

---

Core Data Form

TCEQ Use Only

# TCEQ Core Data Form

For detailed instructions on completing 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.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☐ Other

| 2. Customer Reference Number (if issued) | Follow this link to search for CN or RN numbers in Central Registry** | 3. Regulated Entity Reference Number (if issued) |
|---|---|---|
| CN 601097934 | | RN 103138079 |

## SECTION II: Customer Information

**4. General Customer Information** | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

***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).***

**6. Customer Legal Name** (*If an individual, print last name first: eg: Doe, John*) — *If new Customer, enter previous Customer below:*

City of Tahoka, Texas

| 7. TX SOS/CPA Filing Number | 8. TX State Tax ID (11 digits) | 9. Federal Tax ID (9 digits) | 10. DUNS Number (if applicable) |
|---|---|---|---|
| | | | |

**11. Type of Customer:** ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

**12. Number of Employees**
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

**13. Independently Owned and Operated?**
☐ **Yes** ☒ **No**

**14. Customer Role** (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☒ Owner ☒ Operator ☐ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

**15. Mailing Address:**

PO Box 300

| City | Tahoka | State | TX | ZIP | 79373 | ZIP + 4 | |
|---|---|---|---|---|---|---|---|

| 16. Country Mailing Information (if outside USA) | 17. E-Mail Address (if applicable) |
|---|---|
| | |

| 18. Telephone Number | 19. Extension or Code | 20. Fax Number (if applicable) |
|---|---|---|
| ( 806 ) 561-4211 | | ( 806 ) 561-4222 |

## SECTION III: Regulated Entity Information

**21. General Regulated Entity Information** (*If 'New Regulated Entity" is selected, a new permit application is also required.*)

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

***The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).***

**22. Regulated Entity Name** (*Enter name of the site where the regulated action is taking place.*)

Tahoka Wastewater Treatment Plant

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **23. Street Address of the Regulated Entity:** *(No PO Boxes)* | | | | | | | |
| | **City** | | **State** | | **ZIP** | | **ZIP + 4** |
| **24. County** | | | | | | | |

**If no Street Address is provided, fields 25-28 are required.**

| | |
|---|---|
| **25. Description to Physical Location:** | 0.3 miles East of US Highway 87 on State Highway 24, then South 0.75 miles on unpaved farm road to plant entrance |

| **26. Nearest City** | **State** | **Nearest ZIP Code** |
|---|---|---|
| Tahoka | TX | 79373 |

***Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).***

| **27. Latitude (N) In Decimal:** | | | **28. Longitude (W) In Decimal:** | | |
|---|---|---|---|---|---|
| Degrees | Minutes | Seconds | Degrees | Minutes | Seconds |
| 33 | 8 | 26 | 101 | 47 | 29 |

| **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) |
|---|---|---|---|
| 4952 | | 221320 | |

**33. What is the Primary Business of this entity?** *(Do not repeat the SIC or NAICS description.)*

Treatment of sewage and land application

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **34. Mailing Address:** | | | **PO Box 300** | | | | |
| | **City** | **Tahoka** | **State** | **TX** | **ZIP** | **79373** | **ZIP + 4** |
| **35. E-Mail Address:** | | | | | | | |

| **36. Telephone Number** | **37. Extension or Code** | **38. Fax Number** *(if applicable)* |
|---|---|---|
| **( 806 ) 561-4211** | | **( 806 ) 561-4222** |

**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.

| | | | | |
|---|---|---|---|---|
| ☐ Dam Safety | ☐ Districts | ☐ Edwards Aquifer | ☐ Emissions Inventory Air | ☐ Industrial Hazardous Waste |
| | | | | |
| ☐ Municipal Solid Waste | ☐ New Source Review Air | ☐ OSSF | ☐ Petroleum Storage Tank | ☐ PWS |
| | | | | |
| ☐ Sludge | ☐ Storm Water | ☐ Title V Air | ☐ Tires | ☐ Used Oil |
| | | | | |
| ☐ Voluntary Cleanup | ☒ Wastewater | ☐ Wastewater Agriculture | ☐ Water Rights | ☐ Other: |
| | | | | |

## SECTION IV: Preparer Information

| **40. Name:** | Mathew Hopper, P.E. | **41. Title:** | Principle |
|---|---|---|---|

| **42. Telephone Number** | **43. Ext./Code** | **44. Fax Number** | **45. E-Mail Address** |
|---|---|---|---|
| ( 214 ) 773-2966 | | ( ) - | mhopper@civil-360.net |

## 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:** | City of Tahoka | **Job Title:** | Mayor |
|---|---|---|---|
| **Name** *(In Print):* | Ronny Jolly | **Phone:** | ( 806 ) 561- 4211 |
| **Signature:** | Ronny A. Jolly | **Date:** | 5·30·2024 |

# ATTACHMENT 2

---

Public Involvement Plan Form

Texas Commission on Environmental Quality

# Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

## Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

**If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.**

## Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☒ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.**

☐ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

## Section 3. Application Information

**Type of Application (check all that apply):**

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

☒ Texas Land Application Permit (TLAP)

☐ State Only Concentrated Animal Feeding Operation (CAFO)

☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

## Section 4. Plain Language Summary

Provide a brief description of planned activities.

The proposed permit is for treatment and disposal of municipal wastewater generated from the City of Tahoka, TX. The treatment process shall utilize a facultative lagoon, one (1) stabilization pond, and one (1) holding pond. Disposal is proposed via center pivot irrigation on 208 acres of pasture where cattle are allowed to graze.

## Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

**Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.**

(City)

Tahoka

(County)

Lynn

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.

☒ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

33.7%

(b) Per capita income for population near the specified location

$12,326

(c) Percent of minority population and percent of population by race within the specified location

49% minority, 48% Hispanic or Latino, 1% other race

(d) Percent of Linguistically Isolated Households by language within the specified location

8.5% speak English well

(e) Languages commonly spoken in area by percentage

English 30%
Spanish 69%

(f) Community and/or Stakeholder Groups

undertermined

(g) Historic public interest or involvement

undetermined

## Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☒ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☒ No

If Yes, please describe.

**If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.**

(c) Will you provide notice of this application in alternative languages?

☒ Yes ☐ No

**Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.**

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☑ Posted on Commissioner's Integrated Database Website

☑ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☒ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☑ TCEQ Regional Office ☑ TCEQ Central Office

☑ Public Place (specify) City Hall, City of Tahoka, TX

## Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

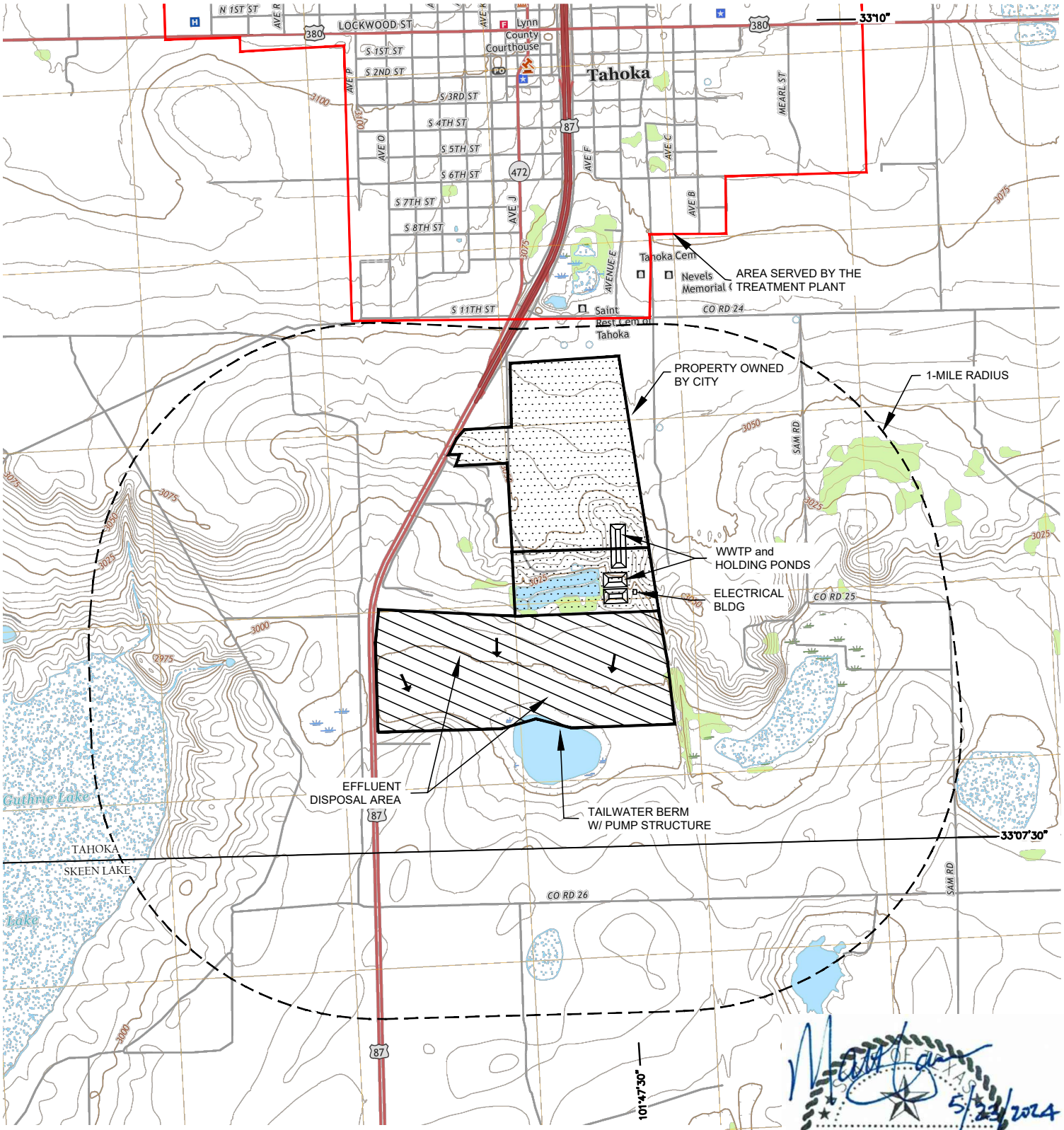
☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

# ATTACHMENT A

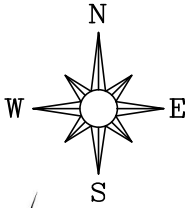
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USGS Map









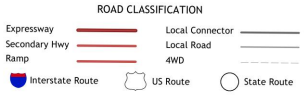




2022
Tahoka, TX

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Skeen Lake, TX




# USGS MAP


CIVIL360

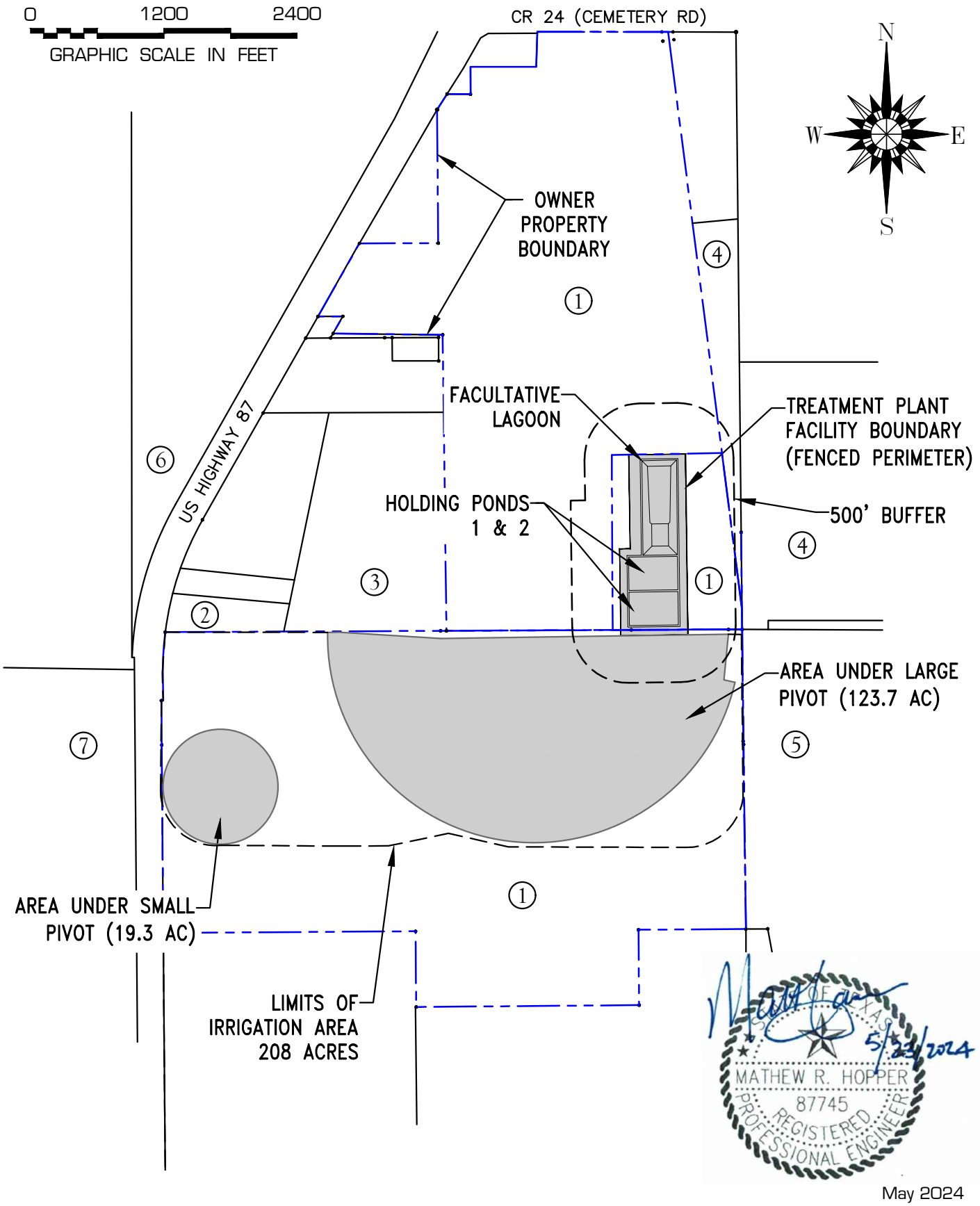
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| Job name: | Date: | Attachment: |
|---|---|---|
| City of Tahoka, Texas<br>2024 WWTP Permit Renewal | May 2024 | A |
| Job number: WW010-24 | Scale: 1" = 2500' | |

# ATTACHMENT B

---

Affected Landowners Map




STATE OF TEXAS
MATHEW R. HOPPER
87745
REGISTERED PROFESSIONAL ENGINEER
5/23/2024

May 2024

Sheet: 1 of 1

Permit Application for Wastewater Treatment
FOR
City of Tahoka, Texas

LANDOWNERS MAP


Texas Registered Engineering Firm No. 15119

CIVIL360

8553 N Beach Street
Suite 186
Keller, Texas 76244
(214) 773-2966

**Adjacent Landowners List**

**City of Tahoka, Texas WWTP**

| Map ID # | Property Owner | Assessor's No. |
|---|---|---|
| 1 | City of Tahoka<br>PO Box 300<br>Tahoka, TX 79373 | 6285, 8599, 11076 |
| 3 | Leslie & Pamela Paris<br>PO Box 515<br>Tahoka, TX 79373 | 8650 |
| 5 | Sybert Montgomery Family Trust<br>4318 18th Street<br>Lubbock, Tx 79416 | 12795 |
| 7 | Willie Edwards<br>c/o Crawford Edwards<br>4200 South Hulen St.<br>Ft Worth, TX 76109-4913 | 3926 |

| Map ID # | Property Owner | Assessor's No. |
|---|---|---|
| 2 | Dennis & Mary Belew<br>PO Box 487<br>Tahoka, TX 79373 | 12365 |
| 4 | Connie Braddock<br>PO Box 1661<br>Tahoka, TX 79373 | 3196, 3197 |
| 6 | Howell Lands, LLC<br>409 E 57th Street<br>Odessa, TX 79762 | 5869 |
| | | |

Prepared: 7/15/2021

# ATTACHMENT C

---

Photographs of Irrigation Site and Treatment Plant



Small Center Pivot



Large Center Pivot

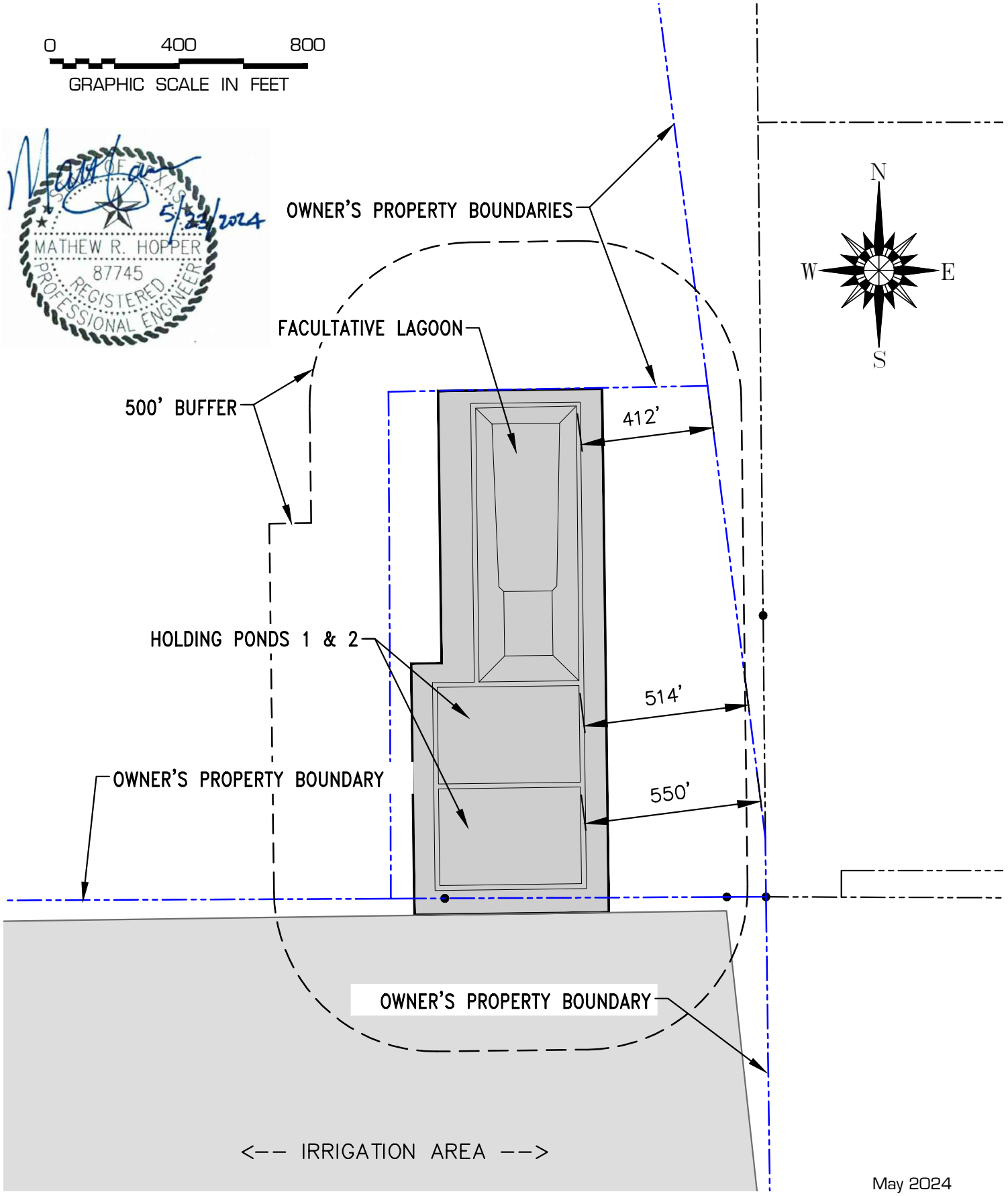


Treatment Plant Aerial

# ATTACHMENT D

---

Buffer Zone Map




Sheet: 1 of 1

Permit Application for Wastewater Treatment
FOR
City of Tahoka, Texas

BUFFER ZONE MAP

Texas Registered Engineering Firm No. 15119

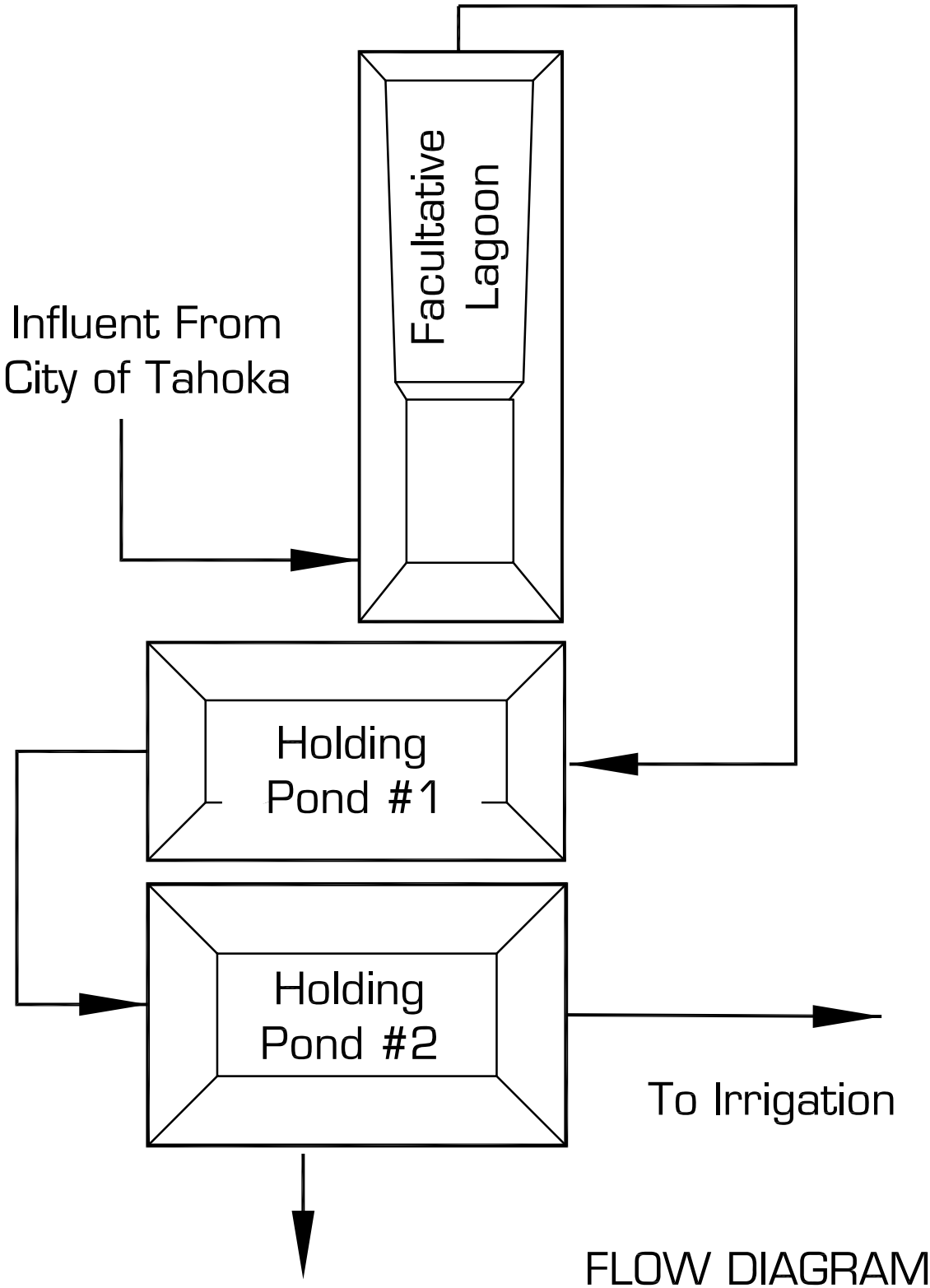
CIVIL360

8553 N Beach Street
Suite 186
Keller, Texas 76244
(214) 773-2966

# ATTACHMENT E

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Process Flow Diagram




FLOW DIAGRAM

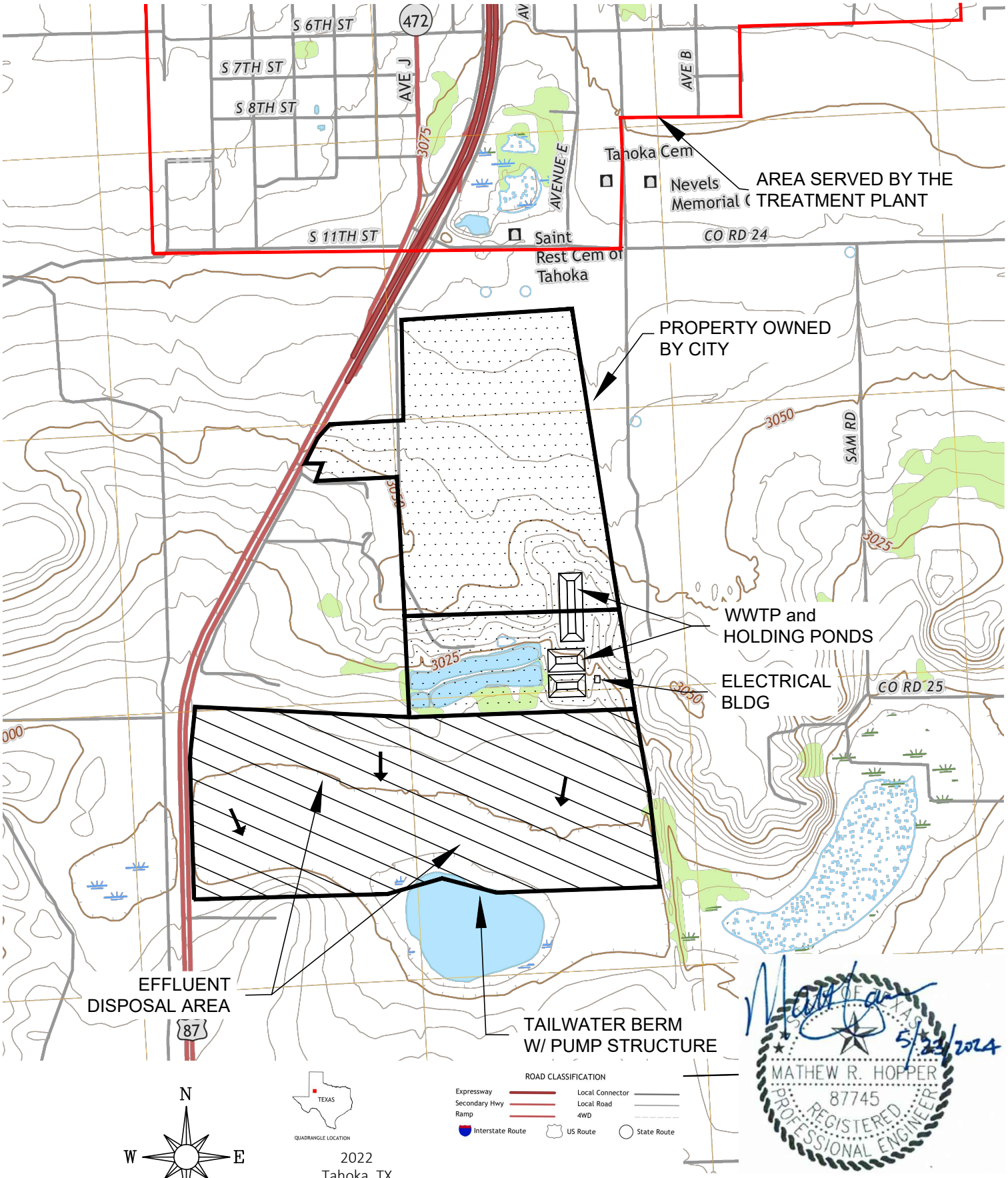
CIVIL360
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966

| | | | |
|---|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | | Date: February 2024 | Attachment: E |
| Job number: | WW010-24 | Scale: Not to scale | |

# ATTACHMENT F

---

Site Drawing




# USGS - SITE DRAWING


CIVIL360
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| | | | |
|---|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | | Date: May 2024 | Attachment: F |
| Job number: | WW010-24 | Scale: 1" = 1500' | |

# ATTACHMENT G

---

Design Calculations

**DESIGN CALCULATIONS**
**(Tahoka's Existing Treatment Plant)**

**Design Flow 0.36 MGD** **Area under Irrigation: 143 acres**

**Influent BOD tested:** **80.1 mg/l**
or 240 lbs/day

**Facultative Pond Dimensions:** 270 feet wide 810 feet long (at surface water level)

§217.205(a)(1) Length to Width Ratio must be 3:1

Width @ water level = 270'
Length @ water level = 810

Ratio = $\frac{810}{270} = 3:1$ ✓

§217.205(b)(1) Deeper portion of facultative lagoon minimum depth of 12'

Existing pond depth of facultative end is 12' ✓

§217.205(b)(2) Deeper portion of the facultative lagoon must cover at least 25% of the area of the lagoon bottom.

The area of the facultative lagoon floor = 129,517 $ft^2$

The area of the deep (anaerobic end) of the facultative lagoon = 32,364 $ft^2$

Percentage of anaerobic area of entire lagoon = 25% ✓

§217.205(b)(3) Remainder of facultative lagoon must have minimum depth of 8'

Existing pond depth of non-facultative end ranges from 6' to 9'. X
(See exception request in cover letter)

§217.205(c) Organic loading of must not exceed 150 lbs/acre/day based on surface area of lagoon

Surface area of facultative lagoon = 218,700 $ft^2$ (5.02 acres)

Actual organic loading = $\frac{80.1\ mg/l\ X\ 0.360\ MGD\ X\ 8.34}{2.97\ acres}$ = 81 lbs/acre/day ✓

Total Volume of Facultative Lagoon: 1,429,992 $feet^3$
(32.82 acre-ft, or 10,969,340 gallons)

Detention Time thru Facultative: 10,696,340 gal / 360,000 gal/day = 29.7 days

Holding Pond Volume(s): Pond #1 – 657,900 $ft^3$
Pond #2 – 900,000 $ft^3$
Total: 1,557,900 $ft^3$ or 35.76 acre-ft

§217.205(d)(1) Facultative lagoon inlet must be ≥ 24 inches below water surface

Existing 12" diameter pipe inlet flow lines are exactly 4' below surface ✓

§217.205(d)(2) Outlets must be at least 12 inches below water surface, but not further below the water surface than a distance equal to one-half the dept of the lagoon at the outlet

Existing pond depth at outlet = 6', therefore, 1/2 the depth = 3'

Existing 12" dia. pipe outlet flow lines are exactly 3' below the water surface ✓

§217.205(d)(3) Recirculation of at least 50% of the design flow, but not more than 100%.

Existing pipe and valve infrastructure is in place from the outlet structure to recirculate all or a portion of the effluent leaving the lagoon back to the entrance of the facultative end of the lagoon via gravity. ✓

§217.205(d)(4) Design must prevent siphoning of lagoon contents through a submerged inlet

Siphoning is prevented by the submerged inlet by manhole structures upstream of the inlets. ✓

§217.205(e) Removal efficiency must not be based on more than 50% $BOD_5$ remove of the influent

$BOD_5$ estimated in effluent = 80.1 mg/l x 50%
= 40 mg/l

Disposal of effluent shall be by land application by surface irrigation. No disinfection measures are proposed.

Water balance demonstrates a minimum storage capacity required = 20.02 acre-feet, or greater in the holding ponds. With 35.76 acre-feet available, this requirement has been met.



# ATTACHMENT H

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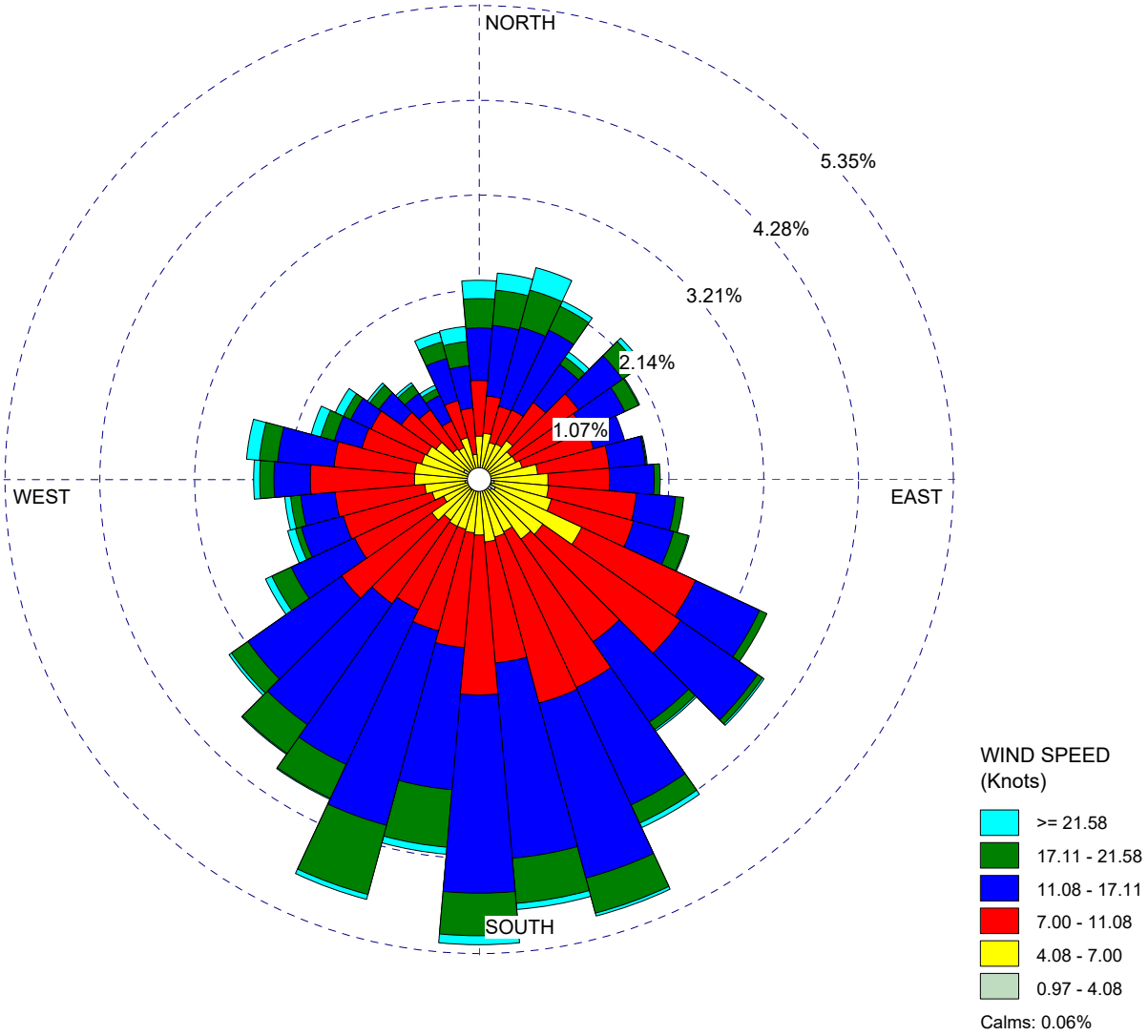
Wind Rose

WIND ROSE PLOT:

**Station #23042 - LUBBOCK/REGIONAL ARPT, TX**

DISPLAY:

**Wind Speed**
**Direction (blowing from)**




| | | | |
|---|---|---|---|
| COMMENTS: | DATA PERIOD:<br>**Start Date: 1/1/2020 - 00:00**<br>**End Date: 12/31/2020 - 23:59** | COMPANY NAME: | |
| | | MODELER: | |
| | CALM WINDS:<br>**0.06%** | TOTAL COUNT:<br>**26349 hrs.** | |
| | AVG. WIND SPEED:<br>**10.86 Knots** | DATE:<br>**5/22/2024** | PROJECT NO.: |

# ATTACHMENT I

---

Cropping Plan and
Detailed Plan for Management of Saline and Sodic Soil Conditions

# CROPPING PLAN

The following is a cropping plan for the City of Tahoka Sewer Treatment Plant land disposal area.

(1) Soils Map w/ Crops

A soils map depicting the location of the crops is attached (NRCS Soil map of Lynn County, Texas) along with a snippet from the Record Drawings from the original construction which displays the irrigation infrastructure installed.

(2) Plant Species

Crops to be used for disposal of effluent is Bermuda Grass across the entirety of the irrigation area.

In the prepared water balance, the Kcb coefficient used for Bermuda grass with average maintenance is 0.80.

In order to comply with former permit conditions, the Permittee shall establish a 'cool season' grass, either winter ryegrass, bluegrass or fescue under the 19.3 acres of the small pivot system during the months of November through February.

The water balance data does not take into account the addition of a part-time, cool-season grass during these months.

(3) Crop Yield Goals or Estimates

Crop yields are inconsequential as all grasses are grazed throughout the year by cattle.

(4) Crop Growing Season

The growing season for the bermuda will be year-round based on the quantity of effluent available. Although Bermuda grasses are classified as a 'warm season' crop, evapotranspiration (ET) still occurs as long as there is significant moisture in the soil. (Borrelli and Feddler, Mean Crop Consumptive Use and Free Water Evaporation for Texas, February 1, 1998).

Winter grasses such as ryegrass, bluegrass or fescue are typically seeded in September, October and November. Planting in October, in this particular case, should result in a cool season crop capable of effectively utilizing the effluent over the months of November, December, January, and February.

(5) Crop Nutrient Requirements

The nutrient requirement for Bermuda grass is up to 6 lbs/1000 $ft^2$/year according to Duble, MCafee and Novosad's publication "Lawn Fertilization in Texas". This equates to 261 lbs/ac/year.

Winter ryegrass range from 1 to 3 lbs/1000 ft2year according to AggieTurf at Texas A&M University. This equates to a maximum of 131 lbs/ac/year.

(6) Additional Fertilizer Requirements

No supplemental fertilizer is anticipated.

(7) Minimum/Maximum Harvest Height of Grass Crops

Bermuda grass has a typical harvest height of 6-10 inches, however, what utilized in grazing operations, this height becomes moot, as the initial grazing height tops out at between 4-5 inches, and should be prevented from being reduced below 2 inches.

Winter ryegrass follows the same harvest height as the crop being overseeded, therefore, the maximum crop height will rarely reach 5 inches.

(8) Supplemental Watering Requirements

No supplemental watering is anticipated or planned.

(9) Crop Salt Tolerances

Bermuda grass and perennial ryegrass are classified as 'Highly Salt-Tolerant' and 'Relatively Salt-Tolerant', respectively, according to Table 3 of TAC 309.20.

Bermuda grass has a range between 8.0-12.0 mmhos/cm and ryegrass has a range between 6.0 – 8.0 mmhos/cm.

(10) Harvesting Method and Number of Harvests

The harvesting method for the crop grass will normally be by grazing of cattle. However, on occasion the grass may be cut and baled if the height exceeds 10 inches.

From the Oklahoma State University Extension article published Feb. 2017 entitled Bermudagrass Pasture Management, "A general rule of thumb for estimating cattle rotation based on forage growth potential is to move the cattle before the residue height is less than 2 inches with 4 inches of growth being more preferable. Cattle should not be rotated into a pasture until the bermudagrass forage height reaches at least 6 inches with 10 inches of growth being more preferable Pasture rotations should not be based on calendar date alone. Movement between pastures should be based on current environmental conditions as well as forage growth rate. This means that grazing time may vary from as few as 1 day to 2 days up to 7 to 10 days per pasture.

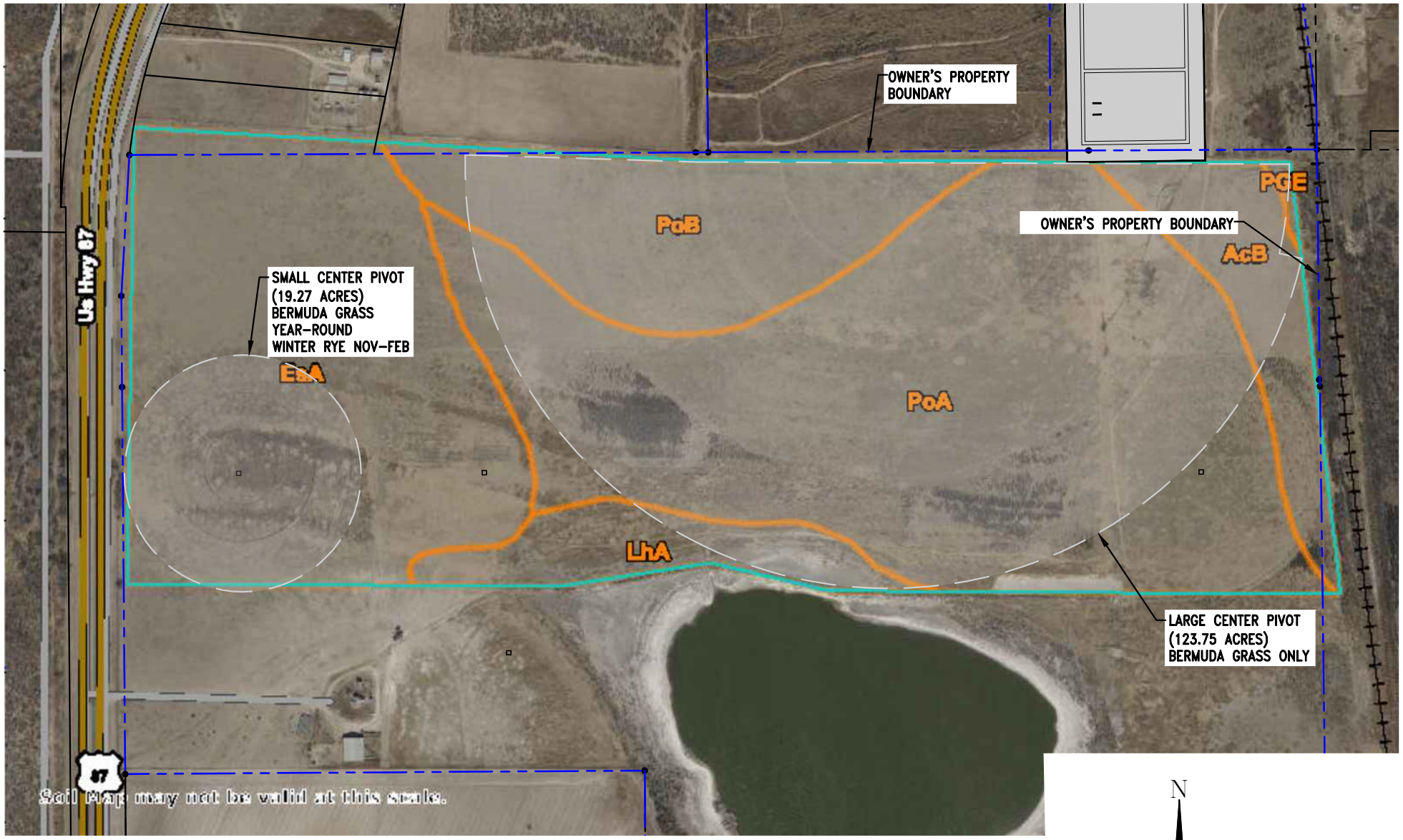
(11) Removal of Existing Vegetation

Since this site is pre-existing and has been grazed/irrigated for over 20 years, this item is not applicable.



**ATTACHMENT TO CROPPING PLAN**

**SOILS MAP W/ CROPS**




0 600 1200

GRAPHIC SCALE IN FEET

N

W E

S

# Permit Application for Wastewater Treatment

FOR

City of Tahoka, Texas

## CROPPLING PLAN EXHIBIT

Texas Registered Engineering Firm No. 15119

CIVIL360

8553 N Beach Street
Suite 186
Keller, Texas 76244
(214) 773-2966

May 2024

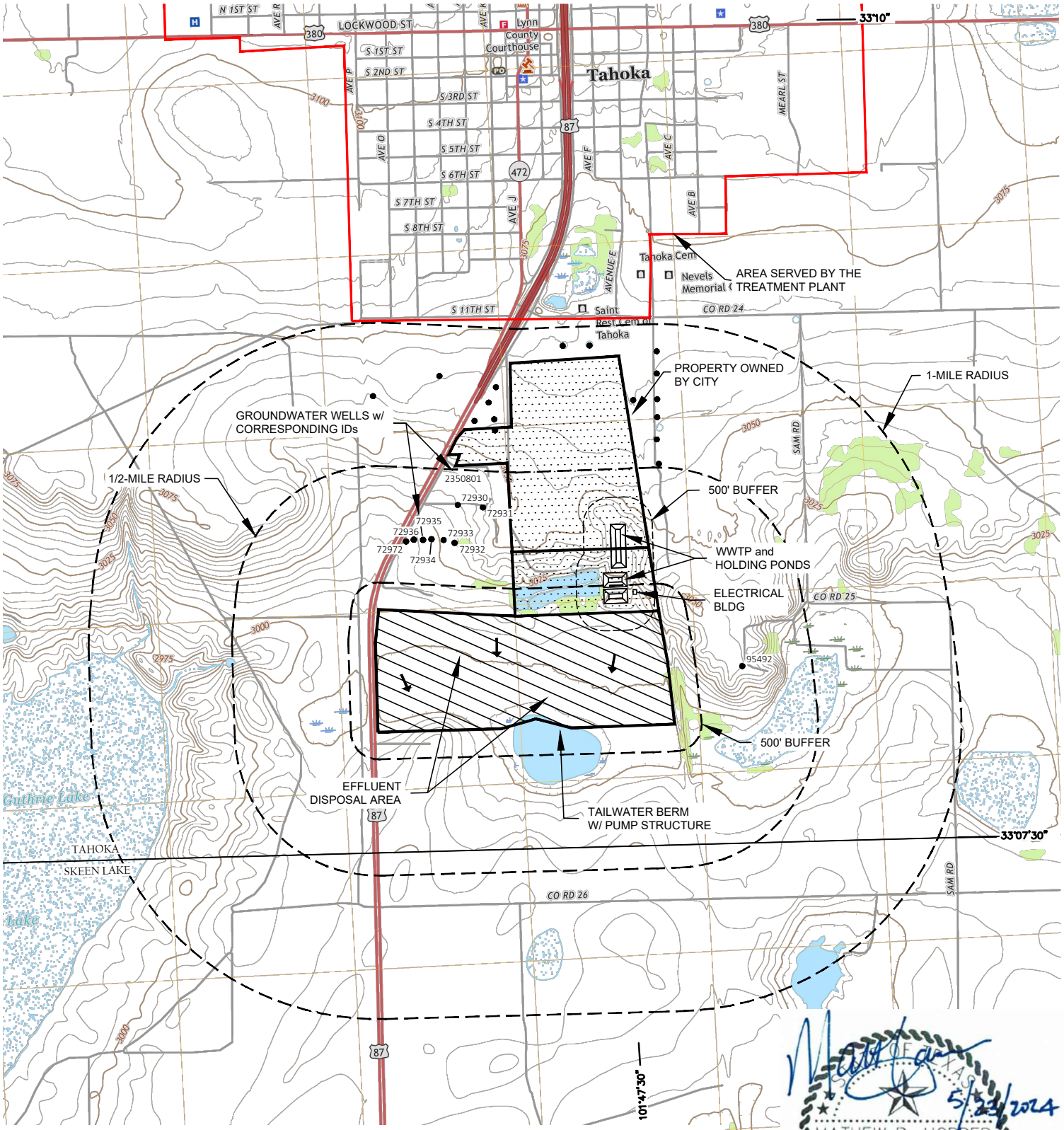
Sheet:

1 of 1

# ATTACHMENT J

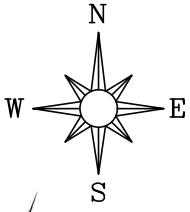
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USGS Map w/ Wells









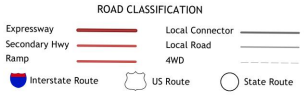




2022
Tahoka, TX

---

Skeen Lake, TX




# USGS - WELL MAP


CIVIL360

8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| | | | |
|---|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | | Date: May 2024 | Attachment: J |
| Job number: | WW010-24 | Scale: 1" = 2500' | |

# ATTACHMENT K

---

Water Well Data w/
Applicable Well Logs

**Section 6. WELL AND MAP INFORMATION** (within 1/2 mile of property boundaries and/or disposal area only) continued from Page 39 of 80

| Source Well ID | State Well Log ID | Well Use | Producing? | Open, cased, capped or plugged? | Proposed Best Management Practice | Source |
|---|---|---|---|---|---|---|
| 72930 | n/a | Private | - | - | - | HPWD; no logs |
| | Yield: unknown Drilled: unknown Water Depth: unknown | | | | | |
| 72931 | n/a | Private | - | - | - | HPWD; no logs |
| | Yield: unknown Drilled: unknown Water Depth: unknown | | | | | |
| 72932 | 295225 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 72936 | 295228 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72972 | 295227 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72933 | 295224 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 72935 | 295230 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72934 | 295222 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 95492 | 366718 | Private | Yes | Cased (12” PVC) | unknown | HPWD |
| | Yield: unknown Drilled: 6/10/2022 Water Depth: 20ft Assumed Irrigation | | | | | |
| 2350801 | 2350801 | Private | No | Cased (12” Galv) | unknown | TWDB |
| | Yield: none Drilled: 2/1978 Water Depth: 25ft Assumed Irrigation | | | | | |

# STATE OF TEXAS WELL REPORT for Tracking #295225

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **3** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 24" N** |
| | | Longitude: | **101° 48' 08" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/12/2012** Drilling End Date: **6/12/2012**

| | *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|---|
| Borehole: | **8.75** | **0** | **55** |

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|---|
| Filter Pack Intervals: | **15** | **55** | **Gravel** | **3/8** |

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|---|
| Annular Seal Data: | **0** | **15** | **8 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **25** | **Caliche** |
| **25** | **32** | **Rock** |
| **32** | **40** | **Gravel and white clay** |
| **40** | **44** | **Brown sand and Broken rock** |
| **44** | **50** | **Gravel and clay mix** |
| **50** | **55** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 55-35 .035** |
| **5 in New Plastic Solid 35-0** |

**IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY**

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**P.O. Box 12157**
**Austin, TX 78711**
**(512) 334-5540**

# STATE OF TEXAS WELL REPORT for Tracking #295228

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **5** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 25" N** |
| | | Longitude: | **101° 48' 13" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/13/2012** Drilling End Date: **6/13/2012**

Borehole:

| *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|
| **8.75** | **0** | **52** |

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|
| **15** | **52** | **Gravel** | **3/8** |

Annular Seal Data:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|
| **0** | **15** | **9 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **24** | **Caliche** |
| **24** | **31** | **Rock** |
| **31** | **40** | **Gravel and white clay** |
| **40** | **44** | **Brown sand and Broken rock** |
| **44** | **48** | **Gravel and clay mix** |
| **48** | **52** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 52-32 .035** |
| **5 in New Plastic Solid 32-0** |

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# STATE OF TEXAS WELL REPORT for Tracking #295227

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **4** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 25" N** |
| | | Longitude: | **101° 48' 15" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/13/2012** Drilling End Date: **6/13/2012**

| | *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|---|
| Borehole: | **8.75** | **0** | **53** |

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|---|
| Filter Pack Intervals: | **15** | **53** | **Gravel** | **3/8** |

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|---|
| Annular Seal Data: | **0** | **15** | **9 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **23** | **Caliche** |
| **23** | **30** | **Rock** |
| **30** | **38** | **Gravel and white clay** |
| **38** | **41** | **Brown sand and Broken rock** |
| **41** | **47** | **Gravel and clay mix** |
| **47** | **53** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 53-33 .035** |
| **5 in New Plastic Solid 33-0** |

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# STATE OF TEXAS WELL REPORT for Tracking #295224

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **2** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 25" N** |
| | | Longitude: | **101° 48' 09" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/12/2012** Drilling End Date: **6/12/2012**

Borehole:

| *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|
| **8.75** | **0** | **56** |

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|
| **15** | **56** | **Gravel** | **3/8** |

Annular Seal Data:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|
| **0** | **15** | **8 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **24** | **Caliche** |
| **24** | **33** | **Rock** |
| **33** | **41** | **Gravel and white clay** |
| **41** | **45** | **Brown sand and Broken rock** |
| **45** | **51** | **Gravel and clay mix** |
| **51** | **56** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 56-36 .035** |
| **5 in New Plastic Solid 36-0** |

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# STATE OF TEXAS WELL REPORT for Tracking #295230

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **6** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 25" N** |
| | | Longitude: | **101° 48' 12" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/13/2012** Drilling End Date: **6/13/2012**

Borehole:

| *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|
| **8.75** | **0** | **52** |

Drilling Method: **Air Rotary**

Borehole Completion: **Filter Packed**

Filter Pack Intervals:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|
| **15** | **52** | **Gravel** | **3/8** |

Annular Seal Data:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|
| **0** | **15** | **8 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **24** | **Caliche** |
| **24** | **31** | **Rock** |
| **31** | **40** | **Gravel and white clay** |
| **40** | **44** | **Brown sand and Broken rock** |
| **44** | **48** | **Gravel and clay mix** |
| **48** | **52** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 52-32 .035** |
| **5 in New Plastic Solid 32-0** |

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# STATE OF TEXAS WELL REPORT for Tracking #295222

| | | | |
|---|---|---|---|
| Owner: | **Guy Witt** | Owner Well #: | **1** |
| Address: | **PO Box 790<br>Tahoka, TX 79373** | Grid #: | **23-50-8** |
| Well Location: | **No Data** | Latitude: | **33° 08' 25" N** |
| | | Longitude: | **101° 48' 11" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Domestic** |

Drilling Start Date: **6/12/2012** Drilling End Date: **6/12/2012**

| | *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|---|
| Borehole: | **8.75** | **0** | **55** |

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|---|
| Filter Pack Intervals: | **15** | **55** | **Gravel** | **3/8** |

| | *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|---|
| Annular Seal Data: | **0** | **15** | **8 sacks cement** |

Seal Method: **mixed with water**

Sealed By: **R. Blake Moore**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **No Data** |

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **Unknown**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Monte Moore Drilling**

**1313 N Hwy 137**
**Lamesa, TX 79331**

Driller Name: **Monte Moore** License Number: **3289**

Apprentice Name: **R. Blake Moore** Apprentice Number: **56975**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **4** | **Top soil** |
| **4** | **25** | **Caliche** |
| **25** | **33** | **Rock** |
| **33** | **40** | **Gravel and white clay** |
| **40** | **44** | **Brown sand and Broken rock** |
| **44** | **50** | **Gravel and clay mix** |
| **50** | **55** | **Blue clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) New/Used Type Setting From/To (ft.) |
|---|
| **5 in New Plastic Perf 55-35 .035** |
| **5 in New Plastic Solid 35-0** |

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# STATE OF TEXAS WELL REPORT for Tracking #366718

| | | | |
|---|---|---|---|
| Owner: | **Vicki Sybert** | Owner Well #: | **No Data** |
| Address: | **4513 18th St<br>Lubbock, TX 79416** | Grid #: | **23-50-9** |
| Well Location: | **No Data** | Latitude: | **33° 08' 03" N** |
| | | Longitude: | **101° 47' 04" W** |
| Well County: | **Lynn** | Elevation: | **No Data** |
| Type of Work: | **New Well** | Proposed Use: | **Stock** |

Drilling Start Date: **6/16/2014** Drilling End Date: **6/16/2014**

Borehole:

| *Diameter (in.)* | *Top Depth (ft.)* | *Bottom Depth (ft.)* |
|---|---|---|
| **8.75** | **0** | **71** |

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed; Straight Wall**

Filter Pack Intervals:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Filter Material* | *Size* |
|---|---|---|---|
| **20** | **71** | **Gravel** | **#12/20** |

Annular Seal Data:

| *Top Depth (ft.)* | *Bottom Depth (ft.)* | *Description (number of sacks & material)* |
|---|---|---|
| **1** | **3** | **Cement** |
| **3** | **20** | **8 - Holeplug** |

Seal Method: **Poured**

Sealed By: **Driller**

Distance to Property Line (ft.): **>200**

Distance to Septic Field or other concentrated contamination (ft.): **>1000**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **GPS & Visual Estimate**

Surface Completion: **Unknown**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Bailer** **Yield: 1 GPM with 15 ft. drawdown after .25 hours**

Water Quality:

| Strata Depth (ft.) | Water Type |
|---|---|
| **No Data** | **Fresh** |

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Carter Drilling Co., Inc.**

**3301 - 56St**
**Lubbock, TX 79413**

Driller Name: **Bruce Carter** License Number: **2320**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

| Top (ft.) | Bottom (ft.) | Description |
|---|---|---|
| **0** | **1** | **Top Soil** |
| **1** | **5** | **Rock** |
| **5** | **22** | **Sandstone** |
| **22** | **33** | **Rock** |
| **33** | **47** | **Sandstone** |
| **47** | **50** | **Sand** |
| **50** | **61** | **Yellow Clay** |
| **61** | **70** | **Blue Clay** |

Casing:
BLANK PIPE & WELL SCREEN DATA

| Dia. (in.) | New/Used | Type | Setting From/To (ft.) |
|---|---|---|---|
| **5" PVC 0-71** | | | |
| **Slotted 31-71 .020"** | | | |

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**(512) 334-5540**

TEXAS DEPARTMENT OF WATER RESOURCES

WELL SCHEDULE

Aquifer(s)_____ Project No._____ State Well No. 23-50-801

_____ Field No./Owner's Well No._____ County LYNN

1. Location:___¼,___¼,Section___,Block___,Survey_____, Lat. 33-08-38 Long. 101-47-54

2. Owner: Elmer Gunnels Address: Tahoka Texas

Tenant (other):_____ Address:_____

Driller:_____ Address:_____

3. Land Surface Elevation: 3050 ft. above msl determined by TOPO

4. Drilled: Feb 19 78; Dug, Cable Tool, Rotary, Air,___

5. Depth: Rept. 44 ft. Meas._____ft.

6. Borehole Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfr._____ Type None

No. Stages_____, Bowls Diam.___in., Setting_____ft.

Column Diam._____in., Length Tailpipe_____ft.

8. Motor: Mfr._____ Fuel None HP.___

9. Yield: Flow___gpm, Pump___gpm, Meas., Rept., Est.___Date___

10. Performance Test: Date_____Length of Test___Made by_____

Static Level___ft. Pumping Level___ft. Drawdown___ft.

Production_____gpm Specific Capacity_____gpm/ft.

11. Quality: (Remarks on taste, odor, color, etc.)_____

Analyses

Date_____Laboratory_____TDS___Sp Cond___

Date_____Laboratory_____TDS___Sp Cond___

12. Other data available (as circled): Pumping Test, Power & Yield Test, Drillers Log, Formation Samples, Geophysical Log(s)_____

CASING, BLANK PIPE & WELL SCREEN
Cemented From___ft. to___ft.

| Diam. (in.) | Type | Setting (feet) from | to |
|---|---|---|---|
| 12 | GALV | 0 | 44 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

13. Water Level(s): 27.20 ft. rept. (meas.) 10-19 19 79 above (below) _____ which is 0.00 ft. above (below) AT Land Surface

_____ ft. rept. meas._____ 19___ above below _____ which is___ft. above below Land Surface

14. Use: Dom., Stock, Public Supply, Ind., Irr., Observation, Other (Test Hole, Oil Test, etc.) Not Use

15. Recorded by: G ADAIR Source of data: OBS, OWNER Date:_____

16. Remarks:_____

IRR Wells near by PUMPS most of Time

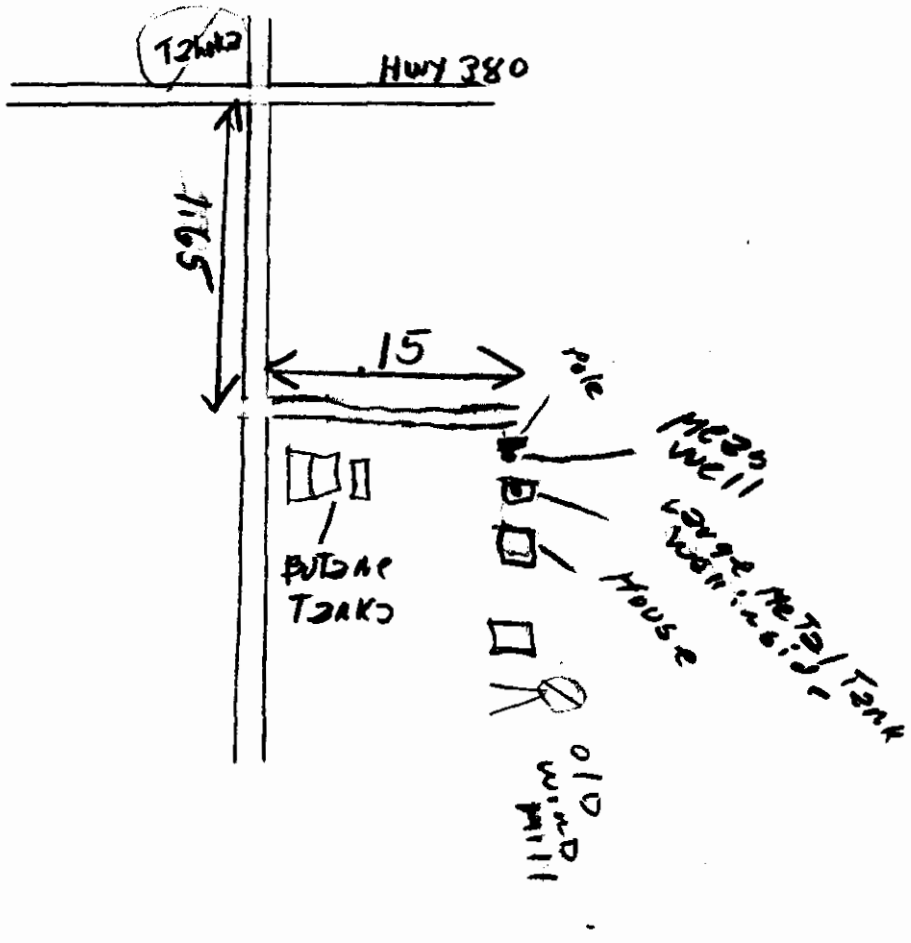
17. Location or Sketch:

MP LIFT Bucket
0.00
TOP Casing

TDWR-0308

W/L Obs. Well ___ W/Q Obs. Well ___

State Well No. 23-50-801


N
Tanks
Hwy 380
715'
15'
Pole
Mesa Well
Large Metal Tank
House
Butane Tanks
Mailbox

SR 23-50-801

# ATTACHMENT L

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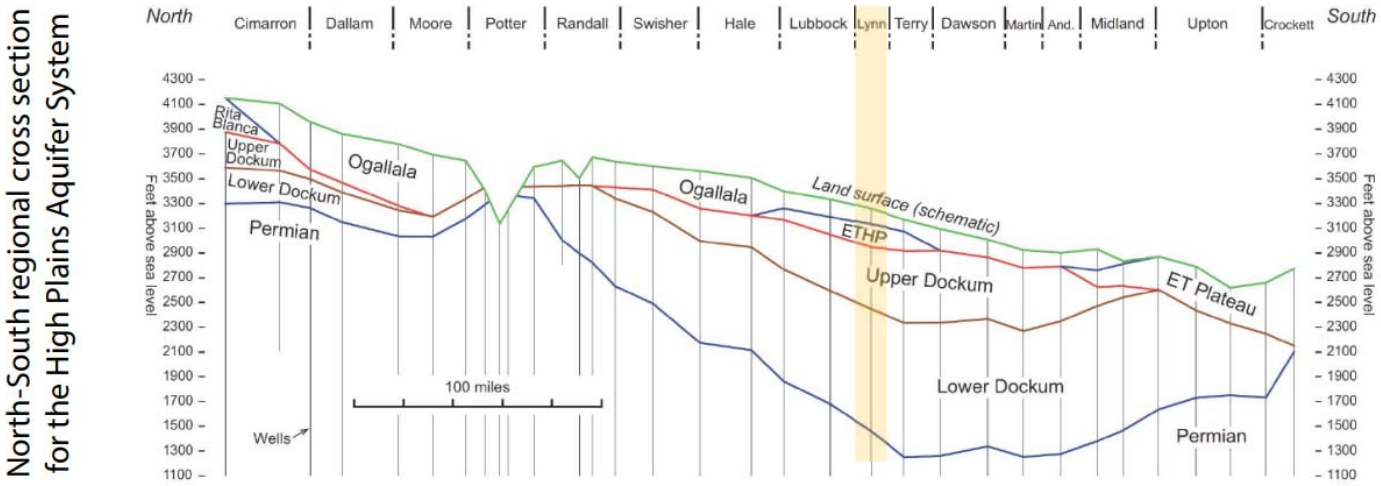
Groundwater Quality Report

## Section 7. Groundwater Quality

For this short report, water quality will pertain to the most shallow, yet most substantial aquifer in the region, the Ogallala. Water quality in this aquifer is good; however, it is considered 'hard' due to higher concentrations of calcium and magnesium. In addition, high levels of nitrates, fluoride and arsenic have been observed in the historical well sampling within and around the City of Tahoka in concentrations exceeding the MCL for primary and secondary water quality standards.

Two minor aquifers, the Edwards-Trinity (High Plains) and Dockum aquifers underly the Ogallala, yet water quality declines to slightly saline to brackish, TDS concentrations typically corresponding to the depth of the aquifer being tested. Due to the relative depth to the water table, the generous saturated thickness that averages 54 feet, and the good water quality found throughout the region and at all depths, most municipal, private domestic, and irrigation wells are developed in the Ogallala aquifer. See Figure 1 below for a representation of the various aquifers in Lynn County and their respective base, water table and surface elevations.

**Figure 1** – Cross Section of Local Aquifers [1]




Ogallala aquifer, recharge occurs primarily through percolation of precipitation through the soils and underlying sediments. Playa lakes are primary points for most natural recharge, contributing 10-100 times more recharge than surrounding lands.[1]




Referencing the USGS – Water Well Map, the depth to the Ogallala water table in Well 75956, located 1.2 miles north of the effluent disposal site was 40.36' from the surface (2023). The depth to the water table decreases rapidly as one moves south. The next closest well to the effluent disposal site is located 3.5 miles southeast and only has a depth to the water table of 14.96 feet (2023). Based on the driller's logs found for the wells identified within ½-mile from the irrigation site boundary, eight of the ten logs documented a depth to groundwater at between 15' and 25' from the surface.

[1] *High Plains Underground Water Conservation District, Ogallala Aquifer Fact Sheet, 11/24/2021*

Groundwater movement in the Ogallala aquifer generally flows from the NW to the SE at variable rates but approximating 150 feet per year. No monitoring of the groundwater quality below the effluent disposal site has been performed in the past. No dedicated monitoring wells have been constructed. According to online water records from High Plains Underground Water Conservation District (HPWD) and the Texas Water Development Board, there are ten (10) wells located within a ½-mile of the application site boundary. All are drilled to access water in the Ogallala. Six (6) have the characteristics of a domestic, residential supply, two (2) are most likely irrigation wells, and two (2) are unknown.

The HPWD records indicate that only two wells are located downgradient of the irrigation area, both located approximately 0.85 miles to the SE identified as 635734 and 635735 on the USGS – Water Well Map. Both wells were drilled/developed in March 2023. At the approximated groundwater flowrate provided by HPWD, this would calculate out to 29.9 years of background data before any influence of the effluent could be observed.

The wastewater effluent is disposed of by surface irrigation utilizing center pivot systems that contain drop lines with spray nozzles that efficiently distribute the effluent across the entire range of the pivot structure.

The maximum effluent application rate is determined by the water balance, based upon evapotranspiration rates and required leaching. However, the nitrogen balance limits this application rate a bit further, reducing it to 69.12 acre-in per acre per year, or 5.76 acre-ft per acre per year.

To protect the underlying aquifer from wastewater contamination, the facultative lagoon and both holding ponds are constructed with compacted clay liners. Originally constructed in 2002, these liners were specified for 24-inch compacted thickness with a maximum permeability of 1.0 x 10-7 cm/sec, compliant with TAC requirements at that time.

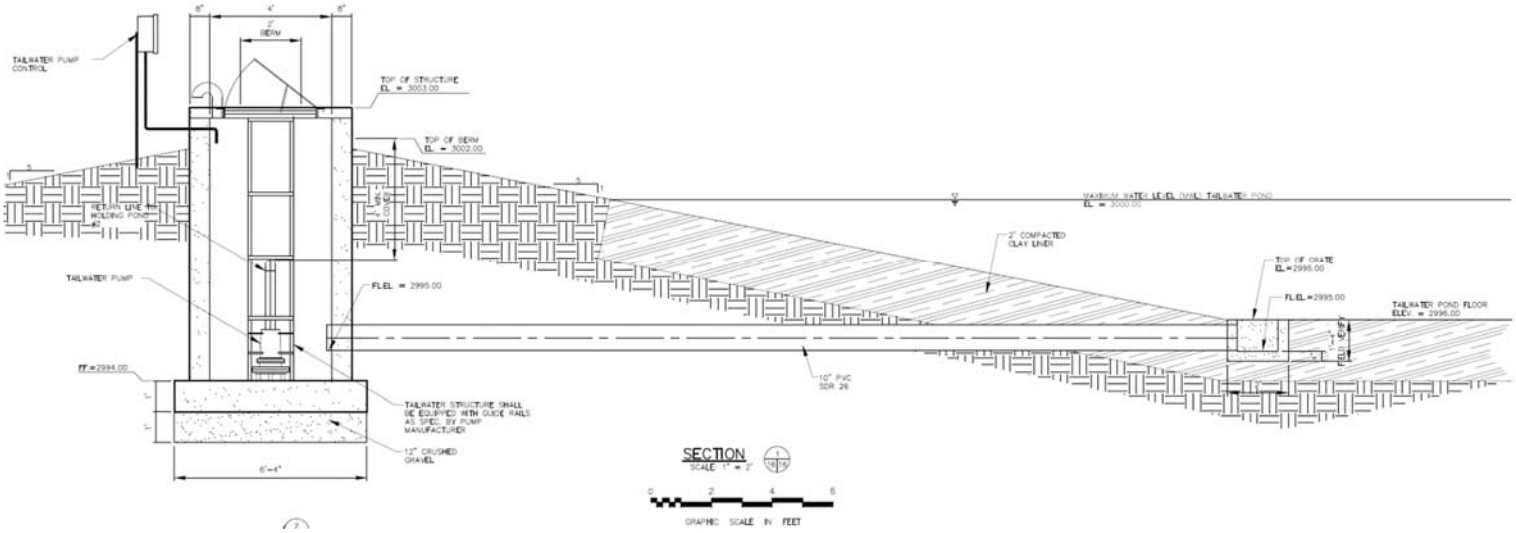
In accordance with TAC §309.13(c)(1) and (2), the facility maintains an appropriate buffer from nearby wells. The treatment pond(s) maintain at least a 500-foot buffer from any public water well, and the ponds and land where effluent is applied is located at least 150 feet from a private water well, whether it is domestic, stock, or irrigation.

This office successfully located sealed RECORD DRAWINGS for the wastewater treatment plant constructed in 2002, including details of the irrigation area and the tailwater pond. Not only did these drawings confirm the above specifications for the liner installation, the drawings indicate the exact location of the tailwater berms, which effectively contain all runoff from the irrigation area before it can pond within the existing playa lake. See Exhibit 1 at the end of this report for a reproduction of Sheet 9 from the RECORD set that defines the extent of the effluent disposal site and the runoff control measures constructed.

Note that although this Exhibit 1 displays multiple large center pivot systems and two (2) small pivot systems to encompass a once-designated 208 acre irrigation area, this permit application proposes to reduce the area to 143 acres as to remove the

requirement for frequent re-mobilization of the center pivot infrastructure to other irrigation risers. The water balance confirms this reduction can be safely achieved while maintaining enough storage for periods of reduced application rates.Figure 2 below represents the tailwater return structure with pump that prevents runoff and limits the amount of effluent that is capable of being ponded in this playa basin.

**Figure 2** – Tailwater Pond Pump Detail

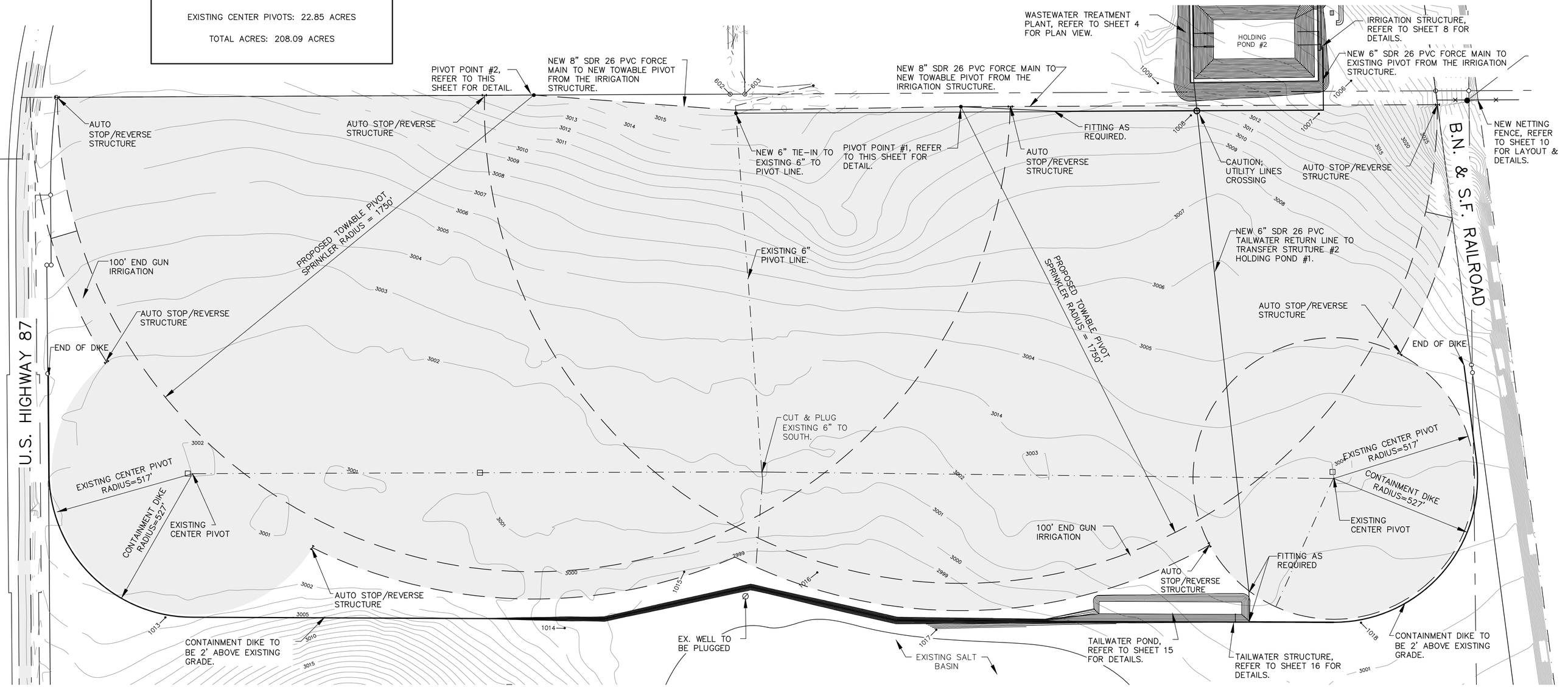


## TOTAL IRRIGATED AREA

NEW CENTER PIVOT: 170.64 ACRES
NEW END GUNS: 14.60 ACRES

EXISTING CENTER PIVOTS: 22.85 ACRES

TOTAL ACRES: 208.09 ACRES




## IRRIGATION LAYOUT PLAN

SCALE: 1"=200'

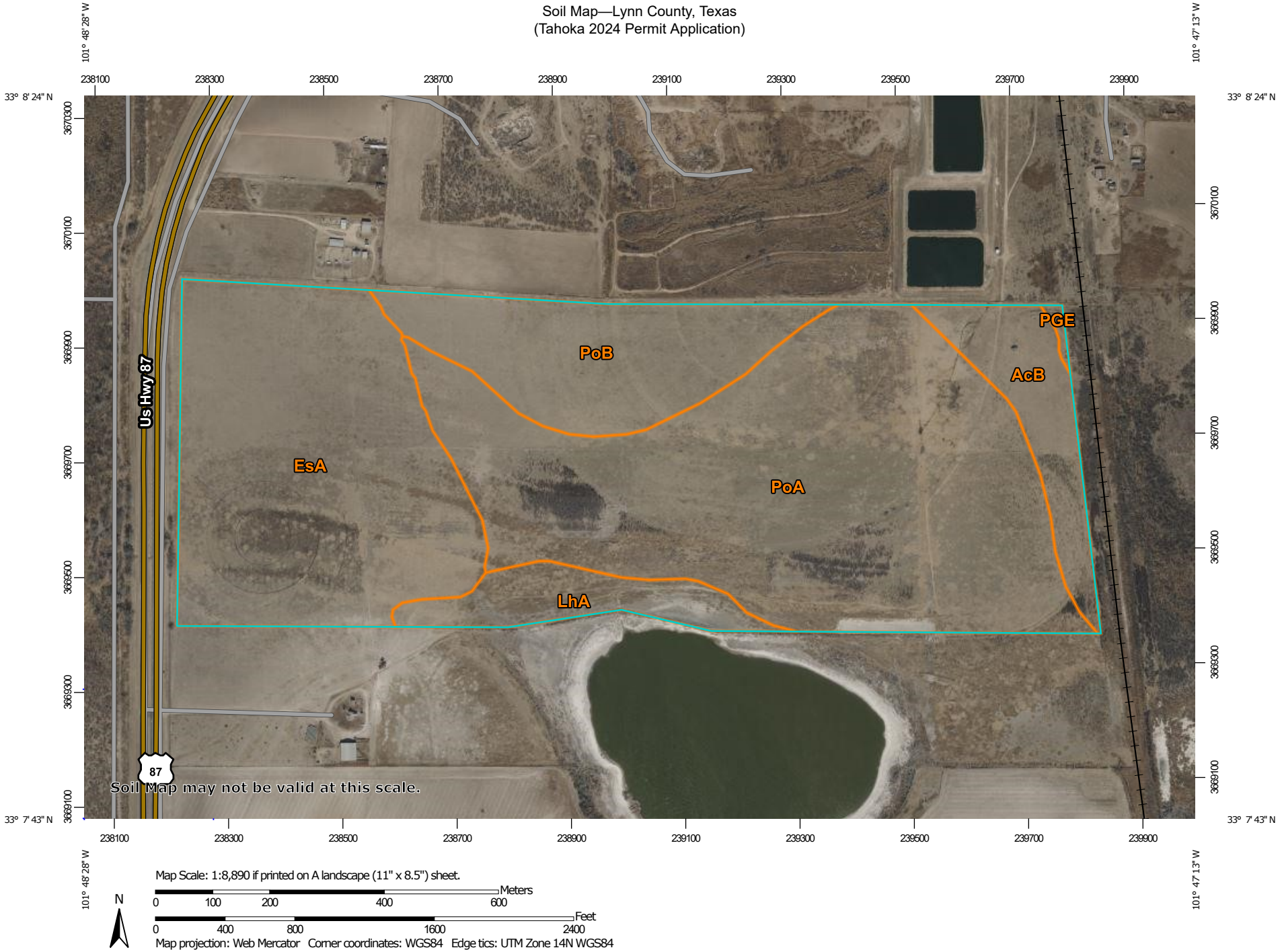
# ATTACHMENT M

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USDA Soil Survey Map and Reports

- Hydrologic Soil Group
- Engineering Properties
- Saturated Hydraulic Conductivity

Soil Map—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## 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: Lynn County, Texas
Survey Area Data: Version 20, Sep 5, 2023

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

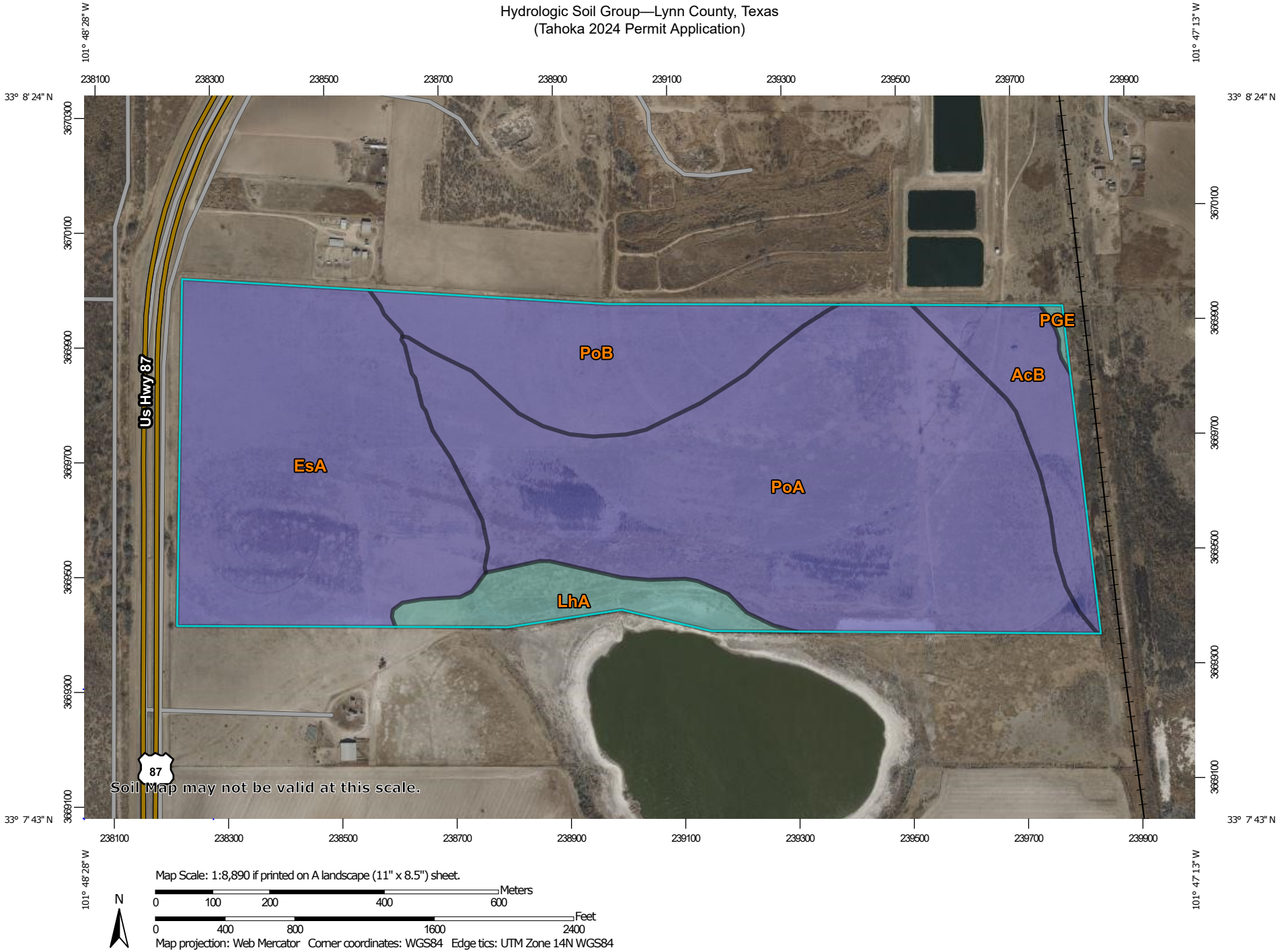
Date(s) aerial images were photographed: Nov 28, 2021—Jan 17, 2022

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 |
|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | 29.2 | 13.0% |
| **Totals for Area of Interest** | | **224.2** | **100.0%** |

Hydrologic Soil Group—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Lines**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Points**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**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: Lynn County, Texas
Survey Area Data: Version 20, 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: Nov 28, 2021—Jan 17, 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.

# Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | B | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | B | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | C | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | C | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | B | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | B | 29.2 | 13.0% |
| **Totals for Area of Interest** | | | **224.2** | **100.0%** |

## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

# Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit* and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

# Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| AcB—Acuff loam, 1 to 3 percent slopes | | | | | | | | | | | | | | |
| Acuff | 85 | B | 0-12 | Loam | CL | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 90-98-100 | 60-67-74 | 27-36-43 | 8-13-19 |
| | | | 12-38 | Clay loam, loam, sandy clay loam | CL | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-98-100 | 55-63-67 | 31-40-45 | 13-19-22 |
| | | | 38-58 | Clay loam, sandy clay loam | CL, SM | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 90-93-97 | 80-87-95 | 73-85-95 | 45-54-67 | 27-35-45 | 5-14-24 |
| | | | 58-80 | Clay loam, loam, sandy clay loam | CL, SC | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 93-96-99 | 86-91-98 | 78-89-98 | 45-55-69 | 27-37-48 | 8-17-27 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| EsA—Estacado loam, 0 to 1 percent slopes | | | | | | | | | | | | | | |
| Estacado | 85 | B | 0-6 | Loam | CL | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 90-98-100 | 55-63-70 | 26-35-45 | 8-13-19 |
| | | | 6-19 | Clay loam, sandy clay loam | CL, CH | A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 98-100-100 | 85-99-100 | 62-75-81 | 34-46-53 | 15-22-29 |
| | | | 19-38 | Clay loam, sandy clay loam | CL, CH | A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 98-100-100 | 85-99-100 | 62-75-81 | 34-46-53 | 15-22-29 |
| | | | 38-50 | Clay loam, sandy clay loam | CL, CH, SC | A-7-6 | 0- 0- 0 | 0- 0- 0 | 90-92-100 | 87-90-100 | 72-88-100 | 48-64-73 | 32-45-51 | 15-23-29 |
| | | | 50-80 | Clay loam, sandy clay loam | CL, CH, SC | A-7-6 | 0- 0- 0 | 0- 0- 0 | 88-94-99 | 84-91-98 | 67-89-98 | 41-61-76 | 32-44-59 | 15-21-36 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| LhA—Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | | | | | | | | | | | | | | |
| Lenorah | 50 | C | 0-8 | Fine sandy loam | SC-SM, SC | A-2-4, A-4 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 87-97-100 | 32-39-47 | 20-26-33 | 4-7 -12 |
| | | | 8-22 | Loam, fine sandy loam, sandy clay loam | CL, SC | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 88-97-100 | 43-50-58 | 29-35-46 | 12-15-23 |
| | | | 22-47 | Loam, fine sandy loam, sandy clay loam | CL, SC | A-2-4, A-2-5, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 82-88-97 | 78-85-96 | 70-82-96 | 32-39-53 | 28-31-43 | 10-12-19 |
| | | | 47-65 | Fine sandy loam, loamy fine sand | SC-SM, SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 98-99-100 | 96-98-100 | 81-91-100 | 21-28-38 | 16-20-30 | 1-4 -11 |
| | | | 65-80 | Loamy fine sand, sand | SC-SM, SP-SM, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 98-99-100 | 97-98-100 | 68-76-86 | 11-14-21 | 0-18 -21 | NP-3 -4 |
| Hindman | 30 | A | 0-23 | Fine sand | SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 96-98-100 | 20-22-34 | 0-16 -28 | NP-1 -10 |
| | | | 23-38 | Fine sandy loam, loamy fine sand | SC-SM, SC, SM | A-2-4, A-2-5, A-7-6 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 92-96-100 | 21-24-47 | 16-20-41 | 2-4 -21 |
| | | | 38-46 | Fine sandy loam | CL, SC, SM | A-2-4, A-2-5, A-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 88-97-100 | 34-42-55 | 19-27-41 | 3-9 -20 |
| | | | 46-60 | Fine sandy loam, loam, sandy clay loam | CL, SM | A-6 | 0- 0- 0 | 0- 0- 0 | 96-98-100 | 95-98-100 | 84-97-100 | 39-51-61 | 18-30-40 | 1-11-20 |
| | | | 60-80 | Loamy fine sand, fine sand | SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 96-98-100 | 19-21-31 | 0-16 -26 | NP-1 -9 |

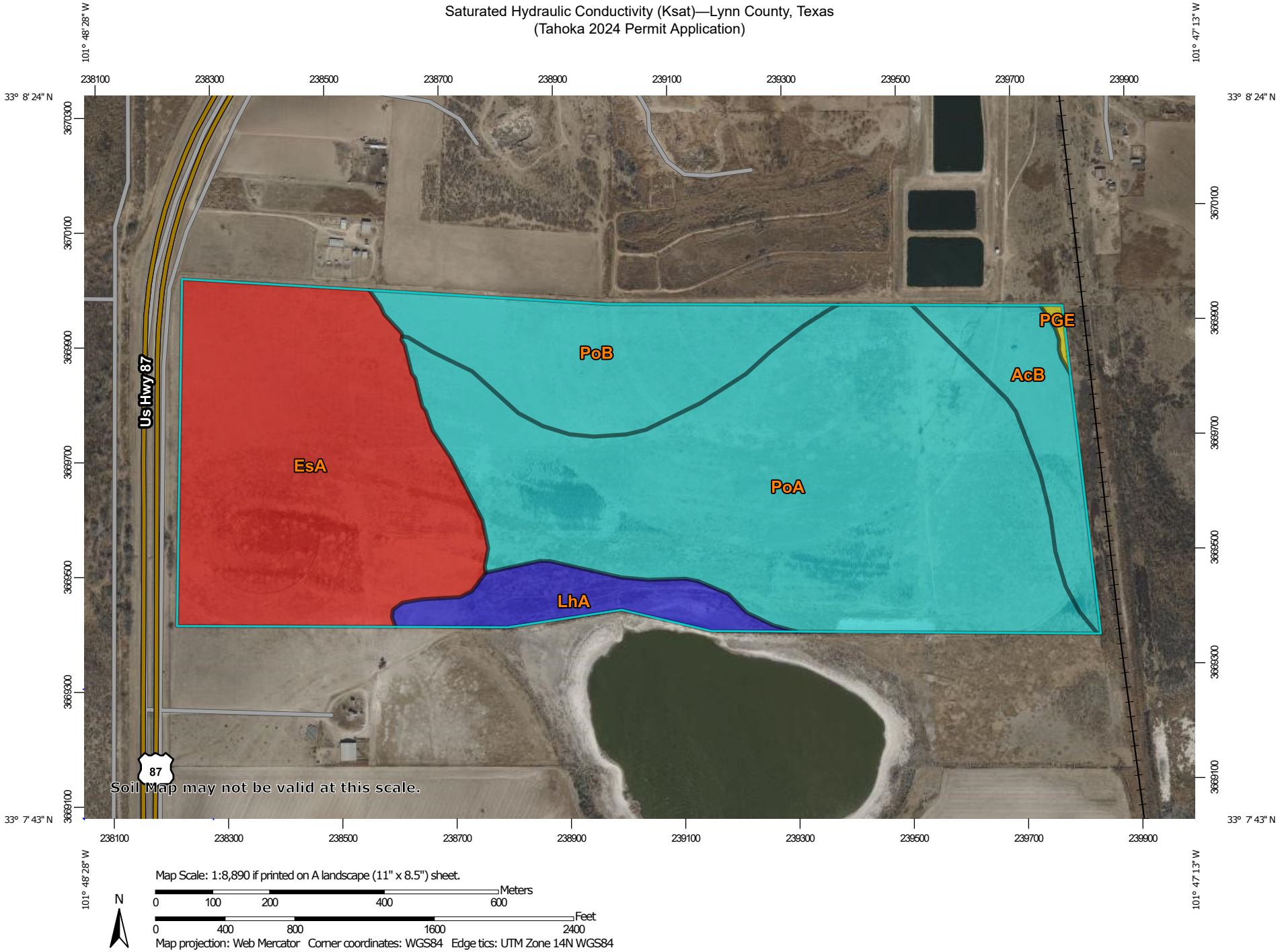
| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| PGE—Potter soils, 3 to 20 percent slopes | | | | | | | | | | | | | | |
| Potter | 85 | C | 0-6 | Gravelly loam | MH, ML, GC | A-4, A-6, A-7-5 | 0- 0- 0 | 0- 0- 0 | 68-81-88 | 64-78-87 | 58-75-87 | 40-53-70 | 30-39-54 | 9-13-24 |
| | | | 6-15 | Very gravelly loam, very gravelly sandy loam | GC-GM, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 46-61-63 | 39-47-58 | 27-35-53 | 18-23-39 | 25-27-45 | 7-8 -25 |
| | | | 15-29 | Very gravelly loam, extremely gravelly sandy loam, extremely gravelly loam, very gravelly sandy loam | GP-GC, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 19-41-64 | 13-32-60 | 9-23- 54 | 6-15- 39 | 25-27-44 | 7-9 -25 |
| | | | 29-80 | Extremely gravelly loam, very gravelly fine sandy loam, very gravelly loam, extremely gravelly fine sandy loam | GP-GC, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 19-35-64 | 13-26-60 | 11-21-59 | 6-11- 37 | 25-25-44 | 7-8 -25 |
| PoA—Portales loam, 0 to 1 percent slopes | | | | | | | | | | | | | | |
| Portales | 85 | B | 0-15 | Loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 94-99-100 | 60-64-70 | 26-33-40 | 7-12-17 |
| | | | 15-35 | Sandy clay loam, loam, clay loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-99-100 | 64-73-84 | 28-39-52 | 8-16-27 |
| | | | 35-43 | Clay loam, sandy clay loam, loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 86-92-99 | 83-90-98 | 77-89-98 | 53-63-82 | 24-33-47 | 4-13-26 |
| | | | 43-80 | Loam, sandy clay loam, clay loam | SC-SM, CL-ML, CL | A-6 | 0- 0- 0 | 0- 0- 0 | 81-89-97 | 77-86-96 | 62-85-96 | 41-62-71 | 24-39-45 | 4-16-23 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| PoB—Portales loam, 1 to 3 percent slopes | | | | | | | | | | | | | | |
| Portales | 85 | B | 0-14 | Loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 94-99-100 | 60-64-70 | 26-33-40 | 7-12-17 |
| | | | 14-35 | Sandy clay loam, loam, clay loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-99-100 | 64-73-84 | 28-39-52 | 8-16-27 |
| | | | 35-43 | Clay loam, sandy clay loam, loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 86-92-99 | 83-90-98 | 77-89-98 | 53-63-82 | 24-33-47 | 4-13-26 |
| | | | 43-80 | Loam, sandy clay loam, clay loam | CL-ML, CL, SC-SM | A-6 | 0- 0- 0 | 0- 0- 0 | 81-89-97 | 77-86-96 | 62-85-96 | 41-62-71 | 24-39-45 | 4-16-23 |

# Data Source Information

Soil Survey Area: Lynn County, Texas
Survey Area Data: Version 20, Sep 5, 2023

Saturated Hydraulic Conductivity (Ksat)—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**Soil Rating Lines**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**Soil Rating Points**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**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: Lynn County, Texas
Survey Area Data: Version 20, 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: Nov 28, 2021—Jan 17, 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.

# Saturated Hydraulic Conductivity (Ksat)

| Map unit symbol | Map unit name | Rating (micrometers per second) | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | 9.0000 | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | 6.7761 | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | 17.2609 | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | 7.5391 | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | 9.0000 | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | 9.0000 | 29.2 | 13.0% |
| **Totals for Area of Interest** | | | **224.2** | **100.0%** |

## Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

## Rating Options

*Units of Measure:* micrometers per second

*Aggregation Method:* Dominant Component

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Fastest

*Interpret Nulls as Zero:* No

*Layer Options (Horizon Aggregation Method):* Depth Range (Weighted Average)

*Top Depth:* 0

*Bottom Depth:* 18

*Units of Measure:* Inches

# ATTACHMENT N

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Soil Analysis for Effluent Disposal Site

# SOIL ANALYSIS REPORT

| CLIENT: | PKCC<br>PAUL REYNOLDS<br>PO BOX 778<br>CLARENDON, TX 79226 |
|---|---|
| 41493 | |

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620.227.7123
Fax 620.227.2047

| LAB NO: | 87413 - 87415 |
|---|---|
| INVOICE NO: | 898654 |
| DATE RECEIVED: | 03/23/2023 |
| DATE REPORTED: | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 8 INCH PIVOT

| METHOD USED: | | | 1:2 Soil-Water | | 1:2 Soil-Water | XSL(i) | LOI(r) | Cd Reduction | | Mehlich 3 ICP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Soil pH | Buffer pH | Sol. Salts mmho/cm | Excess Lime | % Organic Matter | Nitrate-Nitrogen ppm | Nitrate-Nitrogen lb. N/A | Phosphorus ppm P | Potassium ppm K | Sulfur ppm | Sulfur lb. S/A | Calcium ppm Ca | Magnesium ppm Mg | Sodium ppm Na | Zinc ppm Zn | Iron ppm Fe | Manganese ppm Mn | Copper ppm Cu | Boron ppm B |
| 87413 | | 0 - 6 | 8.7 | | 0.29 | Hi | 1.0 | 2.4 | 4 | 46 | 570 | 23 | 41 | 5500 | 514 | 275 | | | | | |
| 87414 | | 6 - 18 | 8.6 | | 0.54 | Hi | 0.7 | 1.6 | 6 | 9 | 424 | 85 | 306 | 7820 | 524 | 444 | | | | | |
| 87415 | | 18 - 30 | 8.2 | | 1.15 | Hi | 0.6 | <1.0 | <4 | 7 | 306 | 142 | 511 | 14400 | 686 | 645 | | | | | |

| METHOD USED: | | | KCl Extr. | | TKN | Sat. Paste | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Ammonium Nitrogen ppm | Ammonium Nitrogen lb. /A | TKN ppm | Saturation % Sat | Electrical Conductivity mmho/cm | Calcium mg/L Ca | Magnesium mg/L Mg | Sodium mg/L Na | Sodium Adsorption Ratio | | | | | | | | | | |
| 87413 | | 0 - 6 | 3 | 5 | 953 | 43 | 1.05 | 36 | 14.4 | 165 | 5.9 | | | | | | | | | | |
| 87414 | | 6 - 18 | 4 | 14 | 620 | 46 | 1.61 | 63 | 23.3 | 357 | 9.8 | | | | | | | | | | |
| 87415 | | 18 - 30 | 3 | 11 | 404 | 49 | 2.52 | 105 | 34.4 | 398 | 8.6 | | | | | | | | | | |

**FERTILIZER RECOMMENDATIONS:** POUNDS ACTUAL NUTRIENT PER ACRE

| Lab Number | Sample ID | Crop To Be Grown | Yield Goal | Lime, ECC Tons/A to raise pH to: 6.0 | 6.5 | 7.0 | N | $P_2O_5$ | $K_2O$ | Zn | S | Mn | Cu | MgO | B | Ca | Cl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87413 | | | | | | | | | | | | | | | | | |
| 87414 | | | | | | | | | | | | | | | | | |
| 87415 | | | | | | | | | | | | | | | | | |

**Cation Exchange Capacity**

| CEC | %H | %K | %Ca | %Mg | %Na |
|---|---|---|---|---|---|
| 32 | 0 | 5 | 78 | 13 | 4 |
| 32 | 0 | 3 | 77 | 13 | 6 |
| 34 | 0 | 2 | 73 | 17 | 8 |

**SPECIAL COMMENTS AND SUGGESTIONS:**

Lab Number(s): 87413
Servi-Tech Laboratory fertilizer recommendations were not requested.

Lab Number(s): 87413, 87414
**SODIUM - CAUTION (4% to 7% Na)**: The exchangeable soil sodium (as % Na) is moderately high for fine-textured soils and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.

Lab Number(s): 87413, 87414, 87415
The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



The reported analytical results apply only to the sample as it was supplied. The report may not be reproduced, except in full, without permission of ServiTech.
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# SOIL ANALYSIS REPORT

| | |
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Fax 620.227.2047

| | |
|---|---|
| **LAB NO:** | 87413 - 87415 |
| **INVOICE NO:** | 898654 |
| **DATE RECEIVED:** | 03/23/2023 |
| **DATE REPORTED:** | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 8 INCH PIVOT

Lab Number(s): 87415

**SODIUM - WARNING (7% to 10% Na):** The exchangeable soil sodium (as % Na) is high for fine-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



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# SOIL ANALYSIS REPORT

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Fax 620.227.2047

| LAB NO: | 87416 - 87418 |
|---|---|
| INVOICE NO: | 898654 |
| DATE RECEIVED: | 03/23/2023 |
| DATE REPORTED: | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 6 INCH PIVOT

| METHOD USED: | | | 1:2 Soil-Water | | 1:2 Soil-Water | XSL(i) | LOI(r) | Cd Reduction | | Mehlich 3 ICP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Soil pH | Buffer pH | Sol. Salts mmho/cm | Excess Lime | % Organic Matter | Nitrate-Nitrogen ppm | Nitrate-Nitrogen lb. N/A | Phosphorus ppm P | Potassium ppm K | Sulfur ppm | Sulfur lb. S/A | Calcium ppm Ca | Magnesium ppm Mg | Sodium ppm Na | Zinc ppm Zn | Iron ppm Fe | Manganese ppm Mn | Copper ppm Cu | Boron ppm B |
| 87416 | | 0 - 6 | 8.6 | | 0.41 | Lo | 2.0 | 1.6 | 3 | 48 | 1040 | 24 | 43 | 5540 | 977 | 435 | | | | | |
| 87417 | | 6 - 18 | 8.3 | | 0.73 | Hi | 1.3 | <1.0 | <4 | 11 | 555 | 49 | 176 | 5610 | 862 | 547 | | | | | |
| 87418 | | 18 - 30 | 8.1 | | 1.65 | Hi | 1.0 | <1.0 | <4 | 10 | 338 | 152 | 547 | 7590 | 755 | 942 | | | | | |

| METHOD USED: | | | KCl Extr. | | TKN | Sat. Paste | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Ammonium Nitrogen ppm | Ammonium Nitrogen lb. /A | TKN ppm | Saturation % Sat | Electrical Conductivity mmho/cm | Calcium mg/L Ca | Magnesium mg/L Mg | Sodium mg/L Na | Sodium Adsorption Ratio | | | | | | | | | | |
| 87416 | | 0 - 6 | 3 | 5 | 1777 | 54 | 0.91 | 23 | 9.9 | 139 | 6.1 | | | | | | | | | | |
| 87417 | | 6 - 18 | 4 | 14 | 720 | 54 | 1.46 | 43 | 18.1 | 207 | 6.7 | | | | | | | | | | |
| 87418 | | 18 - 30 | 3 | 11 | 534 | 55 | 3.48 | 155 | 46.6 | 470 | 8.5 | | | | | | | | | | |

**FERTILIZER RECOMMENDATIONS:** POUNDS ACTUAL NUTRIENT PER ACRE

| Lab Number | Sample ID | Crop To Be Grown | Yield Goal | Lime, ECC Tons/A to raise pH to: 6.0 | 6.5 | 7.0 | N | $P_2O_5$ | $K_2O$ | Zn | S | Mn | Cu | MgO | B | Ca | Cl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87416 | | | | | | | | | | | | | | | | | |
| 87417 | | | | | | | | | | | | | | | | | |
| 87418 | | | | | | | | | | | | | | | | | |

**Cation Exchange Capacity**

| CEC | %H | %K | %Ca | %Mg | %Na |
|---|---|---|---|---|---|
| 38 | 0 | 7 | 66 | 22 | 5 |
| 36 | 0 | 4 | 69 | 20 | 7 |
| 36 | 0 | 2 | 69 | 17 | 11 |

**SPECIAL COMMENTS AND SUGGESTIONS:**

Lab Number(s): 87416

Servi-Tech Laboratory fertilizer recommendations were not requested.

Lab Number(s): 87416, 87417

**SODIUM - CAUTION (4% to 7% Na)**: The exchangeable soil sodium (as % Na) is moderately high for fine-textured soils and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator

Michele Lawson



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# SOIL ANALYSIS REPORT

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| | |
|---|---|
| **LAB NO:** | 87416 - 87418 |
| **INVOICE NO:** | 898654 |
| **DATE RECEIVED:** | 03/23/2023 |
| **DATE REPORTED:** | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 6 INCH PIVOT

Lab Number(s): 87417

**SODIUM - WARNING (7% to 10% Na):** The exchangeable soil sodium (as % Na) is high for fine-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Lab Number(s): 87417, 87418

The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

Lab Number(s): 87418

**SODIUM - VERY HIGH (over 10% Na):** The exchangeable soil sodium (as % Na) is very high for fine-textured soils. Typical symptoms of a sodic soil are surface crusting, soil sealing, and poor water penetration. Additional soil analysis can determine the proper rate of gypsum or other soil amendment. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



The reported analytical results apply only to the sample as it was supplied. The report may not be reproduced, except in full, without permission of ServiTech.

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Servi-Tech Laboratories

# SOIL SAMPLE INFORMATION SHEET

1602 Park West Drive • P.O. Box 169 • Hastings, NE 68902
1816 East Wyatt Earp Blvd. • P.O. Box 1397 • Dodge City, KS 67801
6921 S. Bell • Amarillo, TX 79109
800-557-7509

Name PKCC

Address

City/St/Zip

Date sampled

Date sent

Fax/email results ☐

| Lab Use Only | Producer / Field I.D. | Sample I.D. | Depth | Test | Crop | YG |
|---|---|---|---|---|---|---|
| 087413 | 1. Tahoka, City 8" Pivot | | 0 to 6 | PKCC-6 | | |
| 087414 | 2. | | 6 to 18 | | | |
| 087415 | 3. | | 18 to 30 | | | |
| 087416 | 4. 6" Pivot | | 0 to 6 | | | |
| 087417 | 5. | | 6 to 18 | | | |
| 087418 | 6. | | 18 to 30 | | | |
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Comments

# ATTACHMENT O

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2022 – 2023 Monthly Flow Record Data

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **July** | | | | |
| 7/1/22 | 507,106.3 | 122,700 | | |
| 7/2/22 | 507,229.0 | 95,200 | | |
| 7/3/22 | 507,324.2 | 127,200 | | |
| 7/4/22 | 507,451.4 | 120,400 | | |
| 7/5/22 | 507,571.8 | 133,300 | | |
| 7/6/22 | 507,705.1 | 138,800 | | |
| 7/7/22 | 507,843.9 | 122,000 | | |
| 7/8/22 | 507,965.9 | 132,400 | | |
| 7/9/22 | 508,098.3 | 131,300 | | |
| 7/10/22 | 508,229.6 | 110,900 | | |
| 7/11/22 | 508,340.5 | 110,700 | | |
| 7/12/22 | 508,451.2 | 127,300 | | |
| 7/13/22 | 508,578.5 | 127,300 | | |
| 7/14/22 | 508,705.8 | 113,200 | | |
| 7/15/22 | 508,819.0 | 113,100 | | |
| 7/16/22 | 508,932.1 | 120,400 | | |
| 7/17/22 | 509,052.5 | 131,100 | | |
| 7/18/22 | 509,183.6 | 122,500 | | |
| 7/19/22 | 509,306.1 | 141,500 | | |
| 7/20/22 | 509,447.6 | 141,600 | | |
| 7/21/22 | 509,589.2 | 126,600 | | |
| 7/22/22 | 509,715.8 | 112,800 | | |
| 7/23/22 | 509,828.6 | 112,700 | | |
| 7/24/22 | 509,941.3 | 130,900 | | |
| 7/25/22 | 510,072.2 | 128,100 | | |
| 7/26/22 | 510,200.3 | 130,100 | | |
| 7/27/22 | 510,330.4 | 124,400 | | |
| 7/28/22 | 510,454.8 | 124,400 | | |
| 7/29/22 | 510,579.2 | 123,500 | | |
| 7/30/22 | 510,702.7 | 133,000 | | |
| 7/31/22 | 510,835.7 | 128,900 | | |
| 8/1/22 | 510,964.6 | | | |

Monthly Total: 3,858,300 gallons

Daily Average: **124,461** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **141,600** gallons on **7/20/22**

Minimum Day: **95,200** gallons on **7/2/22**

Permitted Flow: 360,000 gpd

35% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **August** | | | | |
| 8/1/22 | 510,964.6 | 142,000 | | |
| 8/2/22 | 511,106.6 | 120,700 | | |
| 8/3/22 | 511,227.3 | 158,500 | | |
| 8/4/22 | 511,385.8 | 491,500 | | |
| 8/5/22 | 511,877.3 | 402,900 | | |
| 8/6/22 | 512,280.2 | 199,600 | | |
| 8/7/22 | 512,479.8 | 952,500 | | |
| 8/8/22 | 513,432.3 | 382,200 | | |
| 8/9/22 | 513,814.5 | 356,800 | | |
| 8/10/22 | 514,171.3 | 361,100 | | |
| 8/11/22 | 514,532.4 | 158,300 | | |
| 8/12/22 | 514,690.7 | 121,600 | | |
| 8/13/22 | 514,812.3 | 133,300 | | |
| 8/14/22 | 514,945.6 | 117,600 | | |
| 8/15/22 | 515,063.2 | 130,800 | | |
| 8/16/22 | 515,194.0 | 137,600 | | |
| 8/17/22 | 515,331.6 | 238,800 | | |
| 8/18/22 | 515,570.4 | 106,400 | | |
| 8/19/22 | 515,676.8 | 84,200 | | |
| 8/20/22 | 515,761.0 | -213,900 | X | Erroneous reading documented |
| 8/21/22 | 515,547.1 | 389,000 | X | Erroneous reading documented |
| 8/22/22 | 515,936.1 | 114,200 | | |
| 8/23/22 | 516,050.3 | 338,800 | | |
| 8/24/22 | 516,389.1 | 117,400 | | |
| 8/25/22 | 516,506.5 | 120,300 | | |
| 8/26/22 | 516,626.8 | 100,000 | | |
| 8/27/22 | 516,726.8 | 118,100 | | |
| 8/28/22 | 516,844.9 | 124,500 | | |
| 8/29/22 | 516,969.4 | 131,600 | | |
| 8/30/22 | 517,101.0 | 95,000 | | |
| 8/31/22 | 517,196.0 | 144,600 | | |
| 9/1/22 | 517,340.6 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 6,376,000 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **213,824** | gpd | |
| Maximum Day: | **952,500** | gallons on | **8/7/22** |
| Minimum Day: | **84,200** | gallons on | **8/19/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 59% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **September** | | | | |
| 9/1/22 | 517,340.6 | 106,600 | | |
| 9/2/22 | 517,447.2 | 114,900 | | |
| 9/3/22 | 517,562.1 | 118,200 | | |
| 9/4/22 | 517,680.3 | 98,500 | | |
| 9/5/22 | 517,778.8 | 98,400 | | |
| 9/6/22 | 517,877.2 | 92,500 | | |
| 9/7/22 | 517,969.7 | 110,800 | | |
| 9/8/22 | 518,080.5 | 102,200 | | |
| 9/9/22 | 518,182.7 | 95,100 | | |
| 9/10/22 | 518,277.8 | 110,300 | | |
| 9/11/22 | 518,388.1 | 117,100 | | |
| 9/12/22 | 518,505.2 | 108,500 | | |
| 9/13/22 | 518,613.7 | 118,000 | | |
| 9/14/22 | 518,731.7 | 117,900 | | |
| 9/15/22 | 518,849.6 | 113,500 | | |
| 9/16/22 | 518,963.1 | 115,600 | | |
| 9/17/22 | 519,078.7 | 129,500 | | |
| 9/18/22 | 519,208.2 | 129,500 | | |
| 9/19/22 | 519,337.7 | 131,600 | | |
| 9/20/22 | 519,469.3 | 126,200 | | |
| 9/21/22 | 519,595.5 | 126,100 | | |
| 9/22/22 | 519,721.6 | 130,100 | | |
| 9/23/22 | 519,851.7 | 114,800 | | |
| 9/24/22 | 519,966.5 | 125,000 | | |
| 9/25/22 | 520,091.5 | 139,800 | | |
| 9/26/22 | 520,231.3 | 128,800 | | |
| 9/27/22 | 520,360.1 | 122,500 | | |
| 9/28/22 | 520,482.6 | 122,500 | | |
| 9/29/22 | 520,605.1 | 117,900 | | |
| 9/30/22 | 520,723.0 | 123,000 | | |
| 10/1/22 | 520,846.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,505,400 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **116,847** | gpd | |
| Maximum Day: | **139,800** | gallons on | **9/25/22** |
| Minimum Day: | **92,500** | gallons on | **9/6/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 32% | Average Flow as a Percent of Permitted Flow | |
| | | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **October** | | | | |
| 10/1/22 | 520,846.0 | 119,600 | | |
| 10/2/22 | 520,965.6 | 127,500 | | |
| 10/3/22 | 521,093.1 | 127,600 | | |
| 10/4/22 | 521,220.7 | 123,200 | | |
| 10/5/22 | 521,343.9 | 127,500 | | |
| 10/6/22 | 521,471.4 | 120,000 | | |
| 10/7/22 | 521,591.4 | 120,000 | | |
| 10/8/22 | 521,711.4 | 133,700 | | |
| 10/9/22 | 521,845.1 | 141,900 | | |
| 10/10/22 | 521,987.0 | 135,100 | | |
| 10/11/22 | 522,122.1 | 118,700 | | |
| 10/12/22 | 522,240.8 | 124,700 | | |
| 10/13/22 | 522,365.5 | 123,300 | | |
| 10/14/22 | 522,488.8 | 131,400 | | |
| 10/15/22 | 522,620.2 | 132,100 | | |
| 10/16/22 | 522,752.3 | 132,100 | | |
| 10/17/22 | 522,884.4 | 133,800 | | |
| 10/18/22 | 523,018.2 | 124,300 | | |
| 10/19/22 | 523,142.5 | 124,200 | | |
| 10/20/22 | 523,266.7 | 119,900 | | |
| 10/21/22 | 523,386.6 | 119,900 | | |
| 10/22/22 | 523,506.5 | 127,200 | | |
| 10/23/22 | 523,633.7 | 127,100 | | |
| 10/24/22 | 523,760.8 | 133,000 | | |
| 10/25/22 | 523,893.8 | 117,800 | | |
| 10/26/22 | 524,011.6 | 116,800 | | |
| 10/27/22 | 524,128.4 | 115,300 | | |
| 10/28/22 | 524,243.7 | 388,400 | X | Erroneous reading documented |
| 10/29/22 | 524,632.1 | -141,700 | X | Erroneous reading documented |
| 10/30/22 | 524,490.4 | 128,200 | | |
| 10/31/22 | 524,618.6 | 113,400 | | |
| 11/1/22 | 524,732.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,886,000 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **125,493** | gpd | |
| Maximum Day: | **141,900** | gallons on | **10/9/22** |
| Minimum Day: | **113,400** | gallons on | **10/31/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 35% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **November** | | | | |
| 11/1/22 | 524,732.0 | 118,100 | | |
| 11/2/22 | 524,850.1 | 128,400 | | |
| 11/3/22 | 524,978.5 | 113,300 | | |
| 11/4/22 | 525,091.8 | 115,500 | | |
| 11/5/22 | 525,207.3 | 113,900 | | |
| 11/6/22 | 525,321.2 | 113,200 | | |
| 11/7/22 | 525,434.4 | 115,300 | | |
| 11/8/22 | 525,549.7 | 118,200 | | |
| 11/9/22 | 525,667.9 | 111,100 | | |
| 11/10/22 | 525,779.0 | 113,200 | | |
| 11/11/22 | 525,892.2 | 110,300 | | |
| 11/12/22 | 526,002.5 | 113,000 | | |
| 11/13/22 | 526,115.5 | 113,600 | | |
| 11/14/22 | 526,229.1 | 118,200 | | |
| 11/15/22 | 526,347.3 | 104,100 | | |
| 11/16/22 | 526,451.4 | 114,800 | | |
| 11/17/22 | 526,566.2 | 114,800 | | |
| 11/18/22 | 526,681.0 | 113,200 | | |
| 11/19/22 | 526,794.2 | 115,400 | | |
| 11/20/22 | 526,909.6 | 118,000 | | |
| 11/21/22 | 527,027.6 | 114,500 | | |
| 11/22/22 | 527,142.1 | 111,400 | | |
| 11/23/22 | 527,253.5 | 131,300 | | |
| 11/24/22 | 527,384.8 | 135,600 | | |
| 11/25/22 | 527,520.4 | 132,200 | | |
| 11/26/22 | 527,652.6 | 134,300 | | |
| 11/27/22 | 527,786.9 | 135,400 | | |
| 11/28/22 | 527,922.3 | 131,400 | | |
| 11/29/22 | 528,053.7 | 118,500 | | |
| 11/30/22 | 528,172.2 | 0 | X | Duplicate readings |
| 12/1/22 | 528,172.2 | | | |
| | | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,440,200 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **118,628** | gpd | |
| Maximum Day: | **135,600** | gallons on | **11/24/22** |
| Minimum Day: | **104,100** | gallons on | **11/15/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 33% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **December** | | | | |
| 12/1/22 | 528,172.2 | 107,100 | | |
| 12/2/22 | 528,279.3 | 100,600 | | |
| 12/3/22 | 528,379.9 | 96,800 | | |
| 12/4/22 | 528,476.7 | 101,500 | | |
| 12/5/22 | 528,578.2 | 94,300 | | |
| 12/6/22 | 528,672.5 | 95,800 | | |
| 12/7/22 | 528,768.3 | 122,500 | | |
| 12/8/22 | 528,890.8 | 70,600 | | |
| 12/9/22 | 528,961.4 | 93,200 | | |
| 12/10/22 | 529,054.6 | 105,600 | | |
| 12/11/22 | 529,160.2 | 105,700 | | |
| 12/12/22 | 529,265.9 | 73,700 | | |
| 12/13/22 | 529,339.6 | 73,700 | | |
| 12/14/22 | 529,413.3 | 113,400 | | |
| 12/15/22 | 529,526.7 | 110,300 | | |
| 12/16/22 | 529,637.0 | 110,900 | | |
| 12/17/22 | 529,747.9 | 110,900 | | |
| 12/18/22 | 529,858.8 | 129,100 | | |
| 12/19/22 | 529,987.9 | 97,000 | | |
| 12/20/22 | 530,084.9 | 102,400 | | |
| 12/21/22 | 530,187.3 | 109,700 | | |
| 12/22/22 | 530,297.0 | 131,400 | | |
| 12/23/22 | 530,428.4 | 106,400 | | |
| 12/24/22 | 530,534.8 | 125,500 | | |
| 12/25/22 | 530,660.3 | 114,900 | | |
| 12/26/22 | 530,775.2 | 94,100 | | |
| 12/27/22 | 530,869.3 | 99,800 | | |
| 12/28/22 | 530,969.1 | 98,500 | | |
| 12/29/22 | 531,067.6 | 532,400 | X | Erroneous reading documented |
| 12/30/22 | 531,600.0 | -347,600 | X | Erroneous reading documented |
| 12/31/22 | 531,252.4 | 112,800 | | |
| 1/1/23 | 531,365.2 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,427,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **103,731** | gpd | |
| Maximum Day: | **131,400** | gallons on | **12/22/22** |
| Minimum Day: | **70,600** | gallons on | **12/8/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 29% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **January** | | | | |
| 1/1/23 | 531,365.2 | 83,000 | | |
| 1/2/23 | 531,448.2 | 104,800 | | |
| 1/3/23 | 531,553.0 | 116,000 | | |
| 1/4/23 | 531,669.0 | 124,700 | | |
| 1/5/23 | 531,793.7 | 122,700 | | |
| 1/6/23 | 531,916.4 | 113,000 | | |
| 1/7/23 | 532,029.4 | 101,200 | | |
| 1/8/23 | 532,130.6 | 106,500 | | |
| 1/9/23 | 532,237.1 | 95,800 | | |
| 1/10/23 | 532,332.9 | 103,200 | | |
| 1/11/23 | 532,436.1 | 97,600 | | |
| 1/12/23 | 532,533.7 | 72,700 | | |
| 1/13/23 | 532,606.4 | 90,000 | | |
| 1/14/23 | 532,696.4 | 101,500 | | |
| 1/15/23 | 532,797.9 | 86,800 | | |
| 1/16/23 | 532,884.7 | 105,400 | | |
| 1/17/23 | 532,990.1 | 104,800 | | |
| 1/18/23 | 533,094.9 | 100,400 | | |
| 1/19/23 | 533,195.3 | 97,400 | | |
| 1/20/23 | 533,292.7 | 98,000 | | |
| 1/21/23 | 533,390.7 | 204,200 | | |
| 1/22/23 | 533,594.9 | 104,000 | | |
| 1/23/23 | 533,698.9 | 100,200 | | |
| 1/24/23 | 533,799.1 | 108,800 | | |
| 1/25/23 | 533,907.9 | 110,300 | | |
| 1/26/23 | 534,018.2 | 97,100 | | |
| 1/27/23 | 534,115.3 | 94,500 | | |
| 1/28/23 | 534,209.8 | 109,300 | | |
| 1/29/23 | 534,319.1 | 105,300 | | |
| 1/30/23 | 534,424.4 | 119,600 | | |
| 1/31/23 | 534,544.0 | 114,400 | | |
| 2/1/23 | 534,658.4 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,293,200 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **106,232** | gpd | |
| Maximum Day: | **204,200** | gallons on | **1/21/23** |
| Minimum Day: | **72,700** | gallons on | **1/12/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **February** | | | | |
| 2/1/23 | 534,658.4 | 123,500 | | |
| 2/2/23 | 534,781.9 | 106,100 | | |
| 2/3/23 | 534,888.0 | 95,900 | | |
| 2/4/23 | 534,983.9 | 112,300 | | |
| 2/5/23 | 535,096.2 | 79,100 | | |
| 2/6/23 | 535,175.3 | 95,500 | | |
| 2/7/23 | 535,270.8 | 100,500 | | |
| 2/8/23 | 535,371.3 | 100,400 | | |
| 2/9/23 | 535,471.7 | 96,200 | | |
| 2/10/23 | 535,567.9 | 83,100 | | |
| 2/11/23 | 535,651.0 | 87,600 | | |
| 2/12/23 | 535,738.6 | 93,000 | | |
| 2/13/23 | 535,831.6 | 93,300 | | |
| 2/14/23 | 535,924.9 | 124,800 | | |
| 2/15/23 | 536,049.7 | 98,000 | | |
| 2/16/23 | 536,147.7 | 99,400 | | |
| 2/17/23 | 536,247.1 | 101,200 | | |
| 2/18/23 | 536,348.3 | 94,100 | | |
| 2/19/23 | 536,442.4 | 94,200 | | |
| 2/20/23 | 536,536.6 | 102,500 | | |
| 2/21/23 | 536,639.1 | 97,700 | | |
| 2/22/23 | 536,736.8 | 80,400 | | |
| 2/23/23 | 536,817.2 | 80,300 | | |
| 2/24/23 | 536,897.5 | 81,000 | | |
| 2/25/23 | 536,978.5 | 70,300 | | |
| 2/26/23 | 537,048.8 | 103,100 | | |
| 2/27/23 | 537,151.9 | 69,600 | | |
| 2/28/23 | 537,221.5 | 58,400 | | |
| 3/1/23 | 537,279.9 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 2,621,500 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **93,625** | gpd | |
| Maximum Day: | **124,800** | gallons on | **2/14/23** |
| Minimum Day: | **58,400** | gallons on | **2/28/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 26% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **March** | | | | |
| 3/1/23 | 537,279.9 | 73,100 | | |
| 3/2/23 | 537,353.0 | 70,500 | | |
| 3/3/23 | 537,423.5 | 70,500 | | |
| 3/4/23 | 537,494.0 | 98,600 | | |
| 3/5/23 | 537,592.6 | 81,400 | | |
| 3/6/23 | 537,674.0 | 90,500 | | |
| 3/7/23 | 537,764.5 | 90,400 | | |
| 3/8/23 | 537,854.9 | 91,400 | | |
| 3/9/23 | 537,946.3 | 90,000 | | |
| 3/10/23 | 538,036.3 | 90,000 | | |
| 3/11/23 | 538,126.3 | 88,500 | | |
| 3/12/23 | 538,214.8 | 86,400 | | |
| 3/13/23 | 538,301.2 | 89,900 | | |
| 3/14/23 | 538,391.1 | 87,600 | | |
| 3/15/23 | 538,478.7 | 88,300 | | |
| 3/16/23 | 538,567.0 | 90,200 | | |
| 3/17/23 | 538,657.2 | 87,800 | | |
| 3/18/23 | 538,745.0 | 83,700 | | |
| 3/19/23 | 538,828.7 | 83,600 | | |
| 3/20/23 | 538,912.3 | 96,700 | | |
| 3/21/23 | 539,009.0 | 92,200 | | |
| 3/22/23 | 539,101.2 | 92,200 | | |
| 3/23/23 | 539,193.4 | 89,200 | | |
| 3/24/23 | 539,282.6 | 89,200 | | |
| 3/25/23 | 539,371.8 | 86,500 | | |
| 3/26/23 | 539,458.3 | 95,400 | | |
| 3/27/23 | 539,553.7 | 79,600 | | |
| 3/28/23 | 539,633.3 | 79,600 | | |
| 3/29/23 | 539,712.9 | 112,900 | | |
| 3/30/23 | 539,825.8 | 119,200 | | |
| 3/31/23 | 539,945.0 | 106,700 | | |
| 4/1/23 | 540,051.7 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 2,771,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **89,413** | gpd | |
| Maximum Day: | **119,200** | gallons on | **3/30/23** |
| Minimum Day: | **70,500** | gallons on | **3/2/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 25% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **April** | | | | |
| 4/1/23 | 540,051.7 | 106,300 | | |
| 4/2/23 | 540,158.0 | 91,800 | | |
| 4/3/23 | 540,249.8 | 91,700 | | |
| 4/4/23 | 540,341.5 | 96,200 | | |
| 4/5/23 | 540,437.7 | 81,900 | | |
| 4/6/23 | 540,519.6 | 98,900 | | |
| 4/7/23 | 540,618.5 | 89,900 | | |
| 4/8/23 | 540,708.4 | 95,000 | | |
| 4/9/23 | 540,803.4 | 102,400 | | |
| 4/10/23 | 540,905.8 | 102,300 | | |
| 4/11/23 | 541,008.1 | 97,600 | | |
| 4/12/23 | 541,105.7 | 97,500 | | |
| 4/13/23 | 541,203.2 | 97,600 | | |
| 4/14/23 | 541,300.8 | 105,800 | | |
| 4/15/23 | 541,406.6 | 98,400 | | |
| 4/16/23 | 541,505.0 | 92,800 | | |
| 4/17/23 | 541,597.8 | 92,800 | | |
| 4/18/23 | 541,690.6 | 105,400 | | |
| 4/19/23 | 541,796.0 | 86,300 | | |
| 4/20/23 | 541,882.3 | 107,300 | | |
| 4/21/23 | 541,989.6 | 100,800 | | |
| 4/22/23 | 542,090.4 | 125,000 | | |
| 4/23/23 | 542,215.4 | 116,500 | | |
| 4/24/23 | 542,331.9 | 113,200 | | |
| 4/25/23 | 542,445.1 | 102,900 | | |
| 4/26/23 | 542,548.0 | 116,600 | | |
| 4/27/23 | 542,664.6 | 105,200 | | |
| 4/28/23 | 542,769.8 | 107,200 | | |
| 4/29/23 | 542,877.0 | 106,300 | | |
| 4/30/23 | 542,983.3 | 106,800 | | |
| 5/1/23 | 543,090.1 | | | |

Monthly Total: 3,038,400 gallons

Daily Average: **101,280** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **125,000** gallons on **4/22/23**

Minimum Day: **81,900** gallons on **4/5/23**

Permitted Flow: 360,000 gpd

28% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **May** | | | | |
| 5/1/23 | 543,090.1 | 102,500 | | |
| 5/2/23 | 543,192.6 | 108,600 | | |
| 5/3/23 | 543,301.2 | 88,300 | | |
| 5/4/23 | 543,389.5 | 78,700 | | |
| 5/5/23 | 543,468.2 | 78,700 | | |
| 5/6/23 | 543,546.9 | 104,500 | | |
| 5/7/23 | 543,651.4 | 116,800 | | |
| 5/8/23 | 543,768.2 | 115,200 | | |
| 5/9/23 | 543,883.4 | 105,500 | | |
| 5/10/23 | 543,988.9 | 118,500 | | |
| 5/11/23 | 544,107.4 | 81,000 | | |
| 5/12/23 | 544,188.4 | 111,900 | | |
| 5/13/23 | 544,300.3 | 106,200 | | |
| 5/14/23 | 544,406.5 | 109,700 | | |
| 5/15/23 | 544,516.2 | 109,700 | | |
| 5/16/23 | 544,625.9 | 106,100 | | |
| 5/17/23 | 544,732.0 | 103,200 | | |
| 5/18/23 | 544,835.2 | 103,200 | | |
| 5/19/23 | 544,938.4 | 103,200 | | |
| 5/20/23 | 545,041.6 | 124,300 | | |
| 5/21/23 | 545,165.9 | 124,200 | | |
| 5/22/23 | 545,290.1 | 118,700 | | |
| 5/23/23 | 545,408.8 | 118,600 | | |
| 5/24/23 | 545,527.4 | 123,800 | | |
| 5/25/23 | 545,651.2 | 123,800 | | |
| 5/26/23 | 545,775.0 | 118,700 | | |
| 5/27/23 | 545,893.7 | 118,700 | | |
| 5/28/23 | 546,012.4 | 118,600 | | |
| 5/29/23 | 546,131.0 | 102,200 | | |
| 5/30/23 | 546,233.2 | 110,300 | | |
| 5/31/23 | 546,343.5 | 115,700 | | |
| 6/1/23 | 546,459.2 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,369,100 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **108,681** | gpd | |
| Maximum Day: | **124,300** | gallons on | **5/20/23** |
| Minimum Day: | **78,700** | gallons on | **5/4/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **June** | | | | |
| 6/1/23 | 546,459.2 | 151,200 | | |
| 6/2/23 | 546,610.4 | 130,700 | | |
| 6/3/23 | 546,741.1 | 116,100 | | |
| 6/4/23 | 546,857.2 | 114,800 | | |
| 6/5/23 | 546,972.0 | 122,600 | | |
| 6/6/23 | 547,094.6 | 106,200 | | |
| 6/7/23 | 547,200.8 | 137,000 | | |
| 6/8/23 | 547,337.8 | 120,900 | | |
| 6/9/23 | 547,458.7 | 158,100 | | |
| 6/10/23 | 547,616.8 | 148,400 | | |
| 6/11/23 | 547,765.2 | 149,500 | | |
| 6/12/23 | 547,914.7 | 61,600 | | |
| 6/13/23 | 547,976.3 | 138,100 | | |
| 6/14/23 | 548,114.4 | 138,000 | | |
| 6/15/23 | 548,252.4 | 103,200 | | |
| 6/16/23 | 548,355.6 | 119,200 | | |
| 6/17/23 | 548,474.8 | 115,000 | | |
| 6/18/23 | 548,589.8 | 127,000 | | |
| 6/19/23 | 548,716.8 | 124,900 | | |
| 6/20/23 | 548,841.7 | 136,400 | | |
| 6/21/23 | 548,978.1 | 124,900 | | |
| 6/22/23 | 549,103.0 | 124,800 | | |
| 6/23/23 | 549,227.8 | 142,400 | | |
| 6/24/23 | 549,370.2 | 127,100 | | |
| 6/25/23 | 549,497.3 | 137,500 | | |
| 6/26/23 | 549,634.8 | 142,000 | | |
| 6/27/23 | 549,776.8 | 142,000 | | |
| 6/28/23 | 549,918.8 | 145,900 | | |
| 6/29/23 | 550,064.7 | 153,000 | | |
| 6/30/23 | 550,217.7 | 152,800 | | |
| 7/1/23 | 550,370.5 | | | |

Monthly Total: 3,911,300 gallons

Daily Average: **130,377** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **158,100** gallons on **6/9/23**

Minimum Day: **61,600** gallons on **6/12/23**

Permitted Flow: 360,000 gpd

36% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **July** | | | | |
| 7/1/23 | 550,370.5 | 149,200 | | |
| 7/2/23 | 550,519.7 | 146,700 | | |
| 7/3/23 | 550,666.4 | 154,600 | | |
| 7/4/23 | 550,821.0 | 145,000 | | |
| 7/5/23 | 550,966.0 | 170,300 | | |
| 7/6/23 | 551,136.3 | 162,300 | | |
| 7/7/23 | 551,298.6 | 167,800 | | |
| 7/8/23 | 551,466.4 | 155,200 | | |
| 7/9/23 | 551,621.6 | 167,700 | | |
| 7/10/23 | 551,789.3 | 158,400 | | |
| 7/11/23 | 551,947.7 | 170,700 | | |
| 7/12/23 | 552,118.4 | 156,600 | | |
| 7/13/23 | 552,275.0 | 146,000 | | |
| 7/14/23 | 552,421.0 | 175,200 | | |
| 7/15/23 | 552,596.2 | 169,000 | | |
| 7/16/23 | 552,765.2 | 139,300 | | |
| 7/17/23 | 552,904.5 | 151,800 | | |
| 7/18/23 | 553,056.3 | 172,600 | | |
| 7/19/23 | 553,228.9 | 162,500 | | |
| 7/20/23 | 553,391.4 | 165,900 | | |
| 7/21/23 | 553,557.3 | 152,900 | | |
| 7/22/23 | 553,710.2 | 150,300 | | |
| 7/23/23 | 553,860.5 | 159,500 | | |
| 7/24/23 | 554,020.0 | 166,400 | | |
| 7/25/23 | 554,186.4 | 165,800 | | |
| 7/26/23 | 554,352.2 | 163,200 | | |
| 7/27/23 | 554,515.4 | 165,100 | | |
| 7/28/23 | 554,680.5 | 158,400 | | |
| 7/29/23 | 554,838.9 | 160,400 | | |
| 7/30/23 | 554,999.3 | 160,400 | | |
| 7/31/23 | 555,159.7 | 174,000 | | |
| 8/1/23 | 555,333.7 | | | |

Monthly Total: 4,963,200 gallons

Daily Average: **160,103** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **175,200** gallons on **7/14/23**

Minimum Day: **139,300** gallons on **7/16/23**

Permitted Flow: 360,000 gpd

44% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **August** | | | | |
| 8/1/23 | 555,333.7 | 130,200 | | |
| 8/2/23 | 555,463.9 | 142,200 | | |
| 8/3/23 | 555,606.1 | 160,900 | | |
| 8/4/23 | 555,767.0 | 138,600 | | |
| 8/5/23 | 555,905.6 | 122,400 | | |
| 8/6/23 | 556,028.0 | 130,800 | | |
| 8/7/23 | 556,158.8 | 135,300 | | |
| 8/8/23 | 556,294.1 | 138,500 | | |
| 8/9/23 | 556,432.6 | 122,400 | | |
| 8/10/23 | 556,555.0 | 134,700 | | |
| 8/11/23 | 556,689.7 | 114,900 | | |
| 8/12/23 | 556,804.6 | 130,400 | | |
| 8/13/23 | 556,935.0 | 140,300 | | |
| 8/14/23 | 557,075.3 | 142,300 | | |
| 8/15/23 | 557,217.6 | 131,900 | | |
| 8/16/23 | 557,349.5 | 131,400 | | |
| 8/17/23 | 557,480.9 | 137,300 | | |
| 8/18/23 | 557,618.2 | 127,900 | | |
| 8/19/23 | 557,746.1 | 130,600 | | |
| 8/20/23 | 557,876.7 | 155,700 | | |
| 8/21/23 | 558,032.4 | 134,100 | | |
| 8/22/23 | 558,166.5 | 137,200 | | |
| 8/23/23 | 558,303.7 | 135,700 | | |
| 8/24/23 | 558,439.4 | 125,700 | | |
| 8/25/23 | 558,565.1 | 138,600 | | |
| 8/26/23 | 558,703.7 | 128,400 | | |
| 8/27/23 | 558,832.1 | 170,900 | | |
| 8/28/23 | 559,003.0 | 120,100 | | |
| 8/29/23 | 559,123.1 | 108,200 | | |
| 8/30/23 | 559,231.3 | 118,400 | | |
| 8/31/23 | 559,349.7 | 123,000 | | |
| 9/1/23 | 559,472.7 | | | |

Monthly Total: 4,139,000 gallons

Daily Average: **133,516** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **170,900** gallons on **8/27/23**

Minimum Day: **108,200** gallons on **8/29/23**

Permitted Flow: 360,000 gpd

37% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **September** | | | | |
| 9/1/23 | 559,472.7 | 112,400 | | |
| 9/2/23 | 559,585.1 | 132,400 | | |
| 9/3/23 | 559,717.5 | 154,900 | | |
| 9/4/23 | 559,872.4 | 159,700 | | |
| 9/5/23 | 560,032.1 | 125,600 | | |
| 9/6/23 | 560,157.7 | 121,200 | | |
| 9/7/23 | 560,278.9 | 118,800 | | |
| 9/8/23 | 560,397.7 | 126,300 | | |
| 9/9/23 | 560,524.0 | 132,200 | | |
| 9/10/23 | 560,656.2 | 124,800 | | |
| 9/11/23 | 560,781.0 | 126,800 | | |
| 9/12/23 | 560,907.8 | 141,000 | | |
| 9/13/23 | 561,048.8 | 132,100 | | |
| 9/14/23 | 561,180.9 | 134,500 | | |
| 9/15/23 | 561,315.4 | 155,600 | | |
| 9/16/23 | 561,471.0 | 124,200 | | |
| 9/17/23 | 561,595.2 | 132,200 | | |
| 9/18/23 | 561,727.4 | 125,200 | | |
| 9/19/23 | 561,852.6 | 131,400 | | |
| 9/20/23 | 561,984.0 | 131,700 | | |
| 9/21/23 | 562,115.7 | 128,600 | | |
| 9/22/23 | 562,244.3 | 134,400 | | |
| 9/23/23 | 562,378.7 | 120,000 | | |
| 9/24/23 | 562,498.7 | 124,300 | | |
| 9/25/23 | 562,623.0 | 121,600 | | |
| 9/26/23 | 562,744.6 | 118,500 | | |
| 9/27/23 | 562,863.1 | 124,800 | | |
| 9/28/23 | 562,987.9 | 126,400 | | |
| 9/29/23 | 563,114.3 | 121,900 | | |
| 9/30/23 | 563,236.2 | 116,300 | | |
| 10/1/23 | 563,352.5 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,879,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **129,327** | gpd | |
| Maximum Day: | **159,700** | gallons on | **9/4/23** |
| Minimum Day: | **112,400** | gallons on | **9/1/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 36% | Average Flow as a Percent of Permitted Flow | |
| | | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **October** | | | | |
| 10/1/23 | 563,352.5 | 201,600 | X | Extra reading taken on '9/31' |
| 10/2/23 | 563,554.1 | 103,500 | | |
| 10/3/23 | 563,657.6 | 108,200 | | |
| 10/4/23 | 563,765.8 | 103,700 | | |
| 10/5/23 | 563,869.5 | 106,200 | | |
| 10/6/23 | 563,975.7 | 113,400 | | |
| 10/7/23 | 564,089.1 | 110,600 | | |
| 10/8/23 | 564,199.7 | 110,400 | | |
| 10/9/23 | 564,310.1 | 114,300 | | |
| 10/10/23 | 564,424.4 | 111,400 | | |
| 10/11/23 | 564,535.8 | 112,900 | | |
| 10/12/23 | 564,648.7 | 120,900 | | |
| 10/13/23 | 564,769.6 | 100,900 | | |
| 10/14/23 | 564,870.5 | 105,600 | | |
| 10/15/23 | 564,976.1 | 116,000 | | |
| 10/16/23 | 565,092.1 | 118,100 | | |
| 10/17/23 | 565,210.2 | 104,400 | | |
| 10/18/23 | 565,314.6 | 122,500 | | |
| 10/19/23 | 565,437.1 | 123,600 | | |
| 10/20/23 | 565,560.7 | 128,200 | | |
| 10/21/23 | 565,688.9 | 124,800 | | |
| 10/22/23 | 565,813.7 | 127,600 | | |
| 10/23/23 | 565,941.3 | 130,900 | | |
| 10/24/23 | 566,072.2 | 129,500 | | |
| 10/25/23 | 566,201.7 | 128,900 | | |
| 10/26/23 | 566,330.6 | 123,500 | | |
| 10/27/23 | 566,454.1 | 126,800 | | |
| 10/28/23 | 566,580.9 | 118,700 | | |
| 10/29/23 | 566,699.6 | 129,900 | | |
| 10/30/23 | 566,829.5 | 151,400 | | |
| 10/31/23 | 566,980.9 | 111,100 | | |
| 11/1/23 | 567,092.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,739,500 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **117,930** | gpd | |
| Maximum Day: | **151,400** | gallons on | **10/30/23** |
| Minimum Day: | **100,900** | gallons on | **10/13/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 33% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **November** | | | | |
| 11/1/23 | 567,092.0 | 118,500 | | |
| 11/2/23 | 567,210.5 | 116,400 | | |
| 11/3/23 | 567,326.9 | 120,600 | | |
| 11/4/23 | 567,447.5 | 118,700 | | |
| 11/5/23 | 567,566.2 | 121,200 | | |
| 11/6/23 | 567,687.4 | 117,700 | | |
| 11/7/23 | 567,805.1 | 123,200 | | |
| 11/8/23 | 567,928.3 | 112,500 | | |
| 11/9/23 | 568,040.8 | 136,300 | | |
| 11/10/23 | 568,177.1 | 109,400 | | |
| 11/11/23 | 568,286.5 | 99,200 | | |
| 11/12/23 | 568,385.7 | 108,200 | | |
| 11/13/23 | 568,493.9 | 112,200 | | |
| 11/14/23 | 568,606.1 | 106,000 | | |
| 11/15/23 | 568,712.1 | 103,600 | | |
| 11/16/23 | 568,815.7 | 100,800 | | |
| 11/17/23 | 568,916.5 | 106,500 | | |
| 11/18/23 | 569,023.0 | 109,500 | | |
| 11/19/23 | 569,132.5 | 107,600 | | |
| 11/20/23 | 569,240.1 | 103,000 | | |
| 11/21/23 | 569,343.1 | 103,100 | | |
| 11/22/23 | 569,446.2 | 105,400 | | |
| 11/23/23 | 569,551.6 | 97,800 | | |
| 11/24/23 | 569,649.4 | 102,200 | | |
| 11/25/23 | 569,751.6 | 105,900 | | |
| 11/26/23 | 569,857.5 | 106,500 | | |
| 11/27/23 | 569,964.0 | 103,600 | | |
| 11/28/23 | 570,067.6 | 107,100 | | |
| 11/29/23 | 570,174.7 | 109,800 | | |
| 11/30/23 | 570,284.5 | 101,300 | | |
| 12/1/23 | 570,385.8 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,293,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **109,793** | gpd | |
| Maximum Day: | **136,300** | gallons on | **11/9/23** |
| Minimum Day: | **97,800** | gallons on | **11/23/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **December** | | | | |
| 12/1/23 | 570,385.8 | 102,600 | | |
| 12/2/23 | 570,488.4 | 98,400 | | |
| 12/3/23 | 570,586.8 | 101,600 | | |
| 12/4/23 | 570,688.4 | 96,900 | | |
| 12/5/23 | 570,785.3 | 107,700 | | |
| 12/6/23 | 570,893.0 | 105,200 | | |
| 12/7/23 | 570,998.2 | 106,900 | | |
| 12/8/23 | 571,105.1 | 101,000 | | |
| 12/9/23 | 571,206.1 | 105,000 | | |
| 12/10/23 | 571,311.1 | 116,000 | | |
| 12/11/23 | 571,427.1 | 102,500 | | |
| 12/12/23 | 571,529.6 | 110,300 | | |
| 12/13/23 | 571,639.9 | 110,000 | | |
| 12/14/23 | 571,749.9 | 120,300 | | |
| 12/15/23 | 571,870.2 | 108,600 | | |
| 12/16/23 | 571,978.8 | 101,200 | | |
| 12/17/23 | 572,080.0 | 100,800 | | |
| 12/18/23 | 572,180.8 | 107,400 | | |
| 12/19/23 | 572,288.2 | 111,600 | | |
| 12/20/23 | 572,399.8 | 109,200 | | |
| 12/21/23 | 572,509.0 | 111,700 | | |
| 12/22/23 | 572,620.7 | 88,300 | | |
| 12/23/23 | 572,709.0 | 95,700 | | |
| 12/24/23 | 572,804.7 | 78,400 | | |
| 12/25/23 | 572,883.1 | 100,500 | | |
| 12/26/23 | 572,983.6 | 86,400 | | |
| 12/27/23 | 573,070.0 | 88,100 | | |
| 12/28/23 | 573,158.1 | 83,900 | | |
| 12/29/23 | 573,242.0 | 87,300 | | |
| 12/30/23 | 573,329.3 | 90,400 | | |
| 12/31/23 | 573,419.7 | | | |
| 1/1/24 | | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,033,900 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **101,130** | gpd | |
| Maximum Day: | **120,300** | gallons on | **12/14/23** |
| Minimum Day: | **78,400** | gallons on | **12/24/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 28% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# ATTACHMENT P

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2022 – 2023 Laboratory Test Results

Monthly Effluent Samples for pH, TSS and $BOD_5$

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 01/24/22 @ 6 °C
Reporting Date: 02/03/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 01/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 01/26/22 | 01/28/22 | 01/26/22 |
| Time Analysis Batch Started: | | 8:50 | 9:15 | 9:10 |
| AA29505-1 | C. LAGOON | 21 | 52 | 7.81 @ 19 °C |
| Date Analysis Batch Finished: | | 01/31/22 | 01/28/22 | 01/26/22 |
| Time Analysis Batch Finished. | | 10:00 | 13:00 | 10.00 |
| Blank | | 0.04 | < 3 | N/A |
| Quality Control | | 201 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 102 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 6 | 4 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

This report meets NELAC T104704437-21-20.
The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.
*15 min shelf-life expired. Reported value is for client information only.

Mario Rodriguez

Mario Rodriguez, Director.

02/03/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 02/24/22 @ 6 °C
Reporting Date: 03/06/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location. CENTER LAGOON

Sampling Date: 02/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 02/25/22 | 02/25/22 | 02/25/22 |
| Time Analysis Batch Started: | | 9:20 | 14:55 | 9:40 |
| AA29560-1 | C. LAGOON | 34 | 51 | 8.32 @ 19 °C |
| Date Analysis Batch Finished: | | 03/02/22 | 02/25/22 | 02/25/22 |
| Time Analysis Batch Finished: | | 12:00 | 17:10 | 10.15 |
| Blank | | 0.15 | < 3 | N/A |
| Quality Control | | 211 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 107 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 3 | 8 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez, Director.

03/06/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 03/23/22 @ 6 °C
Reporting Date: 03/28/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location. CENTER LAGOON

Sampling Date: 03/23/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 03/23/22 | 03/25/22 | 03/23/22 |
| Time Analysis Batch Started: | | 9:35 | 14:45 | 9:56 |
| AA29617-1 | C. LAGOON | 33 | 66 | 8.6 @ 19 °C |
| Date Analysis Batch Finished: | | 03/28/22 | 03/25/22 | 03/23/22 |
| Time Analysis Batch Finished: | | 11:51 | 17:59 | 10:20 |
| Blank | | 0.02 | < 3 | N/A |
| Quality Control | | 202 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 102 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 2 | 2 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

03/28/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 04/26/22 @ 11 °C
Reporting Date: 05/02/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 04/26/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 04/27/22 | 04/29/22 | 04/27/22 |
| Time Analysis Batch Started: | | 9:40 | 11:20 | 10:00 |
| AA29685-1 | C. LAGOON | 20 | 72 | 7.89 @ 22 °C |
| Date Analysis Batch Finished: | | 05/02/22 | 04/29/22 | 04/27/22 |
| Time Analysis Batch Finished: | | 15:15 | 14:20 | 10:30 |
| Blank | | 0.10 | < 3 | N/A |
| Quality Control | | 196 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 99 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 4 | 0 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

05/02/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 05/25/22 @ 13 °C
Reporting Date: 05/30/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 05/25/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 05/25/22 | 05/27/22 | 05/25/22 |
| Time Analysis Batch Started: | | 10:10 | 15:21 | 10:30 |
| AA29757-1 | C. LAGOON | 77 | 64 | 8.84 @ 22 °C |
| Date Analysis Batch Finished: | | 05/30/22 | 05/27/22 | 05/25/22 |
| Time Analysis Batch Finished: | | 12:05 | 17:30 | 11:00 |
| Blank | | 0.03 | < 3 | N/A |
| Quality Control | | 209 | N/A | 6.98 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 106 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 1 | 3 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

05/30/22
Date

**3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas**
**Tel: (806) 796-2805 Fax : (806) 796-2825**

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 06/24/22 @ 9 °C
Reporting Date: 06/29/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 06/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 06/24/22 | 06/24/22 | 06/24/22 |
| Time Analysis Batch Started: | | 9:00 | 11:00 | 10:00 |
| | | | | |
| AA29822-1 | C. LAGOON | 42 | 88 | 9.1 @ 22 °C |
| | | | | |
| | | | | |
| Date Analysis Batch Finished: | | 06/29/22 | 06/24/22 | 06/24/22 |
| Time Analysis Batch Finished: | | 13:45 | 15:15 | 10:30 |
| | | | | |
| Blank | | 0.12 | < 3 | N/A |
| Quality Control | | 186 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 94 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 2 | 4 | 0 |

| METHODS: STD METHODS | 5210 B | 2540 D | 4500-$H^+$ B |
|---|---|---|---|

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Mario Rodriguez, Director.

06/29/22
Date

**3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas**
**Tel: (806) 796-2805 Fax : (806) 796-2825**

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 07/19/22 @ 9 °C
Reporting Date: 07/24/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 07/19/22 @ 11:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 07/20/22 | 07/22/22 | 07/20/22 |
| Time Analysis Batch Started: | | 9:30 | 10:50 | 10:00 |
| | | | | |
| AA29875-1 | C. LAGOON | 51 | 67 | 9.0 @ 25 °C |
| | | | | |
| | | | | |
| Date Analysis Batch Finished: | | 07/24/22 | 07/19/22 | 07/19/22 |
| Time Analysis Batch Finished: | | 13:15 | 15:45 | 10:30 |
| | | | | |
| Blank | | 0.07 | < 3 | N/A |
| Quality Control | | 176 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 89 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 7 | 5 | 0 |

| | | | |
|---|---|---|---|
| METHODS: STD METHODS | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

07/24/22
Date

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 9/2/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tohoka

Dear Mario Rodriguez: Order No.: 2208092

Enclosed please find the analytical report for the sample/s received on 8/25/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tohoka
**Lab Order:** 2208092

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 8/25/2022 9:45:00 AM | | | Initials: YK | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | pH at 25 o C | Liquid | 8.3 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 8/29/2022 3:45:00 PM | | | Initials: AM | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | Biochemical Oxygen Demand | Liquid | 60.8 | 0.65 | 2 | mg/L | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 8/29/2022 4:35:00 PM | | | Initials: SM | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | Suspended Solids (Residue, No | Liquid | 53 | 2.11 | 5 | mg/L | 1 | |

H Holding times for preparation or analysis exceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *02-Sep-22*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2208092 **Project:** City of Tohoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | MS | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-8/24/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_220824B | **Test Code:** SM5210B | | | | **Units:** mg/L | | **Analysis Date:** 8/29/2022 3:45:00 PM | | **Prep Date:** 8/24/2022 9:00:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | | | | 69 - 227 | 177.0 | 175.0 | 1.000 | 20.0 |
| **Batch ID:** PH_WW-8/25/2022 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_220825B | **Test Code:** SM4500-H+B | | | | **Units:** pH units | | **Analysis Date:** 8/25/2022 9:45:00 AM | | **Prep Date:** 8/25/2022 9:40:00 | | | |
| pH at 25 o C | | 7 | 100.4% | | | | | 95 - 105 | 8.3 | 8.4 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-8/29/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_220829A | **Test Code:** SM2540D | | | | **Units:** mg/L | | **Analysis Date:** 8/29/2022 4:35:00 PM | | **Prep Date:** 8/29/2022 8:40:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 64.0 | 62.0 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2208092-01 | | | | | | | | | | | | | | | |
| AA29928-1 | CENTER LAGOON | G | 1000 mL | 1 | P | | ✓ | | | | X | | 4 | 8-23-22 | 10.00 AM |

| TCLP: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CBOD / (BOD) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) | | | | | | | | | | | | | |
| TSS / VSS / (pH) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ✓ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2S_2O_3$ = (ST)

Preserved upon arrival: ✓

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 8/23/22 | Time: 12:02 pm | Received By: Mario Rodriguez |
| Relinquished By: Mario Rodriguez | Date: 8/23/22 | Time: 17:00 | Received By: |
| Relinquished By: | Date: | Time: | Received By: 8/25 @ 9:10 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other - Self

Sample Condition: ✓ Intact Yes ☐ No

Checked By: (Initials) DM

Temp 3.8°C

Notes:

Shipping Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 08/25/2022 **TIME:** 09:40 **INITIALS:** VK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2208092

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. (°C): 3.8 Corrected Temp. (°C): 3.8 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: — Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 9/30/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2209095

Enclosed please find the analytical report for the sample/s received on 9/23/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2209095
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 9/22/2022 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2209095-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **SM** |
| Suspended Solids (Residue, Non-Filterable) | 79 | 5 | mg/L | 1 | 26-Sep-22 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 8.8 | 0.1 | pH units | 1 | 22-Sep-22 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 64.8 | 2 | mg/L | 1 | 28-Sep-22 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2209095 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | DUP | RPD % | RPD Limi |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-9/23/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_220923B | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 9/28/2022 3:20:00 PM | **Prep Date:** 9/23/2022 10:00:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | 69 - 227 | 64.8 | 65.2 | 1.000 | 20.0 |
| **Batch ID:** PH_WW-9/23/2022 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_220923A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 9/22/2022 9:35:00 AM | **Prep Date:** 9/23/2022 9:35:00 | | | |
| pH at 25 o C | | 7 | 100.1% | | 95 - 105 | 8.8 | 8.8 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-9/26/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_220926A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 9/26/2022 3:55:00 PM | **Prep Date:** 9/26/2022 9:00:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 79.0 | 78.0 | 1.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2209095-01 | | | | | | | | | | | | | | | |
| AA29972-1 | CENTER LAGOON | G | 1000 | 1 | P | | ✓ | | | | X | | 4 | 9/22/22 | 10;00 am |

TCLP:
TOTAL:

| CBOD / BOD / TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ✓ | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST) Preserved upon arrival ☐

pH paper Lot #: Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

| | | |
|---|---|---|
| Relinquished By: Emp | Date: 9/22/22 | Time: 11:00 am |
| Relinquished By: MARIO Rodriguez | Date: 9/22/22 | Time: 17:00 |
| Relinquished By: | Date: | Time: |

| | |
|---|---|
| Received By: Mario Rodriguez | |
| Received By: | |
| Received By: 9/23/22 @ 8:55 | |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition Intact ☑ Yes ☐ No

Checked By: (Initials) m

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arasing whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 09/23/2022 **TIME:** 09:15 **INITIALS:** YK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2209093 to 2209095

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. ~~on~~ tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 3.8 Corrected Temp. ($^0$C): 3.8 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: B0759 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

liquid
2209093-01 No Sample Received

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

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REPORT NARRATIVE 11/2/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2210096

Enclosed please find the analytical report for the sample/s received on 10/21/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director



Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

**Date:** 02-Nov-22

## ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tahoka
**Lab Order:** 2210096

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 10/21/2022 10:20:00 A | | | Initials: YK | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | pH at 25 o C | Water | 8 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 10/24/2022 3:55:00 PM | | | Initials: SM | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | Suspended Solids (Residue, No | Water | 62 | 2.11 | 5 | mg/L | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 10/26/2022 3:55:00 PM | | | Initials: AM | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | Biochemical Oxygen Demand | Water | 58.2 | 0.65 | 2 | mg/L | 1 | |

H Holding times for preparation or analysis excceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *02-Nov-22*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2210096 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | MS | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-10/21/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_221021A | **Test Code:** SM5210B | | | **Units:** mg/L | | | **Analysis Date:** 10/26/2022 3:55:00 PM | | **Prep Date:** 10/21/2022 9:55:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 89.9% | | | | | 69 - 227 | 58.2 | 56.4 | 3.000 | 20.0 |
| **Batch ID:** PH_WW-10/21/2022 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_221021A | **Test Code:** SM4500-H+B | | | **Units:** pH units | | | **Analysis Date:** 10/21/2022 10:20:00 AM | | **Prep Date:** 10/21/2022 10:20:0 | | | |
| pH at 25 o C | | 7 | 100.4% | | | | | 95 - 105 | 8.0 | 8.1 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-10/24/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_221024A | **Test Code:** SM2540D | | | **Units:** mg/L | | | **Analysis Date:** 10/24/2022 3:55:00 PM | | **Prep Date:** 10/24/2022 8:35:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 226.0 | 222.0 | 2.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | | |
| Project Manager: RAYMOND VEGA | BILL TO | PO #: | |
| Address: 1807 MAIN BOX 300 | Company: | | |
| City: TAHOKA State: TX Zip: 79373 | Attn: | | |
| Phone #: 806-561-4211 Fax #: | Address: SAME | | |
| E - mail : TAHOKA1915@POKA.COM | City: | | |
| Project #: | State: | Zip: | |
| Project Name: | Phone #: | | |
| Project Location: | Fax #: | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2210096-01 | | | | | | | | | | | | | | | |
| ~~AA29~~ 300009 | CENTER LAGOON | G | 500 | 1 | P | | ✓ | | | | X | | 9 | 10/18/22 LV | 10:00am |

| CBOD / BOD / TSS / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) | TCLP: | TOTAL: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ✓ | | | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☑

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |
|---|---|---|---|---|---|
| [signature] | 10/19/22 | 1:00 pm | Jimmy Garcia | 10-19-22 | 11:00 |
| [signature] | 10/19/22 | 11:37pm | | | |
| Mario Rodriguez | 10/19/22 | 17:50 | [signature] | 10/21/22 | @0950 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials) JL

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 10/21/2022 **TIME:** 10:05 **INITIALS:** YK

**CLIENT:** Adv Analysis **PROJECT: W.O#** 2210096 & 2210097

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets) (Yes) No N/A
   *If not,* describe below.
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. (°C): 4.6 Corrected Temp. (°C): 4.6 Thermometer ID: (**DT1**) or **L2**
11. pH strip lot#: B07556 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ___ (✓) Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2211125
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 11/22/2022 10:00:00 AM
**Matrix:** LIQUID
**Lab ID:** 2211125-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 82 | 5 | mg/L | 1 | 28-Nov-22 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.4 | 0.1 | pH units | 1 | 23-Nov-22 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 62.5 | 2 | mg/L | 1 | 28-Nov-22 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

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**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 1/3/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tehoka

Dear Mario Rodriguez: Order No.: 2212092

Enclosed please find the analytical report for the sample/s received on 12/21/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director



Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

**Date:** 03-Jan-23

## ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tehoka
**Lab Order:** 2212092

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 12/21/2022 10:00:00 A | | | Initials: YK | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | pH at 25 o C | Water | 8 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 12/23/2022 4:00:00 PM | | | Initials: YK | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | Suspended Solids (Residue, No | Water | 86 | 2.11 | 5 | mg/L | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 12/26/2022 3:10:00 PM | | | Initials: AM | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | Biochemical Oxygen Demand | Water | 63.6 | 0.65 | 2 | mg/L | 1 | |

H Holding times for preparation or analysis excceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *03-Jan-23*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2212092 **Project:** City of Tehoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | RPD DUP | % | Limi |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-12/21/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_221221A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 12/26/2022 3:10:00 PM | | **Prep Date:** 12/21/2022 9:30:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.4% | | 69 - 227 | 60.4 | 61.6 | 2.000 | 20.0 |
| **Batch ID:** PH_WW-12/21/2022 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_221221A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 12/21/2022 10:00:00 AM | | **Prep Date:** 12/21/2022 10:00:0 | | |
| pH at 25 o C | | 7 | 99.9% | | 95 - 105 | 8.0 | 8.0 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-12/23/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_221223A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 12/23/2022 4:00:00 PM | | **Prep Date:** 12/23/2022 9:30:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 30.0 | 29.0 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

# ADVANCED ANALYSIS, INC.

3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

## CHAIN OF CUSTODY Page 1 of 1

**Company Name:** CITY OF TAHOKA
**Project Manager:** RAYMOND VEGA
**Address:** 1807 MAIN BOX 300
**City:** TAHOKA **State:** TX **Zip:** 79373
**Phone #:** 806-561-4211 **Fax #:**
**E - mail :** TAHOKA1915@POKA.COM
**Project #:**
**Project Name:**
**Project Location:**

**BILL TO** **PO #:**
**Company:**
**Attn:**
**Address:** Same
**City:** SAME
**State:** **Zip:**
**Phone #:**
**Fax #:**

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | MATRIX: WASTEWATER | MATRIX: SOIL | MATRIX: SLUDGE | MATRIX: OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | SAMPLE CHECKS: pH | SAMPLE CHECKS: ACTUAL TEMP °C FROM SAMPLE | SAMPLING: DATE | SAMPLING: TIME | CBOD / BOD / (TSS) / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP/ COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2212092-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA20685-1 | CENTER LAGOON | G | 1000 mL | 1 | P | | ✓ | | | | X | | 8 | 12/19/22 | 10:00 am | ✓ | | | | | | | | | | | |

TCLP:
TOTAL:

**Container type:** P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☐

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

**Relinquished By:** Raymond Vega **Date:** 12/19/20 **Time:** 11:16 am
**Received By:** Mario Rodriguez

**Relinquished By:** Mario Rodriguez **Date:** 12/19/22 **Time:** 16:00
**Received By:**

**Relinquished By:** **Date:** **Time:**
**Received By:** 12/21/22 @ 9:05

**Delivered by: (Circle One)**
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials) m

**Notes:**

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 12/21/2022 **TIME:** 09:10 **INITIALS:** YK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2212091 to 2212094

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 3.3 Corrected Temp. ($^0$C): 3.3 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: B0756 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 2/6/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2301099

Enclosed please find the analytical report for the sample/s received on 1/25/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2301099
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** CENTER LAGOON

**Collection Date:** 1/23/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2301099-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 86 | 5 | mg/L | 1 | 30-Jan-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 8.3 | 0.1 | pH units | 1 | 25-Jan-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | < 2 | 2 | mg/L | 1 | 30-Jan-23 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## ALAMO ANALYTICAL LABORATORIES, LTD.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2301099 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | RPD DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-1/25/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_230125A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 1/30/2023 4:00:00 PM | | **Prep Date:** 1/25/2023 9:35:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 88.9% | | 69 - 227 | 0.0 | 0.0 | 0.000 | 20.0 |
| **Batch ID:** PH_WW-1/25/2023 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_230125A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 1/25/2023 10:00:00 AM | | **Prep Date:** 1/25/2023 10:00:00 | | |
| pH at 25 o C | | 7 | 99.7% | | 95 - 105 | 8.3 | 8.3 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-1/30/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_230130A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 1/30/2023 4:20:00 PM | | **Prep Date:** 1/30/2023 9:10:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 86.0 | 84.0 | 2.000 | 20.0 |

**Approved by:**

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: City of Tahoka | | | |
| Project Manager: CITY OF TAHOKA / Raymond Vega | | BILL TO | PO #: |
| Address: 1807 MAIN BOX 300 | | Company: | |
| City: TAHOKA | State: TX Zip: 79373 | Attn: | |
| Phone #: 806-561-4211 | Fax #: | Address: SAME | |
| E - mail : TAHOKA1915@POKA.COM | | City: | |
| Project #: | | State: | Zip: |
| Project Name: | | Phone #: | |
| Project Location: | | Fax #: | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | MATRIX: WASTEWATER | MATRIX: SOIL | MATRIX: SLUDGE | MATRIX: OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | SAMPLE CHECKS: pH | SAMPLE CHECKS: ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | SAMPLING: TIME | CBOD / BOD / TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2301099-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB30127-1 | CENTER LAGOON | G | 1L | 1 | P | | ✓ | | | | X | | 8 | 1/23/23 | 10:00 am | ✓ | | | | | | | | | | | | 2301099-01 |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☑

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

| | | |
|---|---|---|
| Relinquished By: | Date: 1/23/23 | Time: 12:10 |
| Relinquished By: Mario Rodriguez | Date: 1/23/23 | Time: 16:00 |
| Relinquished By: | Date: 1/25/2023 | Time: 9:05 |

| | |
|---|---|
| Received By: Mario Rodriguez | |
| Received By: | |
| Received By: | 4°C/4°C |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials)

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arasing whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 1 / 25 2023 **TIME:** 9:05 **INITIALS:** LZ

**CLIENT:** Advanced **PROJECT: W.O#** 2301099

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 4.1 Corrected Temp. ($^0$C): 4.1 Thermometer ID : **DT1 ~~or L2~~**
11. pH strip lot#:_____ Samples out of pH range:_____
12. Delivery agent: Client ✓ UPS ____ Fed-Ex____ Lone Star ____Alamo P/U ___ Other_____
13. Sample disposal: Return to client_____ Alamo Analytical Disposal ✓
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
water

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___Fax___ Date: ____/____/____Time: _____
Name: _____ Phone ___Fax___ Date: ____/____/____Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 3/13/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2303005

Enclosed please find the analytical report for the sample/s received on 3/1/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2303005
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 2/27/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2303005-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 64 | 5 | mg/L | 1 | 06-Mar-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.5 | 0.1 | pH units | 1 | 01-Mar-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 31.2 | 2 | mg/L | 1 | 06-Mar-23 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2303005 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | LCS %REC | MS %REC | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-3/1/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_230301A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 3/6/2023 4:00:00 PM | | **Prep Date:** 3/1/2023 9:40:00 A | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | 69 - 227 | 31.2 | 30.3 | 3.000 | 20.0 |
| **Batch ID:** PH_WW-3/1/2023 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_230301B | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 3/1/2023 9:55:00 AM | | **Prep Date:** 3/1/2023 9:55:00 A | | |
| pH at 25 o C | | 7 | 99.4% | | 95 - 105 | 7.5 | 7.6 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-3/6/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_230306A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 3/6/2023 4:30:00 PM | | **Prep Date:** 3/6/2023 8:45:00 A | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 23.4 | 22.6 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas
79490 Tel: (806) 796-2805 Fax : (806) 796-2825

pH @6

**CHAIN OF CUSTODY** Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | | |
| Project Manager: RAYMOND VEGA | BILL TO | PO #: | |
| Address: 1807 MAIN BOX 300 | Company: | | |
| City: TAHOKA State: TX Zip: 79373 | Attn: | | |
| Phone #: 806-561-4211 Fax #: | Address: SAME | | |
| E - mail : Tahoka1915@poka.com | City: | | |
| Project #: | State: | Zip: | |
| Project Name: | Phone #: | | |
| Project Location: | Fax #: | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME | CBOD / BOD | TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / $F^-$ | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2303005-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB30 (5-1) | CENTER LAGOON | G | 1L | 1P | | | ✓ | | | | X | | 10 | 2/27/23 | 10:00 am | ✓ | | | | | | | | | | | | |

| | | |
|---|---|---|
| Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag | *All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff | |
| Received on Ice ☑ Yes ☐ No | Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2S_2O_3$ = (ST) | Preserved upon arrival ☐ |
| pH paper Lot #: Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0 ✓ | Preservative Lot Number(s): | |

| | | |
|---|---|---|
| Relinquished By: Date: 2/27/23 Time: 11:02am | Received By: Mario Rodriguez | Notes: Shippining Information Tracking Number: |
| Relinquished By: Mario Rodriguez Date: 2/27/23 Time: 16:00 | Received By: | |
| Relinquished By: Date: Time: | Received By: 3/1/23 | |
| Delivered by: (Circle One) UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self | Sample Condition ☑ Intact Yes ☐ No | Checked By: (Initials) |

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 3/1/23 **TIME:** 9:26 **INITIALS:** [illegible]

**CLIENT:** Advanced Analytical **PROJECT: W.O#** 2303005

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact 1 or _____
9. Condition of samples: Intact 1 or _____
10. Temperature of samples: Temp. (°C): 3.8 Corrected Temp. (°C): 3.8 Thermometer ID : (**DT1** or **L2**)
11. pH strip lot#: _____ Samples out of pH range: _____
12. Delivery agent: Client ___ UPS ___ Fed-Ex 1 Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal 1
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

_____
_____
_____
_____

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 4/3/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2303138

Enclosed please find the analytical report for the sample/s received on 3/22/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2303138
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 3/20/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2303138-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 40 | 5 | mg/L | 1 | 27-Mar-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.5 | 0.1 | pH units | 1 | 22-Mar-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 31.6 | 2 | mg/L | 1 | 27-Mar-23 |



Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *03-Apr-23*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2303138 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | %REC MS | Low - High Limit | Parent | DUP | RPD % | RPD Limi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-3/22/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_230322A | **Test Code:** SM5210B | | | | **Units:** mg/L | | | **Analysis Date:** 3/27/2023 3:20:00 PM | | **Prep Date:** 3/22/2023 9:30:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 87.9% | | | | | 69 - 227 | 31.6 | 30.2 | 5.000 | 20.0 |
| **Batch ID:** PH_WW-3/22/2023 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_230322A | **Test Code:** SM4500-H+B | | | | **Units:** pH units | | | **Analysis Date:** 3/22/2023 9:50:00 AM | | **Prep Date:** 3/22/2023 9:50:00 | | |
| pH at 25 o C | | 7 | 99.4% | | | | | 95 - 105 | 7.5 | 7.5 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-3/27/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_230327A | **Test Code:** SM2540D | | | | **Units:** mg/L | | | **Analysis Date:** 3/27/2023 3:45:00 PM | | **Prep Date:** 3/27/2023 8:55:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 40.0 | 38.0 | 5.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

PH 8.5

**CHAIN OF CUSTODY** Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

TCLP:
TOTAL:

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP °C FROM SAMPLE | SAMPLING: DATE | TIME | CBOD / BOD / TSS / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AB30168-1 | 2303138O1 CENTER LAGOON | G | 1L | 1 | P | | ✓ | | | | X | | 4 | 3/20/23 | 10:00am | ✓ | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice ☑ Yes ☐ No ✓

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST) Preserved upon arrival ☑

pH paper Lot # Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 3/20/23 | Time: 3/20/23 11:8a | Received By: David Rodriguez |
| Relinquished By: David Rodriguez | Date: 3/20/23 | Time: 16:09 | Received By: |
| Relinquished By: | Date: | Time: | Received By: 3/2 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition ☑ Intact Yes ☐ No

Checked By: (Initials)

Notes:

Shippining Information
Tracking Number:

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San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 3/22/23 **TIME:** 9:15 **INITIALS:** [illegible]

**CLIENT:** Advanced Analytical **PROJECT: W.O#** 230313 8

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact (Y) or _____
9. Condition of samples: Intact (Y) or _____
10. Temperature of samples: Temp. (°C): 3.0 Corrected Temp. (°C): 3.0 Thermometer ID : **(DT1 or L2)**
11. pH strip lot#: [illegible] Samples out of pH range: _____
12. Delivery agent: Client ___ UPS ___ Fed-Ex (Lone Star) ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal _____
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

[illegible]

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 4/28/2023 4:53:10 PM

## JOB DESCRIPTION

General

## JOB NUMBER

820-8181-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



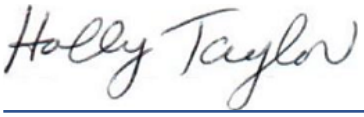
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Job ID: 820-8181-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8181-1**

**Receipt**

The sample was received on 4/20/2023 10:59 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 10.7°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Client Sample ID: Center Lagoon

**Lab Sample ID: 820-8181-1**

**Date Collected: 04/20/23 08:58**

**Matrix: Water**

**Date Received: 04/20/23 10:59**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 159 | | 40.0 | 40.0 | mg/L | | | 04/27/23 10:44 | 1 |
| pH (SM 4500 H+ B) | 8.8 | HF | | | SU | | | 04/26/23 12:36 | 1 |
| Temperature (SM 4500 H+ B) | 16.7 | HF | | | Degrees C | | | 04/26/23 12:36 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 52.0 | | 6.00 | 6.00 | mg/L | | 04/21/23 18:37 | 04/21/23 20:02 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-100713/1**
**Matrix: Water**
**Analysis Batch: 100713**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 04/27/23 10:44 | 1 |

**Lab Sample ID: LCS 860-100713/2**
**Matrix: Water**
**Analysis Batch: 100713**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 81.00 | | mg/L | | 81 | 80 - 120 |

**Lab Sample ID: LCSD 860-100713/3**
**Matrix: Water**
**Analysis Batch: 100713**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 82.00 | | mg/L | | 82 | 80 - 120 | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-8181-1 DU**
**Matrix: Water**
**Analysis Batch: 100515**

**Client Sample ID: Center Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 8.8 | HF | 8.8 | | SU | | 0.6 | 20 |
| Temperature | 16.7 | HF | 16.0 | | Degrees C | | 4 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-100611/2**
**Matrix: Water**
**Analysis Batch: 100611**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9660 | | 0.00000200 | 0.00000200 | mg/L | | | 04/21/23 19:48 | 1 |

**Lab Sample ID: USB 860-100611/1**
**Matrix: Water**
**Analysis Batch: 100611**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.2000 | | 0.00000200 | 0.00000200 | mg/L | | | 04/21/23 19:46 | 1 |

**Lab Sample ID: LCS 860-100611/3**
**Matrix: Water**
**Analysis Batch: 100611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 211.6 | | mg/L | | 107 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## General Chemistry

### Prep Batch: 99920

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 100515

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-8181-1 DU | Center Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 100611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 5210B | 99920 |
| SCB 860-100611/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-100611/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-100611/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 100713

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-100713/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-100713/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-100713/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Client Sample ID: Center Lagoon

**Date Collected: 04/20/23 08:58**
**Date Received: 04/20/23 10:59**

## Lab Sample ID: 820-8181-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 100713 | 04/27/23 10:44 | DR | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 100515 | 04/26/23 12:36 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 99920 | 04/21/23 18:37 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 100 mL | 300 mL | 100611 | 04/21/23 20:02 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Water | 04/20/23 08:58 | 04/20/23 10:59 |

Loc: 820
8181

urofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH 8.6

820-8181 Chain of Custody

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | Same |
| Address: | 807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | Jarrington@tahoka.org / Raymond.vega@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | (Yes) No | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | +0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.6 | |
| Total Containers: | 2 | Corrected Temperature: | 10.7 | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | PHS | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Center Lagoon | | 4/20/23 | 8:58 am | | | | | | | | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | Courtney Ruggles | 4/20/23 10:59 | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8181-1

**Login Number: 8181**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Ruggles, Ashley**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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 | Received same day of collection; chilling process has begun. |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8181-1

**Login Number: 8181**
**List Number: 2**
**Creator: Canadilla, Surelis**

**List Source: Eurofins Houston**
**List Creation: 04/21/23 02:56 PM**

| 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? | N/A | |
| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 6/2/2023 7:29:26 AM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-8593-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



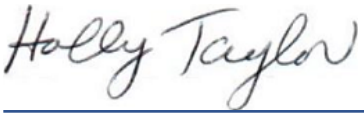
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
6/2/2023 7:29:26 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Job ID: 820-8593-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8593-1**

**Receipt**

The sample was received on 5/24/2023 2:58 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 19.9°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Client Sample ID: C. Lagoon

**Lab Sample ID: 820-8593-1**

**Date Collected: 05/24/23 14:12**

**Matrix: Water**

**Date Received: 05/24/23 14:58**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 121 | | 26.7 | 26.7 | mg/L | | | 05/30/23 11:04 | 1 |
| pH (SM 4500 H+ B) | 9.0 | HF | | | SU | | | 06/01/23 14:00 | 1 |
| Temperature (SM 4500 H+ B) | 16.0 | HF | | | Degrees C | | | 06/01/23 14:00 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 38.5 | | 12.0 | 12.0 | mg/L | | 05/25/23 15:25 | 05/25/23 18:11 | 1 |

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-105346/1**
**Matrix: Water**
**Analysis Batch: 105346**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 05/30/23 11:04 | 1 |

**Lab Sample ID: LCS 860-105346/2**
**Matrix: Water**
**Analysis Batch: 105346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 109.0 | | mg/L | | 109 | 80 - 120 |

**Lab Sample ID: LCSD 860-105346/3**
**Matrix: Water**
**Analysis Batch: 105346**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 | 4 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-105403/2**
**Matrix: Water**
**Analysis Batch: 105403**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.8970 | | 0.0000020 | 0.0000020 | mg/L | | | 05/25/23 17:56 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: USB 860-105403/1**
**Matrix: Water**
**Analysis Batch: 105403**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.0000020 | 0.0000020 | mg/L | | | 05/25/23 17:20 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: LCS 860-105403/3**
**Matrix: Water**
**Analysis Batch: 105403**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 196.7 | | mg/L | | 99 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## General Chemistry

### Prep Batch: 104908

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 105346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-105346/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-105346/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-105346/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 105403

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 5210B | 104908 |
| SCB 860-105403/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-105403/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-105403/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 105857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Client Sample ID: C. Lagoon

**Date Collected: 05/24/23 14:12**
**Date Received: 05/24/23 14:58**

## Lab Sample ID: 820-8593-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 105346 | 05/30/23 11:04 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 105857 | 06/01/23 14:00 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 104908 | 05/25/23 15:25 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 105403 | 05/25/23 18:11 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Water | 05/24/23 14:12 | 05/24/23 14:58 |

Loc: 820
8593

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-8593 Chain of Custody

Ph* 8.5

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | RVega@tahoka.org/jmaya@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | Yes (No) | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | +0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 19.8 | |
| Total Containers: | 2 | Corrected Temperature: | 19.9 | |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Parameters: BOD | PHS | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 5/24/23 | 2:12 pm | | | | | | | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 5/24/23 2:58pm | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



6/2/2023

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8593-1

**Login Number: 8593**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8593-1

**Login Number: 8593**
**List Number: 2**
**Creator: Pena, Jesiel**

**List Source: Eurofins Houston**
**List Creation: 05/25/23 01:09 PM**

| 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? | N/A | |
| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 6/26/2023 4:19:45 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-8917-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



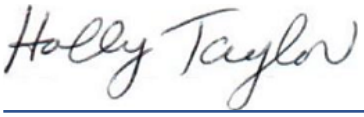
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## Job Notes

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## Authorization



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Authorized for release by
Holly Taylor, Project Manager
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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Job ID: 820-8917-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8917-1**

**Receipt**

The sample was received on 6/19/2023 10:22 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 14.5°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Client Sample ID: C Lagoon

**Date Collected: 06/19/23 08:53**
**Date Received: 06/19/23 10:22**

## Lab Sample ID: 820-8917-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 76.0 | | 16.0 | 16.0 | mg/L | | | 06/22/23 10:33 | 1 |
| pH (SM 4500 H+ B) | 9.1 | HF | | | SU | | | 06/20/23 16:21 | 1 |
| Temperature (SM 4500 H+ B) | 19.8 | HF | | | Degrees C | | | 06/20/23 16:21 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 21.7 | | 12.0 | 12.0 | mg/L | | 06/20/23 14:45 | 06/20/23 17:45 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-109093/1**
**Matrix: Water**
**Analysis Batch: 109093**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 06/22/23 10:33 | 1 |

**Lab Sample ID: LCS 860-109093/2**
**Matrix: Water**
**Analysis Batch: 109093**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 103.0 | | mg/L | | 103 | 80 - 120 |

**Lab Sample ID: LCSD 860-109093/3**
**Matrix: Water**
**Analysis Batch: 109093**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 109.0 | | mg/L | | 109 | 80 - 120 | 6 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-109443/2**
**Matrix: Water**
**Analysis Batch: 109443**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.7380 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 06/20/23 17:13 | 1 |

**Lab Sample ID: USB 860-109443/1**
**Matrix: Water**
**Analysis Batch: 109443**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1100 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 06/20/23 17:11 | 1 |

**Lab Sample ID: LCS 860-109443/3**
**Matrix: Water**
**Analysis Batch: 109443**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 187.2 | | mg/L | | 95 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## General Chemistry

### Prep Batch: 108746

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 108803

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 109093

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-109093/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-109093/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-109093/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 109443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 5210B | 108746 |
| SCB 860-109443/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-109443/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-109443/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Client Sample ID: C Lagoon

**Date Collected: 06/19/23 08:53**
**Date Received: 06/19/23 10:22**

## Lab Sample ID: 820-8917-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 250 mL | 1000 mL | 109093 | 06/22/23 10:33 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 108803 | 06/20/23 16:21 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 108746 | 06/20/23 14:45 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 109443 | 06/20/23 17:45 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Water | 06/19/23 08:53 | 06/19/23 10:22 |

Loc: 820
8917

# Chain of Custody

Eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-8917 Chain of Custody

Ph 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org jnoya@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐Routine ☐Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.6 |
| Total Containers: | 2 | Corrected Temperature: | 14.5 |

**ANALYSIS REQUEST**

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters |
|---|---|---|---|---|---|---|---|---|
| C Lagoon | | 6/19/23 | 8:53am | | | 2 | | BOD, PHS, TSS |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Colby Tyler | 6/19/23 1022 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



6/26/2023

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8917-1

**Login Number: 8917**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8917-1

**Login Number: 8917**
**List Number: 2**
**Creator: Babar, Syed**

**List Source: Eurofins Houston**
**List Creation: 06/20/23 12:12 PM**

| 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? | N/A | |
| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 7/24/2023 6:18:27 PM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-9272-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



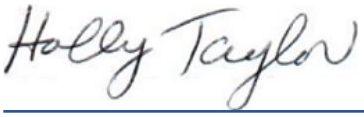
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Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Job ID: 820-9272-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-9272-1**

**Receipt**

The sample was received on 7/17/2023 11:04 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 14.3°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

**Client Sample ID: C. Lagoon**
**Date Collected: 07/17/23 09:48**
**Date Received: 07/17/23 11:04**

**Lab Sample ID: 820-9272-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 96.7 | | 26.7 | 26.7 | mg/L | | | 07/21/23 12:21 | 1 |
| pH (SM 4500 H+ B) | 9.0 | HF | | | SU | | | 07/19/23 16:41 | 1 |
| Temperature (SM 4500 H+ B) | 20.0 | HF | | | Degrees C | | | 07/19/23 16:41 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 34.0 | | 12.0 | 12.0 | mg/L | | 07/18/23 12:44 | 07/18/23 16:01 | 1 |

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-113433/1**
**Matrix: Water**
**Analysis Batch: 113433**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 07/21/23 12:21 | 1 |

**Lab Sample ID: LCS 860-113433/2**
**Matrix: Water**
**Analysis Batch: 113433**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 107.0 | | mg/L | | 107 | 80 - 120 |

**Lab Sample ID: LCSD 860-113433/3**
**Matrix: Water**
**Analysis Batch: 113433**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 | 2 | 10 |

**Lab Sample ID: 820-9272-1 DU**
**Matrix: Water**
**Analysis Batch: 113433**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 96.7 | | 94.00 | | mg/L | | 3 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-113749/2**
**Matrix: Water**
**Analysis Batch: 113749**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9000 | | 0.00000200 | 0.00000200 | mg/L | | | 07/18/23 13:42 | 1 |

**Lab Sample ID: USB 860-113749/1**
**Matrix: Water**
**Analysis Batch: 113749**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.2000 | | 0.00000200 | 0.00000200 | mg/L | | | 07/18/23 13:39 | 1 |

**Lab Sample ID: LCS 860-113749/3**
**Matrix: Water**
**Analysis Batch: 113749**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 222.6 | | mg/L | | 112 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## General Chemistry

### Prep Batch: 112890

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 113110

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 113433

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-113433/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-113433/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-113433/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-9272-1 DU | C. Lagoon | Total/NA | Water | SM 2540D | |

### Analysis Batch: 113749

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 5210B | 112890 |
| SCB 860-113749/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-113749/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-113749/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Client Sample ID: C. Lagoon

**Date Collected: 07/17/23 09:48**
**Date Received: 07/17/23 11:04**

## Lab Sample ID: 820-9272-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 113433 | 07/21/23 12:21 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 113110 | 07/19/23 16:41 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 112890 | 07/18/23 12:44 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 113749 | 07/18/23 16:01 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Water | 07/17/23 09:48 | 07/17/23 11:04 |

Loc: 820
9272

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-9272 Chain of Custody

Ph 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 308 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐Routine ☐Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.4 |
| Total Containers: | 2 | Corrected Temperature: | 14.3 |

**ANALYSIS REQUEST**

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: 1300 | PH | TSS |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 7/17/23 | 9:45 am | | | 2 | | ✓ | ✓ | ✓ |

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2SO_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 7/17/23 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



7/24/2023

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-7377 1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-9272-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 7/24/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:

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

Other:

| Sample Identification Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Preservation Code: | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-9272-1) | 7/17/23 | 09:48 Central | | Water | | X | X | X | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by | Date/Time: | Company |
|---|---|---|---|---|---|
| | 7/17/23 1700 | | FedEX | | |
| Relinquished by: FedEX | Date/Time: | Company | Received by: | Date/Time: 7/18/2023 10:06 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|
| | | Temp C/F -0.3 1.5 IR ID HOU-338 Corrected Temp 1.2 |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9272-1

**Login Number: 9272**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9272-1

**Login Number: 9272**
**List Number: 2**
**Creator: Pena, Jesiel**

**List Source: Eurofins Houston**
**List Creation: 07/18/23 01:12 PM**

| 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? | N/A | |
| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 8/28/2023 5:23:41 PM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-9753-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



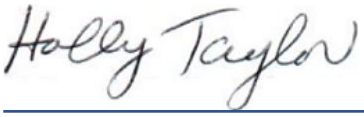
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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8/28/2023 5:23:41 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Job ID: 820-9753-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-9753-1**

**Receipt**
The sample was received on 8/21/2023 11:54 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 14.6°C

**General Chemistry**
Method 2540D: Due to the matrix, the initial volume(s) used for the following sample(s) deviated from the standard procedure: total suspended solids. The reporting limits (RLs) have been adjusted proportionately.

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

**Client Sample ID: C. Lagoon**
**Date Collected: 08/21/23 09:05**
**Date Received: 08/21/23 11:54**

**Lab Sample ID: 820-9753-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 82.7 | | 26.7 | 26.7 | mg/L | | | 08/28/23 08:07 | 1 |
| pH (SM 4500 H+ B) | 8.9 | HF | | | SU | | | 08/28/23 12:19 | 1 |
| Temperature (SM 4500 H+ B) | 18.2 | HF | | | Degrees C | | | 08/28/23 12:19 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 20.9 | | 12.0 | 12.0 | mg/L | | 08/22/23 21:15 | 08/22/23 22:22 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-119004/1**
**Matrix: Water**
**Analysis Batch: 119004**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 08/28/23 08:07 | 1 |

**Lab Sample ID: LCS 860-119004/2**
**Matrix: Water**
**Analysis Batch: 119004**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 92.00 | | mg/L | | 92 | 80 - 120 |

**Lab Sample ID: LCSD 860-119004/3**
**Matrix: Water**
**Analysis Batch: 119004**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 89.00 | | mg/L | | 89 | 80 - 120 | 3 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-9753-1 DU**
**Matrix: Water**
**Analysis Batch: 119103**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 8.9 | HF | 8.9 | | SU | | 0.1 | 20 |
| Temperature | 18.2 | HF | 18.2 | | Degrees C | | 0 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-118984/2**
**Matrix: Water**
**Analysis Batch: 118984**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9900 | | 0.00000200 | 0.00000200 | mg/L | | | 08/22/23 21:31 | 1 |

**Lab Sample ID: USB 860-118984/1**
**Matrix: Water**
**Analysis Batch: 118984**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.00000200 | 0.00000200 | mg/L | | | 08/22/23 21:29 | 1 |

**Lab Sample ID: LCS 860-118984/3**
**Matrix: Water**
**Analysis Batch: 118984**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 191.4 | | mg/L | | 97 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## General Chemistry

### Prep Batch: 118383

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 118984

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 5210B | 118383 |
| SCB 860-118984/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-118984/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-118984/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 119004

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-119004/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-119004/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-119004/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 119103

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-9753-1 DU | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Client Sample ID: C. Lagoon

**Date Collected: 08/21/23 09:05**
**Date Received: 08/21/23 11:54**

## Lab Sample ID: 820-9753-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 119004 | 08/28/23 08:07 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 119103 | 08/28/23 12:19 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 118383 | 08/22/23 21:15 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 118984 | 08/22/23 22:22 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-51 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Water | 08/21/23 09:05 | 08/21/23 11:54 |

Loc: 820
9753

# Chain of Custody

Eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-9753 Chain of Custody

PH 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 302 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.7 |
| Total Containers: | 2 | Corrected Temperature: | 14.6 |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Parameters: Bod | pH | 1:5 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 8/24/23 | 9:05 am | | | 2 | ✓ | ✓ | ✓ | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Cathy Lightfoot | 8/25/23 1154 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

8/28/2023

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-7670.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP - Texas | | Job #: 820-9753-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 8/28/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-9753-1) | 8/21/23 | 09:05 Central | | Water | X | X | X | |

Temp: 1.8 IR ID:HOU-338
C/F:-0.3
Corrected Temp: 1.5

Page 14 of 16

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 8/22/2023 9:23 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: Jeremiah Baker | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9753-1

**Login Number: 9753**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9753-1

**Login Number: 9753**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 08/22/23 11:28 AM**

| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 9/29/2023 11:13:41 AM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-10198-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



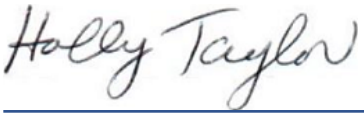
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
9/29/2023 11:13:41 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

## Job ID: 820-10198-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-10198-1**

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 9/21/2023 11:15 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 19.0°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

**Client Sample ID: C. Lagoon**
**Date Collected: 09/21/23 10:30**
**Date Received: 09/21/23 11:15**

**Lab Sample ID: 820-10198-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 76.0 | | 40.0 | 40.0 | mg/L | | | 09/27/23 09:24 | 1 |
| pH (SM 4500 H+ B) | 8.8 | HF | | | SU | | | 09/25/23 13:34 | 1 |
| Temperature (SM 4500 H+ B) | 19.1 | HF | | | Degrees C | | | 09/25/23 13:34 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 23.7 | | 12.0 | 12.0 | mg/L | | 09/22/23 13:26 | 09/22/23 15:14 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-123641/1**
**Matrix: Water**
**Analysis Batch: 123641**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 09/27/23 09:24 | 1 |

**Lab Sample ID: LCS 860-123641/2**
**Matrix: Water**
**Analysis Batch: 123641**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 860-123641/3**
**Matrix: Water**
**Analysis Batch: 123641**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 103.0 | | mg/L | | 103 | 80 - 120 | 2 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-123687/2**
**Matrix: Water**
**Analysis Batch: 123687**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.8700 | | 0.0000020 | 0.0000020 | mg/L | | | 09/22/23 14:14 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: USB 860-123687/1**
**Matrix: Water**
**Analysis Batch: 123687**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.0000020 | 0.0000020 | mg/L | | | 09/22/23 14:11 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: LCS 860-123687/3**
**Matrix: Water**
**Analysis Batch: 123687**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 169.4 | | mg/L | | 86 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## General Chemistry

### Prep Batch: 123014

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 123285

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 123641

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-123641/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-123641/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-123641/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 123687

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 5210B | 123014 |
| SCB 860-123687/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-123687/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-123687/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-10198-1
Project/Site: C. Lagoon

**Client Sample ID: C. Lagoon** — **Lab Sample ID: 820-10198-1**
**Date Collected: 09/21/23 10:30** — **Matrix: Water**
**Date Received: 09/21/23 11:15**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 123641 | 09/27/23 09:24 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 123285 | 09/25/23 13:34 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 123014 | 09/22/23 13:26 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 123687 | 09/22/23 15:14 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Water | 09/21/23 10:30 | 09/21/23 11:15 |

Loc: 820
10198

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH 8.5

820-10198 Chain of Custody

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 180 7 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahokatx.org raymondvega@windstream.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 | |
| ~~Sample Custody Seals:~~ | Yes No (N/A) | ~~Temperature Reading:~~ | 19.1 | |
| Total Containers: | 2 | Corrected Temperature: | 19.0 | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; ~~Zn Acetate+NaOH: Zn~~; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | pH | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 9-21-23 | 10:30 am | | | 2 | | ✓ | ✓ | ✓ | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Colby Teagle | 9/21/23 11:15 am | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10198-1

**Login Number: 10198**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10198-1

**Login Number: 10198**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 09/22/23 10:20 AM**

| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 10/25/2023 6:44:17 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-10592-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



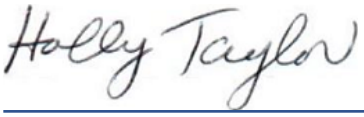
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
10/25/2023 6:44:17 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Job ID: 820-10592-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-10592-1**

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 10/19/2023 10:35 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 10.2°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

**Client Sample ID: C Lagoon**
**Date Collected: 10/19/23 08:57**
**Date Received: 10/19/23 10:35**

**Lab Sample ID: 820-10592-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 82.0 | | 20.0 | 20.0 | mg/L | | | 10/23/23 10:13 | 1 |
| pH (SM 4500 H+ B) | 8.5 | HF | | | SU | | | 10/20/23 16:53 | 1 |
| Temperature (SM 4500 H+ B) | 14.1 | HF | | | Degrees C | | | 10/20/23 16:53 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 31.5 | | 12.0 | 12.0 | mg/L | | 10/20/23 16:34 | 10/20/23 17:03 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-127508/1**
**Matrix: Water**
**Analysis Batch: 127508**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 10/23/23 10:13 | 1 |

**Lab Sample ID: LCS 860-127508/2**
**Matrix: Water**
**Analysis Batch: 127508**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | | | 100 | 97.00 | | mg/L | | 97 | 80 - 120 | | |

**Lab Sample ID: LCSD 860-127508/3**
**Matrix: Water**
**Analysis Batch: 127508**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | | | 100 | 100.0 | | mg/L | | 100 | 80 - 120 | 3 | 10 |

**Lab Sample ID: 820-10592-1 DU**
**Matrix: Water**
**Analysis Batch: 127508**

**Client Sample ID: C Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 82.0 | | | 85.50 | | mg/L | | | | 4 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-128041/2**
**Matrix: Water**
**Analysis Batch: 128041**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9690 | | 0.00000200 | 0.00000200 | mg/L | | | 10/20/23 16:17 | 1 |

**Lab Sample ID: USB 860-128041/1**
**Matrix: Water**
**Analysis Batch: 128041**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1200 | | 0.00000200 | 0.00000200 | mg/L | | | 10/20/23 16:14 | 1 |

**Lab Sample ID: LCS 860-128041/3**
**Matrix: Water**
**Analysis Batch: 128041**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | | | 198 | 205.8 | | mg/L | | 104 | 85 - 115 | | |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## General Chemistry

### Prep Batch: 127382

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 127404

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 127508

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-127508/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-127508/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-127508/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-10592-1 DU | C Lagoon | Total/NA | Water | SM 2540D | |

### Analysis Batch: 128041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 5210B | 127382 |
| SCB 860-128041/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-128041/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-128041/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-10592-1
Project/Site: C Lagoon

## Client Sample ID: C Lagoon
**Lab Sample ID: 820-10592-1**

**Date Collected: 10/19/23 08:57**
**Matrix: Water**

**Date Received: 10/19/23 10:35**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 127508 | 10/23/23 10:13 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 127404 | 10/20/23 16:53 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 127382 | 10/20/23 16:34 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 128041 | 10/20/23 17:03 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Water | 10/19/23 08:57 | 10/19/23 10:35 |

Loc: 820
10592

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Ph 8.5

820-10592 Chain of Custody

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | Same |
| Address: | 1807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka TX 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org & Raymond.Vega@wingatenm.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.3 |
| Total Containers: | 2 | Corrected Temperature: | 10.2 |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | pH | TSS | X | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chagoon | | 10/11/23 | 8:57am | | | 2 | | ✓ | ✓ | ✓ | X | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 10/11/23 10:35am | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

10/25/2023

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8215.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-10592-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 10/26/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | |
| C Lagoon (820-10592-1) | 10/19/23 | 08:57 Central | | Water | | | X | X | X | 2 | |
| | | | | | | | | | | | HW365 1-4 1-4 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10/20/2023 9.35 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10592-1

**Login Number: 10592**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10592-1

**Login Number: 10592**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 10/20/23 11:33 AM**

| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 11/30/2023 2:33:34 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-11030-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



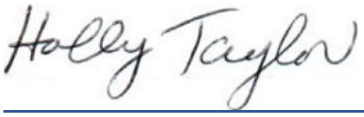
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
11/30/2023 2:33:34 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Job ID: 820-11030-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-11030-1**

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 11/21/2023 9:57 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 10.1°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Client Sample ID: C Lagoon

**Lab Sample ID: 820-11030-1**

**Date Collected: 11/21/23 08:39**

**Matrix: Water**

**Date Received: 11/21/23 09:57**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 69.0 | | 20.0 | 20.0 | mg/L | | | 11/27/23 17:43 | 1 |
| pH (SM 4500 H+ B) | 7.8 | HF | | | SU | | | 11/27/23 15:01 | 1 |
| Temperature (SM 4500 H+ B) | 12.6 | HF | | | Degrees C | | | 11/27/23 15:01 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 36.7 | | 12.0 | 12.0 | mg/L | | 11/22/23 14:03 | 11/22/23 14:58 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-132668/1**
**Matrix: Water**
**Analysis Batch: 132668**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 11/27/23 17:43 | 1 |

**Lab Sample ID: LCS 860-132668/2**
**Matrix: Water**
**Analysis Batch: 132668**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 106.0 | | mg/L | | 106 | 80 - 120 |

**Lab Sample ID: LCSD 860-132668/3**
**Matrix: Water**
**Analysis Batch: 132668**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 102.0 | | mg/L | | 102 | 80 - 120 | 4 | 10 |

**Lab Sample ID: 820-11030-1 DU**
**Matrix: Water**
**Analysis Batch: 132668**

**Client Sample ID: C Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 69.0 | | 74.00 | | mg/L | | 7 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-132607/2**
**Matrix: Water**
**Analysis Batch: 132607**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.7980 | | 0.00000200 | 0.00000200 | mg/L | | | 11/22/23 13:23 | 1 |

**Lab Sample ID: USB 860-132607/1**
**Matrix: Water**
**Analysis Batch: 132607**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1200 | | 0.00000200 | 0.00000200 | mg/L | | | 11/22/23 13:20 | 1 |

**Lab Sample ID: LCS 860-132607/3**
**Matrix: Water**
**Analysis Batch: 132607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 195.7 | | mg/L | | 99 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## General Chemistry

### Prep Batch: 132339

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 132607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 5210B | 132339 |
| SCB 860-132607/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-132607/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-132607/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 132649

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 132668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-132668/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-132668/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-132668/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-11030-1 DU | C Lagoon | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Client Sample ID: C Lagoon

**Date Collected: 11/21/23 08:39**
**Date Received: 11/21/23 09:57**

## Lab Sample ID: 820-11030-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 132668 | 11/27/23 17:43 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 132649 | 11/27/23 15:01 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 132339 | 11/22/23 14:03 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 132607 | 11/22/23 14:58 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Water | 11/21/23 08:39 | 11/21/23 09:57 |

Loc: 820
11030

# Chain of Custody

Eurofins | Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH

820-11030 Chain of Custody

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka TX 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org & raymondvega@windstream.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.2 | |
| Total Containers: | 2 | Corrected Temperature: | 10.1 | |

Pres. Code

Parameters: BOD, PH, TSS

**ANALYSIS REQUEST**

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2SO_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Sample Comments |
|---|---|---|---|---|---|---|---|
| C. Lagoon | | 11/22/23 | 8:39 | | | 2 | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 11/21/23 9:57 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

11/30/2023

| Client Information (Sub Contract Lab) | Sampler | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8530.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-11030-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 12/4/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

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

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | |
| C Lagoon (820-11030-1) | 11/21/23 | 08:39 Central | | Water | | | X | X | X | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 11/22/2023 9:59 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11030-1

**Login Number: 11030**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11030-1

**Login Number: 11030**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 11/22/23 01:35 PM**

| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 1/5/2024 1:38:38 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-11465-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



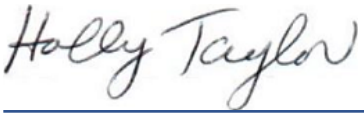
myEOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
1/5/2024 1:38:38 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

**Job Narrative**
**820-11465-1**

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 12/27/2023 11:01 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 7.0°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Client Sample ID: C. Lagoon

**Date Collected: 12/27/23 10:05**
**Date Received: 12/27/23 11:01**

## Lab Sample ID: 820-11465-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 80.0 | | 20.0 | 20.0 | mg/L | | | 12/29/23 10:48 | 1 |
| pH (SM 4500 H+ B) | 7.5 | HF | | | SU | | | 01/05/24 12:34 | 1 |
| Temperature (SM 4500 H+ B) | 11.6 | HF | | | Degrees C | | | 01/05/24 12:34 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 26.2 | | 12.0 | 12.0 | mg/L | | 12/28/23 17:30 | 12/28/23 17:49 | 1 |

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-138624/1**
**Matrix: Water**
**Analysis Batch: 138624**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 12/29/23 10:48 | 1 |

**Lab Sample ID: LCS 860-138624/2**
**Matrix: Water**
**Analysis Batch: 138624**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 860-138624/3**
**Matrix: Water**
**Analysis Batch: 138624**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 104.0 | | mg/L | | 104 | 80 - 120 | 2 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-11465-1 DU**
**Matrix: Water**
**Analysis Batch: 139421**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | HF | 7.5 | | SU | | 0.3 | 20 |
| Temperature | 11.6 | HF | 11.0 | | Degrees C | | 5 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-138928/2**
**Matrix: Water**
**Analysis Batch: 138928**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9300 | | 0.00000200 | 0.00000200 | mg/L | | | 12/28/23 17:13 | 1 |

**Lab Sample ID: USB 860-138928/1**
**Matrix: Water**
**Analysis Batch: 138928**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.04000 | | 0.00000200 | 0.00000200 | mg/L | | | 12/28/23 17:09 | 1 |

**Lab Sample ID: LCS 860-138928/3**
**Matrix: Water**
**Analysis Batch: 138928**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 185.3 | | mg/L | | 94 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## General Chemistry

### Prep Batch: 138540

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 138624

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-138624/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-138624/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-138624/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 138928

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 5210B | 138540 |
| SCB 860-138928/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-138928/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-138928/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 139421

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-11465-1 DU | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-11465-1
Project/Site: C Lagoon

## Client Sample ID: C. Lagoon
**Lab Sample ID: 820-11465-1**

**Date Collected: 12/27/23 10:05**
**Matrix: Water**

**Date Received: 12/27/23 11:01**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 138624 | 12/29/23 10:48 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 139421 | 01/05/24 12:34 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 138540 | 12/28/23 17:30 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 138928 | 12/28/23 17:49 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Water | 12/27/23 10:05 | 12/27/23 11:01 |

Loc: 820
11465

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH. 8

820-11465 Chain of Custody

| | | | |
|---|---|---|---|
| Project Manager: | Jesus Moya | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | (806) 561-4211 | Email: | RVega@tahoka.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 7.1 |
| Total Containers: | 2 | Corrected Temperature: | 7.0 |

ANALYSIS REQUEST

Pres. Code

Parameters: BOD, PH, TSS

**Preservative Codes**

None: NO — DI Water: $H_2O$
Cool: Cool — MeOH: Me
HCL: HC — $HNO_3$: HN
$H_2SO_4$: $H_2$ — NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Sample Comments |
|---|---|---|---|---|---|---|---|
| C. Lagoon | | X1/27 | X10:05 | | | 2 | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8729.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-11465-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 1/8/2024 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Preservation Code: | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-11465-1) | 12/27/23 | 10:05 Central | | Water | | X | X | X | |

Temp. 3.0 IR ID:HOU-369
C/F -0.0
Corrected Temp 3.0

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 12/27/23 1700 | | Fedex | | |
| Relinquished by: Fedex | Date/Time: | Company | Received by: | Date/Time: 12/28 10.01 am | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11465-1

**Login Number: 11465**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11465-1

**Login Number: 11465**
**List Number: 2**
**Creator: Jimenez, Nicanor**

**List Source: Eurofins Houston**
**List Creation: 12/28/23 02:18 PM**

| 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 | |

# ATTACHMENT Q

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Water Balance and Storage Volume Calculations
Net Evaporative Date
Precipitation Data
NRCS Curve Number Derivation
Nitrogen Balance

**WATER BALANCE FOR THE CITY OF TAHOKA WASTEWATER TREATMENT PLANT AND LAND APPLICATION SYSTEM**

**TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**
**30 TAC 210.24(b) FIGURE 1 - TABLE 1 &**
**30 TAC 309.20(b)(3)(A) - TABLE 2** [all units are inches of water per acre of irrigated area]

| 1 Month | 2 Average Regional Precipitation (in) | 3 Average Runoff (in) | 4 Average Infiltrated Rainfall (in) (2) - (3) | 5(a) Evapo-transpiration Crop 1 (in) | Crop 1 Area (ac) | Crop 2 Area (ac) | Total Area of Application for Month | 5 Evapo-Transpiration Total (in) | 6 Required Leaching (in) | Adjusted Leaching (in) | 7 Total Water Needs (in) (5) + (6) | 8 Effluent Needed in Root Zone (in) (7) - (4) | 9 Free-water Evaporation From Reservoir Surface wrt application area (in) | 10 Effluent to be Land Applied (in) (8)/K | 11 Consumption from Reservoir () (9) + (10) | 12 Month | 13 Effluent Received ** (in) or (ac-ft/ac/yr) | 14 25-Year Rain (in) | 15 25-Year Runoff (in) | 16 Infiltrated Rainfall (14) - (15) | 17 Available Water (13) + (16) | 18 25-Year Low Free-water Evaporation (ac-in) | 19 Storage | 20 Accumulated Storage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January | 0.80 | 0.03 | 0.77 | 2.21 | 143.0 | 0.0 | 143.00 | 2.21 | 0.72 | 0.00 | 2.93 | 2.16 | 0.17 | 2.54 | 2.71 | January | 2.82 | 1.40 | 0.01 | 1.39 | 4.21 | 0.14 | 0.87 | 1.68 |
| February | 0.60 | 0.07 | 0.53 | 2.63 | 143.0 | 0.0 | 143.00 | 2.63 | 1.05 | 0.00 | 3.68 | 3.15 | 0.19 | 3.71 | 3.90 | February | 2.82 | 1.06 | 0.00 | 1.06 | 3.88 | 0.15 | -0.41 | 1.27 |
| March | 1.40 | 0.01 | 1.39 | 4.46 | 143.0 | 0.0 | 143.00 | 4.46 | 1.54 | 0.00 | 6.00 | 4.61 | 0.27 | 5.42 | 5.69 | March | 2.82 | 2.46 | 0.21 | 2.25 | 5.07 | 0.22 | -1.81 | -0.54 |
| April | 1.10 | 0.00 | 1.10 | 5.60 | 143.0 | 0.0 | 143.00 | 5.60 | 2.25 | 0.00 | 7.85 | 6.75 | 0.36 | 7.94 | 8.30 | April | 2.82 | 1.93 | 0.07 | 1.86 | 4.68 | 0.29 | -4.52 | -5.06 |
| May | 2.90 | 0.36 | 2.54 | 6.60 | 143.0 | 0.0 | 143.00 | 6.60 | 2.03 | 0.00 | 8.63 | 6.09 | 0.29 | 7.16 | 7.45 | May | 2.82 | 5.09 | 1.50 | 3.59 | 6.41 | 0.24 | -3.35 | -8.41 |
| June | 2.40 | 0.19 | 2.21 | 7.19 | 143.0 | 0.0 | 143.00 | 7.19 | 2.49 | 0.00 | 9.68 | 7.47 | 0.42 | 8.79 | 9.21 | June | 2.82 | 4.19 | 0.97 | 3.22 | 6.04 | 0.34 | -5.12 | -13.53 |
| July | 2.00 | 0.09 | 1.91 | 7.45 | 143.0 | 0.0 | 143.00 | 7.45 | 2.77 | 0.00 | 10.22 | 8.31 | 0.47 | 9.78 | 10.25 | July | 2.82 | 3.49 | 0.62 | 2.87 | 5.69 | 0.38 | -6.21 | -19.74 |
| August | 1.80 | 0.05 | 1.75 | 6.85 | 143.0 | 0.0 | 143.00 | 6.85 | 2.55 | 0.00 | 9.40 | 7.65 | 0.44 | 9.00 | 9.44 | August | 2.82 | 3.16 | 0.47 | 2.69 | 5.51 | 0.36 | -5.43 | -25.17 |
| September | 2.50 | 0.22 | 2.28 | 5.25 | 143.0 | 0.0 | 143.00 | 5.25 | 1.49 | 0.00 | 6.74 | 4.46 | 0.28 | 5.25 | 5.53 | September | 2.82 | 4.39 | 1.08 | 3.31 | 6.13 | 0.23 | -1.45 | -26.62 |
| October | 1.90 | 0.07 | 1.83 | 4.24 | 143.0 | 0.0 | 143.00 | 4.24 | 1.21 | 0.00 | 5.45 | 3.62 | 0.27 | 4.26 | 4.53 | October | 2.82 | 3.33 | 0.54 | 2.79 | 5.61 | 0.22 | -0.53 | -27.15 |
| November | 0.80 | 0.03 | 0.77 | 2.82 | 143.0 | 0.0 | 143.00 | 2.82 | 1.03 | 0.00 | 3.85 | 3.08 | 0.23 | 3.62 | 3.85 | November | 2.82 | 1.40 | 0.01 | 1.39 | 4.21 | 0.18 | -0.25 | -27.40 |
| December | 0.80 | 0.03 | 0.77 | 2.24 | 143.0 | 0.0 | 143.00 | 2.24 | 0.74 | 0.00 | 2.98 | 2.21 | 0.17 | 2.60 | 2.77 | December | 2.82 | 1.40 | 0.01 | 1.39 | 4.21 | 0.14 | 0.81 | 0.81 |
| Totals | 19.00 | 1.15 | 17.85 | 57.54 | | | | 57.54 | 19.87 | 0.00 | 77.41 | 59.56 | 3.56 | 70.07 | 73.63 | | 33.84 | 33.30 | 5.5 | 27.8 | 61.65 | 2.89 | | |

## Variables

### Design Effluent Flow

0.36 MGD

1.10 Ac.-ft/day

403.2 Ac.-ft/yr

### Total Application Area

143.00 acres (for water balance)

143.00 acres for storage

### Runoff Constants

62 NRCS curve number

6.1 S'

### Calculated Surface Area of Ponds

**9.56** acres (manually iterate with calculated until equal)
(In this instance, area is set by original design)

### Seasonal Crop Coverage Areas

| Crop # | Crop Growing Season | Area acres |
|---|---|---|
| 1 Bermuda Grass | All -year round | 143 |
| 2 | | |

### Salts Balance Data For Leaching Calculations

**Ce, electrical conductivity of effluent**

2.3 millimhos/cm

**Cs, maximum allowable conductivity of soil solution** **See Table 29**

6.9 millimhos/cm @ 25 deg.

**Ri, electrical conductivity of infiltrated rainfall**

4.6 millimhos/cm @ 25 deg.

**Estimated/Assumed Irrigation Efficiency, %**

85 for center-pivot irrigation sprinkler system

### Free-Water Evaporation

| Month | Average | 25-year low |
|---|---|---|
| January | 2.60 | 2.11 |
| February | 2.80 | 2.28 |
| March | 4.00 | 3.22 |
| April | 5.40 | 4.34 |
| May | 4.40 | 3.57 |
| June | 6.30 | 5.07 |
| July | 7.10 | 5.71 |
| August | 6.60 | 5.33 |
| September | 4.20 | 3.39 |
| October | 4.00 | 3.22 |
| November | 3.40 | 2.75 |
| December | 2.50 | 2.02 |
| Total | 53.30 | 43.01 |

**Free-water evaporation taken from Water Date for Texas, "Lake Evaporation", Quadrangle 406

*Table 29.-Values of estimated electrical conductivity of the average saturation extract ($EC_e$) for zero crop reduction and 10 percent crop reduction (Ayers and Westcot, 1976) (continued)*

| Crop | $EC_e$ for zero crop reduction (mmhos/cm) | $EC_e$ for 10% crop reduction (mmhos/cm) |
|---|---|---|
| **Forage Crops** | | |
| Tall Wheat Grass | 7.5 | 9.9 |
| Wheat Grass (fairway) | 7.5 | 9.0 |
| Bermuda Grass | 6.9 | 8.5 |
| Barley (hay) | 6.0 | 7.4 |
| Perennial Rye Grass | 5.6 | 6.9 |
| Harding Grass | 4.6 | 5.9 |
| Tall Fescue | 3.9 | 5.8 |
| Crested Wheat Grass | 3.5 | 6.0 |
| Vetch | 3.0 | 3.9 |
| Sudan Grass | 2.8 | 5.1 |
| Wildrye, b | 2.7 | 4.4 |
| Beardless | | |
| Alfalfa | 2.0 | 3.4 |

### Calculated Application Rate

**73.63** acre-inches per acre per year from Column 11 total

**69.12** acre-inches per acre per year maximum allowable from Nitrogen Balance

**5.76** acre-feet per acre per year (using limiting rate above)

### Minimum Storage Requirement

maximum accumulated storage (column 20) x # of irrigated acres

**20.02** acre-feet

## ATTACHMENT

**Water Balance for Effluent Land Application**

**Grass Evapotranspiration data from:**
**Mean Crop Consumptive Use and Free-Water Evaporation for Texas**
by Borrelli, Feddler & Gregory, 1998

-- Evapotranspiration data taken from Lubbock, Texas (approx 25 miles from project site)

-- Evapotranspiration basal crop coefficient for Burmuda grasses is assumed **0.80** for average maintenance.

*Mean Crop Consumptive Use*····· Turfgrass

*Table 24.-$ET_{crop}$ for Turfgrass with $K_{cb}$=0.80 (inches per month).*

| Station | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lubbock** | 2.21 | 2.63 | 4.46 | 5.60 | 6.60 | 7.19 | 7.45 | 6.85 | 5.25 | 4.24 | 2.82 | 2.24 |

***See following pages for example calculations and references for crop and climatic data.***

**PRECIPITATION DATA FOR THE CITY OF TAHOKA, TEXAS**

Used for determining average and 25 year precipitation data in water balance.

Derived from weather.gov obtained at the US Weather Bureau office at the Lubbock International Airpor 1998-2023

| Year | Jan. | Feb. | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1998 | T | 1.86 | 1.33 | 0.40 | 0.04 | 1.31 | 0.23 | 4.26 | 0.02 | 3.05 | 0.29 | 0.26 | 13.05 |
| 1999 | 1.35 | T | 1.03 | 3.56 | 3.38 | 4.52 | 0.79 | 0.63 | 3.27 | 0.61 | 0.00 | 1.05 | 20.19 |
| 2000 | T | 0.05 | 2.78 | 1.67 | 0.78 | 8.48 | 2.06 | 0.01 | T | 3.27 | 1.25 | 0.92 | 21.27 |
| 2001 | 1.46 | 0.51 | 2.45 | 0.38 | 4.20 | 0.47 | 0.60 | 1.11 | 0.85 | 0.02 | 3.37 | 0.13 | 15.55 |
| 2002 | 0.62 | 0.51 | 2.15 | 1.26 | 0.37 | 3.06 | 1.40 | 1.31 | 1.38 | 5.26 | 0.38 | 1.57 | 19.27 |
| 2003 | 0.04 | 0.06 | 0.25 | 1.12 | 1.31 | 4.27 | T | 0.39 | 0.19 | 0.72 | 0.46 | T | 8.81 |
| 2004 | 1.90 | 1.88 | 1.85 | 2.98 | 1.00 | 3.08 | 3.22 | 2.29 | 5.38 | 2.33 | 6.65 | 0.69 | 33.25 |
| 2005 | 1.33 | 1.32 | 0.73 | 0.27 | 2.24 | 1.84 | 2.41 | 2.01 | 0.28 | 2.61 | T | T | 15.04 |
| 2006 | T | 0.18 | 1.62 | 0.77 | 2.15 | 0.57 | 0.62 | 1.51 | 4.87 | 1.30 | 0.26 | 1.71 | 15.56 |
| 2007 | 1.12 | 0.36 | 5.94 | 1.23 | 5.35 | 3.39 | 0.94 | 1.99 | 2.20 | 0.28 | 0.20 | 0.94 | 23.94 |
| 2008 | 0.07 | 0.72 | 0.10 | 1.07 | 5.32 | 2.91 | 1.77 | 3.48 | 8.70 | 3.77 | 0.08 | 0.01 | 28.00 |
| 2009 | 0.13 | 0.73 | 0.37 | 1.51 | 0.68 | 2.44 | 1.69 | 0.47 | 2.46 | 0.78 | 0.13 | 1.48 | 12.87 |
| 2010 | 1.41 | 1.78 | 2.85 | 4.65 | 1.14 | 2.55 | 7.14 | 1.33 | 0.93 | 2.61 | 0.07 | T | 26.46 |
| 2011 | 0.06 | 0.43 | 0.35 | 0.00 | 0.26 | T | 0.05 | 0.34 | 1.25 | 1.34 | 0.26 | 1.52 | 5.86 |
| 2012 | 0.01 | 0.57 | 0.71 | 1.03 | 1.33 | 1.60 | 0.26 | 2.91 | 2.04 | 0.28 | 0.01 | 0.68 | 11.43 |
| 2013 | 0.92 | 1.31 | T | 0.04 | 1.15 | 1.67 | 3.37 | 1.32 | 0.54 | 1.15 | 0.54 | 0.60 | 12.61 |
| 2014 | 0.00 | 0.16 | 0.17 | 0.57 | 5.23 | 2.59 | 2.64 | 0.54 | 6.94 | 0.38 | 2.95 | 0.39 | 22.56 |
| 2015 | 1.61 | 0.66 | 0.30 | 1.24 | 12.12 | 2.15 | 3.96 | 0.25 | 0.49 | 4.29 | 0.81 | 1.57 | 29.45 |
| 2016 | 0.30 | 0.09 | 0.20 | 1.02 | 3.66 | 1.04 | 0.58 | 3.03 | 1.47 | 1.05 | 0.54 | 0.49 | 13.47 |
| 2017 | 2.03 | 0.89 | 0.67 | 1.32 | 0.58 | 1.78 | 5.84 | 4.85 | 3.46 | 0.50 | 0.03 | T | 21.95 |
| 2018 | T | 0.20 | 0.87 | 0.03 | 1.26 | 1.36 | 0.88 | 1.25 | 3.26 | 4.65 | 0.07 | 1.44 | 15.27 |
| 2019 | T | 0.04 | 1.13 | 1.75 | 3.96 | 2.06 | 4.51 | 2.14 | 5.97 | 1.11 | 1.05 | 0.65 | 24.37 |
| 2020 | 0.37 | 0.51 | 2.37 | 0.02 | 2.06 | 1.85 | 1.85 | 0.54 | 1.04 | 0.78 | 0.09 | 0.07 | 11.55 |
| 2021 | 1.00 | 0.25 | 2.31 | 0.19 | 5.86 | 2.48 | 2.99 | 3.63 | 0.60 | 0.63 | 0.38 | 0.23 | 20.55 |
| 2022 | 0.20 | 0.13 | 0.05 | T | 3.58 | 0.83 | 0.10 | 5.95 | 0.83 | 2.39 | 0.59 | 0.41 | 15.06 |
| 2023 | 0.60 | 0.15 | T | 0.11 | 5.32 | 1.69 | 1.16 | 0.09 | 3.71 | 3.38 | 0.12 | 1.28 | 17.61 |

| **Last 25 Years of** | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monthly Averages, in:** | **0.8** | **0.6** | **1.4** | **1.1** | **2.9** | **2.4** | **2.0** | **1.8** | **2.5** | **1.9** | **0.8** | **0.8** | **19.0** |
| **Monthly Distribution of Average Precipitation, in:** | **4.2%** | **3.2%** | **7.4%** | **5.8%** | **15.3%** | **12.6%** | **10.5%** | **9.5%** | **13.2%** | **10.0%** | **4.2%** | **4.2%** | **100.1%** |
| **Maximum Total Annual Precipitation for Station, in:** | **33.25** | (Taken from highest annual total in past 25 record-years with complete data - 2004) | | | | | | | | | | | |
| **Distribution of 25-year Maximum Precipitation:** | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
| | **1.40** | **1.06** | **2.46** | **1.93** | **5.09** | **4.19** | **3.49** | **3.16** | **4.39** | **3.33** | **1.40** | **1.40** | **33.30** |

T - is defined as "trace" and does not constitute enough rainfall to quantify

**NET EVAPORATION DATA FROM Water Data for Texas, "Lake Evaporation", QUADRANGLE 406**

Used for determining average and 25 year low evaporation data in water balance.

Net lake evaporation rate is defined as the gross rate minus the precipitation rate over the lake surface.

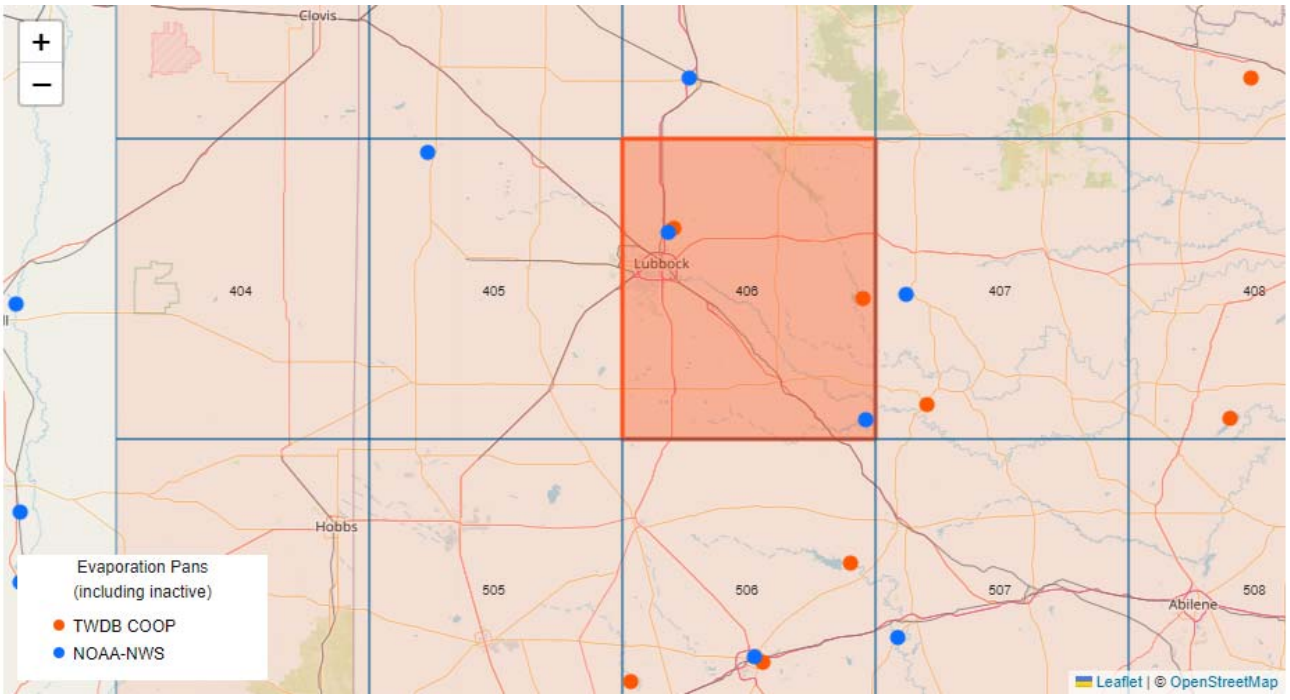
| Year | Jan. | Feb. | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1998 | 3.29 | 1.72 | 4.88 | 8.00 | 9.29 | 13.36 | 11.39 | 5.04 | 8.28 | 4.44 | 3.24 | 2.28 | 75.21 |
| 1999 | 3.36 | 3.55 | 2.56 | 4.24 | 4.50 | 2.80 | 8.14 | 7.49 | 6.32 | 6.67 | 6.49 | 3.89 | 60.01 |
| 2000 | 4.69 | 4.91 | 2.27 | 3.64 | 8.19 | -0.18 | 9.21 | 7.66 | 7.42 | -0.18 | 0.92 | 1.53 | 50.08 |
| 2001 | 0.00 | 0.99 | 0.52 | 4.85 | 3.44 | 8.23 | 9.90 | 5.96 | 5.93 | 5.92 | -0.76 | 1.72 | 46.7 |
| 2002 | 3.72 | 1.84 | 3.36 | 4.47 | 8.05 | 8.05 | 6.69 | 8.83 | 6.11 | 0.87 | 2.81 | 2.35 | 57.15 |
| 2003 | 4.03 | 2.35 | 5.59 | 6.70 | 5.96 | 3.27 | 11.52 | 8.85 | 5.85 | 4.69 | 3.99 | 3.01 | 65.81 |
| 2004 | 0.43 | 2.74 | 2.41 | 2.73 | 7.86 | 4.05 | 3.67 | 4.54 | 2.94 | 1.02 | -3.83 | 2.50 | 31.06 |
| 2005 | 1.20 | 0.82 | 3.63 | 6.55 | 2.61 | 7.06 | 6.96 | 3.77 | 6.72 | 2.49 | 5.48 | 3.89 | 51.18 |
| 2006 | 5.87 | 4.00 | 3.31 | 5.14 | 4.33 | 8.21 | 9.11 | 5.29 | 0.62 | 1.34 | 4.34 | 0.98 | 52.54 |
| 2007 | 1.17 | 2.95 | -1.07 | 3.20 | -0.01 | 1.15 | 5.03 | 4.22 | 3.47 | 6.81 | 4.02 | 1.93 | 32.87 |
| 2008 | 1.63 | 4.88 | 5.59 | 6.42 | 4.68 | 8.22 | 5.80 | 2.97 | -1.67 | 1.64 | 4.14 | 4.55 | 48.85 |
| 2009 | 2.79 | 3.52 | 4.93 | 5.73 | 6.62 | 6.72 | 4.47 | 7.63 | 2.99 | 3.36 | 5.77 | 0.66 | 55.19 |
| 2010 | 1.16 | 0.75 | 2.37 | 0.61 | 6.02 | 6.43 | -4.34 | 5.06 | 4.22 | 5.05 | 6.42 | 6.17 | 39.92 |
| 2011 | 4.20 | 4.69 | 6.18 | 11.31 | 10.38 | 13.15 | 13.49 | 13.02 | 8.35 | 5.94 | 4.72 | 0.32 | 95.75 |
| 2012 | 3.35 | 2.86 | 4.78 | 5.88 | 5.08 | 4.62 | 6.97 | 7.77 | 4.44 | 5.49 | 4.93 | 3.23 | 59.4 |
| 2013 | 2.57 | 2.29 | 6.89 | 7.80 | 8.21 | 8.04 | 6.85 | 6.44 | 7.30 | 6.47 | 4.57 | 1.20 | 68.63 |
| 2014 | 4.12 | 2.10 | 6.39 | 7.79 | 3.96 | 6.32 | 7.56 | 7.76 | -1.72 | 5.26 | 1.48 | 1.52 | 52.54 |
| 2015 | 0.21 | 1.91 | 3.23 | 3.74 | -4.92 | 5.27 | 5.08 | 8.67 | 7.44 | 2.63 | 2.46 | 1.13 | 36.85 |
| 2016 | 2.16 | 4.17 | 5.76 | 4.44 | 1.30 | 5.05 | 7.92 | 4.28 | 1.92 | 6.55 | 2.58 | 2.28 | 48.41 |
| 2017 | 0.69 | 3.08 | 4.54 | 3.97 | 6.12 | 4.72 | 3.93 | 2.33 | 1.33 | 6.06 | 5.00 | 2.82 | 44.59 |
| 2018 | 4.46 | 4.12 | 6.05 | 7.98 | 8.05 | 9.78 | 8.94 | 7.57 | 1.86 | -2.71 | 2.97 | 1.61 | 60.68 |
| 2019 | 2.77 | 3.21 | 3.27 | 2.17 | -1.41 | 5.92 | 8.71 | 9.61 | 2.96 | 6.71 | 2.03 | 3.66 | 49.61 |
| 2020 | 2.87 | 2.58 | 1.54 | 5.19 | 4.44 | 6.96 | 5.71 | 9.09 | 4.61 | 5.19 | 3.92 | 2.54 | 54.64 |
| 2021 | 0.43 | 2.00 | 4.37 | 4.37 | -0.55 | 1.89 | 3.41 | 4.32 | 4.36 | 5.91 | 4.84 | 5.19 | 40.54 |
| 2022 | 3.30 | 2.30 | 7.64 | 8.47 | 2.58 | 9.84 | 11.47 | 4.59 | 4.51 | 4.08 | 3.64 | 3.17 | 65.59 |
| 2023 | 2.96 | 2.41 | 4.24 | 5.05 | 0.07 | 3.81 | 6.04 | 9.28 | 3.52 | 1.15 | 3.27 | 1.16 | 42.96 |

| **Last 25 Years of** | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Monthly Averages, in:** | **2.6** | **2.8** | **4.0** | **5.4** | **4.4** | **6.3** | **7.1** | **6.6** | **4.2** | **4.0** | **3.4** | **2.5** | **53.3** |
| **Monthly Distribution of Average Evaporation, in:** | **4.9%** | **5.3%** | **7.5%** | **10.1%** | **8.3%** | **11.8%** | **13.3%** | **12.4%** | **7.9%** | **7.5%** | **6.4%** | **4.7%** | **100.1%** |

**MinimumTotal Annual Precipitation for Station, in:** **42.96** (Taken from lowest annual total in past 25 record-years with complete data - 1966)

| **Distribution of 25-year** | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Minimum Evaporation:** | **2.11** | **2.28** | **3.22** | **4.34** | **3.57** | **5.07** | **5.71** | **5.33** | **3.39** | **3.22** | **2.75** | **2.02** | **43.01** |

https://waterdatafortexas.org/lake-evaporation-rainfall



# Nitrogen Balance and Hydraulic Loading Limitations

**Crop Nitrogen Requirements**

| Crop | Range | (kg/ha * yr or lb/ac *yr) | |
|---|---|---|---|
| Bermuda Grass | 4-6 lbs/1000 ft2 | 261 | (maximum) |
| Total annual (limiting requirement above) | | 261 | |

Where more than one crop is listed above, the lower of the nitrogen uptake requirements shall be used for calculations below.

Crop nutrient requirement taken from Texas Agricultral Extension Service publication, "Lawn Fertilization in Texas", Duble, McAfee and Novosad

**Nitrogen Volatilization**

| | | |
|---|---|---|
| Nitrogen volatilized (20% of crop req). | 52.2 | lb/ac*yr |

**Total Nitrogen to be Applied**

| | | |
|---|---|---|
| Total nitrogen applied annually | 313.2 | lb/ac*yr |

**Nitrogen Content in Effluent to be Applied**

| | | |
|---|---|---|
| Nitrogen in effluent | 20 | mg/l * |

* TKN from effluent sample = 128 mg/l, however, Nitrate-Nitrogen was ND; therefore, due to conflicting test data, a conservative value of 20mg/l is used.

**Annual Limitations on Applied Effluent Based on Crop Nitrogen Utilization**

| | | |
|---|---|---|
| Effluent application limitation (L) | 5.76 | ft/year |
| | 69.12 | in/year |

$$L = \frac{N}{2.72\ C}$$

where, L = annual liquid loading
C = effluent nitrogen concentration (mg/l)
N = annual crop requirement of nitrogen plus 20% volatilization (lb / acre / yr)

**Computation of NRCS Composite Curve Number for Runoff Calculations**

| Symbol | Soil type | Area | Hydrologic Soil Group | Land use | % of total area | CN | Weighted CN |
|---|---|---|---|---|---|---|---|
| AcB | Acuff Loam 1-3% | 8.6 | B | Livestock pasture/grazing | 6.2 | 61 | 3.8 |
| EsA | Estacado Loam 0-1% | 19.3 | B | Livestock pasture/grazing | 29.6 | 61 | 18.1 |
| LhA | Lenora-Hindman 0-2% | 4.1 | C | Livestock pasture/grazing | 5.1 | 74 | 3.8 |
| PoA | Portales Loam 0-1% | 83.6 | B | Livestock pasture/grazing | 45.9 | 61 | 28.0 |
| PoB | Portales Loam 1-3% | 27.4 | B | Livestock pasture/grazing | 13.0 | 61 | 7.9 |
| | | | | | 0.0 | | 0.0 |
| | | | | | 0.0 | | 0.0 |
| | | | | | 0.0 | | 0.0 |

**total area =** 143.0 acres **Composite CN =** 62

**S' =** 6.1

Data Source: *US Department of Agriculture National Engineering Handbook* .

$$S = \frac{1000}{CN} - 10$$

# ATTACHMENT R

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Pollutant Analysis of Treated Effluent
Laboratory Results & Chain of Custody

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

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## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-12174-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



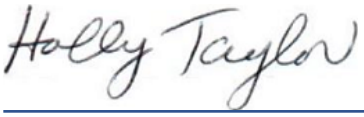
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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Authorized for release by
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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

**Job Narrative**
**820-12174-1**

**Receipt**
The sample was received on 2/22/2024 10:03 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 was 9.1º C.

**General Chemistry**
Method 350.1: The matrix spike duplicate (MSD) recoveries for analytical batch 860-147820 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method SM 4500 Cl G: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-147656 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

**Subcontract non-Sister**
See attached subcontract report.

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Client Sample ID: C Lagoon

**Date Collected: 02/22/24 08:51**
**Date Received: 02/22/24 10:03**

## Lab Sample ID: 820-12174-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | 9.65 | | 1.00 | 0.508 | mg/L | | | 02/29/24 19:35 | 10 |
| Nitrogen, Kjeldahl (EPA 351.2) | 128 | | 20.0 | 8.90 | mg/L | | 03/01/24 09:29 | 03/06/24 19:23 | 10 |
| Phosphorus Total (EPA 365.1) | 4.92 | | 0.200 | 0.143 | mg/L | | | 03/01/24 19:51 | 10 |
| pH (SW846 9040C) | 7.70 | HF | | | SU | | | 03/01/24 17:40 | 1 |
| Temperature (SW846 9040C) | 18.1 | HF | | | Degrees C | | | 03/01/24 17:40 | 1 |
| Specific Conductance (SM 2510B) | 2300 | | 10.0 | 10.0 | umho/cm @ 25C | | | 03/01/24 17:40 | 1 |
| Total Dissolved Solids (SM 2540C) | 1240 | | 20.0 | 20.0 | mg/L | | | 02/27/24 22:22 | 1 |
| Total Suspended Solids (SM 2540D) | 46.7 | | 6.67 | 6.67 | mg/L | | | 02/29/24 19:57 | 1 |
| Chlorine, Total Residual (SM 4500 Cl G) | <0.250 | U HF | 0.250 | 0.250 | mg/L | | | 02/29/24 14:48 | 5 |
| Carbonaceous Biochemical Oxygen Demand (SM5210B CBOD) | 22.3 | | 12.0 | 12.0 | mg/L | | 02/23/24 10:00 | 02/23/24 15:03 | 1 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 860-147820/164**
**Matrix: Water**
**Analysis Batch: 147820**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | <0.0508 | U | 0.100 | 0.0508 | mg/L | | | 02/29/24 18:10 | 1 |

**Lab Sample ID: MB 860-147820/56**
**Matrix: Water**
**Analysis Batch: 147820**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | <0.0508 | U | 0.100 | 0.0508 | mg/L | | | 02/29/24 13:04 | 1 |

**Lab Sample ID: LCS 860-147820/165**
**Matrix: Water**
**Analysis Batch: 147820**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.085 | | mg/L | | 108 | 90 - 110 | | |

**Lab Sample ID: LCS 860-147820/57**
**Matrix: Water**
**Analysis Batch: 147820**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.9831 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 860-147820/166**
**Matrix: Water**
**Analysis Batch: 147820**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.085 | | mg/L | | 108 | 90 - 110 | 0 | 20 |

**Lab Sample ID: LCSD 860-147820/58**
**Matrix: Water**
**Analysis Batch: 147820**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.015 | | mg/L | | 102 | 90 - 110 | 3 | 20 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 860-147764/32-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | <0.0890 | U | 0.200 | 0.0890 | mg/L | | 03/01/24 09:29 | 03/06/24 18:42 | 1 |

## Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

**Lab Sample ID: MB 860-147764/4-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | <0.0890 | U | 0.200 | 0.0890 | mg/L | | 03/01/24 09:29 | 03/06/24 18:29 | 1 |

**Lab Sample ID: LCS 860-147764/33-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 2.00 | 1.992 | | mg/L | | 100 | 90 - 110 |

**Lab Sample ID: LCSD 860-147764/34-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 2.00 | 1.967 | | mg/L | | 98 | 90 - 110 | 1 | 20 |

**Lab Sample ID: LLCS 860-147764/5-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 0.200 | 0.2498 | | mg/L | | 125 | 50 - 150 |

## Method: 365.1 - Phosphorus, Total

**Lab Sample ID: MB 860-148079/93**
**Matrix: Water**
**Analysis Batch: 148079**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus Total | <0.0143 | U | 0.0200 | 0.0143 | mg/L | | | 03/01/24 19:21 | 1 |

**Lab Sample ID: LCS 860-148079/94**
**Matrix: Water**
**Analysis Batch: 148079**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Phosphorus Total | 0.250 | 0.2440 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 860-148079/95**
**Matrix: Water**
**Analysis Batch: 148079**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus Total | 0.250 | 0.2450 | | mg/L | | 98 | 90 - 110 | 0 | 20 |

## Method: SM 2510B - Conductivity, Specific Conductance

**Lab Sample ID: MB 860-147894/82**
**Matrix: Water**
**Analysis Batch: 147894**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Specific Conductance | <10.0 | U | 10.0 | 10.0 | umho/cm @ 25C | | | 03/01/24 17:11 | 1 |

**Lab Sample ID: LCS 860-147894/39**
**Matrix: Water**
**Analysis Batch: 147894**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Specific Conductance | 1410 | 1412 | | umho/cm @ 25C | | 100 | 85 - 115 |

**Lab Sample ID: LCSD 860-147894/40**
**Matrix: Water**
**Analysis Batch: 147894**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Specific Conductance | 1410 | 1412 | | umho/cm @ 25C | | 100 | 85 - 115 | 0 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 860-147301/1**
**Matrix: Water**
**Analysis Batch: 147301**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | <5.00 | U | 5.00 | 5.00 | mg/L | | | 02/27/24 22:22 | 1 |

**Lab Sample ID: LCS 860-147301/2**
**Matrix: Water**
**Analysis Batch: 147301**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | 1110 | | mg/L | | 111 | 80 - 120 |

**Lab Sample ID: LCSD 860-147301/3**
**Matrix: Water**
**Analysis Batch: 147301**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | 1111 | | mg/L | | 111 | 80 - 120 | 0 | 10 |

**Lab Sample ID: LLCS 860-147301/4**
**Matrix: Water**
**Analysis Batch: 147301**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.00 | 6.000 | | mg/L | | 120 | 50 - 150 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-147706/1**
**Matrix: Water**
**Analysis Batch: 147706**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 02/29/24 19:57 | 1 |

**Lab Sample ID: LCS 860-147706/2**
**Matrix: Water**
**Analysis Batch: 147706**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 10.0 | 11.30 | | mg/L | | 113 | 80 - 120 |

**Lab Sample ID: LCSD 860-147706/3**
**Matrix: Water**
**Analysis Batch: 147706**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 10.0 | 11.30 | | mg/L | | 113 | 80 - 120 | 0 | 10 |

## Method: SM 4500 Cl G - Chlorine, Residual

**Lab Sample ID: MB 860-147656/3**
**Matrix: Water**
**Analysis Batch: 147656**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | <0.0500 | U | 0.0500 | 0.0500 | mg/L | | | 02/29/24 14:48 | 1 |

**Lab Sample ID: LCS 860-147656/4**
**Matrix: Water**
**Analysis Batch: 147656**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | 0.250 | 0.2699 | | mg/L | | 108 | 85 - 115 |

**Lab Sample ID: LCSD 860-147656/5**
**Matrix: Water**
**Analysis Batch: 147656**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | 0.250 | 0.2572 | | mg/L | | 103 | 85 - 115 | 5 | 20 |

## Method: SM5210B CBOD - Carbonaceous BOD, 5 Day

**Lab Sample ID: SCB 860-147369/2**
**Matrix: Water**
**Analysis Batch: 147369**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | 0.7770 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 02/23/24 11:00 | 1 |

## Method: SM5210B CBOD - Carbonaceous BOD, 5 Day (Continued)

**Lab Sample ID: USB 860-147369/1**
**Matrix: Water**
**Analysis Batch: 147369**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | 0.09000 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 02/23/24 10:52 | 1 |

**Lab Sample ID: LCS 860-147369/3**
**Matrix: Water**
**Analysis Batch: 147369**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | | | 198 | 203.2 | | mg/L | | 103 | 85 - 115 | | |

## General Chemistry

### Prep Batch: 146675

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 147301

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2540C | |
| MB 860-147301/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 860-147301/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 860-147301/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| LLCS 860-147301/4 | Lab Control Sample | Total/NA | Water | SM 2540C | |

### Analysis Batch: 147369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM5210B CBOD | 146675 |
| SCB 860-147369/2 | Method Blank | Total/NA | Water | SM5210B CBOD | |
| USB 860-147369/1 | Method Blank | Total/NA | Water | SM5210B CBOD | |
| LCS 860-147369/3 | Lab Control Sample | Total/NA | Water | SM5210B CBOD | |

### Analysis Batch: 147656

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 4500 Cl G | |
| MB 860-147656/3 | Method Blank | Total/NA | Water | SM 4500 Cl G | |
| LCS 860-147656/4 | Lab Control Sample | Total/NA | Water | SM 4500 Cl G | |
| LCSD 860-147656/5 | Lab Control Sample Dup | Total/NA | Water | SM 4500 Cl G | |

### Analysis Batch: 147706

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-147706/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-147706/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-147706/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Prep Batch: 147764

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 351.2 | |
| MB 860-147764/32-A | Method Blank | Total/NA | Water | 351.2 | |
| MB 860-147764/4-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 860-147764/33-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| LCSD 860-147764/34-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | |
| LLCS 860-147764/5-A | Lab Control Sample | Total/NA | Water | 351.2 | |

### Analysis Batch: 147820

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 350.1 | |
| MB 860-147820/164 | Method Blank | Total/NA | Water | 350.1 | |
| MB 860-147820/56 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 860-147820/165 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 860-147820/57 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 860-147820/166 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| LCSD 860-147820/58 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## General Chemistry

### Analysis Batch: 147885

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 9040C | |

### Analysis Batch: 147894

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2510B | |
| MB 860-147894/82 | Method Blank | Total/NA | Water | SM 2510B | |
| LCS 860-147894/39 | Lab Control Sample | Total/NA | Water | SM 2510B | |
| LCSD 860-147894/40 | Lab Control Sample Dup | Total/NA | Water | SM 2510B | |

### Analysis Batch: 148079

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 365.1 | |
| MB 860-148079/93 | Method Blank | Total/NA | Water | 365.1 | |
| LCS 860-148079/94 | Lab Control Sample | Total/NA | Water | 365.1 | |
| LCSD 860-148079/95 | Lab Control Sample Dup | Total/NA | Water | 365.1 | |

### Analysis Batch: 150055

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 351.2 | 147764 |
| MB 860-147764/32-A | Method Blank | Total/NA | Water | 351.2 | 147764 |
| MB 860-147764/4-A | Method Blank | Total/NA | Water | 351.2 | 147764 |
| LCS 860-147764/33-A | Lab Control Sample | Total/NA | Water | 351.2 | 147764 |
| LCSD 860-147764/34-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | 147764 |
| LLCS 860-147764/5-A | Lab Control Sample | Total/NA | Water | 351.2 | 147764 |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Client Sample ID: C Lagoon

**Date Collected: 02/22/24 08:51**
**Date Received: 02/22/24 10:03**

## Lab Sample ID: 820-12174-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 350.1 | | 10 | 10 mL | 10 mL | 147820 | 02/29/24 19:35 | ADL | EET HOU |
| Total/NA | Prep | 351.2 | | | 2 mL | 20 mL | 147764 | 03/01/24 09:29 | LD | EET HOU |
| Total/NA | Analysis | 351.2 | | 10 | | | 150055 | 03/06/24 19:23 | LD | EET HOU |
| Total/NA | Analysis | 365.1 | | 10 | 10 mL | 10 mL | 148079 | 03/01/24 19:51 | HN | EET HOU |
| Total/NA | Analysis | 9040C | | 1 | | | 147885 | 03/01/24 17:40 | SC | EET HOU |
| Total/NA | Analysis | SM 2510B | | 1 | | | 147894 | 03/01/24 17:40 | SC | EET HOU |
| Total/NA | Analysis | SM 2540C | | 1 | 50 mL | 200 mL | 147301 | 02/27/24 22:22 | FN | EET HOU |
| Total/NA | Analysis | SM 2540D | | 1 | 600 mL | 1000 mL | 147706 | 02/29/24 19:57 | FN | EET HOU |
| Total/NA | Analysis | SM 4500 Cl G | | 5 | 10 mL | 10 mL | 147656 | 02/29/24 14:48 | SCI | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 146675 | 02/23/24 10:00 | HN | EET HOU |
| Total/NA | Analysis | SM5210B CBOD | | 1 | 50 mL | 300 mL | 147369 | 02/23/24 15:03 | HN | EET HOU |

**Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Laboratory: Eurofins Albuquerque

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0682 | 10-20-24 |
| New Mexico | State | NM9425, NM0901 | 02-26-25 |
| Oregon | NELAP | NM100001 | 02-26-25 |
| Texas | NELAP | T104704424-23-16 | 05-31-24 |

## Laboratory: Eurofins Houston

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

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

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 9040C | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 350.1 | Nitrogen, Ammonia | EPA | EET HOU |
| 351.2 | Nitrogen, Total Kjeldahl | EPA | EET HOU |
| 365.1 | Phosphorus, Total | EPA | EET HOU |
| 9040C | pH | SW846 | EET HOU |
| SM 2510B | Conductivity, Specific Conductance | SM | EET HOU |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET HOU |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 Cl G | Chlorine, Residual | SM | EET HOU |
| SM5210B CBOD | Carbonaceous BOD, 5 Day | SM | EET HOU |
| 300.0 | EPA 300.0 | EPA | EET ALB |
| 351.2 | Nitrogen, Total Kjeldahl | EPA | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

EPA = US Environmental Protection Agency

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

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

**Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Water | 02/22/24 08:51 | 02/22/24 10:03 |

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*Eurofins Environment Testing South Central, LLC*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

March 01, 2024

Holly Taylor

Eurofins Lubbock
6701 Aberdeen Ave Suite 8
Lubbuck, TX 79424
TEL: (806) 794-1296
FAX

RE: Permint Renewal 820 12174 1 OrderNo.: 2402B49

Dear Holly Taylor:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 2/23/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2402B49**
Date Reported: **3/1/2024**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Eurofins Lubbock
**Project:** Permint Renewal 820 12174 1
**Lab ID:** 2402B49-001 **Matrix:** AQUEOUS

**Client Sample ID:** C Lagoon (820-12174-1)
**Collection Date:** 2/22/2024 7:51:00 AM
**Received Date:** 2/23/2024 8:34:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **RBC** |
| Chloride | 430 | 50 | * | mg/L | 100 | 2/23/2024 1:26:05 PM |
| Nitrogen, Nitrate (As N) | ND | 1.0 | | mg/L | 10 | 2/23/2024 12:21:25 PM |
| Sulfate | 150 | 5.0 | | mg/L | 10 | 2/23/2024 12:21:25 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Above Quantitation Range/Estimated Value |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit | RL | Reporting Limit |
| S | % Recovery outside of standard limits. If undiluted results may be estimated. | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2402B49**

***01-Mar-24***

**Client:** Eurofins Lubbock

**Project:** Permint Renewal 820 12174 1

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R103315** RunNo: **103315**

Prep Date: Analysis Date: **2/23/2024** SeqNo: **3821262** Units: **mg/L**

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.50 | | | | | | | | |
| Nitrogen, Nitrate (As N) | ND | 0.10 | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | |

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R103315** RunNo: **103315**

Prep Date: Analysis Date: **2/23/2024** SeqNo: **3821263** Units: **mg/L**

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.9 | 0.50 | 5.000 | 0 | 98.7 | 90 | 110 | | | |
| Nitrogen, Nitrate (As N) | 2.6 | 0.10 | 2.500 | 0 | 104 | 90 | 110 | | | |
| Sulfate | 9.9 | 0.50 | 10.00 | 0 | 99.0 | 90 | 110 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Above Quantitation Range/Estimated Value |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit | RL | Reporting Limit |
| S | % Recovery outside of standard limits. If undiluted results may be estimated. | | |

eurofins | Environment Testing

*Eurofins Environment Testing South Central, LLC*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

# Sample Log-In Check List

Client Name: **Eurofins Lubbock** Work Order Number: **2402B49** RcptNo: 1

Received By: **Cheyenne Cason** **2/23/2024 8:34:00 AM**

Completed By: **Cheyenne Cason** **2/23/2024 9:17:20 AM**

Reviewed By: 2/23/24

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Is Chain of Custody complete? | Yes ☑ | No ☐ | Not Present ☐ |
| 2. How was the sample delivered? | FedEx | | |

## Log In

| | | | |
|---|---|---|---|
| 3. Was an attempt made to cool the samples? | Yes ☑ | No ☐ | NA ☐ |
| 4. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☑ | No ☐ | NA ☐ |
| 5. Sample(s) in proper container(s)? | Yes ☑ | No ☐ | |
| 6. Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 7. Are samples (except VOA and ONG) properly preserved? | Yes ☑ | No ☐ | |
| 8. Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 9. Received at least 1 vial with headspace <1/4" for AQ VOA? | Yes ☐ | No ☐ | NA ☑ |
| 10. Were any sample containers received broken? | Yes ☐ | No ☑ | |
| 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ☑ | No ☐ | |
| 12. Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 13. Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 14. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ☑ | No ☐ | |

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: M 2/23/24

## Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 0.6 | Good | Yes | Morty | | |

Page 1 of 1

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor, Holly | Carrier Tracking No(s): | COC No: 820-8964.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP - Texas | | Job #: 820-12174-1 |
| Address: 4901 Hawkins NE, , | Due Date Requested: 2/29/2024 | | | |
| City: Albuquerque | TAT Requested (days): | | | |
| State, Zip: NM, 87109 | | | | |
| Phone: 505-345-3975(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

2402B49

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (Nitrate, Chloride, Sulfate)/ Nitrate, Chloride, Sulfate | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | 1 | OC1 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Empty Kit Relinquished by: | | Date: | | Time: | | Method of Shipment: | |
| Relinquished by: | | Date/Time: 2/22/24 1700 | Company | Received by: | | Date/Time: 2/23/24 0834 | Company |
| Relinquished by: | | Date/Time: | Company | Received by: | | Date/Time: | Company |
| Relinquished by: | | Date/Time: | Company | Received by: | | Date/Time: | Company |
| Custody Seals Intact: △ Yes △ No | Custody Seal No.: | | | Cooler Temperature(s) °C and Other Remarks: 0.5 ± 0.1 = 0.6 mark | | | |

Ver: 06/08/2021



3/18/2024

Loc: 820
12174

fins | Environment Testing

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199
Little Rock, AR (501) 224-5060

820-12174 Chain of Custody

Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Talokla | Company Name: | Same |
| Address: | 807 Main Box 310 | Address: | |
| City, State ZIP: | Talokla Tx 77373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | RVega@talokla.org (Windstream .net) |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.4 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 9.5 | |
| Total Containers: | 6 | Corrected Temperature: | 9.1 | |

**Preservative Codes**

None: NO — DI Water: $H_2O$
Cool: Cool — MeOH: Me
HCL: HC — $HNO_3$
$H_2SO_4$: $H_2$ — NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: CBOD, mg/l | TSS mg/l | Nitrate Nitrogen | Total Kjeldahl Nitrogen | Sulfate mg/l | Chloride mg/l | Total Phosphorus, mg/l | pH | Chlorine residual mg/l | Total dissolved solids | Electrical conductivity umoho/cm, µ | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C Lagoon | | 2/22/24 | 8:57 | | | 6 | | | | | | | | | | | | | |

**Analysis Request**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed — TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U — Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $65.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 2/22/24 10:03 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8966.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-12174-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 2/29/2024 | | | Preservation Codes: |
| City: Stafford | TAT Requested (days): | | | A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other: |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

Analysis Requested

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_CBODCal/BOD_Prep CBOD | 2540D | 350.1/ Ammonia | 351.2/351.2_Prep Total Kjeldahl Nitrogen (TKN) | 365.1_NP | 9040C/ (MOD) Local Method | 4500_CL_G | 2540C_Calcd | 2510B/ Specific Conductance | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | | | | | | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | X | X | X | X | X | X | X | X | | | | | 6 | |
| | | | | | | | | | | | | | | | | | | | | | Hcv369<br>3.0<br>3.0 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| CS | 2/22/24 1700 | | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | GB | 2/23/24 9:20 | E |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8966-1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-12174-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 2/29/2024 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

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

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_CBODCal/BOD_Prep CBOD | 2540D | 350.1/ Ammonia | 351.2/351.2_Prep Total Kjeldahl Nitrogen (TKN) | 365.1_NP | 9040C/ (MOD) Local Method | 4500_CL_G | 2540C_Calcd | 2510B/ Specific Conductance | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | | | | | | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | X | X | X | X | X | X | X | X | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | Hen369 30 3.0 |
| | | | | | | | | | | | | | | | | | | | | | |
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Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: CT | Date/Time: 2/22/24 1700 | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: GB | Date/Time: 2/23/24 9:20 | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-12174-1

**Login Number: 12174**
**List Number: 1**
**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-12174-1

**Login Number: 12174**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 02/23/24 10:57 AM**

| 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 | |

# ATTACHMENT S

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Influent BOD Laboratory Results & Chain of Custody

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 5/26/2024 9:59:04 AM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-13311-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



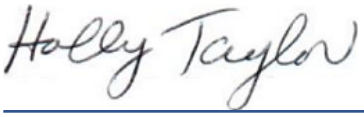
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## Job Notes

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
5/26/2024 9:59:04 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

**Job Narrative**
**820-13311-1**

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 5/15/2024 10:12 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 17.0°C.

**General Chemistry**
Method 2540D: Insufficient sample volume was available to perform a sample duplicate (DUP) associated with analytical batch 860-161134.

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

## Client Sample ID: C Lagoon

**Lab Sample ID: 820-13311-1**

**Date Collected: 05/15/24 09:20**

**Matrix: Water**

**Date Received: 05/15/24 10:12**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 71.7 | | 13.3 | 13.3 | mg/L | | | 05/20/24 08:46 | 1 |
| pH (SM 4500 H+ B) | 7.6 | HF | | | SU | | | 05/23/24 01:00 | 1 |
| Temperature (SM 4500 H+ B) | 20.8 | HF | | | Degrees C | | | 05/23/24 01:00 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 80.1 | | 30.0 | 30.0 | mg/L | | 05/16/24 14:41 | 05/16/24 16:14 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-161134/1**
**Matrix: Water**
**Analysis Batch: 161134**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 05/20/24 08:46 | 1 |

**Lab Sample ID: LCS 860-161134/2**
**Matrix: Water**
**Analysis Batch: 161134**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 106.0 | | mg/L | | 106 | 80 - 120 |

**Lab Sample ID: LCSD 860-161134/3**
**Matrix: Water**
**Analysis Batch: 161134**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 107.0 | | mg/L | | 107 | 80 - 120 | 1 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-161462/2**
**Matrix: Water**
**Analysis Batch: 161462**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.7800 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 05/16/24 14:46 | 1 |

**Lab Sample ID: USB 860-161462/1**
**Matrix: Water**
**Analysis Batch: 161462**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 05/16/24 14:44 | 1 |

**Lab Sample ID: LCS 860-161462/3**
**Matrix: Water**
**Analysis Batch: 161462**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 182.7 | | mg/L | | 92 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

## General Chemistry

### Prep Batch: 160667

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-13311-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 161134

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-13311-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-161134/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-161134/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-161134/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 161462

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-13311-1 | C Lagoon | Total/NA | Water | SM 5210B | 160667 |
| SCB 860-161462/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-161462/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-161462/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 161983

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-13311-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-13311-1
Project/Site: C Lagoon

## Client Sample ID: C Lagoon
**Lab Sample ID: 820-13311-1**

**Date Collected: 05/15/24 09:20**
**Matrix: Water**

**Date Received: 05/15/24 10:12**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 300 mL | 1000 mL | 161134 | 05/20/24 08:46 | FN | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 161983 | 05/23/24 01:00 | RY | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 160667 | 05/16/24 14:41 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 20 mL | 300 mL | 161462 | 05/16/24 16:14 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

## Laboratory: Eurofins Houston

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

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

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-13311-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-13311-1 | C Lagoon | Water | 05/15/24 09:20 | 05/15/24 10:12 |

Loc: 820
13311

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-13311 Chain of Custody

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | Same |
| Address: | 1807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.4 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 17.4 |
| Total Containers: | 2 | Corrected Temperature: | 17.0 |

**ANALYSIS REQUEST**

Pres. Code | Parameters: BOD, PH, TSS

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | BOD | PH | TSS |
|---|---|---|---|---|---|---|---|---|---|
| C. Lugsoan | | 5/15/24 | 09:00 | | | 2 | ✓ | ✓ | ✓ |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2


5/26/2024

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-13311-1

**Login Number: 13311**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-13311-1

**Login Number: 13311**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 05/16/24 11:59 AM**

| 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 | |

March 22, 2024

Texas Commission on Environmental Quality
**Water Quality Division**
PO Box 13087 **MC-148**
Austin, TX 78711-3087

Via Priority Mail

Re: City of Tahoka, Texas
Permit No. WQ0010298002
Application to Renew Existing Permit

Dear Reviewer,

This office has been contracted by the City of Tahoka to prepare and submit the requisite Administrative and Technical Reports required for renewal of the existing permit with surface disposal by irrigation.

The current permit expired at midnight, March 1, 2024. This office and city officials are hopeful that the application submittal will be accepted without a termination of the existing permit. It is understood that upon official termination, all subsequent re-permitting efforts are required to be completed as if the permit were a 'new' application.

Please note the following exceptions and clarifications offered below for a variety of items.

(1) Technical Report, Section 8, Soil Map and Soil Analysis

For evaluation of the requested soil permeability using NRCS Soil Survey Map data, a depth range from 0-18 inches was selected.

(2) Technical Report, Section 9, Effluent Monitoring Data

In preparation for the previous twenty-four (24) months of effluent flow data and BOD/TSS/pH test results, the City of Tahoka was only able to provide the latest eighteen (18) months of the requested daily flow data due to employee turnover and subsequent loss of records. As a result, Civil 360 was only able to provide 30-day flow averages between the months of July 2022 and December 2023.

Although 208.09 acres are available for irrigation per the record drawings, this total area is only achievable with the relocation of a large center pivot. Since the city has not made this modification over the last ten (10) years, this office has only provided 129.75 acres of land utilized for surface application within Table 3.0(5). Based on the largest monthly average of 214,000 gallons (August 2023), this equates to 1.81 acre-ft/year/acre irrigated. The permit allows a maximum of 1.93 acre-ft/year/acre.

If you need any additional information to aid in your review of this renewal, please contact our office.

Sincerely,

**Civil 360, PLLC**
TX Registered Engineering Firm No. 15119



Mathew Hopper, P.E.
mhopper@civil-360.net

cc: file

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

**Complete and submit this checklist with the application.**

APPLICANT: City of Tahoka

PERMIT NUMBER: WQ0010298002

**Indicate if each of the following items is included in your application.**

| | Y | N | | Y | N |
|---|---|---|---|---|---|
| Administrative Report 1.0 | ☒ | ☐ | Original USGS Map | ☒ | ☐ |
| Administrative Report 1.1 | ☐ | ☒ | Affected Landowners Map | ☐ | ☒ |
| SPIF | ☐ | ☒ | Landowner Disk or Labels | ☐ | ☒ |
| Core Data Form | ☐ | ☒ | Buffer Zone Map | ☐ | ☒ |
| Public Involvement Plan Form | ☐ | ☒ | Flow Diagram | ☒ | ☐ |
| Technical Report 1.0 | ☒ | ☐ | Site Drawing | ☒ | ☐ |
| Technical Report 1.1 | ☐ | ☒ | Original Photographs | ☐ | ☒ |
| Worksheet 2.0 | ☐ | ☒ | Design Calculations | ☐ | ☒ |
| Worksheet 2.1 | ☐ | ☒ | Solids Management Plan | ☐ | ☒ |
| Worksheet 3.0 | ☒ | ☐ | Water Balance | ☐ | ☒ |
| Worksheet 3.1 | ☐ | ☒ | | | |
| Worksheet 3.2 | ☐ | ☒ | | | |
| Worksheet 3.3 | ☐ | ☒ | | | |
| Worksheet 4.0 | ☐ | ☒ | | | |
| Worksheet 5.0 | ☐ | ☒ | | | |
| Worksheet 6.0 | ☒ | ☐ | | | |
| Worksheet 7.0 | ☐ | ☒ | | | |

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

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

## Section 1. Application Fees (Instructions Page 29)

**Indicate the amount submitted for the application fee (check only one).**

| Flow | New/Major Amendment | Renewal |
|---|---|---|
| <0.05 MGD | $350.00 ☐ | $315.00 ☐ |
| ≥0.05 but <0.10 MGD | $550.00 ☐ | $515.00 ☐ |
| ≥0.10 but <0.25 MGD | $850.00 ☐ | $815.00 ☐ |
| ≥0.25 but <0.50 MGD | $1,250.00 ☐ | $1,215.00 ☒ |
| ≥0.50 but <1.0 MGD | $1,650.00 ☐ | $1,615.00 ☐ |
| ≥1.0 MGD | $2,050.00 ☐ | $2,015.00 ☐ |

Minor Amendment (for any flow) $150.00 ☐

**Payment Information:**

Mailed — Check/Money Order Number: Check# 9700

Check/Money Order Amount: $1,215.00

Name Printed on Check: TCEQ

EPAY — Voucher Number:

Copy of Payment Voucher enclosed? Yes ☐

## Section 2. Type of Application (Instructions Page 29)

☐ New TPDES
☐ New TLAP
☐ Major Amendment *with* Renewal
☐ Minor Amendment *with* Renewal
☐ Major Amendment *without* Renewal
☐ Minor Amendment *without* Renewal
☒ Renewal without changes
☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes:

**For existing permits:**

Permit Number: WQ0010298002

EPA I.D. (TPDES only): TX

Expiration Date: March 1, 2024

## Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

**A. The owner of the facility must apply for the permit.**

What is the Legal Name of the entity (applicant) applying for this permit?

City of Tahoka

*(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)*

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at http://www15.tceq.texas.gov/crpub/

CN: 601097934

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

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

First and Last Name: Ronny Jolly

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: Mayor

**B. Co-applicant information.** Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

Click here to enter text

*(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)*

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: http://www15.tceq.texas.gov/crpub/

CN: Click here to enter text

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): Click here to enter text

First and Last Name: Click here to enter text

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: Click here to enter text

Provide a brief description of the need for a co-permittee: Click here to enter text

**C. Core Data Form**

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

**Attachment:** Click here to enter text

## Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

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

First and Last Name: Matt Hopper

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Consultant

Organization Name: Civil 360, PLLC

Mailing Address: 8553 N. Beach Street, Suite 186

City, State, Zip Code: Keller, TX 76244

Phone No.: (214) 773-2966 Ext.: Click here to enter text Fax No.: n/a

E-mail Address: mhopper@civil-360.net

Check one or both: ☐ Administrative Contact ☒ Technical Contact

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: City Administrator

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text Fax No.: (806) 561-4444

E-mail Address: dstephens@tahoka.org

Check one or both: ☒ Administrative Contact ☐ Technical Contact

## Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

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

First and Last Name: Matt Hopper

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Consultant

Organization Name: Civil 360, PLLC

Mailing Address: 8553 N. Beach Street, Suite 186

City, State, Zip Code: Keller, TX 76244

Phone No.: (214) 773-2966 Ext.: Click here to enter text. Fax No.: n/a

E-mail Address: mhopper@civil-360.net

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

First and Last Name: Ronny Jolly

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Mayor

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: rjolly@tahoka.org

## Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits ***in effect on September 1 of each year***. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Administrator

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: dstephens@tahoka.org

## Section 7. DMR/MER Contact Information (Instructions Page 31)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (EPA 3320-1) or maintain Monthly Effluent Reports.

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

First and Last Name: Raymond Vega

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Public Works Director

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 759-1222 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: rvega@tahoka.org

DMR data is required to be submitted electronically. Create an account at: https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

## Section 8. Public Notice Information (Instructions Page 31)

**A. Individual Publishing the Notices**

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

First and Last Name: Nacona Martinez

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Secretary

Organization Name: City of Tahoka

Mailing Address: PO Box 300

City, State, Zip Code: Tahoka, TX 79373

Phone No.: (806) 561-4211 Ext.: Click here to enter text. Fax No.: (806) 561-4444

E-mail Address: nmartinez@tahoka.org

**B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package**

Indicate by a check mark the preferred method for receiving the first notice and instructions:

☒ E-mail Address

☐ Fax

☐ Regular Mail

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

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

First and Last Name: Derek Stephens

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: City Administrator

Organization Name: City of Tahoka

Phone No.: (806) 561-4211 Ext.: Click here to enter text.

E-mail: dstephens@tahoka.org

**D. Public Viewing Information**

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

Public building name: Tahoka City Hall

Location within the building: Office of the City Secretary

Physical Address of Building: 1807 N. Main Street

City: Tahoka County: Lynn

Contact Name: Nacona Martinez

Phone No.: (806) 561-4211 Ext.: Click here to enter text.

**E. Bilingual Notice Requirements:**

This information **is required** for **new, major amendment, minor amendment or minor modification, and renewal applications**.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

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

   ☐ Yes ☒ No

   If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

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 question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Click here to enter text.

**F. Public Involvement Plan Form**

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

**Attachment:** Click here to enter text.

## Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

**A.** If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**103138079

Search the TCEQ's Central Registry at http://www15.tceq.texas.gov/crpub/ to determine if the site is currently regulated by TCEQ.

**B.** Name of project or site (the name known by the community where located):

City of Tahoka Wastewater Treatment Plant

**C.** Owner of treatment facility: City of Tahoka

Ownership of Facility: ☒ Public ☐ Private ☐ Both ☐ Federal

**D.** Owner of land where treatment facility is or will be:

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: City of Tahoka

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment:** Click here to enter text.

**E.** Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: City of Tahoka

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment**: Click here to enter text.

**F.** Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

**Attachment**: Click here to enter text.

## Section 10. TPDES Discharge Information (Instructions Page 34)

**A.** Is the wastewater treatment facility location in the existing permit accurate?

☐ Yes ☐ No

If **no**, **or a new permit application**, please give an accurate description:

Not applicable for this site

**B.** Are the point(s) of discharge and the discharge route(s) in the existing permit correct?

☐ Yes ☐ No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in 30 TAC Chapter 307:

Not applicable for this site

City nearest the outfall(s): Click here to enter text.

County in which the outfalls(s) is/are located: Click here to enter text.

Outfall Latitude: Click here to enter text. Longitude: Click here to enter text.

**C.** Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☐ No

If **yes**, indicate by a check mark if:

☐ Authorization granted ☐ Authorization pending

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

**Attachment:** Click here to enter text.

**D.** For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

Not applicable for this site

## Section 11. TLAP Disposal Information (Instructions Page 36)

**A.** For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☒ Yes ☐ No

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

Click here to enter text.

**B.** City nearest the disposal site: City of Tahoka, TX

**C.** County in which the disposal site is located: Lynn

**D.** Disposal Site Latitude: 33.136819 Longitude: 101.795119

**E.** For **TLAPs**, describe the routing of effluent from the treatment facility to the disposal site:

The effluent is contained in the holding pond prior to irrigation. The effluent is pumped to a center pivot for surface irrigation on non-public accessible grassland

**F.** For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

Double Mountain Fork Brazos River

## Section 12. Miscellaneous Information (Instructions Page 37)

**A.** Is the facility located on or does the treated effluent cross American Indian Land?

☐ Yes ☒ No

**B.** If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No ☒ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit application, provide an accurate location description of the sewage sludge disposal site.

Click here to enter text

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

☐ Yes ☒ No

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:

Click here to enter text

**D.** Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If **yes**, provide the following information:

Account number: Click here to enter text Amount past due: Click here to enter text

**E.** Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If **yes**, please provide the following information:

Enforcement order number: Click here to enter text Amount past due: Click here to enter text

## Section 13. Attachments (Instructions Page 38)

Indicate which attachments are included with the Administrative Report. Check all that apply:

☐ Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.

☒ Original full-size USGS Topographic Map with the following information:

- Applicant's property boundary

- Treatment facility boundary
- Labeled point of discharge for each discharge point (TPDES only)
- Highlighted discharge route for each discharge point (TPDES only)
- Onsite sewage sludge disposal site (if applicable)
- Effluent disposal site boundaries (TLAP only)
- New and future construction (if applicable)
- 1 mile radius information
- 3 miles downstream information (TPDES only)
- All ponds.

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: See Attachment A for USGS Map

## Section 14. Signature Page (Instructions Page 39)

***If co-applicants are necessary, each entity must submit an original, separate signature page.***

Permit Number: WQ0010298002

Applicant: City of Tahoka, Texas

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the 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 and imprisonment for knowing violations.

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 (typed or printed): Ronny Jolly

Signatory title: Mayor

Signature: Ronny a. Jolly Date: 3-20-24

(Use blue ink)

Subscribed and Sworn to before me by the said Mayor

on this 20 day of March, 20 24.

My commission expires on the 16 day of May, 20 25.

Naoma Martinez

Notary Public

NACONA MARTINEZ
NOTARY PUBLIC
STATE OF TEXAS
ID # 13439883-7
My Comm. Expires 06-08-2027

Lynn

County, Texas

## Section 14. Signature Page (Instructions Page 39)

***If co-applicants are necessary, each entity must submit an original, separate signature page.***

Permit Number: WQ0010298002

Applicant: City of Tahoka, Texas

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the 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 and imprisonment for knowing violations.

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 (typed or printed): Ronny Jolly

Signatory title: Mayor

Signature:_____ Date:_____

(Use blue ink)

Subscribed and Sworn to before me by the said_____

on this_____ day of_____, 20_____.

My commission expires on the_____ day of_____, 20_____.

_____

Notary Public *[SEAL]*

_____

County, Texas

# Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

**ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS**

**DOMESTIC WASTEWATER**

*The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.*

1. Enter applicant's name here. (2. Enter Customer Number here (i.e., CN6########). ) 3. Choose from the drop-down menu. 4. Enter name of facility here. 5. Enter Regulated Entity Number here (i.e., RN1########). 6. Choose from the drop-down menu. 7. Enter facility description here.. The facility 8. Choose from the drop-down menu. located 9. Enter location here. , in 10. Enter city name here., 11. Enter county name here. County, Texas 12. Enter zip code here..

13. Enter summary of application request here. *<<For TLAP applications include the following sentence, otherwise delete:>>* This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain14. List all expected pollutants here..15. Enter types of wastewater discharged here. 16. Choose from the drop-down menu. treated by 17. Enter a description of wastewater treatment used at the facility here..

**PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS TPDES o TLAP**

**AGUAS RESIDUALES DOMÉSTICAS**

*El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales exigibles de la solicitud de permiso.*

1. Introduzca el nombre del solicitante aquí. (2. Introduzca el número de cliente aquí (es decir, CN6 #########). ) 3. Elija del menú desplegable. 4. Introduzca el nombre de la instalación aquí. 5. Introduzca el número de entidad regulada aquí (es decir, RN1 #########). 6. Elija del menú desplegable. 7. Introduzca la descripción de la instalación aquí. . La instalación 8. Elija del menú desplegable. ubicado 9. Introduzca la ubicación aquí. , en 10. Introduzca el nombre de la ciudad aquí. , Condado de 11. Introduzca el nombre del condado aquí. , Texas 12. Introduzca el código postal aquí. . 13. Introduzca el resumen de la solicitud de solicitud aquí. *<<Para las aplicaciones de TLAP incluya la siguiente oración, de lo contrario, elimine:>>* Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan14. Liste todos los contaminantes esperados aquí. . 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable. tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

# DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

## Section 1. Affected Landowner Information (Instructions Page 41)

**A.** Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable:

- ☐ The applicant's property boundaries
- ☐ The facility site boundaries within the applicant's property boundaries
- ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone
- ☐ The property boundaries of all landowners surrounding the applicant's property (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
- ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream
- ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge
- ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides
- ☐ The boundaries of the effluent disposal site (for example, irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property
- ☐ The property boundaries of all landowners surrounding the effluent disposal site
- ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners surrounding the applicant's property boundaries where the sewage sludge land application site is located
- ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (for example, sludge surface disposal site or sludge monofill) is located

**B.** ☐ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

**C.** Indicate by a check mark in which format the landowners list is submitted:

☐ USB Drive ☐ Four sets of labels

**D.** Provide the source of the landowners' names and mailing addresses: Click here to enter text

**E.** As required by *Texas Water Code § 5.115*, is any permanent school fund land affected by this application?

☐ Yes ☐ No

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

Click here to enter text.

## Section 2. Original Photographs (Instructions Page 44)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided.

☐ At least one original photograph of the new or expanded treatment unit location

☐ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☐ At least one photograph of the existing/proposed effluent disposal site

☐ A plot plan or map showing the location and direction of each photograph

## Section 3. Buffer Zone Map (Instructions Page 44)

**A.** Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

**B.** Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

☐ Ownership

☐ Restrictive easement

☐ Nuisance odor control

☐ Variance

**C.** Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☐ Yes ☐ No

# TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

# SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

## FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

**TCEQ USE ONLY:**

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

**This form applies to TPDES permit applications only.** (Instructions, Page 53)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

**Do not refer to a response of any item in the permit application form**. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: Click here to enter text

   Permit No. WQ00 Click here to enter text EPA ID No. TX Click here to enter text

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   Click here to enter text

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Click here to enter text.

First and Last Name: Click here to enter text.

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, Zip Code: Click here to enter text.

Phone No.: Click here to enter text. Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: Click here to enter text.

2. List the county in which the facility is located: Click here to enter text.
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

Click here to enter text.

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

Click here to enter text.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future

☐ Sealing caves, fractures, sinkholes, other karst features

☐ Disturbance of vegetation or wetlands

6. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

Click here to enter text.

7. Describe existing disturbances, vegetation, and land use:

Click here to enter text.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

8. List construction dates of all buildings and structures on the property:

Click here to enter text.

9. Provide a brief history of the property, and name of the architect/builder, if known.

Click here to enter text.

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## Section 1. Individual Information (Instructions Page 50)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., Miss): Click here to enter text.

Full legal name (first, middle, last): Click here to enter text.

Driver's License or State Identification Number: Click here to enter text.

Date of Birth: Click here to enter text.

Mailing Address: Click here to enter text.

City, State, and Zip Code: Click here to enter text.

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail Address: Click here to enter text.

CN: Click here to enter text.

**For Commission Use Only:**
Customer Number:
Regulated Entity Number:
Permit Number:

## CHECKLIST OF COMMON DEFICIENCIES

Below is a list of common deficiencies found during the administrative review of domestic wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate by checking Yes that each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until the items below have been addressed.

Core Data Form (TCEQ Form No. 10400) ☐ Yes
*(Required for all applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)*

Correct and Current Industrial Wastewater Permit Application Forms ☐ Yes
*(TCEQ Form Nos. 10053 and 10054. Version dated 6/25/2018 or later.)*

Water Quality Permit Payment Submittal Form (Page 19) ☐ Yes
*(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)*

7.5 Minute USGS Quadrangle Topographic Map Attached ☐ Yes
*(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments)*

Current/Non-Expired, Executed Lease Agreement or Easement Attached ☐ N/A ☐ Yes

Landowners Map ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

**Things to Know:**

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

Landowners Cross Reference List ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

Landowners Labels or USB Drive attached ☐ N/A ☐ Yes
*(See instructions for landowner requirements)*

Original signature per 30 TAC § 305.44 – Blue Ink Preferred ☐ Yes
*(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached)*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION**

# DOMESTIC TECHNICAL REPORT 1.0

**The Following Is Required For All Applications**

**Renewal, New, And Amendment**

## Section 1. Permitted or Proposed Flows (Instructions Page 51)

**A. Existing/Interim I Phase**

Design Flow (MGD): 0.36

2-Hr Peak Flow (MGD): 0.50

Estimated construction start date: n/a

Estimated waste disposal start date: n/a

**B. Interim II Phase**

Design Flow (MGD): n/a

2-Hr Peak Flow (MGD): Click here to enter text.

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

**C. Final Phase**

Design Flow (MGD): n/a

2-Hr Peak Flow (MGD): Click here to enter text.

Estimated construction start date: Click here to enter text.

Estimated waste disposal start date: Click here to enter text.

**D. Current operating phase: Existing**

Provide the startup date of the facility: Click here to enter text.

## Section 2. Treatment Process (Instructions Page 51)

**A. Treatment process description**

Provide a detailed description of the treatment process. **Include the type of**

**treatment plant, mode of operation, and all treatment units.** Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided**. Process description:

The treatment plant is a pond system. The City's wastewater is treated by a facultative lagoon. Effluent is stored in two holding ponds prior to irrigation of grassland.

Port or pipe diameter at the discharge point, in inches: n/a

### B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for *all* phases of operation**.

***Table 1.0(1) – Treatment Units***

| Treatment Unit Type | Number of Units | Dimensions (L x W x D) |
|---|---|---|
| Facultative Lagoon (aerobic end) | 1 | 310' x 850' x 10'-13' |
| Facultative Lagoon (anaerobic end) | 1 | 16' deep w/ 4' freeboard |
| Holding Pond #1 | 1 | 385' x 225' x 12' w/ 2' freeboard |
| Holding Pond #2 | 1 | 420' x 265' x 12' w/ 2' freeboard |
| | | |
| | | |
| | | |

### C. Process flow diagrams

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

**Attachment**: See Attachment B

## Section 3. Site Drawing (Instructions Page 52)

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

**Attachment**: See Attachment C

Provide the name and a description of the area served by the treatment facility.

The area served by the treatment facility is the City Limits of the City of Tahoka and its extra-territorial jurisdiction.

## Section 4. Unbuilt Phases (Instructions Page 52)

Is the application for a renewal of a permit that contains an unbuilt phase or phases?

Yes ☐ No ☒

**If yes**, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ?

Yes ☐ No ☐

**If yes**, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.

Click here to enter text.

## Section 5. Closure Plans (Instructions Page 53)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years?

Yes ☐ No ☒

**If yes**, was a closure plan submitted to the TCEQ?

Yes ☐ No ☐

**If yes**, provide a brief description of the closure and the date of plan approval.

Click here to enter text.

## Section 6. Permit Specific Requirements (Instructions Page 53)

**For applicants with an existing permit, check the *Other Requirements* or *Special Provisions* of the permit.**

### A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

Yes ☒ No ☐

**If yes**, provide the date(s) of approval for each phase: June 21, 2001

Provide information, including dates, on any actions taken to meet a requirement or provision pertaining to the submission of a summary transmittal letter. Provide a copy of an approval letter from the TCEQ, if applicable.

Click here to enter text.

**B. Buffer zones**

Have the buffer zone requirements been met?

Yes ☒ No ☐

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation relevant to maintaining the buffer zones.

Click here to enter text.

**C. Other actions required by the current permit**

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

Yes ☒ No ☐

**If yes**, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Annual soil monitoring from representative samples – last sample collection taken 3/23/2023 and results are provided with this application.

**D. Grit and grease treatment**

## *1. Acceptance of grit and grease waste*

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

Yes ☐ No ☒

**If No**, stop here and continue with Subsection E. Stormwater Management.

## *2. Grit and grease processing*

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility.

Click here to enter text.

## *3. Grit disposal*

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

Yes ☐ No ☒

**If No**, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

Click here to enter text.

## *4. Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

Describe how the decant and grease are treated and disposed of after grit separation.

Click here to enter text.

## E. Stormwater management

### *1. Applicability*

Does the facility have a design flow of 1.0 MGD or greater in any phase?

Yes ☐ No ☒

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

Yes ☐ No ☒

**If no to both of the above**, then skip to Subsection F, Other Wastes Received.

### *2. MSGP coverage*

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

Yes ☐ No ☐

**If yes**, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 Click here to enter text or TXRNE Click here to enter text

**If no**, do you intend to seek coverage under TXR050000?

Yes ☐ No ☐

### *3. Conditional exclusion*

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

Yes ☐ No ☐

**If yes**, please explain below then proceed to Subsection F, Other Wastes Received:

Click here to enter text

### *4. Existing coverage in individual permit*

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

Yes ☐ No ☐

**If yes**, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

Click here to enter text

## *5. Zero stormwater discharge*

Do you intend to have no discharge of stormwater via use of evaporation or other means?

Yes ☐ No ☐

**If yes**, explain below then skip to Subsection F. Other Wastes Received.

Click here to enter text

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

## *6. Request for coverage in individual permit*

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

Yes ☐ No ☐

**If yes**, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to

the treatment plant headworks and indirectly discharge it to water in the state.

Click here to enter text.

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

**F. Discharges to the Lake Houston Watershed**

Does the facility discharge in the Lake Houston watershed?
Yes ☐ No ☐

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

**G. Other wastes received including sludge from other WWTPs and septic waste**

## *1. Acceptance of sludge from other WWTPs*

Does the facility accept or will it accept sludge from other treatment plants at the facility site?
Yes ☐ No ☐

**If yes, attach sewage sludge solids management plan. See Example 5 of the instructions.**

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the $BOD_5$ concentration of the sludge, and the design $BOD_5$ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

## *2. Acceptance of septic waste*

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☐

**If yes**, does the facility have a Type V processing unit?

Yes ☐ No ☐

**If yes**, does the unit have a Municipal Solid Waste permit?

Yes ☐ No ☐

**If yes to any of the above**, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the $BOD_5$ concentration of the septic waste, and the design $BOD_5$ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

Click here to enter text.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

## *3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)*

Is the facility accepting or will it accept wastes that are not domestic in nature excluding the categories listed above?

Yes ☐ No ☒

**If yes**, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also

note if this information has or has not changed since the last permit action.

Click here to enter text.

## Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☒ No ☐

**If no**, this section is not applicable. Proceed to Section 8.

**If yes**, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). **W*ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

Note: The sample date must be within 1 year of application submission.

***Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities***

| **Pollutant** | **Average Conc.** | **Max Conc.** | **No. of Samples** | **Sample Type** | **Sample Date/Time** |
|---|---|---|---|---|---|
| $CBOD_5$, mg/l | 22.3 | 22.3 | 1 | Grab | 2/22/24 8:51 am |
| Total Suspended Solids, mg/l | 46.7 | 46.7 | 1 | Grab | same |
| Ammonia Nitrogen, mg/l | 9.65 | 9.65 | 1 | Grab | same |
| Nitrate Nitrogen, mg/l | <1.0 | <1.0 | 1 | Grab | same |
| Total Kjeldahl Nitrogen, mg/l | 128 | 128 | 1 | Grab | same |
| Sulfate, mg/l | 150 | 150 | 1 | Grab | same |
| Chloride, mg/l | 430 | 430 | 1 | Grab | same |
| Total Phosphorus, mg/l | 4.92 | 4.92 | 1 | Grab | same |
| pH, standard units | 7.70 | 7.70 | 1 | Grab | same |
| Dissolved Oxygen*, mg/l | -- | -- | -- | -- | -- |
| Chlorine Residual, mg/l | N/D | N/D | 1 | Grab | same |
| *E.coli* (CFU/100ml) freshwater | -- | -- | -- | -- | -- |

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| Entercocci (CFU/100ml) saltwater | -- | -- | -- | -- | -- |
| Total Dissolved Solids, mg/l | 1240 | 1240 | 1 | Grab | same |
| Electrical Conductivity, µmohs/cm, † | 2300 | 2300 | 1 | Grab | same |
| Oil & Grease, mg/l | -- | -- | -- | -- | -- |
| Alkalinity ($CaCO_3$)*, mg/l | -- | -- | -- | -- | -- |

*TPDES permits only

†TLAP permits only

***Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities***

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| Total Suspended Solids, mg/l | N/A | | | | |
| Total Dissolved Solids, mg/l | N/A | | | | |
| pH, standard units | N/A | | | | |
| Fluoride, mg/l | N/A | | | | |
| Aluminum, mg/l | N/A | | | | |
| Alkalinity ($CaCO_3$), mg/l | N/A | | | | |

## Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Raymond Vega

Facility Operator's License Classification and Level: Wastewater Operator D

Facility Operator's License Number: WW0002567

## Section 9. Sewage Sludge Management and Disposal (Instructions

## Page 60)

### A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☐ Permitted landfill
- ☐ Permitted or Registered land application site for beneficial use
- ☐ Land application for beneficial use authorized in the wastewater permit
- ☐ Permitted sludge processing facility
- ☐ Marketing and distribution as authorized in the wastewater permit
- ☐ Composting as authorized in the wastewater permit
- ☐ Permitted surface disposal site (sludge monofill)
- ☐ Surface disposal site (sludge monofill) authorized in the wastewater permit
- ☐ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.
- ☒ Other: Not applicable due to a facultative lagoon treatment system

### B. Sludge disposal site

Disposal site name: Click here to enter text.

TCEQ permit or registration number: Click here to enter text.

County where disposal site is located: Click here to enter text.

### C. Sludge transportation method

Method of transportation (truck, train, pipe, other): Click here to enter text.

Name of the hauler: Click here to enter text.

Hauler registration number: Click here to enter text.

Sludge is transported as a:

Liquid ☐ semi-liquid ☐ semi-solid ☐ solid ☐

## Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

### A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

Yes ☐ No ☒

**If yes**, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

Yes ☐ No ☐

**If yes**, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

Yes ☐ No ☐

### B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

| | | |
|---|---|---|
| Sludge Composting | Yes ☐ | No ☒ |
| Marketing and Distribution of sludge | Yes ☐ | No ☒ |
| Sludge Surface Disposal or Sludge Monofill | Yes ☐ | No ☒ |
| Temporary storage in sludge lagoons | Yes ☐ | No ☒ |

**If yes** to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

Yes ☐ No ☐

## Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

If yes, complete the remainder of this section. If no, proceed to Section 12.

### A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

- Original General Highway (County) Map:

  **Attachment**: Click here to enter text.

- USDA Natural Resources Conservation Service Soil Map:

  **Attachment**: Click here to enter text.

- Federal Emergency Management Map:

  **Attachment**: Click here to enter text.

- Site map:

  **Attachment**: Click here to enter text.

Discuss in a description if any of the following exist within the lagoon area.

Check all that apply.

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

**Attachment**: Click here to enter text.

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

Click here to enter text.

### B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in Section 7 of Technical Report 1.0.

Nitrate Nitrogen, mg/kg: Click here to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click here to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click here to enter text.

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

Volume and frequency of sludge to the lagoon(s): Click here to enter text.

Total dry tons stored in the lagoons(s) per 365-day period: Click here to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click here to enter text.

### C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

Yes ☐ No ☐

**If yes**, describe the liner below. Please note that a liner is required.

Click here to enter text

### D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

Click here to enter text

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)

  **Attachment**: Click here to enter text

- Copy of the closure plan

  **Attachment**: Click here to enter text

- Copy of deed recordation for the site

  **Attachment**: Click here to enter text

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  **Attachment**: Click here to enter text

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  **Attachment**: Click here to enter text

- Procedures to prevent the occurrence of nuisance conditions

  **Attachment**: Click here to enter text

### E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

Yes ☐ No ☐

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: Click here to enter text.

## Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

### A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

Yes ☐ No ☒

**If yes**, provide the TCEQ authorization number and description of the authorization:

Click here to enter text.

### B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

Is the permittee required to meet an implementation schedule for compliance or enforcement?

Yes ☐ No ☒

**If yes** to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

Click here to enter text.

## Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

### A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

Yes ☐ No ☒

### B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will

it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

Yes ☐ No ☒

### C. Details about wastes received

**If yes** to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: Click here to enter text.

## Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes 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; or
  - located in another state and is accredited or inspected by that state; or
  - 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. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

**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: Click here to enter text.

Title: Click here to enter text.

Signature: _____

Date: _____

# DOMESTIC WORKSHEET 3.0

**LAND DISPOSAL OF EFFLUENT**

**The following is required for all permit applications**

**Renewal, New, and Amendments**

## Section 1. Type of Disposal System (Instructions Page 77)

Identify the method of land disposal:

- ☒ Surface application
- ☐ Irrigation
- ☐ Drip irrigation system
- ☐ Evaporation
- ☐ Evapotranspiration beds
- ☐ Other (describe in detail): Click here to enter text
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system

**NOTE: All applicants without authorization or proposing new/amended subsurface disposal MUST complete and submit Worksheet 7.0.**

For existing authorizations, provide Registration Number: Click here to enter text

## Section 2. Land Application Site(s) (Instructions Page 77)

In table 3.0(1), provide the requested information for the land application sites. Include the agricultural or cover crop type (wheat, cotton, alfalfa, bermuda grass, native grasses, etc.), land use (golf course, hayland, pastureland, park, row crop, etc.), irrigation area, amount of effluent applied, and whether or not the public has access to the area. Specify the amount of land area and the amount of effluent that will be allotted to each agricultural or cover crop, if more than one crop will be used.

***Table 3.0(1) – Land Application Site Crops***

| Crop Type & Land Use | Irrigation Area (acres) | Effluent Application (GPD) | Public Access? Y/N |
|---|---|---|---|
| Bermuda grass, pastureland | 209 | 360,000 | N |

| Crop Type & Land Use | Irrigation Area (acres) | Effluent Application (GPD) | Public Access? Y/N |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 77)

*Table 3.0(2) – Storage and Evaporation Ponds*

| Pond Number | Surface Area (acres) | Storage Volume (acre-feet) | Dimensions | Liner Type |
|---|---|---|---|---|
| Holding #1 | 1.989 | 15.10 | 385'x225'x12' | Soil/Clay |
| Holding #2 | 2.555 | 20.66 | 420'x265'x12' | Soil/Clay |
| | | | | |
| | | | | |

Attach a copy of a liner certification that was prepared, signed, and sealed by a Texas licensed professional engineer for each pond.

**Attachment**: Not available; presumed April 2002

## Section 4. Flood and Runoff Protection (Instructions Page 77)

Is the land application site within the 100-year frequency flood level?

Yes ☐ No ☐ ** Unknown

**If yes**, describe how the site will be protected from inundation.

The walls of the facultative pond and holding ponds are earthen berms that are at least two (2) feet above natural grade.

Provide the source used to determine the 100-year frequency flood level:

Unknown, the subject area remains unmapped by FEMA

Provide a description of tailwater controls and rainfall run-on controls used for the land application site.

Runoff from the irrigation site will be contained in a tailwater pond. A pump is used to return excessive stormwater to the holding ponds upon reaching a certain level in this tailwater pond  Stormwater runon is diverted away from the irrigation site by a small diversion berm.

## Section 5. Annual Cropping Plan (Instructions Page 77)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why.

**Attachment**: See Attachment D for previously approved cropping plan dated 6/25/2003

- Soils map with crops
- Cool and warm season plant species
- Crop yield goals
- Crop growing season
- Crop nutrient requirements
- Additional fertilizer requirements
- Minimum/maximum harvest height (for grass crops)
- Supplemental watering requirements
- Crop salt tolerances
- Harvesting method/number of harvests
- Justification for not removing existing vegetation to be irrigated

## Section 6. Well and Map Information (Instructions Page 78)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation (on a separate page) indicating why.

**Attachment**: See Attachment A or Attachment E

- The boundaries of the land application site(s)
- Waste disposal or treatment facility site(s)

- On-site buildings
- Buffer zones
- Effluent storage and tailwater control facilities
- All water wells within 1 mile of the disposal site or property boundaries
- All springs and seeps onsite and within 500 feet of the property boundaries
- All surface waters in the state onsite and within 500 feet of the property boundaries
- All faults and sinkholes onsite and within 500 feet of the property

List and cross reference all water wells shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

***Table 3.0(3) – Water Well Data***

| Well ID | Well Use | Producing? Y/N | Open, cased, capped, or plugged? | Proposed Best Management Practice |
|---|---|---|---|---|
| | | | | |
| | | | | |

If water quality data or well log information is available please include the information in an attachment listed by Well ID.

**Attachment**: See Attachment F for all well ID information

## Section 7. Groundwater Quality (Instructions Page 79)

Attach a Groundwater Quality Technical Report which assesses the impact of the wastewater disposal system on groundwater. This report shall include an evaluation of the water wells (including the information in the well table provided in Item 6. above), the wastewater application rate, and pond liners. Indicate by a check mark that this report is provided.

**Attachment**: See Attachment G

Are groundwater monitoring wells available onsite? Yes ☐ No ☒

Do you plan to install ground water monitoring wells or lysimeters around the land application site? Yes ☐ No ☒

**If yes**, then provide the proposed location of the monitoring wells or lysimeters on a site map.

**Attachment**: Click here to enter text.

## Section 8. Soil Map and Soil Analyses (Instructions Page 79)

### A. Soil map

Attach a USDA Soil Survey map that shows the area to be used for effluent disposal.

**Attachment**: H

### B. Soil analyses

Attach the laboratory results sheets from the soil analyses. **Note**: for renewal applications, the current annual soil analyses required by the permit are acceptable as long as the test date is less than one year prior to the submission of the application.

**Attachment**: I

List all USDA designated soil series on the proposed land application site. Attach additional pages as necessary.

***Table 3.0(4) – Soil Data***

| Soil Series | Depth from Surface | Permeability | Available Water Capacity | Curve Number |
|---|---|---|---|---|
| Acuff loam | 0-18 in | 1.276 in/hr | 0.17 | B 61 |
| | | | | |
| Estacado loam | 0-18 in | 0.959 in/hr | 0.15 | B 61 |
| Lenorah-Hindman complex | 0-18 in | 2.446 in/hr | 0.11 | C 74 |
| Potter soils | 0-18 in | 1.069 in/hr | 0.12 | C 74 |
| Portales loam | 0-18 in | 1.276 in/hr | 0.15 | B 61 |
| | | | | |
| | | | | |

## Section 9. Effluent Monitoring Data (Instructions Page 80)

Is the facility in operation?

Yes ☒ No ☐

**If no**, this section is not applicable and the worksheet is complete.

**If yes**, provide the effluent monitoring data for the parameters regulated in the existing permit. If a parameter is not regulated in the existing permit, enter N/A.

***Table 3.0(5) – Effluent Monitoring Data***

| Date | 30 Day Avg Flow MGD | $BOD_5$ mg/l | TSS mg/l | pH | Chlorine Residual mg/l | Acres irrigated |
|---|---|---|---|---|---|---|
| Jan 2022 | - | 21 | 52 | 7.81 | n/a | 129.75 |
| Feb 2022 | - | 34 | 51 | 8.32 | n/a | 129.75 |
| Mar 2022 | - | 33 | 66 | 8.6 | n/a | 129.75 |
| Apr 2022 | - | 20 | 72 | 7.89 | n/a | 129.75 |
| May 2022 | - | 77 | 64 | 8.84 | n/a | 129.75 |
| June 2022 | - | 42 | 88 | 9.1 | n/a | 129.75 |
| July 2022 | 0.124 | 51 | 67 | 9.0 | n/a | 129.75 |
| Aug 2022 | 0.214 | 60.8 | 53 | 8.3 | n/a | 129.75 |
| Sept 2022 | 0.117 | 64.8 | 79 | 8.8 | n/a | 129.75 |
| Oct 2022 | 0.125 | 58.2 | 62 | 8.0 | n/a | 129.75 |
| Nov 2022 | 0.119 | 62.5 | 82 | 7.4 | n/a | 129.75 |
| Dec 2022 | 0.104 | 63.6 | 86 | 8.0 | n/a | 129.75 |
| Jan 2023 | 0.106 | < 2.0 | 86 | 8.3 | n/a | 129.75 |
| Feb 2023 | 0.094 | 31.2 | 64 | 7.5 | n/a | 129.75 |
| Mar 2023 | 0.089 | 31.6 | 40 | 7.5 | n/a | 129.75 |
| Apr 2023 | 0.101 | 52.0 | 159 | 8.8 | n/a | 129.75 |
| May 2023 | 0.109 | 38.5 | 121 | 9.0 | n/a | 129.75 |
| June 2023 | 0.130 | 21.7 | 76.0 | 9.1 | n/a | 129.75 |
| July 2023 | 0.160 | 34.0 | 96.7 | 9.0 | n/a | 129.75 |
| Aug 2023 | 0.134 | 20.9 | 82.7 | 8.9 | n/a | 129.75 |
| Sep 2023 | 0.129 | 23.7 | 76.0 | 8.8 | n/a | 129.75 |

| Date | 30 Day Avg Flow MGD | $BOD_5$ mg/l | TSS mg/l | pH | Chlorine Residual mg/l | Acres irrigated |
|---|---|---|---|---|---|---|
| Oct 2023 | 0.118 | 31.5 | 82.0 | 8.5 | n/a | 129.75 |
| Nov 2023 | 0.110 | 36.7 | 69.0 | 7.8 | n/a | 129.75 |
| Dec 2023 | 0.101 | 26.2 | 80.0 | 7.5 | n/a | 129.75 |

Provide a discussion of all persistent excursions above the permitted limits and any corrective actions taken.

See Attachment J for monthly records of daily meter logs. See Attachment K for chain of custody and original laboratory results.

# DOMESTIC WORKSHEET 6.0

## INDUSTRIAL WASTE CONTRIBUTION

**The following is required for all publicly owned treatment works (POTWs)**

## Section 1. All POTWs (Instructions Page 99)

### A. Industrial users

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

**If there are no users, enter 0 (zero).**

Categorical IUs:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

Significant IUs – non-categorical:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

Other IUs:

Number of IUs: zero (0)

Average Daily Flows, in MGD: Click here to enter text.

### B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

Yes ☐ No ☒

**If yes**, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

Click here to enter text.

### C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

Yes ☐ No ☒

**If yes**, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

Click here to enter text.

### D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐ No ☒

**If yes**, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☐

**If yes**, complete Section 2.c. and 2.d. only, and skip Section 3.

**If no to either question above**, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

## Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

### A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

Yes ☐ No ☐

**If yes**, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text.

### B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

Yes ☐ No ☐

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

Click here to enter text.

### C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

**Table 6.0(1) – Parameters Above the MAL**

| Pollutant | Concentration | MAL | Units | Date |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

### D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

Yes ☐ No ☐

**If yes**, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

Click here to enter text

## Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

### A. General information

Company Name: Click here to enter text

SIC Code: Click here to enter text

Telephone number: Click here to enter text Fax number: Click here to enter text

Contact name: Click here to enter text

Address: Click here to enter text

City, State, and Zip Code: Click here to enter text

### B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

Click here to enter text

### C. Product and service information

Provide a description of the principal product(s) or services performed.

Click here to enter text.

### D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater."

Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

### E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

Yes ☐ No ☐

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

Yes ☐ No ☐

**If subject to categorical pretreatment standards**, indicate the applicable category and subcategory for each categorical process.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

## F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

Yes ☐ No ☐

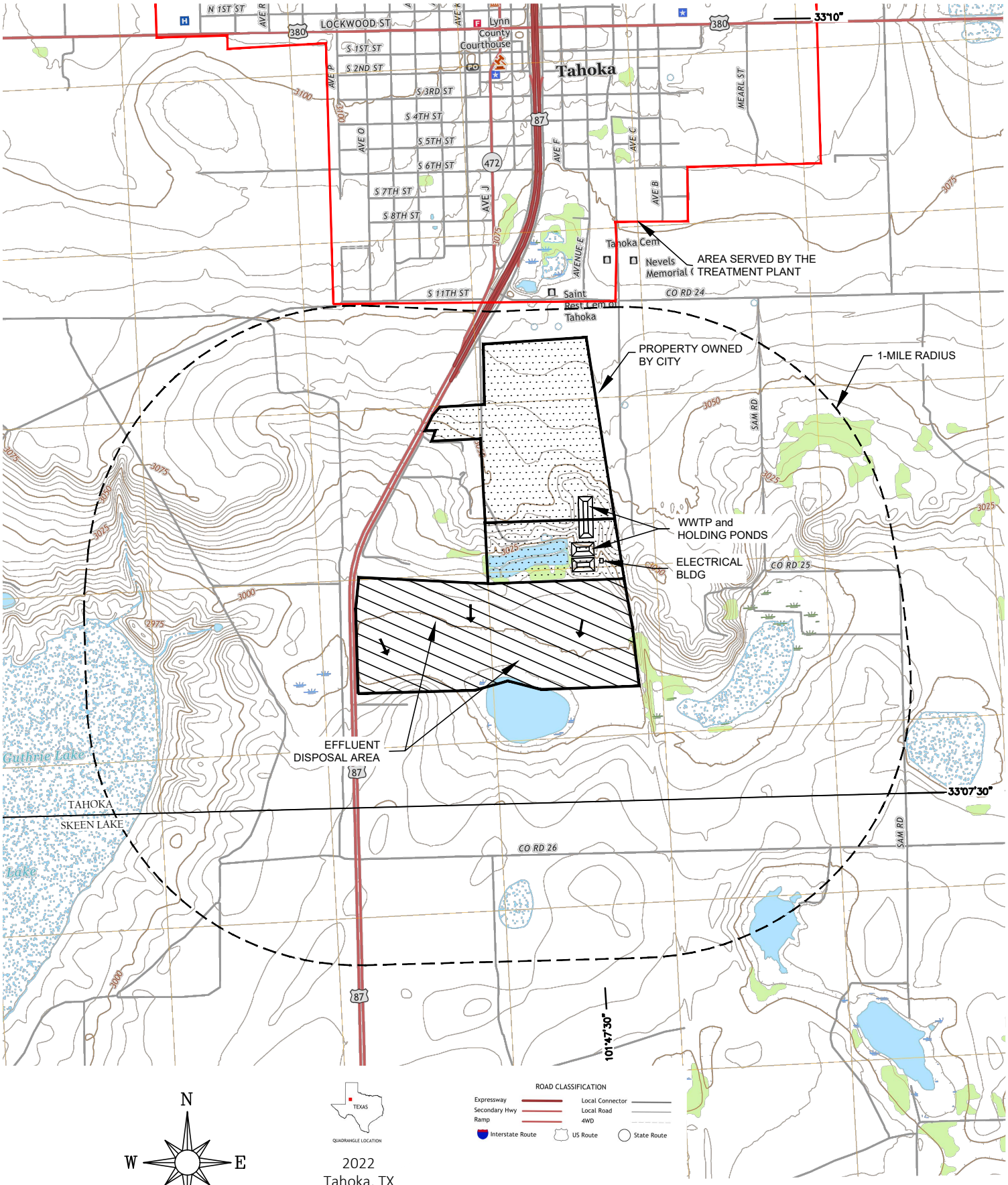
**If yes**, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

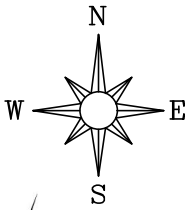
Click here to enter text

# ATTACHMENT A

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USGS Map (Original)







2022
Tahoka, TX

---

Skeen Lake, TX




# USGS MAP

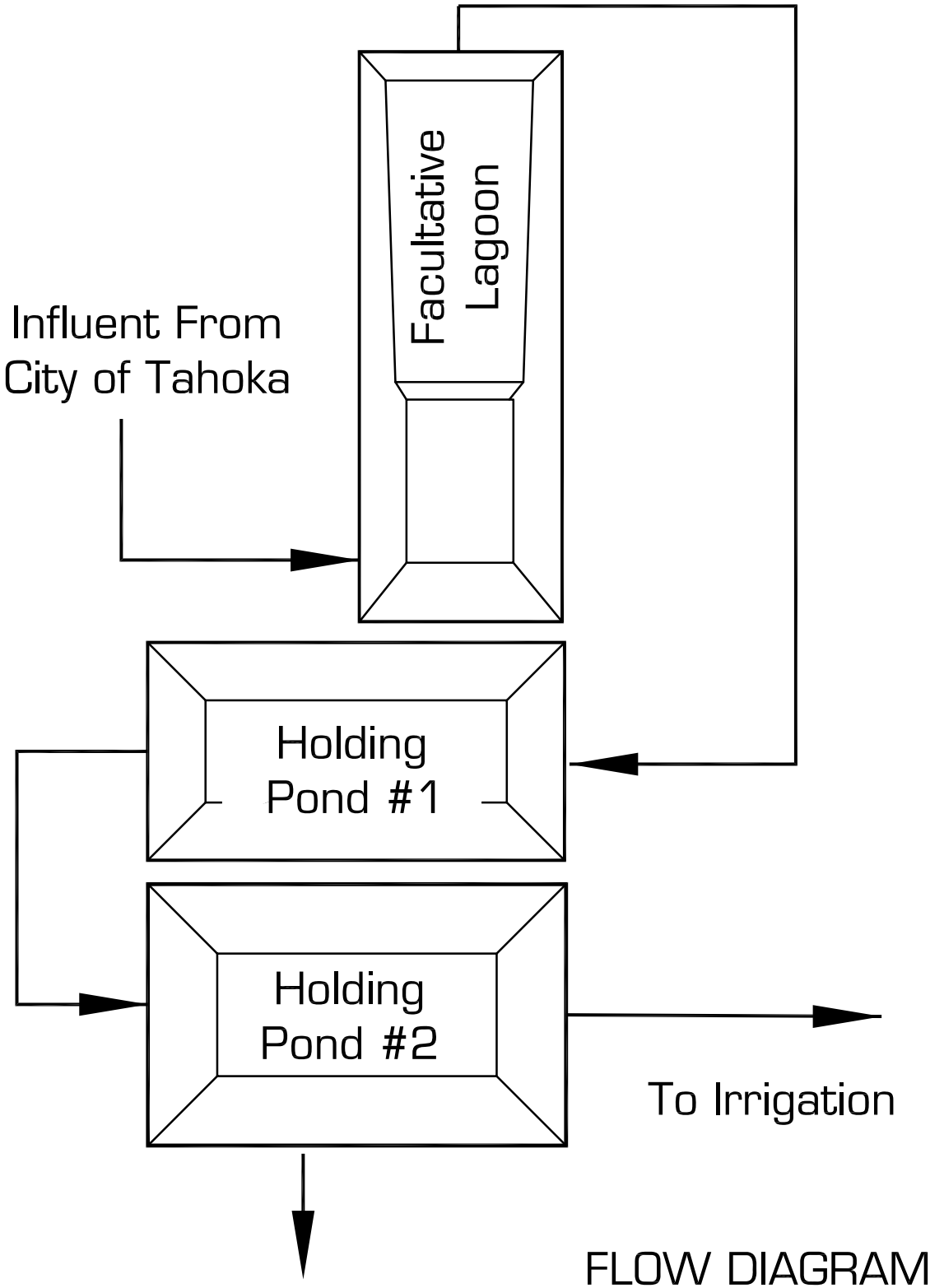

CIVIL360
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| | | |
|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | Date: February 2024 | Attachment: A |
| Job number: WW010-24 | Scale: 1" = 2500' | |

# ATTACHMENT B

---

Process Flow Diagram




FLOW DIAGRAM

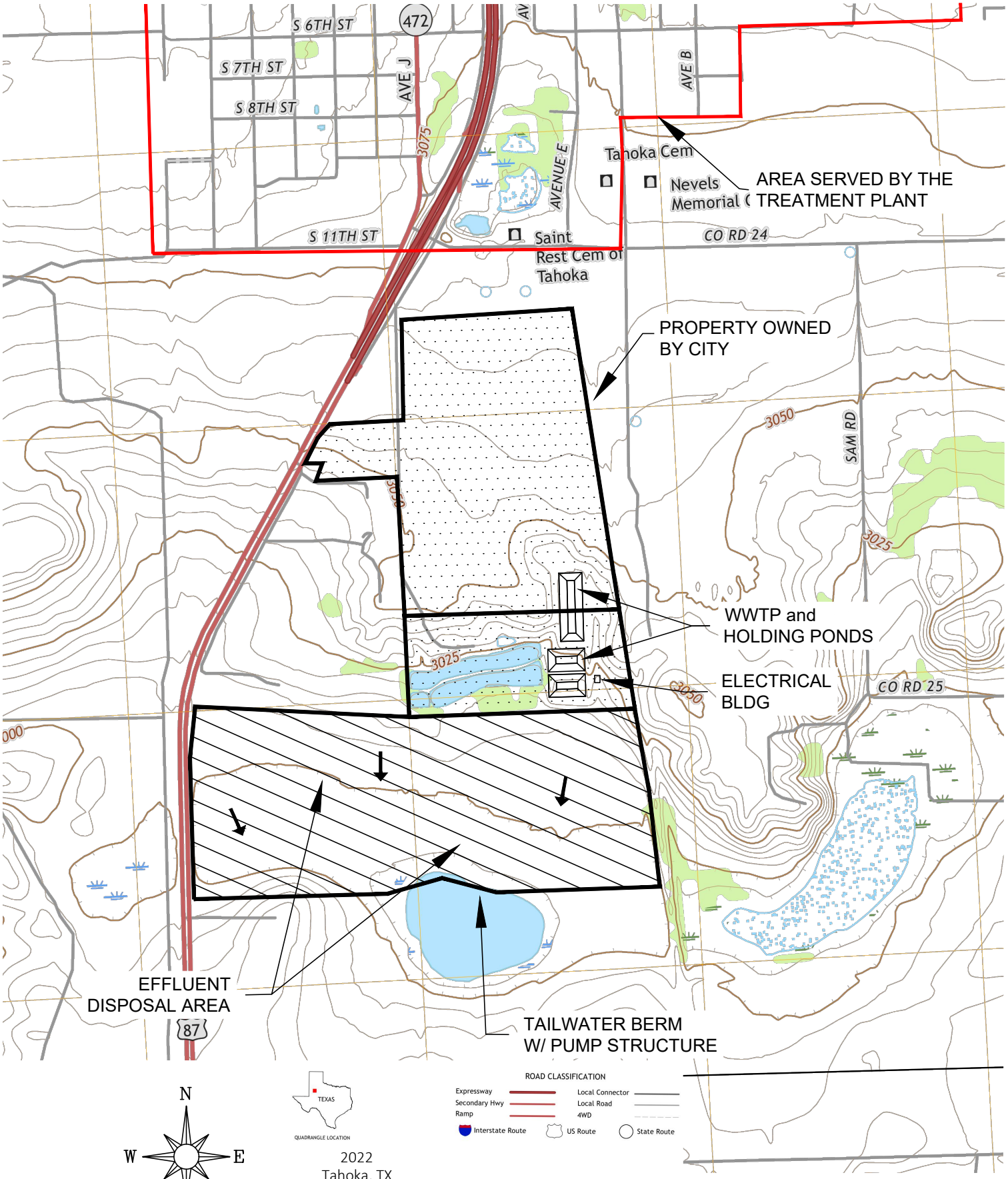
CIVIL360
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966

| | | | |
|---|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | | Date: February 2024 | Attachment: B |
| Job number: | WW010-24 | Scale: Not to scale | |

# ATTACHMENT C

---

Site Drawing




# USGS - SITE DRAWING


CIVIL360

8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| | | | |
|---|---|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | Date: February 2024 | Attachment: C |
| Job number: WW010-24 | Scale: 1" = 1500' | |

# ATTACHMENT D

---

Cropping Plan and
Detailed Plan for Management of Saline and Sodic Soil Conditions

* Reproduced from original permit application, dated February 24, 2004.

**Attachment 7 - Cropping Plan**

The following is a cropping plan for the City of Tahoka Sewer Treatment Plant land disposal area.

(1) A soils map depicting the location of the crop is attached (NRCS Soil map of Lynn County, Texas) Attachment H

(2) Crop to be used for disposal of effluent is Bermuda Grass (approximately 150 acres)

(3) The growing season for the bermuda will be year round based on the quantity of effluent available.

(4) The nutrient requirement for Bermuda is 475 lb/acre/year according to EPA Design Manual for Land Treatment of Municipal Wastewater Table 5-2, page 5-6

(5) No supplemental watering should be required.

(6) Bermuda grass has a salt tolerance range between 8.0-12.0 mmhos/cm (25 degrees Celsius) (TAC 309.20) See attached soils report for conductivity of soil in land application area.

(8) The harvesting method for the Bermuda grass will normally be by grazing of cattle. However, on occasion the grass may be cut and baled. Harvesting of the Bermuda will be regulated according to the availability of effluent.

**Attachment 9 - Nitrogen Balance**

Describe the method of application and provide a nitrogen balance for the crop system.

Method of irrigation: Pivot Sprinkler System and / or Row Irrigation. (Efficiency 85%)

Nitrogen Balance Calculations

The application rate formula as per TNRCC 30 TAC 309.2 C is

BERMUDA GRASS

L = N/2.7C L = annual liquid loading - feet/year

C = 30.0 mg/l, (Assumed) C = effluent nitrogen concentration - mg /l

N = 475 lb/ac/yr x 120% = 570 N = annual crop requirement of nitrogen

Plus 20 % - pound/ac/yr (as per EPA

Process Design Manual for Land Treatment of Municipal Wastewater

Table 5-2, page 5-6

therefore, L = 570/2.7*30.0

**= 7.03 acre-feet/acre/year**

Jay Keith 796-7107

***Detailed Plan for Management of Saline and Sodic Soil Conditions at the Treated Effluent Land Application Site at the City of Tahoka WWTP (Permit No. 10298-002)***

**General Scope**

*This Plan was prepared pursuant to Special Provision 18 of Permit No. 10298-002.*

According to the SCS Soil Survey for Lynn County, Texas, soils of the wastewater application site consist of loams of the Amarillo, Drake, Portales, and Zita series. Soils of the Amarillo, Portales and Zita series have moderate limitations for use with wastewater application due to depth to soft caliche layers in the subsoils.

Soils analyses of the irrigation site indicate an increase of salinity and SAR (sodium adsorptions ratio). Salinity levels range from 1,300 micro-MHOS/cm to 5,400 micro-MHOS/cm. The SAR ranges from 4 to 21 across the three depths that the soil samples represent. The development of saline and sodic conditions may adversely impact the water and nutrient uptake of the crops to be grown. Soils are considered saline when the electrical conductivity reaches or exceeds 4,000 micro-MHOS/cm and considered sodic when SAR levels reach 13 with a pH greater than or equal to 8.5 standard units.

In order to protect the fertility and production potential of the land application area, close monitoring of the soil conditions (with respect to salinity and SAR levels) and consciences management of the application of treated effluent shall be a priority of the plant operators. In addition to saline and sodic soil conditions at the site, this management plan is meant to address the use of coastal Bermuda grass as the only vegetative crop on the irrigation site, as it is typically dormant during winter months.

The site conditions shall be evaluated yearly by a certified Texas Nutrient Management Specialist according to the principles and practices of the National NRCS Nutrient Management Policy and the Texas Cooperative Extension. It is the responsibility of the City to ensure that a Comprehensive Nutrient Management Plan (CNMP) for the site be maintained.

**Soil Analyses**

The soils of the treated effluent land application site shall be analyzed for pH, electrical conductivity, nitrate nitrogen, phosphorus, potassium, sodium, magnesium, calcium, and sodium adsorption ratio (SAR)(not to exceed an SAR of 10). The nutritive parameters should be analyzed in extractable or available form.

Composite and benchmark sampling and analysis techniques shall be used when sampling the soils. Individual soil types, as defined the USDA NRCS soil survey, should be sampled individually at zones of 0-6, 6-18, and 18-30 inches. Each composite sample shall represent no more than 80 acres with no less than 15 subsamples representing each composite sample. Each benchmark sample shall represent no more than 80 acres with at

least 7 subsamples for each benchmark composite sample. Subsamples shall be composited by individual site, zone and soil type for analysis and reporting.

Also, the effluent shall be analyzed, as necessary, for those parameters mandated in the permit and electrical conductivity, nitrate nitrogen, phosphorus, potassium, sodium, magnesium, and calcium for evaluation and management purposes. Application rates and management practices may be re-evaluated and revised based on CNMP forecasts.

**Management Approach**

The objective of this management plan is to maintain soil conditions at the treated effluent land application site conducive to crop productivity and vigor. The plan is established to ensure that soils are monitored for mineral and nutrient content and that effluent is applied in such a manner as to maintain desirable soil conditions. Effluent should be applied at such a rate and at appropriate times to provide for adequate leaching of undesirable quantities of minerals beyond the root zone, while optimizing nutrient uptake rates by the cover crop.

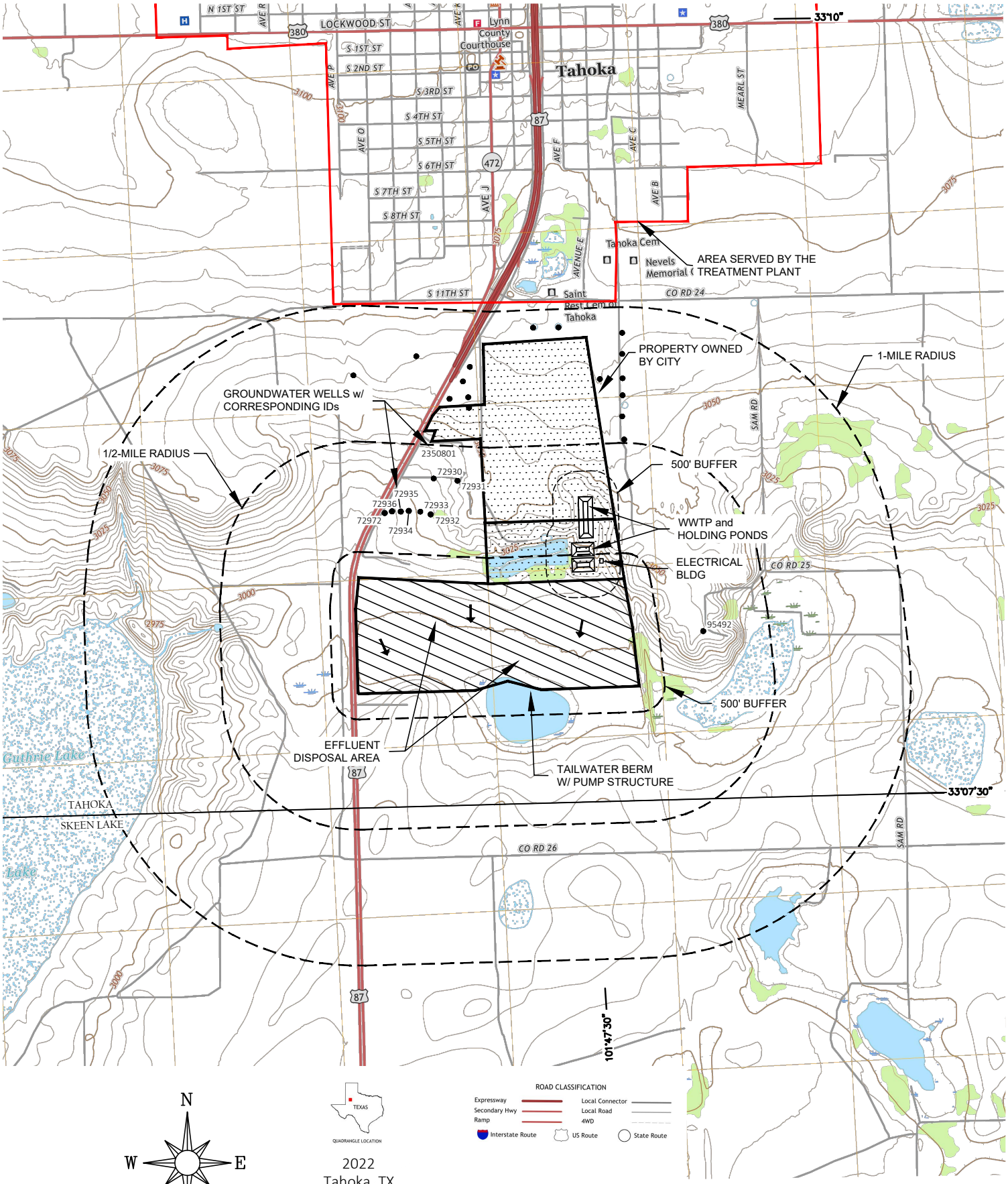
Also, it is an objective of this plan to maintain a cover crop/s possessing nutrient uptake capabilities required to prevent migration of undesirable nutrient pollutants to the groundwater beneath the site. While most sources provide evapotranspiration rates for all 12 months for Bermuda grass, it is thought that simple evaporation from the soil surface accounts for up to 100% of this ET in winter months. It is not likely that significant nutrient uptake is occurring in Bermuda grass during this dormant period. It is however likely that vigorous growth in the early spring and summer months will sufficiently extract nutrients stored in the root zone during dormancy. The potential of this occurring will be determined by the CNMP. Should the CNMP demonstrate that nutrients are migrating through the root zone and threatening groundwater quality, a cool season crop (such as winter wheat) shall be sown within the dormant Bermuda. All grasses will be grazed and/or harvested to achieve ultimate nutrient removal from the site.

To achieve these objectives, the City shall rely upon the guidance of this Plan, a TCEQ Water Balance, prepared by a Licensed Professional Engineer in the State of Texas, a Certified Nutrient Management Plan, prepared by a certified Texas Nutrient Management Specialist, and supplemental advice from these professionals.

# ATTACHMENT E

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USGS Map w/ Wells




2022
Tahoka, TX

---

Skeen Lake, TX

# USGS - WELL MAP


CIVIL360
8553 N. Beach Street
Suite 186
Keller, Texas 76244
(213) 773-2966


| | |
|---|---|
| Job name: City of Tahoka, Texas 2024 WWTP Permit Renewal | Date: February 2024 |
| Job number: WW010-24 | Scale: 1" = 2500' |
| | Attachment: E |

# ATTACHMENT F

---

Water Well Data

**Section 6. WELL AND MAP INFORMATION** (within 1/2 mile of property boundaries and/or disposal area only) continued from Page 39 of 80

| Source Well ID | State Well Log ID | Well Use | Producing? | Open, cased, capped or plugged? | Proposed Best Management Practice | Source |
|---|---|---|---|---|---|---|
| 72930 | n/a | Private | - | - | - | HPWD; no logs |
| | Yield: unknown Drilled: unknown Water Depth: unknown | | | | | |
| 72931 | n/a | Private | - | - | - | HPWD; no logs |
| | Yield: unknown Drilled: unknown Water Depth: unknown | | | | | |
| 72932 | 295225 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 72936 | 295228 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72972 | 295227 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72933 | 295224 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 72935 | 295230 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/13/2012 Water Depth: 15ft Domestic use | | | | | |
| 72934 | 295222 | Private | Yes | Cased (5” PVC) | Surface sleeve | HPWD |
| | Yield: unknown Drilled: 6/12/2012 Water Depth: 15ft Domestic use | | | | | |
| 95492 | 366718 | Private | Yes | Cased (12” PVC) | unknown | HPWD |
| | Yield: unknown Drilled: 6/10/2022 Water Depth: 20ft | | | | | |
| 2350801 | 2350801 | Private | No | Cased (12” Galv) | unknown | TWDB |
| | Yield: none Drilled: 2/1978 Water Depth: 25ft | | | | | |

# ATTACHMENT G

---

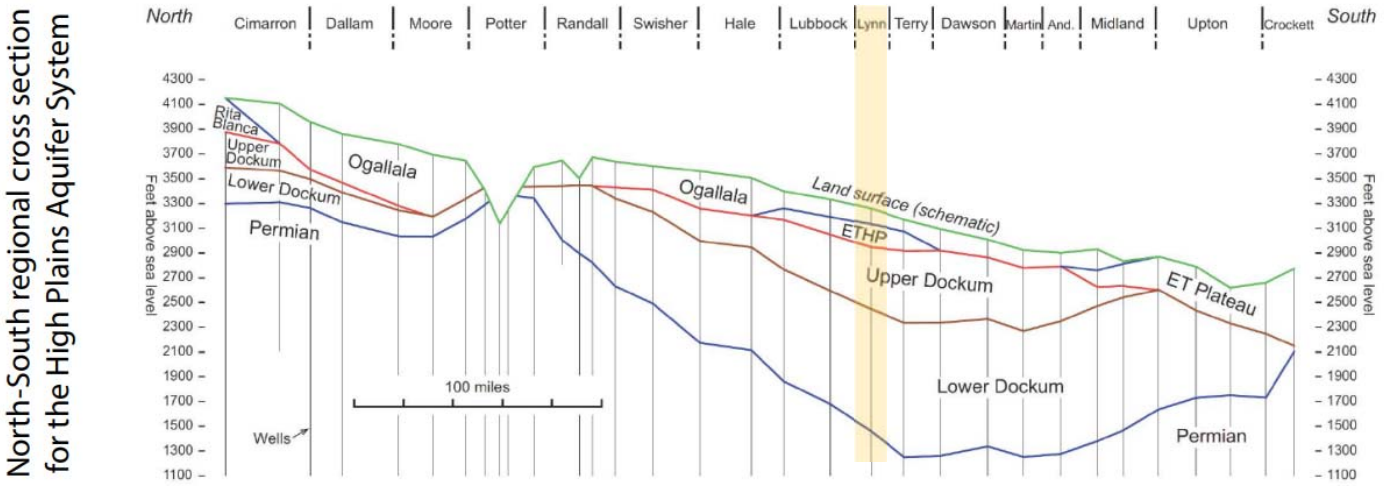
Groundwater Quality Report

## Section 7. Groundwater Quality

For this short report, water quality will pertain to the most shallow, yet most substantial aquifer in the region, the Ogallala. Water quality in this aquifer is good; however, it is considered 'hard' due to higher concentrations of calcium and magnesium. In addition, high levels of nitrates, fluoride and arsenic have been observed in the historical well sampling within and around the City of Tahoka in concentrations exceeding the MCL for primary and secondary water quality standards.

Two minor aquifers, the Edwards-Trinity (High Plains) and Dockum aquifers underly the Ogallala, yet water quality declines to slightly saline to brackish, TDS concentrations typically corresponding to the depth of the aquifer being tested. Due to the relative depth to the water table, the generous saturated thickness that averages 54 feet, and the good water quality found throughout the region and at all depths, most municipal, private domestic, and irrigation wells are developed in the Ogallala aquifer. See Figure 1 below for a representation of the various aquifers in Lynn County and their respective base, water table and surface elevations.

**Figure 1** – Cross Section of Local Aquifers [1]




Ogallala aquifer, recharge occurs primarily through percolation of precipitation through the soilds and underlying sediments. Playa lakes are primary points for most natural recharge, contributing 10-100 times more recharge than surrounding lands.[1]

Referencing the USGS – Water Well Map, the depth to the Ogallala water table in Well 75956, located 1.2 miles north of the effluent disposal site was 40.36' from the surface (2023). The depth to the water table decreases rapidly as one moves south. The next closest well to the effluent disposal site is located 3.5 miles southeast and only has a depth to the water table of 14.96 feet (2023).

Groundwater movement in the Ogallala aquifer generally flows from the NW to the SE at variable rates, but approximating 150 feet per year. No monitoring of the groundwater quality below the effluent disposal site have been performed in the past.

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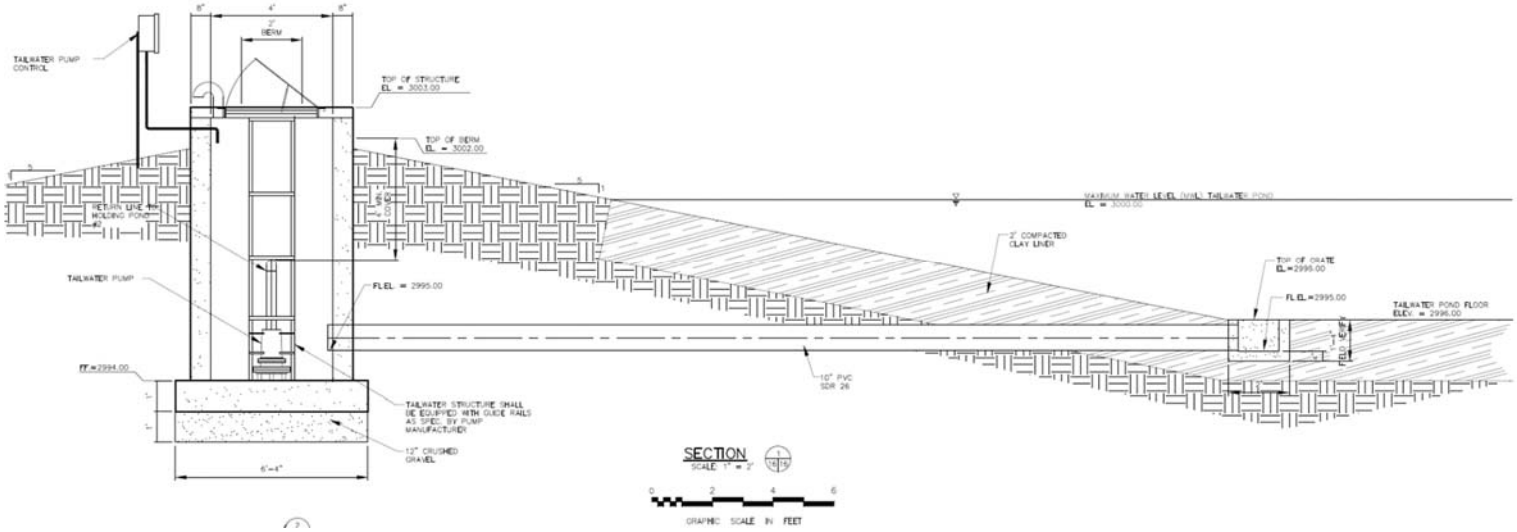
[1] *High Plains Underground Water Conservation District, Ogallala Aquifer Fact Sheet, 11/24/2021*

No dedicated monitoring wells have been constructed. According to online water records from High Plains Underground Water Conservation District (HPWD) and the Texas Water Development Board, there are only two wells downgradient of the irrigation area, both located approximately 0.85 miles to the SE identified as 635734 and 635735 on the USGS – Water Well Map. Both wells were drilled/developed in March 2023. At the approximated groundwater flowrate provided by HPWD, this would calculate out to 29.9 years of background data before any influence of the effluent could be observed.

This office successfully located sealed RECORD DRAWINGS for the wastewater treatment plant constructed in 2002, including details of the irrigation area and the tailwater pond. The drawings indicated the exact location of the tailwater berms, which effectively contain all runoff from the irrigation area before it can pond within the existing playa lake. See Exhibit 1 at the end of this report for a reproduction of Sheet 9 from the RECORD set that defines the extent of the effluent disposal site and the runoff control measures constructed.

Figure 2 below represents the tailwater return structure with pump that prevents runoff and limits the amount of effluent that is capable of being ponded in this playa basin.

**Figure 2** – Tailwater Pond Pump Detail

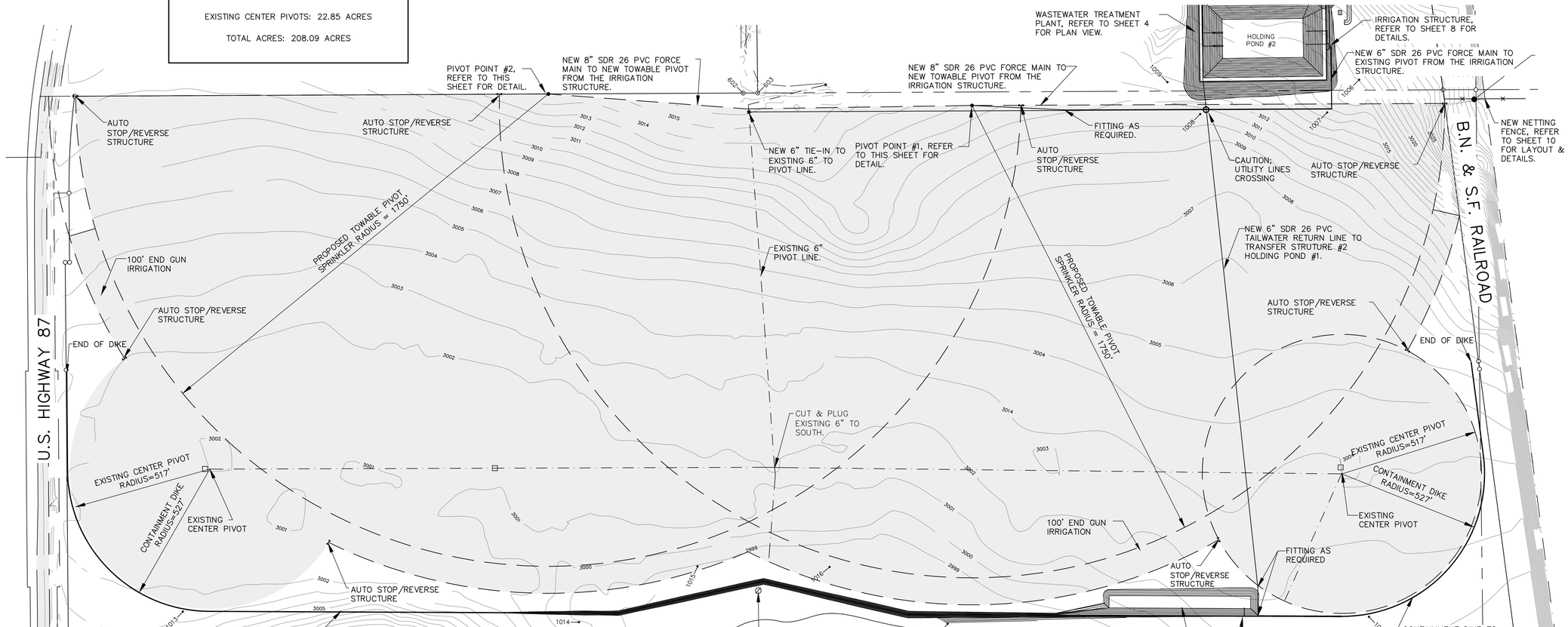


## TOTAL IRRIGATED AREA

NEW CENTER PIVOT: 170.64 ACRES
NEW END GUNS: 14.60 ACRES

EXISTING CENTER PIVOTS: 22.85 ACRES

TOTAL ACRES: 208.09 ACRES




## IRRIGATION LAYOUT PLAN

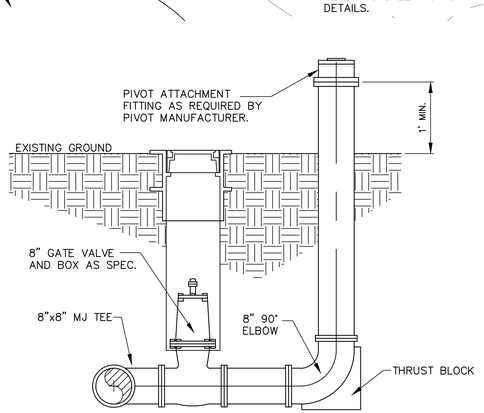
SCALE: 1"=200'

### LEGEND

- CORNER MONUMENTS FOUND
- 3/8" IRON RODS WITH YELLOW PLASTIC CAPS MARKED "RPLS 1848" SET THIS SURVEY
- EXISTING SEWER MANHOLES
- PROPOSED SEWER MANHOLES
- ELECTRIC BOXES
- VALVE
- TOWABLE PIVOT, PVC PIPES, TRAFFIC SIGNS
- LIGHT POLES, UTILITY POLES
- TREES
- FENCE LINES
- PROPOSED FENCING
- EXISTING CONTOURS
- PROPOSED CONTOURS
- OVERHEAD UTILITY LINES
- SECTION LINES
- BLOCK LINES
- UNDERGROUND SEWER MAIN LINES
- 1000 – CONTROL POINT
- 4000 – NODE POINTS

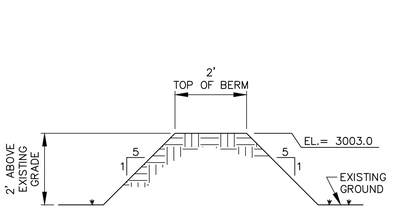
0 200 400 600

GRAPHIC SCALE IN FEET




## CENTER PIVOT RISER DETAIL

NOT TO SCALE




## TYPICAL CONTAINMENT DIKE SECTION

NTS

**RECORD DRAWING**

OLLER ENGINEERING, INC.

CLIENT :
CITY OF TAHOKA, TEXAS

OEI PROJECT :
WASTEWATER TREATMENT PLANT

Designed by :

Date

| Date | Revision |
|---|---|

| | | | |
|---|---|---|---|
| OEI Project No. : | 2034.97 | Plot: | 1 = 1 |
| OEI Drawing No. : | 2034-09.DWG | Drawn by : | J.I.R. |
| Q.A. : | R.M.Q. | Scale : | AS SHOWN |
| Checked by : | R.S. | Date : | AUGUST 2002 |

Notes

FOR WASTEWATER TREATMENT PLANT NODE LIST, REFER TO SHEET 3.
FOR TAILWATER POND NODE LIST, REFER TO SHEET 15.

SHEET TITLE :

# IRRIGATION LAYOUT PLAN

SHEET

9

OF 17 SHEETS

C:\Civil 3D\Project Files\~ OEI Reference\TAHOKA\WWTP\2034.97\CADD DWGS\2034-09 Irrigation-Layout.dwg Jan 29 2019 02:08p

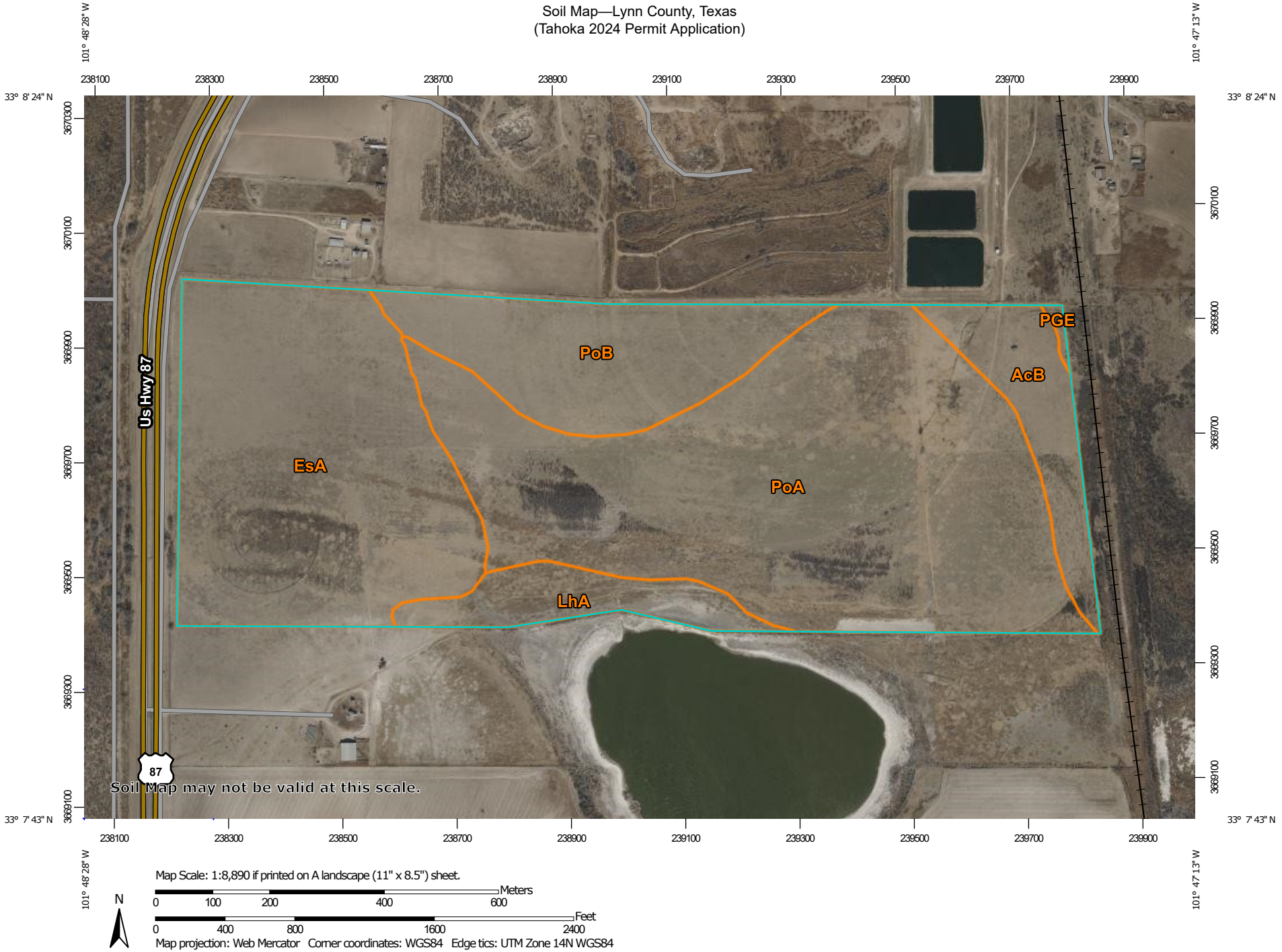
# ATTACHMENT H

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USDA Soil Survey Map and Reports

- Hydrologic Soil Group
- Engineering Properties
- Saturated Hydraulic Conductivity

Soil Map—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## 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: Lynn County, Texas
Survey Area Data: Version 20, Sep 5, 2023

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

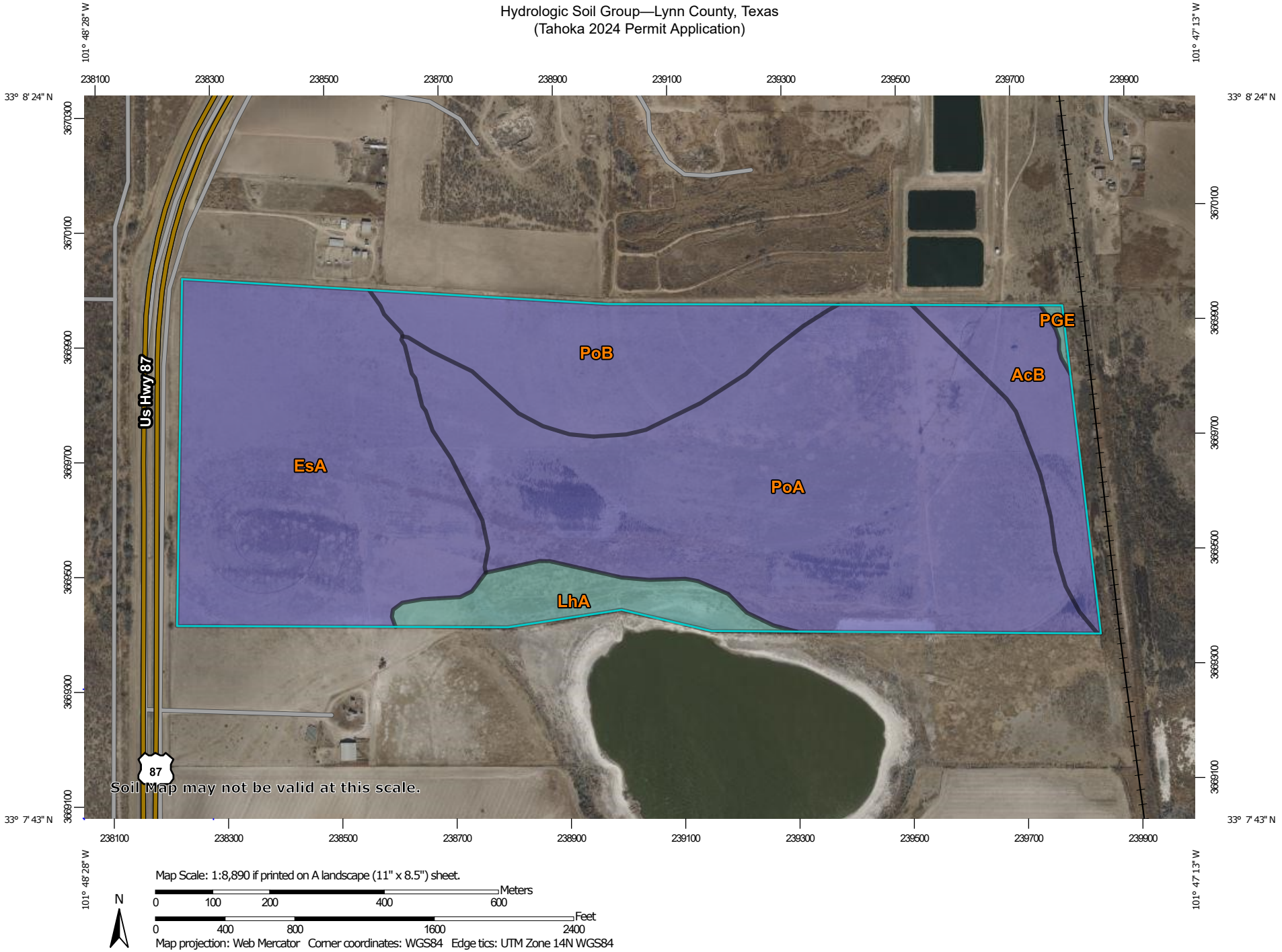
Date(s) aerial images were photographed: Nov 28, 2021—Jan 17, 2022

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 |
|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | 29.2 | 13.0% |
| **Totals for Area of Interest** | | **224.2** | **100.0%** |

Hydrologic Soil Group—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Lines**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**Soil Rating Points**

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

**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: Lynn County, Texas
Survey Area Data: Version 20, 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: Nov 28, 2021—Jan 17, 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.

# Hydrologic Soil Group

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | B | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | B | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | C | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | C | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | B | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | B | 29.2 | 13.0% |
| **Totals for Area of Interest** | | | **224.2** | **100.0%** |

## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Higher

# Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit* and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

# Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| AcB—Acuff loam, 1 to 3 percent slopes | | | | | | | | | | | | | | |
| Acuff | 85 | B | 0-12 | Loam | CL | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 90-98-100 | 60-67-74 | 27-36-43 | 8-13-19 |
| | | | 12-38 | Clay loam, loam, sandy clay loam | CL | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-98-100 | 55-63-67 | 31-40-45 | 13-19-22 |
| | | | 38-58 | Clay loam, sandy clay loam | CL, SM | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 90-93-97 | 80-87-95 | 73-85-95 | 45-54-67 | 27-35-45 | 5-14-24 |
| | | | 58-80 | Clay loam, loam, sandy clay loam | CL, SC | A-4, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 93-96-99 | 86-91-98 | 78-89-98 | 45-55-69 | 27-37-48 | 8-17-27 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| EsA—Estacado loam, 0 to 1 percent slopes | | | | | | | | | | | | | | |
| Estacado | 85 | B | 0-6 | Loam | CL | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 90-98-100 | 55-63-70 | 26-35-45 | 8-13-19 |
| | | | 6-19 | Clay loam, sandy clay loam | CL, CH | A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 98-100-100 | 85-99-100 | 62-75-81 | 34-46-53 | 15-22-29 |
| | | | 19-38 | Clay loam, sandy clay loam | CL, CH | A-7-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 98-100-100 | 85-99-100 | 62-75-81 | 34-46-53 | 15-22-29 |
| | | | 38-50 | Clay loam, sandy clay loam | CL, CH, SC | A-7-6 | 0- 0- 0 | 0- 0- 0 | 90-92-100 | 87-90-100 | 72-88-100 | 48-64-73 | 32-45-51 | 15-23-29 |
| | | | 50-80 | Clay loam, sandy clay loam | CL, CH, SC | A-7-6 | 0- 0- 0 | 0- 0- 0 | 88-94-99 | 84-91-98 | 67-89-98 | 41-61-76 | 32-44-59 | 15-21-36 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| LhA—Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | | | | | | | | | | | | | | |
| Lenorah | 50 | C | 0-8 | Fine sandy loam | SC-SM, SC | A-2-4, A-4 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 87-97-100 | 32-39-47 | 20-26-33 | 4-7 -12 |
| | | | 8-22 | Loam, fine sandy loam, sandy clay loam | CL, SC | A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 88-97-100 | 43-50-58 | 29-35-46 | 12-15-23 |
| | | | 22-47 | Loam, fine sandy loam, sandy clay loam | CL, SC | A-2-4, A-2-5, A-6, A-7-6 | 0- 0- 0 | 0- 0- 0 | 82-88-97 | 78-85-96 | 70-82-96 | 32-39-53 | 28-31-43 | 10-12-19 |
| | | | 47-65 | Fine sandy loam, loamy fine sand | SC-SM, SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 98-99-100 | 96-98-100 | 81-91-100 | 21-28-38 | 16-20-30 | 1-4 -11 |
| | | | 65-80 | Loamy fine sand, sand | SC-SM, SP-SM, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 98-99-100 | 97-98-100 | 68-76-86 | 11-14-21 | 0-18 -21 | NP-3 -4 |
| Hindman | 30 | A | 0-23 | Fine sand | SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 96-98-100 | 20-22-34 | 0-16 -28 | NP-1 -10 |
| | | | 23-38 | Fine sandy loam, loamy fine sand | SC-SM, SC, SM | A-2-4, A-2-5, A-7-6 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 92-96-100 | 21-24-47 | 16-20-41 | 2-4 -21 |
| | | | 38-46 | Fine sandy loam | CL, SC, SM | A-2-4, A-2-5, A-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 98-100-100 | 98-100-100 | 88-97-100 | 34-42-55 | 19-27-41 | 3-9 -20 |
| | | | 46-60 | Fine sandy loam, loam, sandy clay loam | CL, SM | A-6 | 0- 0- 0 | 0- 0- 0 | 96-98-100 | 95-98-100 | 84-97-100 | 39-51-61 | 18-30-40 | 1-11-20 |
| | | | 60-80 | Loamy fine sand, fine sand | SC, SM | A-2-4 | 0- 0- 0 | 0- 0- 0 | 99-100-100 | 98-100-100 | 96-98-100 | 19-21-31 | 0-16 -26 | NP-1 -9 |

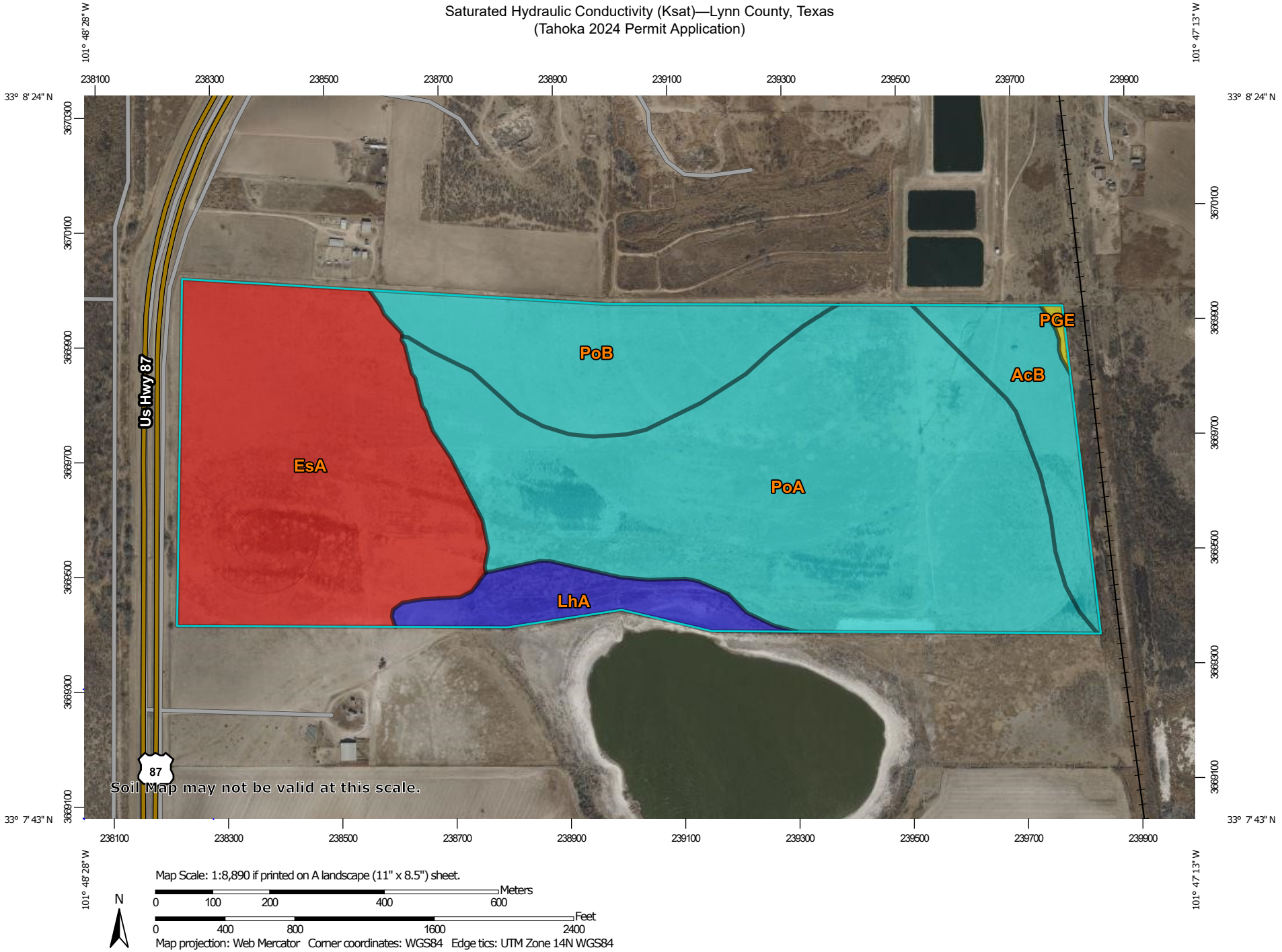
| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| PGE—Potter soils, 3 to 20 percent slopes | | | | | | | | | | | | | | |
| Potter | 85 | C | 0-6 | Gravelly loam | MH, ML, GC | A-4, A-6, A-7-5 | 0- 0- 0 | 0- 0- 0 | 68-81-88 | 64-78-87 | 58-75-87 | 40-53-70 | 30-39-54 | 9-13-24 |
| | | | 6-15 | Very gravelly loam, very gravelly sandy loam | GC-GM, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 46-61-63 | 39-47-58 | 27-35-53 | 18-23-39 | 25-27-45 | 7-8 -25 |
| | | | 15-29 | Very gravelly loam, extremely gravelly sandy loam, extremely gravelly loam, very gravelly sandy loam | GP-GC, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 19-41-64 | 13-32-60 | 9-23- 54 | 6-15- 39 | 25-27-44 | 7-9 -25 |
| | | | 29-80 | Extremely gravelly loam, very gravelly fine sandy loam, very gravelly loam, extremely gravelly fine sandy loam | GP-GC, GC | A-2-4, A-7-6 | 0- 0- 0 | 0- 0- 0 | 19-35-64 | 13-26-60 | 11-21-59 | 6-11- 37 | 25-25-44 | 7-8 -25 |
| PoA—Portales loam, 0 to 1 percent slopes | | | | | | | | | | | | | | |
| Portales | 85 | B | 0-15 | Loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 94-99-100 | 60-64-70 | 26-33-40 | 7-12-17 |
| | | | 15-35 | Sandy clay loam, loam, clay loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-99-100 | 64-73-84 | 28-39-52 | 8-16-27 |
| | | | 35-43 | Clay loam, sandy clay loam, loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 86-92-99 | 83-90-98 | 77-89-98 | 53-63-82 | 24-33-47 | 4-13-26 |
| | | | 43-80 | Loam, sandy clay loam, clay loam | SC-SM, CL-ML, CL | A-6 | 0- 0- 0 | 0- 0- 0 | 81-89-97 | 77-86-96 | 62-85-96 | 41-62-71 | 24-39-45 | 4-16-23 |

| Engineering Properties–Lynn County, Texas | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Map unit symbol and soil name | Pct. of map unit | Hydrologic group | Depth | USDA texture | Classification | | Pct Fragments | | Percentage passing sieve number— | | | | Liquid limit | Plasticity index |
| | | | | | Unified | AASHTO | >10 inches | 3-10 inches | 4 | 10 | 40 | 200 | | |
| | | | *In* | | | | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* | *L-R-H* |
| PoB—Portales loam, 1 to 3 percent slopes | | | | | | | | | | | | | | |
| Portales | 85 | B | 0-14 | Loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 94-99-100 | 60-64-70 | 26-33-40 | 7-12-17 |
| | | | 14-35 | Sandy clay loam, loam, clay loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 100-100-100 | 100-100-100 | 91-99-100 | 64-73-84 | 28-39-52 | 8-16-27 |
| | | | 35-43 | Clay loam, sandy clay loam, loam | CL | A-6 | 0- 0- 0 | 0- 0- 0 | 86-92-99 | 83-90-98 | 77-89-98 | 53-63-82 | 24-33-47 | 4-13-26 |
| | | | 43-80 | Loam, sandy clay loam, clay loam | CL-ML, CL, SC-SM | A-6 | 0- 0- 0 | 0- 0- 0 | 81-89-97 | 77-86-96 | 62-85-96 | 41-62-71 | 24-39-45 | 4-16-23 |

# Data Source Information

Soil Survey Area: Lynn County, Texas
Survey Area Data: Version 20, Sep 5, 2023

Saturated Hydraulic Conductivity (Ksat)—Lynn County, Texas
(Tahoka 2024 Permit Application)




Map Scale: 1:8,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 100 200 400 600

Feet: 0 400 800 1600 2400

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

## MAP LEGEND

**Area of Interest (AOI)**
- Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**Soil Rating Lines**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**Soil Rating Points**
- <= 6.7761
- > 6.7761 and <= 7.5391
- > 7.5391 and <= 9.0000
- > 9.0000 and <= 17.2609
- Not rated or not available

**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: Lynn County, Texas
Survey Area Data: Version 20, 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: Nov 28, 2021—Jan 17, 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.

# Saturated Hydraulic Conductivity (Ksat)

| Map unit symbol | Map unit name | Rating (micrometers per second) | Acres in AOI | Percent of AOI |
|---|---|---|---|---|
| AcB | Acuff loam, 1 to 3 percent slopes | 9.0000 | 13.9 | 6.2% |
| EsA | Estacado loam, 0 to 1 percent slopes | 6.7761 | 66.3 | 29.6% |
| LhA | Lenorah-Hindman complex, 0 to 2 percent slopes, very rarely flooded | 17.2609 | 11.4 | 5.1% |
| PGE | Potter soils, 3 to 20 percent slopes | 7.5391 | 0.5 | 0.2% |
| PoA | Portales loam, 0 to 1 percent slopes | 9.0000 | 102.9 | 45.9% |
| PoB | Portales loam, 1 to 3 percent slopes | 9.0000 | 29.2 | 13.0% |
| **Totals for Area of Interest** | | | **224.2** | **100.0%** |

## Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

## Rating Options

*Units of Measure:* micrometers per second

*Aggregation Method:* Dominant Component

*Component Percent Cutoff: None Specified*

*Tie-break Rule:* Fastest

*Interpret Nulls as Zero:* No

*Layer Options (Horizon Aggregation Method):* Depth Range (Weighted Average)

*Top Depth:* 0

*Bottom Depth:* 18

*Units of Measure:* Inches

# ATTACHMENT I

---

Soil Analysis for Effluent Disposal Site

Servi-Tech Laboratories

# SOIL SAMPLE INFORMATION SHEET

1602 Park West Drive • P.O. Box 169 • Hastings, NE 68902
1816 East Wyatt Earp Blvd. • P.O. Box 1397 • Dodge City, KS 67801
6921 S. Bell • Amarillo, TX 79109
800-557-7509

Name PKCC

Address

City/St/Zip

Date sampled

Date sent

Fax/email results ☐

| Lab Use Only | Producer / Field I.D. | Sample I.D. | Depth | Test | Crop | YG |
|---|---|---|---|---|---|---|
| 087413 | 1. Tahoka, City 8" Pivot | | 0 to 6 | PKCC-6 | | |
| 087414 | 2. | | 6 to 18 | | | |
| 087415 | 3. | | 18 to 30 | | | |
| 087416 | 4. 6" Pivot | | 0 to 6 | | | |
| 087417 | 5. | | 6 to 18 | | | |
| 087418 | 6. | | 18 to 30 | | | |
| | 7. | | to | | | |
| | 8. | | to | | | |
| | 9. | | to | | | |
| | 10. | | to | | | |
| | 11. | | to | | | |
| | 12. | | to | | | |
| | 13. | | to | | | |
| | 14. | | to | | | |
| | 15. | | to | | | |
| | 16. | | to | | | |
| | 17. | | to | | | |
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| | 19. | | to | | | |
| | 20. | | to | | | |
| | 21. | | to | | | |
| | 22. | | to | | | |
| | 23. | | to | | | |
| | 24. | | to | | | |
| | 25. | | to | | | |
| | 26. | | to | | | |
| | 27. | | to | | | |
| | 28. | | to | | | |
| | 29. | | to | | | |
| | 30. | | to | | | |

Comments

# SOIL ANALYSIS REPORT

| CLIENT: | PKCC<br>PAUL REYNOLDS<br>PO BOX 778<br>CLARENDON, TX 79226 |
|---|---|
| 41493 | |

servi tech
www.servitech.com
1816 E. Wyatt Earp
PO Box 1397
Dodge City, KS 67801
800.557.7509
620.227.7123
Fax 620.227.2047

| LAB NO: | 87413 - 87415 |
|---|---|
| INVOICE NO: | 898654 |
| DATE RECEIVED: | 03/23/2023 |
| DATE REPORTED: | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 8 INCH PIVOT

| METHOD USED: | | | 1:2 Soil-Water | | 1:2 Soil-Water | XSL(i) | LOI(r) | Cd Reduction | | Mehlich 3 ICP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Soil pH | Buffer pH | Sol. Salts mmho/cm | Excess Lime | % Organic Matter | Nitrate-Nitrogen ppm | Nitrate-Nitrogen lb. N/A | Phosphorus ppm P | Potassium ppm K | Sulfur ppm | Sulfur lb. S/A | Calcium ppm Ca | Magnesium ppm Mg | Sodium ppm Na | Zinc ppm Zn | Iron ppm Fe | Manganese ppm Mn | Copper ppm Cu | Boron ppm B |
| 87413 | | 0 - 6 | 8.7 | | 0.29 | Hi | 1.0 | 2.4 | 4 | 46 | 570 | 23 | 41 | 5500 | 514 | 275 | | | | | |
| 87414 | | 6 - 18 | 8.6 | | 0.54 | Hi | 0.7 | 1.6 | 6 | 9 | 424 | 85 | 306 | 7820 | 524 | 444 | | | | | |
| 87415 | | 18 - 30 | 8.2 | | 1.15 | Hi | 0.6 | <1.0 | <4 | 7 | 306 | 142 | 511 | 14400 | 686 | 645 | | | | | |

| METHOD USED: | | | KCl Extr. | | TKN | Sat. Paste | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Ammonium Nitrogen ppm | Ammonium Nitrogen lb. /A | TKN ppm | Saturation % Sat | Electrical Conductivity mmho/cm | Calcium mg/L Ca | Magnesium mg/L Mg | Sodium mg/L Na | Sodium Adsorption Ratio | | | | | | | | | | |
| 87413 | | 0 - 6 | 3 | 5 | 953 | 43 | 1.05 | 36 | 14.4 | 165 | 5.9 | | | | | | | | | | |
| 87414 | | 6 - 18 | 4 | 14 | 620 | 46 | 1.61 | 63 | 23.3 | 357 | 9.8 | | | | | | | | | | |
| 87415 | | 18 - 30 | 3 | 11 | 404 | 49 | 2.52 | 105 | 34.4 | 398 | 8.6 | | | | | | | | | | |

**FERTILIZER RECOMMENDATIONS:** POUNDS ACTUAL NUTRIENT PER ACRE

| Lab Number | Sample ID | Crop To Be Grown | Yield Goal | Lime, ECC Tons/A to raise pH to: 6.0 | 6.5 | 7.0 | N | $P_2O_5$ | $K_2O$ | Zn | S | Mn | Cu | MgO | B | Ca | Cl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87413 | | | | | | | | | | | | | | | | | |
| 87414 | | | | | | | | | | | | | | | | | |
| 87415 | | | | | | | | | | | | | | | | | |

**Cation Exchange Capacity**

| CEC | %H | %K | %Ca | %Mg | %Na |
|---|---|---|---|---|---|
| 32 | 0 | 5 | 78 | 13 | 4 |
| 32 | 0 | 3 | 77 | 13 | 6 |
| 34 | 0 | 2 | 73 | 17 | 8 |

**SPECIAL COMMENTS AND SUGGESTIONS:**

Lab Number(s): 87413
Servi-Tech Laboratory fertilizer recommendations were not requested.

Lab Number(s): 87413, 87414
**SODIUM - CAUTION (4% to 7% Na)**: The exchangeable soil sodium (as % Na) is moderately high for fine-textured soils and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.

Lab Number(s): 87413, 87414, 87415
The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



The reported analytical results apply only to the sample as it was supplied. The report may not be reproduced, except in full, without permission of ServiTech.
Your opinion is valuable to us. Please let us know what you think about our services! Send an email to feedback@servitech.com.

# SOIL ANALYSIS REPORT

| | |
|---|---|
| **CLIENT:** 41493 | PKCC<br>PAUL REYNOLDS<br>PO BOX 778<br>CLARENDON, TX 79226 |

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Fax 620.227.2047

| | |
|---|---|
| **LAB NO:** | 87413 - 87415 |
| **INVOICE NO:** | 898654 |
| **DATE RECEIVED:** | 03/23/2023 |
| **DATE REPORTED:** | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 8 INCH PIVOT

Lab Number(s): 87415

**SODIUM - WARNING (7% to 10% Na):** The exchangeable soil sodium (as % Na) is high for fine-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



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# SOIL ANALYSIS REPORT

| CLIENT: | PKCC<br>PAUL REYNOLDS<br>PO BOX 778<br>CLARENDON, TX 79226 |
|---|---|
| 41493 | |

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Dodge City, KS 67801
800.557.7509
620.227.7123
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| LAB NO: | 87416 - 87418 |
|---|---|
| INVOICE NO: | 898654 |
| DATE RECEIVED: | 03/23/2023 |
| DATE REPORTED: | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 6 INCH PIVOT

| METHOD USED: | | | 1:2 Soil-Water | | 1:2 Soil-Water | XSL(i) | LOI(r) | Cd Reduction | | Mehlich 3 ICP | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Soil pH | Buffer pH | Sol. Salts mmho/cm | Excess Lime | % Organic Matter | Nitrate-Nitrogen ppm | Nitrate-Nitrogen lb. N/A | Phosphorus ppm P | Potassium ppm K | Sulfur ppm | Sulfur lb. S/A | Calcium ppm Ca | Magnesium ppm Mg | Sodium ppm Na | Zinc ppm Zn | Iron ppm Fe | Manganese ppm Mn | Copper ppm Cu | Boron ppm B |
| 87416 | | 0 - 6 | 8.6 | | 0.41 | Lo | 2.0 | 1.6 | 3 | 48 | 1040 | 24 | 43 | 5540 | 977 | 435 | | | | | |
| 87417 | | 6 - 18 | 8.3 | | 0.73 | Hi | 1.3 | <1.0 | <4 | 11 | 555 | 49 | 176 | 5610 | 862 | 547 | | | | | |
| 87418 | | 18 - 30 | 8.1 | | 1.65 | Hi | 1.0 | <1.0 | <4 | 10 | 338 | 152 | 547 | 7590 | 755 | 942 | | | | | |

| METHOD USED: | | | KCl Extr. | | TKN | Sat. Paste | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lab Number | Sample ID | Sample Depth | Ammonium Nitrogen ppm | Ammonium Nitrogen lb. /A | TKN ppm | Saturation % Sat | Electrical Conductivity mmho/cm | Calcium mg/L Ca | Magnesium mg/L Mg | Sodium mg/L Na | Sodium Adsorption Ratio | | | | | | | | | | |
| 87416 | | 0 - 6 | 3 | 5 | 1777 | 54 | 0.91 | 23 | 9.9 | 139 | 6.1 | | | | | | | | | | |
| 87417 | | 6 - 18 | 4 | 14 | 720 | 54 | 1.46 | 43 | 18.1 | 207 | 6.7 | | | | | | | | | | |
| 87418 | | 18 - 30 | 3 | 11 | 534 | 55 | 3.48 | 155 | 46.6 | 470 | 8.5 | | | | | | | | | | |

**FERTILIZER RECOMMENDATIONS:** POUNDS ACTUAL NUTRIENT PER ACRE

| Lab Number | Sample ID | Crop To Be Grown | Yield Goal | Lime, ECC Tons/A to raise pH to: 6.0 | 6.5 | 7.0 | N | $P_2O_5$ | $K_2O$ | Zn | S | Mn | Cu | MgO | B | Ca | Cl |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 87416 | | | | | | | | | | | | | | | | | |
| 87417 | | | | | | | | | | | | | | | | | |
| 87418 | | | | | | | | | | | | | | | | | |

**Cation Exchange Capacity**

| CEC | %H | %K | %Ca | %Mg | %Na |
|---|---|---|---|---|---|
| 38 | 0 | 7 | 66 | 22 | 5 |
| 36 | 0 | 4 | 69 | 20 | 7 |
| 36 | 0 | 2 | 69 | 17 | 11 |

**SPECIAL COMMENTS AND SUGGESTIONS:**

Lab Number(s): 87416

Servi-Tech Laboratory fertilizer recommendations were not requested.

Lab Number(s): 87416, 87417

**SODIUM - CAUTION (4% to 7% Na)**: The exchangeable soil sodium (as % Na) is moderately high for fine-textured soils and may indicate a developing problem. If irrigated, an irrigation water analysis can help identify the sodium source. Contact the laboratory for details.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator

Michele Lawson



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# SOIL ANALYSIS REPORT

| | |
|---|---|
| **CLIENT:** 41493 | PKCC<br>PAUL REYNOLDS<br>PO BOX 778<br>CLARENDON, TX 79226 |

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Fax 620.227.2047

| | |
|---|---|
| **LAB NO:** | 87416 - 87418 |
| **INVOICE NO:** | 898654 |
| **DATE RECEIVED:** | 03/23/2023 |
| **DATE REPORTED:** | 04/14/2023 |

**SOIL ANALYSIS RESULTS FOR:** CITY OF TAHOKA **FIELD IDENTIFICATION:** 6 INCH PIVOT

Lab Number(s): 87417

**SODIUM - WARNING (7% to 10% Na):** The exchangeable soil sodium (as % Na) is high for fine-textured soils. Typical symptoms of a sodium problem are soil sealing, crusting, and poor water penetration. Applying gypsum may be beneficial, but additional soil analysis may be required to determine the rate. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Lab Number(s): 87417, 87418

The CEC value calculated by cation summation has been adjusted to compensate for the presence of excess lime (reactive carbonates).

Lab Number(s): 87418

**SODIUM - VERY HIGH (over 10% Na):** The exchangeable soil sodium (as % Na) is very high for fine-textured soils. Typical symptoms of a sodic soil are surface crusting, soil sealing, and poor water penetration. Additional soil analysis can determine the proper rate of gypsum or other soil amendment. If irrigated, water analysis can help identify the sodium source. Contact the laboratory for more information.

Analyses are representative of the samples submitted | Samples are retained 30 days after report of analysis | Explanations of soil analysis terms are available upon request

Reviewed and Approved By: Michele Lawson, Data Review Coordinator



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# ATTACHMENT J

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2022 – 2023 Monthly Flow Record Data

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **July** | | | | |
| 7/1/22 | 507,106.3 | 122,700 | | |
| 7/2/22 | 507,229.0 | 95,200 | | |
| 7/3/22 | 507,324.2 | 127,200 | | |
| 7/4/22 | 507,451.4 | 120,400 | | |
| 7/5/22 | 507,571.8 | 133,300 | | |
| 7/6/22 | 507,705.1 | 138,800 | | |
| 7/7/22 | 507,843.9 | 122,000 | | |
| 7/8/22 | 507,965.9 | 132,400 | | |
| 7/9/22 | 508,098.3 | 131,300 | | |
| 7/10/22 | 508,229.6 | 110,900 | | |
| 7/11/22 | 508,340.5 | 110,700 | | |
| 7/12/22 | 508,451.2 | 127,300 | | |
| 7/13/22 | 508,578.5 | 127,300 | | |
| 7/14/22 | 508,705.8 | 113,200 | | |
| 7/15/22 | 508,819.0 | 113,100 | | |
| 7/16/22 | 508,932.1 | 120,400 | | |
| 7/17/22 | 509,052.5 | 131,100 | | |
| 7/18/22 | 509,183.6 | 122,500 | | |
| 7/19/22 | 509,306.1 | 141,500 | | |
| 7/20/22 | 509,447.6 | 141,600 | | |
| 7/21/22 | 509,589.2 | 126,600 | | |
| 7/22/22 | 509,715.8 | 112,800 | | |
| 7/23/22 | 509,828.6 | 112,700 | | |
| 7/24/22 | 509,941.3 | 130,900 | | |
| 7/25/22 | 510,072.2 | 128,100 | | |
| 7/26/22 | 510,200.3 | 130,100 | | |
| 7/27/22 | 510,330.4 | 124,400 | | |
| 7/28/22 | 510,454.8 | 124,400 | | |
| 7/29/22 | 510,579.2 | 123,500 | | |
| 7/30/22 | 510,702.7 | 133,000 | | |
| 7/31/22 | 510,835.7 | 128,900 | | |
| 8/1/22 | 510,964.6 | | | |

Monthly Total: 3,858,300 gallons

Daily Average: **124,461** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **141,600** gallons on **7/20/22**

Minimum Day: **95,200** gallons on **7/2/22**

Permitted Flow: 360,000 gpd

35% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **August** | | | | |
| 8/1/22 | 510,964.6 | 142,000 | | |
| 8/2/22 | 511,106.6 | 120,700 | | |
| 8/3/22 | 511,227.3 | 158,500 | | |
| 8/4/22 | 511,385.8 | 491,500 | | |
| 8/5/22 | 511,877.3 | 402,900 | | |
| 8/6/22 | 512,280.2 | 199,600 | | |
| 8/7/22 | 512,479.8 | 952,500 | | |
| 8/8/22 | 513,432.3 | 382,200 | | |
| 8/9/22 | 513,814.5 | 356,800 | | |
| 8/10/22 | 514,171.3 | 361,100 | | |
| 8/11/22 | 514,532.4 | 158,300 | | |
| 8/12/22 | 514,690.7 | 121,600 | | |
| 8/13/22 | 514,812.3 | 133,300 | | |
| 8/14/22 | 514,945.6 | 117,600 | | |
| 8/15/22 | 515,063.2 | 130,800 | | |
| 8/16/22 | 515,194.0 | 137,600 | | |
| 8/17/22 | 515,331.6 | 238,800 | | |
| 8/18/22 | 515,570.4 | 106,400 | | |
| 8/19/22 | 515,676.8 | 84,200 | | |
| 8/20/22 | 515,761.0 | -213,900 | X | Erroneous reading documented |
| 8/21/22 | 515,547.1 | 389,000 | X | Erroneous reading documented |
| 8/22/22 | 515,936.1 | 114,200 | | |
| 8/23/22 | 516,050.3 | 338,800 | | |
| 8/24/22 | 516,389.1 | 117,400 | | |
| 8/25/22 | 516,506.5 | 120,300 | | |
| 8/26/22 | 516,626.8 | 100,000 | | |
| 8/27/22 | 516,726.8 | 118,100 | | |
| 8/28/22 | 516,844.9 | 124,500 | | |
| 8/29/22 | 516,969.4 | 131,600 | | |
| 8/30/22 | 517,101.0 | 95,000 | | |
| 8/31/22 | 517,196.0 | 144,600 | | |
| 9/1/22 | 517,340.6 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 6,376,000 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **213,824** | gpd | |
| Maximum Day: | **952,500** | gallons on | **8/7/22** |
| Minimum Day: | **84,200** | gallons on | **8/19/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 59% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **September** | | | | |
| 9/1/22 | 517,340.6 | 106,600 | | |
| 9/2/22 | 517,447.2 | 114,900 | | |
| 9/3/22 | 517,562.1 | 118,200 | | |
| 9/4/22 | 517,680.3 | 98,500 | | |
| 9/5/22 | 517,778.8 | 98,400 | | |
| 9/6/22 | 517,877.2 | 92,500 | | |
| 9/7/22 | 517,969.7 | 110,800 | | |
| 9/8/22 | 518,080.5 | 102,200 | | |
| 9/9/22 | 518,182.7 | 95,100 | | |
| 9/10/22 | 518,277.8 | 110,300 | | |
| 9/11/22 | 518,388.1 | 117,100 | | |
| 9/12/22 | 518,505.2 | 108,500 | | |
| 9/13/22 | 518,613.7 | 118,000 | | |
| 9/14/22 | 518,731.7 | 117,900 | | |
| 9/15/22 | 518,849.6 | 113,500 | | |
| 9/16/22 | 518,963.1 | 115,600 | | |
| 9/17/22 | 519,078.7 | 129,500 | | |
| 9/18/22 | 519,208.2 | 129,500 | | |
| 9/19/22 | 519,337.7 | 131,600 | | |
| 9/20/22 | 519,469.3 | 126,200 | | |
| 9/21/22 | 519,595.5 | 126,100 | | |
| 9/22/22 | 519,721.6 | 130,100 | | |
| 9/23/22 | 519,851.7 | 114,800 | | |
| 9/24/22 | 519,966.5 | 125,000 | | |
| 9/25/22 | 520,091.5 | 139,800 | | |
| 9/26/22 | 520,231.3 | 128,800 | | |
| 9/27/22 | 520,360.1 | 122,500 | | |
| 9/28/22 | 520,482.6 | 122,500 | | |
| 9/29/22 | 520,605.1 | 117,900 | | |
| 9/30/22 | 520,723.0 | 123,000 | | |
| 10/1/22 | 520,846.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,505,400 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **116,847** | gpd | |
| Maximum Day: | **139,800** | gallons on | **9/25/22** |
| Minimum Day: | **92,500** | gallons on | **9/6/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 32% | Average Flow as a Percent of Permitted Flow | |
| | | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **October** | | | | |
| 10/1/22 | 520,846.0 | 119,600 | | |
| 10/2/22 | 520,965.6 | 127,500 | | |
| 10/3/22 | 521,093.1 | 127,600 | | |
| 10/4/22 | 521,220.7 | 123,200 | | |
| 10/5/22 | 521,343.9 | 127,500 | | |
| 10/6/22 | 521,471.4 | 120,000 | | |
| 10/7/22 | 521,591.4 | 120,000 | | |
| 10/8/22 | 521,711.4 | 133,700 | | |
| 10/9/22 | 521,845.1 | 141,900 | | |
| 10/10/22 | 521,987.0 | 135,100 | | |
| 10/11/22 | 522,122.1 | 118,700 | | |
| 10/12/22 | 522,240.8 | 124,700 | | |
| 10/13/22 | 522,365.5 | 123,300 | | |
| 10/14/22 | 522,488.8 | 131,400 | | |
| 10/15/22 | 522,620.2 | 132,100 | | |
| 10/16/22 | 522,752.3 | 132,100 | | |
| 10/17/22 | 522,884.4 | 133,800 | | |
| 10/18/22 | 523,018.2 | 124,300 | | |
| 10/19/22 | 523,142.5 | 124,200 | | |
| 10/20/22 | 523,266.7 | 119,900 | | |
| 10/21/22 | 523,386.6 | 119,900 | | |
| 10/22/22 | 523,506.5 | 127,200 | | |
| 10/23/22 | 523,633.7 | 127,100 | | |
| 10/24/22 | 523,760.8 | 133,000 | | |
| 10/25/22 | 523,893.8 | 117,800 | | |
| 10/26/22 | 524,011.6 | 116,800 | | |
| 10/27/22 | 524,128.4 | 115,300 | | |
| 10/28/22 | 524,243.7 | 388,400 | X | Erroneous reading documented |
| 10/29/22 | 524,632.1 | -141,700 | X | Erroneous reading documented |
| 10/30/22 | 524,490.4 | 128,200 | | |
| 10/31/22 | 524,618.6 | 113,400 | | |
| 11/1/22 | 524,732.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,886,000 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **125,493** | gpd | |
| Maximum Day: | **141,900** | gallons on | **10/9/22** |
| Minimum Day: | **113,400** | gallons on | **10/31/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 35% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **November** | | | | |
| 11/1/22 | 524,732.0 | 118,100 | | |
| 11/2/22 | 524,850.1 | 128,400 | | |
| 11/3/22 | 524,978.5 | 113,300 | | |
| 11/4/22 | 525,091.8 | 115,500 | | |
| 11/5/22 | 525,207.3 | 113,900 | | |
| 11/6/22 | 525,321.2 | 113,200 | | |
| 11/7/22 | 525,434.4 | 115,300 | | |
| 11/8/22 | 525,549.7 | 118,200 | | |
| 11/9/22 | 525,667.9 | 111,100 | | |
| 11/10/22 | 525,779.0 | 113,200 | | |
| 11/11/22 | 525,892.2 | 110,300 | | |
| 11/12/22 | 526,002.5 | 113,000 | | |
| 11/13/22 | 526,115.5 | 113,600 | | |
| 11/14/22 | 526,229.1 | 118,200 | | |
| 11/15/22 | 526,347.3 | 104,100 | | |
| 11/16/22 | 526,451.4 | 114,800 | | |
| 11/17/22 | 526,566.2 | 114,800 | | |
| 11/18/22 | 526,681.0 | 113,200 | | |
| 11/19/22 | 526,794.2 | 115,400 | | |
| 11/20/22 | 526,909.6 | 118,000 | | |
| 11/21/22 | 527,027.6 | 114,500 | | |
| 11/22/22 | 527,142.1 | 111,400 | | |
| 11/23/22 | 527,253.5 | 131,300 | | |
| 11/24/22 | 527,384.8 | 135,600 | | |
| 11/25/22 | 527,520.4 | 132,200 | | |
| 11/26/22 | 527,652.6 | 134,300 | | |
| 11/27/22 | 527,786.9 | 135,400 | | |
| 11/28/22 | 527,922.3 | 131,400 | | |
| 11/29/22 | 528,053.7 | 118,500 | | |
| 11/30/22 | 528,172.2 | 0 | X | Duplicate readings |
| 12/1/22 | 528,172.2 | | | |
| | | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,440,200 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **118,628** | gpd | |
| Maximum Day: | **135,600** | gallons on | **11/24/22** |
| Minimum Day: | **104,100** | gallons on | **11/15/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 33% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **December** | | | | |
| 12/1/22 | 528,172.2 | 107,100 | | |
| 12/2/22 | 528,279.3 | 100,600 | | |
| 12/3/22 | 528,379.9 | 96,800 | | |
| 12/4/22 | 528,476.7 | 101,500 | | |
| 12/5/22 | 528,578.2 | 94,300 | | |
| 12/6/22 | 528,672.5 | 95,800 | | |
| 12/7/22 | 528,768.3 | 122,500 | | |
| 12/8/22 | 528,890.8 | 70,600 | | |
| 12/9/22 | 528,961.4 | 93,200 | | |
| 12/10/22 | 529,054.6 | 105,600 | | |
| 12/11/22 | 529,160.2 | 105,700 | | |
| 12/12/22 | 529,265.9 | 73,700 | | |
| 12/13/22 | 529,339.6 | 73,700 | | |
| 12/14/22 | 529,413.3 | 113,400 | | |
| 12/15/22 | 529,526.7 | 110,300 | | |
| 12/16/22 | 529,637.0 | 110,900 | | |
| 12/17/22 | 529,747.9 | 110,900 | | |
| 12/18/22 | 529,858.8 | 129,100 | | |
| 12/19/22 | 529,987.9 | 97,000 | | |
| 12/20/22 | 530,084.9 | 102,400 | | |
| 12/21/22 | 530,187.3 | 109,700 | | |
| 12/22/22 | 530,297.0 | 131,400 | | |
| 12/23/22 | 530,428.4 | 106,400 | | |
| 12/24/22 | 530,534.8 | 125,500 | | |
| 12/25/22 | 530,660.3 | 114,900 | | |
| 12/26/22 | 530,775.2 | 94,100 | | |
| 12/27/22 | 530,869.3 | 99,800 | | |
| 12/28/22 | 530,969.1 | 98,500 | | |
| 12/29/22 | 531,067.6 | 532,400 | X | Erroneous reading documented |
| 12/30/22 | 531,600.0 | -347,600 | X | Erroneous reading documented |
| 12/31/22 | 531,252.4 | 112,800 | | |
| 1/1/23 | 531,365.2 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,427,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **103,731** | gpd | |
| Maximum Day: | **131,400** | gallons on | **12/22/22** |
| Minimum Day: | **70,600** | gallons on | **12/8/22** |
| Permitted Flow: | 360,000 | gpd | |
| | 29% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **January** | | | | |
| 1/1/23 | 531,365.2 | 83,000 | | |
| 1/2/23 | 531,448.2 | 104,800 | | |
| 1/3/23 | 531,553.0 | 116,000 | | |
| 1/4/23 | 531,669.0 | 124,700 | | |
| 1/5/23 | 531,793.7 | 122,700 | | |
| 1/6/23 | 531,916.4 | 113,000 | | |
| 1/7/23 | 532,029.4 | 101,200 | | |
| 1/8/23 | 532,130.6 | 106,500 | | |
| 1/9/23 | 532,237.1 | 95,800 | | |
| 1/10/23 | 532,332.9 | 103,200 | | |
| 1/11/23 | 532,436.1 | 97,600 | | |
| 1/12/23 | 532,533.7 | 72,700 | | |
| 1/13/23 | 532,606.4 | 90,000 | | |
| 1/14/23 | 532,696.4 | 101,500 | | |
| 1/15/23 | 532,797.9 | 86,800 | | |
| 1/16/23 | 532,884.7 | 105,400 | | |
| 1/17/23 | 532,990.1 | 104,800 | | |
| 1/18/23 | 533,094.9 | 100,400 | | |
| 1/19/23 | 533,195.3 | 97,400 | | |
| 1/20/23 | 533,292.7 | 98,000 | | |
| 1/21/23 | 533,390.7 | 204,200 | | |
| 1/22/23 | 533,594.9 | 104,000 | | |
| 1/23/23 | 533,698.9 | 100,200 | | |
| 1/24/23 | 533,799.1 | 108,800 | | |
| 1/25/23 | 533,907.9 | 110,300 | | |
| 1/26/23 | 534,018.2 | 97,100 | | |
| 1/27/23 | 534,115.3 | 94,500 | | |
| 1/28/23 | 534,209.8 | 109,300 | | |
| 1/29/23 | 534,319.1 | 105,300 | | |
| 1/30/23 | 534,424.4 | 119,600 | | |
| 1/31/23 | 534,544.0 | 114,400 | | |
| 2/1/23 | 534,658.4 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,293,200 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **106,232** | gpd | |
| Maximum Day: | **204,200** | gallons on | **1/21/23** |
| Minimum Day: | **72,700** | gallons on | **1/12/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **February** | | | | |
| 2/1/23 | 534,658.4 | 123,500 | | |
| 2/2/23 | 534,781.9 | 106,100 | | |
| 2/3/23 | 534,888.0 | 95,900 | | |
| 2/4/23 | 534,983.9 | 112,300 | | |
| 2/5/23 | 535,096.2 | 79,100 | | |
| 2/6/23 | 535,175.3 | 95,500 | | |
| 2/7/23 | 535,270.8 | 100,500 | | |
| 2/8/23 | 535,371.3 | 100,400 | | |
| 2/9/23 | 535,471.7 | 96,200 | | |
| 2/10/23 | 535,567.9 | 83,100 | | |
| 2/11/23 | 535,651.0 | 87,600 | | |
| 2/12/23 | 535,738.6 | 93,000 | | |
| 2/13/23 | 535,831.6 | 93,300 | | |
| 2/14/23 | 535,924.9 | 124,800 | | |
| 2/15/23 | 536,049.7 | 98,000 | | |
| 2/16/23 | 536,147.7 | 99,400 | | |
| 2/17/23 | 536,247.1 | 101,200 | | |
| 2/18/23 | 536,348.3 | 94,100 | | |
| 2/19/23 | 536,442.4 | 94,200 | | |
| 2/20/23 | 536,536.6 | 102,500 | | |
| 2/21/23 | 536,639.1 | 97,700 | | |
| 2/22/23 | 536,736.8 | 80,400 | | |
| 2/23/23 | 536,817.2 | 80,300 | | |
| 2/24/23 | 536,897.5 | 81,000 | | |
| 2/25/23 | 536,978.5 | 70,300 | | |
| 2/26/23 | 537,048.8 | 103,100 | | |
| 2/27/23 | 537,151.9 | 69,600 | | |
| 2/28/23 | 537,221.5 | 58,400 | | |
| 3/1/23 | 537,279.9 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 2,621,500 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **93,625** | gpd | |
| Maximum Day: | **124,800** | gallons on | **2/14/23** |
| Minimum Day: | **58,400** | gallons on | **2/28/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 26% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **March** | | | | |
| 3/1/23 | 537,279.9 | 73,100 | | |
| 3/2/23 | 537,353.0 | 70,500 | | |
| 3/3/23 | 537,423.5 | 70,500 | | |
| 3/4/23 | 537,494.0 | 98,600 | | |
| 3/5/23 | 537,592.6 | 81,400 | | |
| 3/6/23 | 537,674.0 | 90,500 | | |
| 3/7/23 | 537,764.5 | 90,400 | | |
| 3/8/23 | 537,854.9 | 91,400 | | |
| 3/9/23 | 537,946.3 | 90,000 | | |
| 3/10/23 | 538,036.3 | 90,000 | | |
| 3/11/23 | 538,126.3 | 88,500 | | |
| 3/12/23 | 538,214.8 | 86,400 | | |
| 3/13/23 | 538,301.2 | 89,900 | | |
| 3/14/23 | 538,391.1 | 87,600 | | |
| 3/15/23 | 538,478.7 | 88,300 | | |
| 3/16/23 | 538,567.0 | 90,200 | | |
| 3/17/23 | 538,657.2 | 87,800 | | |
| 3/18/23 | 538,745.0 | 83,700 | | |
| 3/19/23 | 538,828.7 | 83,600 | | |
| 3/20/23 | 538,912.3 | 96,700 | | |
| 3/21/23 | 539,009.0 | 92,200 | | |
| 3/22/23 | 539,101.2 | 92,200 | | |
| 3/23/23 | 539,193.4 | 89,200 | | |
| 3/24/23 | 539,282.6 | 89,200 | | |
| 3/25/23 | 539,371.8 | 86,500 | | |
| 3/26/23 | 539,458.3 | 95,400 | | |
| 3/27/23 | 539,553.7 | 79,600 | | |
| 3/28/23 | 539,633.3 | 79,600 | | |
| 3/29/23 | 539,712.9 | 112,900 | | |
| 3/30/23 | 539,825.8 | 119,200 | | |
| 3/31/23 | 539,945.0 | 106,700 | | |
| 4/1/23 | 540,051.7 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 2,771,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **89,413** | gpd | |
| Maximum Day: | **119,200** | gallons on | **3/30/23** |
| Minimum Day: | **70,500** | gallons on | **3/2/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 25% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **April** | | | | |
| 4/1/23 | 540,051.7 | 106,300 | | |
| 4/2/23 | 540,158.0 | 91,800 | | |
| 4/3/23 | 540,249.8 | 91,700 | | |
| 4/4/23 | 540,341.5 | 96,200 | | |
| 4/5/23 | 540,437.7 | 81,900 | | |
| 4/6/23 | 540,519.6 | 98,900 | | |
| 4/7/23 | 540,618.5 | 89,900 | | |
| 4/8/23 | 540,708.4 | 95,000 | | |
| 4/9/23 | 540,803.4 | 102,400 | | |
| 4/10/23 | 540,905.8 | 102,300 | | |
| 4/11/23 | 541,008.1 | 97,600 | | |
| 4/12/23 | 541,105.7 | 97,500 | | |
| 4/13/23 | 541,203.2 | 97,600 | | |
| 4/14/23 | 541,300.8 | 105,800 | | |
| 4/15/23 | 541,406.6 | 98,400 | | |
| 4/16/23 | 541,505.0 | 92,800 | | |
| 4/17/23 | 541,597.8 | 92,800 | | |
| 4/18/23 | 541,690.6 | 105,400 | | |
| 4/19/23 | 541,796.0 | 86,300 | | |
| 4/20/23 | 541,882.3 | 107,300 | | |
| 4/21/23 | 541,989.6 | 100,800 | | |
| 4/22/23 | 542,090.4 | 125,000 | | |
| 4/23/23 | 542,215.4 | 116,500 | | |
| 4/24/23 | 542,331.9 | 113,200 | | |
| 4/25/23 | 542,445.1 | 102,900 | | |
| 4/26/23 | 542,548.0 | 116,600 | | |
| 4/27/23 | 542,664.6 | 105,200 | | |
| 4/28/23 | 542,769.8 | 107,200 | | |
| 4/29/23 | 542,877.0 | 106,300 | | |
| 4/30/23 | 542,983.3 | 106,800 | | |
| 5/1/23 | 543,090.1 | | | |

Monthly Total: 3,038,400 gallons

Daily Average: **101,280** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **125,000** gallons on **4/22/23**

Minimum Day: **81,900** gallons on **4/5/23**

Permitted Flow: 360,000 gpd

28% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **May** | | | | |
| 5/1/23 | 543,090.1 | 102,500 | | |
| 5/2/23 | 543,192.6 | 108,600 | | |
| 5/3/23 | 543,301.2 | 88,300 | | |
| 5/4/23 | 543,389.5 | 78,700 | | |
| 5/5/23 | 543,468.2 | 78,700 | | |
| 5/6/23 | 543,546.9 | 104,500 | | |
| 5/7/23 | 543,651.4 | 116,800 | | |
| 5/8/23 | 543,768.2 | 115,200 | | |
| 5/9/23 | 543,883.4 | 105,500 | | |
| 5/10/23 | 543,988.9 | 118,500 | | |
| 5/11/23 | 544,107.4 | 81,000 | | |
| 5/12/23 | 544,188.4 | 111,900 | | |
| 5/13/23 | 544,300.3 | 106,200 | | |
| 5/14/23 | 544,406.5 | 109,700 | | |
| 5/15/23 | 544,516.2 | 109,700 | | |
| 5/16/23 | 544,625.9 | 106,100 | | |
| 5/17/23 | 544,732.0 | 103,200 | | |
| 5/18/23 | 544,835.2 | 103,200 | | |
| 5/19/23 | 544,938.4 | 103,200 | | |
| 5/20/23 | 545,041.6 | 124,300 | | |
| 5/21/23 | 545,165.9 | 124,200 | | |
| 5/22/23 | 545,290.1 | 118,700 | | |
| 5/23/23 | 545,408.8 | 118,600 | | |
| 5/24/23 | 545,527.4 | 123,800 | | |
| 5/25/23 | 545,651.2 | 123,800 | | |
| 5/26/23 | 545,775.0 | 118,700 | | |
| 5/27/23 | 545,893.7 | 118,700 | | |
| 5/28/23 | 546,012.4 | 118,600 | | |
| 5/29/23 | 546,131.0 | 102,200 | | |
| 5/30/23 | 546,233.2 | 110,300 | | |
| 5/31/23 | 546,343.5 | 115,700 | | |
| 6/1/23 | 546,459.2 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,369,100 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **108,681** | gpd | |
| Maximum Day: | **124,300** | gallons on | **5/20/23** |
| Minimum Day: | **78,700** | gallons on | **5/4/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

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# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **June** | | | | |
| 6/1/23 | 546,459.2 | 151,200 | | |
| 6/2/23 | 546,610.4 | 130,700 | | |
| 6/3/23 | 546,741.1 | 116,100 | | |
| 6/4/23 | 546,857.2 | 114,800 | | |
| 6/5/23 | 546,972.0 | 122,600 | | |
| 6/6/23 | 547,094.6 | 106,200 | | |
| 6/7/23 | 547,200.8 | 137,000 | | |
| 6/8/23 | 547,337.8 | 120,900 | | |
| 6/9/23 | 547,458.7 | 158,100 | | |
| 6/10/23 | 547,616.8 | 148,400 | | |
| 6/11/23 | 547,765.2 | 149,500 | | |
| 6/12/23 | 547,914.7 | 61,600 | | |
| 6/13/23 | 547,976.3 | 138,100 | | |
| 6/14/23 | 548,114.4 | 138,000 | | |
| 6/15/23 | 548,252.4 | 103,200 | | |
| 6/16/23 | 548,355.6 | 119,200 | | |
| 6/17/23 | 548,474.8 | 115,000 | | |
| 6/18/23 | 548,589.8 | 127,000 | | |
| 6/19/23 | 548,716.8 | 124,900 | | |
| 6/20/23 | 548,841.7 | 136,400 | | |
| 6/21/23 | 548,978.1 | 124,900 | | |
| 6/22/23 | 549,103.0 | 124,800 | | |
| 6/23/23 | 549,227.8 | 142,400 | | |
| 6/24/23 | 549,370.2 | 127,100 | | |
| 6/25/23 | 549,497.3 | 137,500 | | |
| 6/26/23 | 549,634.8 | 142,000 | | |
| 6/27/23 | 549,776.8 | 142,000 | | |
| 6/28/23 | 549,918.8 | 145,900 | | |
| 6/29/23 | 550,064.7 | 153,000 | | |
| 6/30/23 | 550,217.7 | 152,800 | | |
| 7/1/23 | 550,370.5 | | | |

Monthly Total: 3,911,300 gallons

Daily Average: **130,377** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **158,100** gallons on **6/9/23**

Minimum Day: **61,600** gallons on **6/12/23**

Permitted Flow: 360,000 gpd

36% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **July** | | | | |
| 7/1/23 | 550,370.5 | 149,200 | | |
| 7/2/23 | 550,519.7 | 146,700 | | |
| 7/3/23 | 550,666.4 | 154,600 | | |
| 7/4/23 | 550,821.0 | 145,000 | | |
| 7/5/23 | 550,966.0 | 170,300 | | |
| 7/6/23 | 551,136.3 | 162,300 | | |
| 7/7/23 | 551,298.6 | 167,800 | | |
| 7/8/23 | 551,466.4 | 155,200 | | |
| 7/9/23 | 551,621.6 | 167,700 | | |
| 7/10/23 | 551,789.3 | 158,400 | | |
| 7/11/23 | 551,947.7 | 170,700 | | |
| 7/12/23 | 552,118.4 | 156,600 | | |
| 7/13/23 | 552,275.0 | 146,000 | | |
| 7/14/23 | 552,421.0 | 175,200 | | |
| 7/15/23 | 552,596.2 | 169,000 | | |
| 7/16/23 | 552,765.2 | 139,300 | | |
| 7/17/23 | 552,904.5 | 151,800 | | |
| 7/18/23 | 553,056.3 | 172,600 | | |
| 7/19/23 | 553,228.9 | 162,500 | | |
| 7/20/23 | 553,391.4 | 165,900 | | |
| 7/21/23 | 553,557.3 | 152,900 | | |
| 7/22/23 | 553,710.2 | 150,300 | | |
| 7/23/23 | 553,860.5 | 159,500 | | |
| 7/24/23 | 554,020.0 | 166,400 | | |
| 7/25/23 | 554,186.4 | 165,800 | | |
| 7/26/23 | 554,352.2 | 163,200 | | |
| 7/27/23 | 554,515.4 | 165,100 | | |
| 7/28/23 | 554,680.5 | 158,400 | | |
| 7/29/23 | 554,838.9 | 160,400 | | |
| 7/30/23 | 554,999.3 | 160,400 | | |
| 7/31/23 | 555,159.7 | 174,000 | | |
| 8/1/23 | 555,333.7 | | | |

Monthly Total: 4,963,200 gallons

Daily Average: **160,103** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **175,200** gallons on **7/14/23**

Minimum Day: **139,300** gallons on **7/16/23**

Permitted Flow: 360,000 gpd

44% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **August** | | | | |
| 8/1/23 | 555,333.7 | 130,200 | | |
| 8/2/23 | 555,463.9 | 142,200 | | |
| 8/3/23 | 555,606.1 | 160,900 | | |
| 8/4/23 | 555,767.0 | 138,600 | | |
| 8/5/23 | 555,905.6 | 122,400 | | |
| 8/6/23 | 556,028.0 | 130,800 | | |
| 8/7/23 | 556,158.8 | 135,300 | | |
| 8/8/23 | 556,294.1 | 138,500 | | |
| 8/9/23 | 556,432.6 | 122,400 | | |
| 8/10/23 | 556,555.0 | 134,700 | | |
| 8/11/23 | 556,689.7 | 114,900 | | |
| 8/12/23 | 556,804.6 | 130,400 | | |
| 8/13/23 | 556,935.0 | 140,300 | | |
| 8/14/23 | 557,075.3 | 142,300 | | |
| 8/15/23 | 557,217.6 | 131,900 | | |
| 8/16/23 | 557,349.5 | 131,400 | | |
| 8/17/23 | 557,480.9 | 137,300 | | |
| 8/18/23 | 557,618.2 | 127,900 | | |
| 8/19/23 | 557,746.1 | 130,600 | | |
| 8/20/23 | 557,876.7 | 155,700 | | |
| 8/21/23 | 558,032.4 | 134,100 | | |
| 8/22/23 | 558,166.5 | 137,200 | | |
| 8/23/23 | 558,303.7 | 135,700 | | |
| 8/24/23 | 558,439.4 | 125,700 | | |
| 8/25/23 | 558,565.1 | 138,600 | | |
| 8/26/23 | 558,703.7 | 128,400 | | |
| 8/27/23 | 558,832.1 | 170,900 | | |
| 8/28/23 | 559,003.0 | 120,100 | | |
| 8/29/23 | 559,123.1 | 108,200 | | |
| 8/30/23 | 559,231.3 | 118,400 | | |
| 8/31/23 | 559,349.7 | 123,000 | | |
| 9/1/23 | 559,472.7 | | | |

Monthly Total: 4,139,000 gallons

Daily Average: **133,516** gpd

If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions.

Maximum Day: **170,900** gallons on **8/27/23**

Minimum Day: **108,200** gallons on **8/29/23**

Permitted Flow: 360,000 gpd

37% Average Flow as a Percent of Permitted Flow

(TCEQ stipulates planning/design for 3 consecutive months of >75% of permit)

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **September** | | | | |
| 9/1/23 | 559,472.7 | 112,400 | | |
| 9/2/23 | 559,585.1 | 132,400 | | |
| 9/3/23 | 559,717.5 | 154,900 | | |
| 9/4/23 | 559,872.4 | 159,700 | | |
| 9/5/23 | 560,032.1 | 125,600 | | |
| 9/6/23 | 560,157.7 | 121,200 | | |
| 9/7/23 | 560,278.9 | 118,800 | | |
| 9/8/23 | 560,397.7 | 126,300 | | |
| 9/9/23 | 560,524.0 | 132,200 | | |
| 9/10/23 | 560,656.2 | 124,800 | | |
| 9/11/23 | 560,781.0 | 126,800 | | |
| 9/12/23 | 560,907.8 | 141,000 | | |
| 9/13/23 | 561,048.8 | 132,100 | | |
| 9/14/23 | 561,180.9 | 134,500 | | |
| 9/15/23 | 561,315.4 | 155,600 | | |
| 9/16/23 | 561,471.0 | 124,200 | | |
| 9/17/23 | 561,595.2 | 132,200 | | |
| 9/18/23 | 561,727.4 | 125,200 | | |
| 9/19/23 | 561,852.6 | 131,400 | | |
| 9/20/23 | 561,984.0 | 131,700 | | |
| 9/21/23 | 562,115.7 | 128,600 | | |
| 9/22/23 | 562,244.3 | 134,400 | | |
| 9/23/23 | 562,378.7 | 120,000 | | |
| 9/24/23 | 562,498.7 | 124,300 | | |
| 9/25/23 | 562,623.0 | 121,600 | | |
| 9/26/23 | 562,744.6 | 118,500 | | |
| 9/27/23 | 562,863.1 | 124,800 | | |
| 9/28/23 | 562,987.9 | 126,400 | | |
| 9/29/23 | 563,114.3 | 121,900 | | |
| 9/30/23 | 563,236.2 | 116,300 | | |
| 10/1/23 | 563,352.5 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,879,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **129,327** | gpd | |
| Maximum Day: | **159,700** | gallons on | **9/4/23** |
| Minimum Day: | **112,400** | gallons on | **9/1/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 36% | Average Flow as a Percent of Permitted Flow | |
| | | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **October** | | | | |
| 10/1/23 | 563,352.5 | 201,600 | X | Extra reading taken on '9/31' |
| 10/2/23 | 563,554.1 | 103,500 | | |
| 10/3/23 | 563,657.6 | 108,200 | | |
| 10/4/23 | 563,765.8 | 103,700 | | |
| 10/5/23 | 563,869.5 | 106,200 | | |
| 10/6/23 | 563,975.7 | 113,400 | | |
| 10/7/23 | 564,089.1 | 110,600 | | |
| 10/8/23 | 564,199.7 | 110,400 | | |
| 10/9/23 | 564,310.1 | 114,300 | | |
| 10/10/23 | 564,424.4 | 111,400 | | |
| 10/11/23 | 564,535.8 | 112,900 | | |
| 10/12/23 | 564,648.7 | 120,900 | | |
| 10/13/23 | 564,769.6 | 100,900 | | |
| 10/14/23 | 564,870.5 | 105,600 | | |
| 10/15/23 | 564,976.1 | 116,000 | | |
| 10/16/23 | 565,092.1 | 118,100 | | |
| 10/17/23 | 565,210.2 | 104,400 | | |
| 10/18/23 | 565,314.6 | 122,500 | | |
| 10/19/23 | 565,437.1 | 123,600 | | |
| 10/20/23 | 565,560.7 | 128,200 | | |
| 10/21/23 | 565,688.9 | 124,800 | | |
| 10/22/23 | 565,813.7 | 127,600 | | |
| 10/23/23 | 565,941.3 | 130,900 | | |
| 10/24/23 | 566,072.2 | 129,500 | | |
| 10/25/23 | 566,201.7 | 128,900 | | |
| 10/26/23 | 566,330.6 | 123,500 | | |
| 10/27/23 | 566,454.1 | 126,800 | | |
| 10/28/23 | 566,580.9 | 118,700 | | |
| 10/29/23 | 566,699.6 | 129,900 | | |
| 10/30/23 | 566,829.5 | 151,400 | | |
| 10/31/23 | 566,980.9 | 111,100 | | |
| 11/1/23 | 567,092.0 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,739,500 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **117,930** | gpd | |
| Maximum Day: | **151,400** | gallons on | **10/30/23** |
| Minimum Day: | **100,900** | gallons on | **10/13/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 33% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **November** | | | | |
| 11/1/23 | 567,092.0 | 118,500 | | |
| 11/2/23 | 567,210.5 | 116,400 | | |
| 11/3/23 | 567,326.9 | 120,600 | | |
| 11/4/23 | 567,447.5 | 118,700 | | |
| 11/5/23 | 567,566.2 | 121,200 | | |
| 11/6/23 | 567,687.4 | 117,700 | | |
| 11/7/23 | 567,805.1 | 123,200 | | |
| 11/8/23 | 567,928.3 | 112,500 | | |
| 11/9/23 | 568,040.8 | 136,300 | | |
| 11/10/23 | 568,177.1 | 109,400 | | |
| 11/11/23 | 568,286.5 | 99,200 | | |
| 11/12/23 | 568,385.7 | 108,200 | | |
| 11/13/23 | 568,493.9 | 112,200 | | |
| 11/14/23 | 568,606.1 | 106,000 | | |
| 11/15/23 | 568,712.1 | 103,600 | | |
| 11/16/23 | 568,815.7 | 100,800 | | |
| 11/17/23 | 568,916.5 | 106,500 | | |
| 11/18/23 | 569,023.0 | 109,500 | | |
| 11/19/23 | 569,132.5 | 107,600 | | |
| 11/20/23 | 569,240.1 | 103,000 | | |
| 11/21/23 | 569,343.1 | 103,100 | | |
| 11/22/23 | 569,446.2 | 105,400 | | |
| 11/23/23 | 569,551.6 | 97,800 | | |
| 11/24/23 | 569,649.4 | 102,200 | | |
| 11/25/23 | 569,751.6 | 105,900 | | |
| 11/26/23 | 569,857.5 | 106,500 | | |
| 11/27/23 | 569,964.0 | 103,600 | | |
| 11/28/23 | 570,067.6 | 107,100 | | |
| 11/29/23 | 570,174.7 | 109,800 | | |
| 11/30/23 | 570,284.5 | 101,300 | | |
| 12/1/23 | 570,385.8 | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,293,800 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **109,793** | gpd | |
| Maximum Day: | **136,300** | gallons on | **11/9/23** |
| Minimum Day: | **97,800** | gallons on | **11/23/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 30% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# City of Tahoka - Wastewater Flows

| Date | Meter Reading (gallons) | Daily Usage (gallons) | Exception | Reason for Exception |
|---|---|---|---|---|
| **December** | | | | |
| 12/1/23 | 570,385.8 | 102,600 | | |
| 12/2/23 | 570,488.4 | 98,400 | | |
| 12/3/23 | 570,586.8 | 101,600 | | |
| 12/4/23 | 570,688.4 | 96,900 | | |
| 12/5/23 | 570,785.3 | 107,700 | | |
| 12/6/23 | 570,893.0 | 105,200 | | |
| 12/7/23 | 570,998.2 | 106,900 | | |
| 12/8/23 | 571,105.1 | 101,000 | | |
| 12/9/23 | 571,206.1 | 105,000 | | |
| 12/10/23 | 571,311.1 | 116,000 | | |
| 12/11/23 | 571,427.1 | 102,500 | | |
| 12/12/23 | 571,529.6 | 110,300 | | |
| 12/13/23 | 571,639.9 | 110,000 | | |
| 12/14/23 | 571,749.9 | 120,300 | | |
| 12/15/23 | 571,870.2 | 108,600 | | |
| 12/16/23 | 571,978.8 | 101,200 | | |
| 12/17/23 | 572,080.0 | 100,800 | | |
| 12/18/23 | 572,180.8 | 107,400 | | |
| 12/19/23 | 572,288.2 | 111,600 | | |
| 12/20/23 | 572,399.8 | 109,200 | | |
| 12/21/23 | 572,509.0 | 111,700 | | |
| 12/22/23 | 572,620.7 | 88,300 | | |
| 12/23/23 | 572,709.0 | 95,700 | | |
| 12/24/23 | 572,804.7 | 78,400 | | |
| 12/25/23 | 572,883.1 | 100,500 | | |
| 12/26/23 | 572,983.6 | 86,400 | | |
| 12/27/23 | 573,070.0 | 88,100 | | |
| 12/28/23 | 573,158.1 | 83,900 | | |
| 12/29/23 | 573,242.0 | 87,300 | | |
| 12/30/23 | 573,329.3 | 90,400 | | |
| 12/31/23 | 573,419.7 | | | |
| 1/1/24 | | | | |

| | | | |
|---|---|---|---|
| Monthly Total: | 3,033,900 | gallons | If Exception is noted, the 'Daily Average', MAX and MIN Day totals do not include the daily usage in these calculations. 'Monthly Total', however, is unaffected by the Exceptions. |
| Daily Average: | **101,130** | gpd | |
| Maximum Day: | **120,300** | gallons on | **12/14/23** |
| Minimum Day: | **78,400** | gallons on | **12/24/23** |
| Permitted Flow: | 360,000 | gpd | |
| | 28% | Average Flow as a Percent of Permitted Flow | |
| | (TCEQ stipulates planning/design for 3 consecutive months of >75% of permit) | | |

Printed 3/4/2024

# ATTACHMENT K

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2022 – 2023 Laboratory Test Results

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 01/24/22 @ 6 °C
Reporting Date: 02/03/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 01/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 01/26/22 | 01/28/22 | 01/26/22 |
| Time Analysis Batch Started: | | 8:50 | 9:15 | 9:10 |
| AA29505-1 | C. LAGOON | 21 | 52 | 7.81 @ 19 °C |
| Date Analysis Batch Finished: | | 01/31/22 | 01/28/22 | 01/26/22 |
| Time Analysis Batch Finished. | | 10:00 | 13:00 | 10.00 |
| Blank | | 0.04 | < 3 | N/A |
| Quality Control | | 201 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 102 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 6 | 4 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

This report meets NELAC T104704437-21-20.
The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.
*15 min shelf-life expired. Reported value is for client information only.

Mario Rodriguez

Mario Rodriguez, Director.

02/03/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 02/24/22 @ 6 °C
Reporting Date: 03/06/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location. CENTER LAGOON

Sampling Date: 02/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 02/25/22 | 02/25/22 | 02/25/22 |
| Time Analysis Batch Started: | | 9:20 | 14:55 | 9:40 |
| AA29560-1 | C. LAGOON | 34 | 51 | 8.32 @ 19 °C |
| Date Analysis Batch Finished: | | 03/02/22 | 02/25/22 | 02/25/22 |
| Time Analysis Batch Finished: | | 12:00 | 17:10 | 10.15 |
| Blank | | 0.15 | < 3 | N/A |
| Quality Control | | 211 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 107 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 3 | 8 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez, Director.

03/06/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 03/23/22 @ 6 °C
Reporting Date: 03/28/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location. CENTER LAGOON

Sampling Date: 03/23/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 03/23/22 | 03/25/22 | 03/23/22 |
| Time Analysis Batch Started: | | 9:35 | 14:45 | 9:56 |
| AA29617-1 | C. LAGOON | 33 | 66 | 8.6 @ 19 °C |
| Date Analysis Batch Finished: | | 03/28/22 | 03/25/22 | 03/23/22 |
| Time Analysis Batch Finished: | | 11:51 | 17:59 | 10:20 |
| Blank | | 0.02 | < 3 | N/A |
| Quality Control | | 202 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 102 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 2 | 2 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

03/28/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 04/26/22 @ 11 °C
Reporting Date: 05/02/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 04/26/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 04/27/22 | 04/29/22 | 04/27/22 |
| Time Analysis Batch Started: | | 9:40 | 11:20 | 10:00 |
| AA29685-1 | C. LAGOON | 20 | 72 | 7.89 @ 22 °C |
| Date Analysis Batch Finished: | | 05/02/22 | 04/29/22 | 04/27/22 |
| Time Analysis Batch Finished: | | 15:15 | 14:20 | 10:30 |
| Blank | | 0.10 | < 3 | N/A |
| Quality Control | | 196 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 99 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 4 | 0 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

05/02/22
Date

Advanced Analysis, Inc.

3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas
Tel: (806) 796-2805 Fax : (806) 796-2825

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 05/25/22 @ 13 °C
Reporting Date: 05/30/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 05/25/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 05/25/22 | 05/27/22 | 05/25/22 |
| Time Analysis Batch Started: | | 10:10 | 15:21 | 10:30 |
| AA29757-1 | C. LAGOON | 77 | 64 | 8.84 @ 22 °C |
| Date Analysis Batch Finished: | | 05/30/22 | 05/27/22 | 05/25/22 |
| Time Analysis Batch Finished: | | 12:05 | 17:30 | 11:00 |
| Blank | | 0.03 | < 3 | N/A |
| Quality Control | | 209 | N/A | 6.98 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 106 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 1 | 3 | 0 |
| METHODS: STD METHODS | | 5210 B | 2540 D | 4500-$H^+$ B |

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Mario Rodriguez

Mario Rodriguez, Director.

05/30/22
Date

**3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas**
**Tel: (806) 796-2805 Fax : (806) 796-2825**

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 06/24/22 @ 9 °C
Reporting Date: 06/29/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 06/24/22 @ 10:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 06/24/22 | 06/24/22 | 06/24/22 |
| Time Analysis Batch Started: | | 9:00 | 11:00 | 10:00 |
| | | | | |
| AA29822-1 | C. LAGOON | 42 | 88 | 9.1 @ 22 °C |
| | | | | |
| | | | | |
| Date Analysis Batch Finished: | | 06/29/22 | 06/24/22 | 06/24/22 |
| Time Analysis Batch Finished: | | 13:45 | 15:15 | 10:30 |
| | | | | |
| Blank | | 0.12 | < 3 | N/A |
| Quality Control | | 186 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 94 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 2 | 4 | 0 |

| METHODS: STD METHODS | 5210 B | 2540 D | 4500-$H^+$ B |
|---|---|---|---|

This report meets NELAC T104704437-21-20.
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Mario Rodriguez, Director.

06/29/22
Date

**3407 Clovid Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock,Texas**
**Tel: (806) 796-2805 Fax : (806) 796-2825**

ANALYTICAL RESULTS FOR
CITY OF TAHOKA
P. O. BOX 300
TAHOKA, TX 79373
PHONE: (806) 561-4211
EMAIL ADDRESS: jamesdeleon43@gmail.com

Receiving Date: 07/19/22 @ 9 °C
Reporting Date: 07/24/22
Project Number: NOT GIVEN
Project Name: MONTHLY BOD
Project Location: CENTER LAGOON

Sampling Date: 07/19/22 @ 11:00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: MR
Analyzed By: MR, JL

| LAB NUMBER | SAMPLE ID | $BOD_5$ (mg/L) | TSS (mg/L) | pH* (s.u.) |
|---|---|---|---|---|
| Date Analysis Batch Started: | | 07/20/22 | 07/22/22 | 07/20/22 |
| Time Analysis Batch Started: | | 9:30 | 10:50 | 10:00 |
| | | | | |
| AA29875-1 | C. LAGOON | 51 | 67 | 9.0 @ 25 °C |
| | | | | |
| | | | | |
| Date Analysis Batch Finished: | | 07/24/22 | 07/19/22 | 07/19/22 |
| Time Analysis Batch Finished: | | 13:15 | 15:45 | 10:30 |
| | | | | |
| Blank | | 0.07 | < 3 | N/A |
| Quality Control | | 176 | N/A | 7.00 |
| True Value QC | | 198 | N/A | 7.00 |
| % Instrument Accuracy | | 89 | N/A | 100 |
| Hi - Low Limits | | 85 - 115 | N/A | 95 - 105 |
| Relative Percent Difference (≤ 15) | | 7 | 5 | 0 |

| | | | |
|---|---|---|---|
| METHODS: STD METHODS | 5210 B | 2540 D | 4500-$H^+$ B |

This report meets NELAC T104704437-21-20.
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*15 min shelf-life expired. Reported value is for client information only.

Mario Rodriguez

Mario Rodriguez, Director.

07/24/22
Date

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 9/2/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tohoka

Dear Mario Rodriguez: Order No.: 2208092

Enclosed please find the analytical report for the sample/s received on 8/25/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tohoka
**Lab Order:** 2208092

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 8/25/2022 9:45:00 AM | | | Initials: YK | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | pH at 25 o C | Liquid | 8.3 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 8/29/2022 3:45:00 PM | | | Initials: AM | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | Biochemical Oxygen Demand | Liquid | 60.8 | 0.65 | 2 | mg/L | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 8/29/2022 4:35:00 PM | | | Initials: SM | | |
| 2208092-01A | Center Lagoon | 8/23/2022 10:00:00 AM | Suspended Solids (Residue, No | Liquid | 53 | 2.11 | 5 | mg/L | 1 | |

H Holding times for preparation or analysis exceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *02-Sep-22*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2208092 **Project:** City of Tohoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | MS | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-8/24/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_220824B | **Test Code:** SM5210B | | | | **Units:** mg/L | | **Analysis Date:** 8/29/2022 3:45:00 PM | | **Prep Date:** 8/24/2022 9:00:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | | | | 69 - 227 | 177.0 | 175.0 | 1.000 | 20.0 |
| **Batch ID:** PH_WW-8/25/2022 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_220825B | **Test Code:** SM4500-H+B | | | | **Units:** pH units | | **Analysis Date:** 8/25/2022 9:45:00 AM | | **Prep Date:** 8/25/2022 9:40:00 | | | |
| pH at 25 o C | | 7 | 100.4% | | | | | 95 - 105 | 8.3 | 8.4 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-8/29/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_220829A | **Test Code:** SM2540D | | | | **Units:** mg/L | | **Analysis Date:** 8/29/2022 4:35:00 PM | | **Prep Date:** 8/29/2022 8:40:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 64.0 | 62.0 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2208092-01 | | | | | | | | | | | | | | | |
| AA29928-1 | CENTER LAGOON | G | 1000 mL | 1 | P | | ✓ | | | | X | | 4 | 8-23-22 | 10.00 AM |

| TCLP: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL: | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CBOD / (BOD) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) | | | | | | | | | | | | | |
| TSS / VSS / (pH) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ✓ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2S_2O_3$ = (ST)

Preserved upon arrival: ✓

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 8/23/22 | Time: 12:02 pm | Received By: Mario Rodriguez |
| Relinquished By: Mario Rodriguez | Date: 8/23/22 | Time: 17:00 | Received By: |
| Relinquished By: | Date: | Time: | Received By: 8/25 @ 9:10 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other - Self

Sample Condition: ✓ Intact Yes ☐ No

Checked By: (Initials) DM

Temp 3.8°C

Notes:

Shipping Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 08/25/2022 **TIME:** 09:40 **INITIALS:** VK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2208092

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. (°C): 3.8 Corrected Temp. (°C): 3.8 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: — Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 9/30/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2209095

Enclosed please find the analytical report for the sample/s received on 9/23/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2209095
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 9/22/2022 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2209095-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **SM** |
| Suspended Solids (Residue, Non-Filterable) | 79 | 5 | mg/L | 1 | 26-Sep-22 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 8.8 | 0.1 | pH units | 1 | 22-Sep-22 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 64.8 | 2 | mg/L | 1 | 28-Sep-22 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2209095 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | DUP | RPD % | RPD Limi |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-9/23/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_220923B | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 9/28/2022 3:20:00 PM | **Prep Date:** 9/23/2022 10:00:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | 69 - 227 | 64.8 | 65.2 | 1.000 | 20.0 |
| **Batch ID:** PH_WW-9/23/2022 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_220923A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 9/22/2022 9:35:00 AM | **Prep Date:** 9/23/2022 9:35:00 | | | |
| pH at 25 o C | | 7 | 100.1% | | 95 - 105 | 8.8 | 8.8 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-9/26/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_220926A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 9/26/2022 3:55:00 PM | **Prep Date:** 9/26/2022 9:00:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 79.0 | 78.0 | 1.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2209095-01 | | | | | | | | | | | | | | | |
| AA29972-1 | CENTER LAGOON | G | 1000 | 1 | P | | ✓ | | | | X | | 4 | 9/22/22 | 10;00 am |

TCLP:
TOTAL:

| CBOD / BOD / TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ✓ | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST) Preserved upon arrival ☐

pH paper Lot #: Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

| | | |
|---|---|---|
| Relinquished By: Emp | Date: 9/22/22 | Time: 11:00 am |
| Relinquished By: MARIO Rodriguez | Date: 9/22/22 | Time: 17:00 |
| Relinquished By: | Date: | Time: |

| | |
|---|---|
| Received By: Mario Rodriguez | |
| Received By: | |
| Received By: 9/23/22 @ 8:55 | |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition Intact ☑ Yes ☐ No

Checked By: (Initials) m

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arasing whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 09/23/2022 **TIME:** 09:15 **INITIALS:** YK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2209093 to 2209095

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. ~~on~~ tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 3.8 Corrected Temp. ($^0$C): 3.8 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: B0759 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

liquid
2209093-01 No Sample Received

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 11/2/2022

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2210096

Enclosed please find the analytical report for the sample/s received on 10/21/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director



Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

**Date:** 02-Nov-22

## ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tahoka
**Lab Order:** 2210096

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 10/21/2022 10:20:00 A | | | Initials: YK | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | pH at 25 o C | Water | 8 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 10/24/2022 3:55:00 PM | | | Initials: SM | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | Suspended Solids (Residue, No | Water | 62 | 2.11 | 5 | mg/L | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 10/26/2022 3:55:00 PM | | | Initials: AM | | |
| 2210096-01A | Center Lagoon | 10/19/2022 10:00:00 AM | Biochemical Oxygen Demand | Water | 58.2 | 0.65 | 2 | mg/L | 1 | |

H Holding times for preparation or analysis excceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *02-Nov-22*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2210096 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | MS | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-10/21/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_221021A | **Test Code:** SM5210B | | | **Units:** mg/L | | | **Analysis Date:** 10/26/2022 3:55:00 PM | | **Prep Date:** 10/21/2022 9:55:00 | | | |
| Biochemical Oxygen Demand | <2 | 198 | 89.9% | | | | | 69 - 227 | 58.2 | 56.4 | 3.000 | 20.0 |
| **Batch ID:** PH_WW-10/21/2022 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_221021A | **Test Code:** SM4500-H+B | | | **Units:** pH units | | | **Analysis Date:** 10/21/2022 10:20:00 AM | | **Prep Date:** 10/21/2022 10:20:0 | | | |
| pH at 25 o C | | 7 | 100.4% | | | | | 95 - 105 | 8.0 | 8.1 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-10/24/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_221024A | **Test Code:** SM2540D | | | **Units:** mg/L | | | **Analysis Date:** 10/24/2022 3:55:00 PM | | **Prep Date:** 10/24/2022 8:35:00 | | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 226.0 | 222.0 | 2.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | | |
| Project Manager: RAYMOND VEGA | BILL TO | PO #: | |
| Address: 1807 MAIN BOX 300 | Company: | | |
| City: TAHOKA State: TX Zip: 79373 | Attn: | | |
| Phone #: 806-561-4211 Fax #: | Address: SAME | | |
| E - mail : TAHOKA1915@POKA.COM | City: | | |
| Project #: | State: | Zip: | |
| Project Name: | Phone #: | | |
| Project Location: | Fax #: | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2210096-01 | | | | | | | | | | | | | | | |
| ~~AA29~~ 300009 | CENTER LAGOON | G | 500 | 1 | P | | ✓ | | | | X | | 9 | 10/18/22 LV | 10:00am |

| CBOD / BOD / TSS / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) | TCLP: | TOTAL: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ✓ | | | | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☑

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |
|---|---|---|---|---|---|
| [signature] | 10/19/22 | 1:00 pm | Jimmy Garcia | 10-19-22 | 11:00 |
| [signature] | 10/19/22 | 11:37pm | | | |
| Mario Rodriguez | 10/19/22 | 17:50 | [signature] | 10/21/22 | @0950 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials) JL

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 10/21/2022 **TIME:** 10:05 **INITIALS:** YK

**CLIENT:** Adv Analysis **PROJECT: W.O#** 2210096 & 2210097

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets) (Yes) No N/A
   *If not,* describe below.
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. (°C): 4.6 Corrected Temp. (°C): 4.6 Thermometer ID: (**DT1**) or **L2**
11. pH strip lot#: B07556 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ___ (✓) Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2211125
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 11/22/2022 10:00:00 AM
**Matrix:** LIQUID
**Lab ID:** 2211125-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 82 | 5 | mg/L | 1 | 28-Nov-22 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.4 | 0.1 | pH units | 1 | 23-Nov-22 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 62.5 | 2 | mg/L | 1 | 28-Nov-22 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 1/3/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tehoka

Dear Mario Rodriguez: Order No.: 2212092

Enclosed please find the analytical report for the sample/s received on 12/21/2022.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director



Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-17

**Date:** 03-Jan-23

## ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**CLIENT:** Advanced Analysis Inc. **Project:** City of Tehoka
**Lab Order:** 2212092

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** pH | | **TestNo:** | SM4500-H+B | **Date Analyzed** | 12/21/2022 10:00:00 A | | | Initials: YK | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | pH at 25 o C | Water | 8 | 0.04 | 0.1 | pH units | 1 | |
| **TestName:** TOTAL SUSPENDED SOLIDS | | **TestNo:** | SM2540D | **Date Analyzed** | 12/23/2022 4:00:00 PM | | | Initials: YK | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | Suspended Solids (Residue, No | Water | 86 | 2.11 | 5 | mg/L | 1 | |
| **TestName:** BOD, 5 Day, 20°C | | **TestNo:** | SM5210B | **Date Analyzed** | 12/26/2022 3:10:00 PM | | | Initials: AM | | |
| 2212092-01A | Center Lagoon | 12/19/2022 10:00:00 AM | Biochemical Oxygen Demand | Water | 63.6 | 0.65 | 2 | mg/L | 1 | |

H Holding times for preparation or analysis excceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *03-Jan-23*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2212092 **Project:** City of Tehoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | RPD DUP | % | Limi |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-12/21/2022 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_221221A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 12/26/2022 3:10:00 PM | | **Prep Date:** 12/21/2022 9:30:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.4% | | 69 - 227 | 60.4 | 61.6 | 2.000 | 20.0 |
| **Batch ID:** PH_WW-12/21/2022 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_221221A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 12/21/2022 10:00:00 AM | | **Prep Date:** 12/21/2022 10:00:0 | | |
| pH at 25 o C | | 7 | 99.9% | | 95 - 105 | 8.0 | 8.0 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-12/23/2022 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_221223A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 12/23/2022 4:00:00 PM | | **Prep Date:** 12/23/2022 9:30:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 30.0 | 29.0 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

# ADVANCED ANALYSIS, INC.

3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

## CHAIN OF CUSTODY Page 1 of 1

**Company Name:** CITY OF TAHOKA
**Project Manager:** RAYMOND VEGA
**Address:** 1807 MAIN BOX 300
**City:** TAHOKA **State:** TX **Zip:** 79373
**Phone #:** 806-561-4211 **Fax #:**
**E - mail :** TAHOKA1915@POKA.COM
**Project #:**
**Project Name:**
**Project Location:**

**BILL TO** **PO #:**
**Company:**
**Attn:**
**Address:** Same
**City:** SAME
**State:** **Zip:**
**Phone #:**
**Fax #:**

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | MATRIX: WASTEWATER | MATRIX: SOIL | MATRIX: SLUDGE | MATRIX: OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | SAMPLE CHECKS: pH | SAMPLE CHECKS: ACTUAL TEMP °C FROM SAMPLE | SAMPLING: DATE | SAMPLING: TIME | CBOD / BOD / (TSS) / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP/ COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2212092-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AA20685-1 | CENTER LAGOON | G | 1000 mL | 1 | P | | ✓ | | | | X | | 8 | 12/19/22 | 10:00 am | ✓ | | | | | | | | | | | |

TCLP:
TOTAL:

**Container type:** P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice: ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☐

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

**Relinquished By:** Raymond Vega **Date:** 12/19/20 **Time:** 11:16 am
**Received By:** Mario Rodriguez

**Relinquished By:** Mario Rodriguez **Date:** 12/19/22 **Time:** 16:00
**Received By:**

**Relinquished By:** **Date:** **Time:**
**Received By:** 12/21/22 @ 9:05

**Delivered by: (Circle One)**
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials) m

**Notes:**

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 12/21/2022 **TIME:** 09:10 **INITIALS:** YK

**CLIENT:** Adv. Analysis **PROJECT: W.O#** 2212091 to 2212094

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 3.3 Corrected Temp. ($^0$C): 3.3 Thermometer ID : (**DT1**) or **L2**
11. pH strip lot#: B0756 Samples out of pH range: —
12. Delivery agent: Client ___ UPS ___ Fed-Ex ✓ Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal ✓
14. Location: (**WI**) (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
Liquid

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 2/6/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2301099

Enclosed please find the analytical report for the sample/s received on 1/25/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2301099
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** CENTER LAGOON

**Collection Date:** 1/23/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2301099-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 86 | 5 | mg/L | 1 | 30-Jan-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 8.3 | 0.1 | pH units | 1 | 25-Jan-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | < 2 | 2 | mg/L | 1 | 30-Jan-23 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## ALAMO ANALYTICAL LABORATORIES, LTD.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2301099 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC MS | Low - High Limit | Parent | RPD DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-1/25/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_230125A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 1/30/2023 4:00:00 PM | | **Prep Date:** 1/25/2023 9:35:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 88.9% | | 69 - 227 | 0.0 | 0.0 | 0.000 | 20.0 |
| **Batch ID:** PH_WW-1/25/2023 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_230125A | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 1/25/2023 10:00:00 AM | | **Prep Date:** 1/25/2023 10:00:00 | | |
| pH at 25 o C | | 7 | 99.7% | | 95 - 105 | 8.3 | 8.3 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-1/30/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_230130A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 1/30/2023 4:20:00 PM | | **Prep Date:** 1/30/2023 9:10:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 86.0 | 84.0 | 2.000 | 20.0 |

**Approved by:**

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas 79490 Tel: (806) 796-2805 Fax : (806) 796-2825

# CHAIN OF CUSTODY Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: City of Tahoka | | | |
| Project Manager: CITY OF TAHOKA / Raymond Vega | | BILL TO | PO #: |
| Address: 1807 MAIN BOX 300 | | Company: | |
| City: TAHOKA | State: TX Zip: 79373 | Attn: | |
| Phone #: 806-561-4211 | Fax #: | Address: SAME | |
| E - mail : TAHOKA1915@POKA.COM | | City: | |
| Project #: | | State: | Zip: |
| Project Name: | | Phone #: | |
| Project Location: | | Fax #: | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | MATRIX: WASTEWATER | MATRIX: SOIL | MATRIX: SLUDGE | MATRIX: OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | SAMPLE CHECKS: pH | SAMPLE CHECKS: ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | SAMPLING: TIME | CBOD / BOD / TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2301099-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB30127-1 | CENTER LAGOON | G | 1L | 1 | P | | ✓ | | | | X | | 8 | 1/23/23 | 10:00 am | ✓ | | | | | | | | | | | | 2301099-01 |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice ☑ Yes ☐ No

Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST)

Preserved upon arrival ☑

pH paper Lot #: Q/GHSC1544

Thermometer ID: AA-T-03 CF = 1.0

Preservative Lot Number(s):

| | | |
|---|---|---|
| Relinquished By: | Date: 1/23/23 | Time: 12:10 |
| Relinquished By: Mario Rodriguez | Date: 1/23/23 | Time: 16:00 |
| Relinquished By: | Date: 1/25/2023 | Time: 9:05 |

| | |
|---|---|
| Received By: Mario Rodriguez | |
| Received By: | |
| Received By: | 4°C/4°C |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition: Intact ☑ Yes ☐ No

Checked By: (Initials)

Notes:

Shippining Information
Tracking Number:

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arasing whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 1 / 25 2023 **TIME:** 9:05 **INITIALS:** LZ

**CLIENT:** Advanced **PROJECT: W.O#** 2301099

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact ✓ or _____
9. Condition of samples: Intact ✓ or _____
10. Temperature of samples: Temp. ($^0$C): 4.1 Corrected Temp. ($^0$C): 4.1 Thermometer ID : **DT1 ~~or L2~~**
11. pH strip lot#:_____ Samples out of pH range:_____
12. Delivery agent: Client ✓ UPS ____ Fed-Ex____ Lone Star ____Alamo P/U ___ Other_____
13. Sample disposal: Return to client_____ Alamo Analytical Disposal ✓
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):
water

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___Fax___ Date: ____/____/____Time: _____
Name: _____ Phone ___Fax___ Date: ____/____/____Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 3/13/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2303005

Enclosed please find the analytical report for the sample/s received on 3/1/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2303005
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 2/27/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2303005-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 64 | 5 | mg/L | 1 | 06-Mar-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.5 | 0.1 | pH units | 1 | 01-Mar-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 31.2 | 2 | mg/L | 1 | 06-Mar-23 |

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2303005 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | LCS %REC | MS %REC | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-3/1/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | |
| **Run ID:** INCUB_230301A | **Test Code:** SM5210B | | **Units:** mg/L | | **Analysis Date:** 3/6/2023 4:00:00 PM | | **Prep Date:** 3/1/2023 9:40:00 A | | |
| Biochemical Oxygen Demand | <2 | 198 | 90.9% | | 69 - 227 | 31.2 | 30.3 | 3.000 | 20.0 |
| **Batch ID:** PH_WW-3/1/2023 | **TestName:** pH | | | | | | | | |
| **Run ID:** PH_W_230301B | **Test Code:** SM4500-H+B | | **Units:** pH units | | **Analysis Date:** 3/1/2023 9:55:00 AM | | **Prep Date:** 3/1/2023 9:55:00 A | | |
| pH at 25 o C | | 7 | 99.4% | | 95 - 105 | 7.5 | 7.6 | 1.000 | 5.0 |
| **Batch ID:** TSS_W-3/6/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | |
| **Run ID:** TSS_230306A | **Test Code:** SM2540D | | **Units:** mg/L | | **Analysis Date:** 3/6/2023 4:30:00 PM | | **Prep Date:** 3/6/2023 8:45:00 A | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | 23.4 | 22.6 | 3.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ADVANCED ANALYSIS, INC.**
3407 Clovis Rd. Lubbock, Texas 79415 P.O. Box 16652 Lubbock, Texas
79490 Tel: (806) 796-2805 Fax : (806) 796-2825

pH @6

**CHAIN OF CUSTODY** Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | | |
| Project Manager: RAYMOND VEGA | BILL TO | PO #: | |
| Address: 1807 MAIN BOX 300 | Company: | | |
| City: TAHOKA State: TX Zip: 79373 | Attn: | | |
| Phone #: 806-561-4211 Fax #: | Address: SAME | | |
| E - mail : Tahoka1915@poka.com | City: | | |
| Project #: | State: | Zip: | |
| Project Name: | Phone #: | | |
| Project Location: | Fax #: | | |

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP FROM SAMPLE °C | SAMPLING: DATE | TIME | CBOD / BOD | TSS / VSS / pH | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / $F^-$ | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2303005-01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AB30 (5-1) | CENTER LAGOON | G | 1L | 1P | | | ✓ | | | | X | | 10 | 2/27/23 | 10:00 am | ✓ | | | | | | | | | | | | |

| | | |
|---|---|---|
| Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag | *All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff | |
| Received on Ice ☑ Yes ☐ No | Preservative Type: $HNO_3$ = (N) $H_2SO_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2S_2O_3$ = (ST) | Preserved upon arrival ☐ |
| pH paper Lot #: Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0 ✓ | Preservative Lot Number(s): | |

| | | |
|---|---|---|
| Relinquished By: Date: 2/27/23 Time: 11:02am | Received By: Mario Rodriguez | Notes: Shippining Information Tracking Number: |
| Relinquished By: Mario Rodriguez Date: 2/27/23 Time: 16:00 | Received By: | |
| Relinquished By: Date: Time: | Received By: 3/1/23 | |
| Delivered by: (Circle One) UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self | Sample Condition ☑ Intact Yes ☐ No | Checked By: (Initials) |

PLEASE NOTE: Liabilities and Damages. AA's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by AA within 30 days after completion of the applicable service. In no event shall AA be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, it's subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by AA, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

# ALAMO ANALYTICAL LABORATORIES, LTD.

10526 Gulfdale
San Antonio, TX – 78216;
Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
SOP-SAMP-REC Ver.13.1

## Sample Log-In Checklist

**DATE:** 3/1/23 **TIME:** 9:26 **INITIALS:** [illegible]

**CLIENT:** Advanced Analytical **PROJECT: W.O#** 2303005

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact 1 or _____
9. Condition of samples: Intact 1 or _____
10. Temperature of samples: Temp. (°C): 3.8 Corrected Temp. (°C): 3.8 Thermometer ID : (**DT1** or **L2**)
11. pH strip lot#: _____ Samples out of pH range: _____
12. Delivery agent: Client ___ UPS ___ Fed-Ex 1 Lone Star ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal 1
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

_____
_____
_____
_____

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 4/3/2023

Mario Rodriguez
Advanced Analysis Inc.
P.O Box 16652
Lubbock , Texas - 79490
TEL: (806) 796-2805 Email: rodriguezaa@yahoo.com
FAX: (806) 796-2825

RE: City of Tahoka

Dear Mario Rodriguez: Order No.: 2303138

Enclosed please find the analytical report for the sample/s received on 3/22/2023.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

COMMENTS: No significant observations were made.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,

Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

## Analytical Results Report

**Client:** Advanced Analysis Inc.
**Lab Order:** 2303138
**Project ID:**
**Project Name:** City of Tahoka
**Client Sample ID:** Center Lagoon

**Collection Date:** 3/20/2023 10:00:00 AM
**Matrix:** WATER
**Lab ID:** 2303138-01A

| Analyses | Result | Report Limit | Units | Dilution | Date Analyzed |
|---|---|---|---|---|---|
| **TOTAL SUSPENDED SOLIDS** | | | **SM2540D** | | Analyst: **YK** |
| Suspended Solids (Residue, Non-Filterable) | 40 | 5 | mg/L | 1 | 27-Mar-23 |
| **PH** | | | **SM4500-H+B** | | Analyst: **YK** |
| pH at 25 o C | 7.5 | 0.1 | pH units | 1 | 22-Mar-23 |
| **BOD, 5 DAY, 20°C** | | | **SM5210B** | | Analyst: **AM** |
| Biochemical Oxygen Demand | 31.6 | 2 | mg/L | 1 | 27-Mar-23 |



Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

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**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *03-Apr-23*

**CLIENT:** Advanced Analysis Inc.
**Work Order:** 2303138 **Project:** City of Tahoka

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | %REC LCSD | RPD % | RPD Limit | %REC MS | Low - High Limit | Parent | DUP | RPD % | RPD Limi |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** BOD5-3/22/2023 | **TestName:** BOD, 5 Day, 20°C | | | | | | | | | | | |
| **Run ID:** INCUB_230322A | **Test Code:** SM5210B | | | | **Units:** mg/L | | | **Analysis Date:** 3/27/2023 3:20:00 PM | | **Prep Date:** 3/22/2023 9:30:00 | | |
| Biochemical Oxygen Demand | <2 | 198 | 87.9% | | | | | 69 - 227 | 31.6 | 30.2 | 5.000 | 20.0 |
| **Batch ID:** PH_WW-3/22/2023 | **TestName:** pH | | | | | | | | | | | |
| **Run ID:** PH_W_230322A | **Test Code:** SM4500-H+B | | | | **Units:** pH units | | | **Analysis Date:** 3/22/2023 9:50:00 AM | | **Prep Date:** 3/22/2023 9:50:00 | | |
| pH at 25 o C | | 7 | 99.4% | | | | | 95 - 105 | 7.5 | 7.5 | 0.000 | 5.0 |
| **Batch ID:** TSS_W-3/27/2023 | **TestName:** TOTAL SUSPENDED SOLIDS | | | | | | | | | | | |
| **Run ID:** TSS_230327A | **Test Code:** SM2540D | | | | **Units:** mg/L | | | **Analysis Date:** 3/27/2023 3:45:00 PM | | **Prep Date:** 3/27/2023 8:55:00 | | |
| Suspended Solids (Residue, Non-Filterable) | <5 | | | | | | | | 40.0 | 38.0 | 5.000 | 20.0 |

**Approved by:** bsreddy

**Laboratory QC Report**

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PH 8.5

**CHAIN OF CUSTODY** Page 1 of 1

| | | | |
|---|---|---|---|
| Company Name: CITY OF TAHOKA | | BILL TO | PO #: |
| Project Manager: RAYMOND VEGA | | Company: | |
| Address: 1807 MAIN BOX 300 | | Attn: | |
| City: TAHOKA | State: TX Zip: 79373 | Address: SAME | |
| Phone #: 806-561-4211 | Fax #: | City: | |
| E - mail : TAHOKA1915@POKA.COM | | State: | Zip: |
| Project #: | | Phone #: | |
| Project Name: | | Fax #: | |
| Project Location: | | | |

TCLP:
TOTAL:

| A A # (Lab Use) | Sample Source Id | GRAB / COMPOSITE | BOTTLE SIZE | # CONTAINERS | BOTTLE TYPE | MATRIX: GROUNDWATER | WASTEWATER | SOIL | SLUDGE | OTHER: | SAMPLE CHECKS: PRESERVATIVE TYPE: | pH | ACTUAL TEMP °C FROM SAMPLE | SAMPLING: DATE | TIME | CBOD / BOD / TSS / VSS / (pH) | TDS / Cl / $SO_4$ / EC | TKN / $NO_3$ / $NO_2$ / $NH_3$ / TP / COD | Alkalinity / Hard / F | Metals: As Ag Ba Cr Cd Pb Hg Se | Na / Ca / Mg / SAR / K | Volatiles | Semivolatiles | TPH | PCB's | BTEX/MTBE | FOG | E.coli enumeration (SM 9223B.2.b) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AB30168-1 | 2303138O1 CENTER LAGOON | G | 1L | 1 | P | | ✓ | | | | X | | 4 | 3/20/23 | 10:00am | ✓ | | | | | | | | | | | |

Container type: P-Polyethylene G-Glass V-VOA Z-Ziplock Bag

*All sample pH's, and Temperatures are taken at the time they are received in the laboratory by Lab Staff

Received on Ice ☑ Yes ☐ No ✓

Preservative Type: $HNO_3$ = (N) $H_2S0_4$ = (S) NaOH = (O) HCL = (H) ICE = (X) $Na_2$-$S_2O_3$ = (ST) Preserved upon arrival ☑

pH paper Lot # Q/GHSC1544 Thermometer ID: AA-T-03 CF = 1.0 ✓

Preservative Lot Number(s):

| | | | |
|---|---|---|---|
| Relinquished By: | Date: 3/20/23 | Time: 3/20/23 11:8a | Received By: David Rodriguez |
| Relinquished By: David Rodriguez | Date: 3/20/23 | Time: 16:09 | Received By: |
| Relinquished By: | Date: | Time: | Received By: 3/2 |

Delivered by: (Circle One)
UPS - Fed Ex - Bus - USPS - Lone Star Overnight - Other-Self

Sample Condition ☑ Intact Yes ☐ No

Checked By: (Initials)

Notes:

Shippining Information
Tracking Number:

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Ph. (210) 340-8121; Fax: (210) 340-8123

Document Control No.:
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## Sample Log-In Checklist

**DATE:** 3/22/23 **TIME:** 9:15 **INITIALS:** [illegible]

**CLIENT:** Advanced Analytical **PROJECT: W.O#** 230313 8

1. Is a Chain of Custody present? (Yes) No
2. Is a Chain of Custody properly completed? (Yes) No
3. Are custody seals present? Yes (No)
   *If yes*, are they intact? Yes No
   Are they on: Sample _____ or on Shipping Container _____
4. Are all samples tagged or labeled? (Yes) No
   *If yes*, do the labels match the Chain of Custody? (Yes) No
5. Do all shipping documents agree (i.e., number of coolers arrived vs. on tickets)
   *If not,* describe below. (Yes) No N/A
6. Are samples preserved properly? *If not*, describe below. (Yes) No
7. Are all samples within holding times on arrival? (Yes) No
   *If not*, describe below.
8. Condition of shipping container: Intact (Y) or _____
9. Condition of samples: Intact (Y) or _____
10. Temperature of samples: Temp. (°C): 3.0 Corrected Temp. (°C): 3.0 Thermometer ID : **(DT1 or L2)**
11. pH strip lot#: [illegible] Samples out of pH range: _____
12. Delivery agent: Client ___ UPS ___ Fed-Ex (Lone Star) ___ Alamo P/U ___ Other _____
13. Sample disposal: Return to client _____ Alamo Analytical Disposal _____
14. Location: **WI** (Walk-In Cooler)/ **F2** (Freezer 2 for TPH 1005 Soils))/ **R1**(Refrigerator 1 for TPH & VOC water)

**Comments:** (Reference checklist item number from above, or for comments on resolution below):

[illegible]

**Record of contacting client for resolution of sample discrepancies (first and retry contact)**
**Contacted How?**

Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____
Name: _____ Phone ___ Fax ___ Date: ___/___/___ Time: _____

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 4/28/2023 4:53:10 PM

## JOB DESCRIPTION

General

## JOB NUMBER

820-8181-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



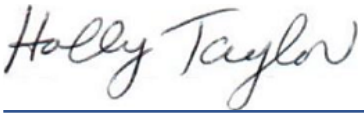
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## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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4/28/2023 4:53:10 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Job ID: 820-8181-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8181-1**

**Receipt**

The sample was received on 4/20/2023 10:59 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 10.7°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Client Sample ID: Center Lagoon

**Lab Sample ID: 820-8181-1**

**Date Collected: 04/20/23 08:58**

**Matrix: Water**

**Date Received: 04/20/23 10:59**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 159 | | 40.0 | 40.0 | mg/L | | | 04/27/23 10:44 | 1 |
| pH (SM 4500 H+ B) | 8.8 | HF | | | SU | | | 04/26/23 12:36 | 1 |
| Temperature (SM 4500 H+ B) | 16.7 | HF | | | Degrees C | | | 04/26/23 12:36 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 52.0 | | 6.00 | 6.00 | mg/L | | 04/21/23 18:37 | 04/21/23 20:02 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-100713/1**
**Matrix: Water**
**Analysis Batch: 100713**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 04/27/23 10:44 | 1 |

**Lab Sample ID: LCS 860-100713/2**
**Matrix: Water**
**Analysis Batch: 100713**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 81.00 | | mg/L | | 81 | 80 - 120 |

**Lab Sample ID: LCSD 860-100713/3**
**Matrix: Water**
**Analysis Batch: 100713**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 82.00 | | mg/L | | 82 | 80 - 120 | 1 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-8181-1 DU**
**Matrix: Water**
**Analysis Batch: 100515**

**Client Sample ID: Center Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 8.8 | HF | 8.8 | | SU | | 0.6 | 20 |
| Temperature | 16.7 | HF | 16.0 | | Degrees C | | 4 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-100611/2**
**Matrix: Water**
**Analysis Batch: 100611**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9660 | | 0.00000200 | 0.00000200 | mg/L | | | 04/21/23 19:48 | 1 |

**Lab Sample ID: USB 860-100611/1**
**Matrix: Water**
**Analysis Batch: 100611**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.2000 | | 0.00000200 | 0.00000200 | mg/L | | | 04/21/23 19:46 | 1 |

**Lab Sample ID: LCS 860-100611/3**
**Matrix: Water**
**Analysis Batch: 100611**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 211.6 | | mg/L | | 107 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## General Chemistry

### Prep Batch: 99920

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 100515

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-8181-1 DU | Center Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 100611

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 5210B | 99920 |
| SCB 860-100611/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-100611/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-100611/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 100713

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-100713/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-100713/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-100713/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Client Sample ID: Center Lagoon

**Date Collected: 04/20/23 08:58**
**Date Received: 04/20/23 10:59**

## Lab Sample ID: 820-8181-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 100713 | 04/27/23 10:44 | DR | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 100515 | 04/26/23 12:36 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 99920 | 04/21/23 18:37 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 100 mL | 300 mL | 100611 | 04/21/23 20:02 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: General

Job ID: 820-8181-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8181-1 | Center Lagoon | Water | 04/20/23 08:58 | 04/20/23 10:59 |

Loc: 820
8181

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# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH 8.6

820-8181 Chain of Custody

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | Same |
| Address: | 807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | Jarrington@tahoka.org / Raymond.vega@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | (Yes) No | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | +0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.6 | |
| Total Containers: | 2 | Corrected Temperature: | 10.7 | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | PHS | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Center Lagoon | | 4/20/23 | 8:58 am | | | | | | | | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | Courtney Ruggles | 4/20/23 10:59 | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8181-1

**Login Number: 8181**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Ruggles, Ashley**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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 | Received same day of collection; chilling process has begun. |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8181-1

**Login Number: 8181**
**List Number: 2**
**Creator: Canadilla, Surelis**

**List Source: Eurofins Houston**
**List Creation: 04/21/23 02:56 PM**

| 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? | N/A | |
| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 6/2/2023 7:29:26 AM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-8593-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



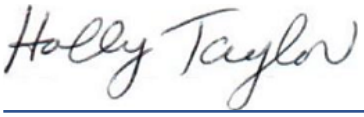
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
6/2/2023 7:29:26 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Job ID: 820-8593-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8593-1**

**Receipt**

The sample was received on 5/24/2023 2:58 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 19.9°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Client Sample ID: C. Lagoon

**Lab Sample ID: 820-8593-1**

**Date Collected: 05/24/23 14:12**

**Matrix: Water**

**Date Received: 05/24/23 14:58**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 121 | | 26.7 | 26.7 | mg/L | | | 05/30/23 11:04 | 1 |
| pH (SM 4500 H+ B) | 9.0 | HF | | | SU | | | 06/01/23 14:00 | 1 |
| Temperature (SM 4500 H+ B) | 16.0 | HF | | | Degrees C | | | 06/01/23 14:00 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 38.5 | | 12.0 | 12.0 | mg/L | | 05/25/23 15:25 | 05/25/23 18:11 | 1 |

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-105346/1**
**Matrix: Water**
**Analysis Batch: 105346**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 05/30/23 11:04 | 1 |

**Lab Sample ID: LCS 860-105346/2**
**Matrix: Water**
**Analysis Batch: 105346**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 109.0 | | mg/L | | 109 | 80 - 120 |

**Lab Sample ID: LCSD 860-105346/3**
**Matrix: Water**
**Analysis Batch: 105346**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 | 4 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-105403/2**
**Matrix: Water**
**Analysis Batch: 105403**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.8970 | | 0.0000020 | 0.0000020 | mg/L | | | 05/25/23 17:56 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: USB 860-105403/1**
**Matrix: Water**
**Analysis Batch: 105403**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.0000020 | 0.0000020 | mg/L | | | 05/25/23 17:20 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: LCS 860-105403/3**
**Matrix: Water**
**Analysis Batch: 105403**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 196.7 | | mg/L | | 99 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## General Chemistry

### Prep Batch: 104908

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 105346

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-105346/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-105346/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-105346/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 105403

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 5210B | 104908 |
| SCB 860-105403/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-105403/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-105403/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 105857

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Client Sample ID: C. Lagoon

**Date Collected: 05/24/23 14:12**
**Date Received: 05/24/23 14:58**

## Lab Sample ID: 820-8593-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 105346 | 05/30/23 11:04 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 105857 | 06/01/23 14:00 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 104908 | 05/25/23 15:25 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 105403 | 05/25/23 18:11 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-8593-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8593-1 | C. Lagoon | Water | 05/24/23 14:12 | 05/24/23 14:58 |

Loc: 820
8593

urofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-8593 Chain of Custody

Ph* 8.5

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | RVega@tahoka.org/jmaya@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | Yes (No) | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | +0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 19.8 | |
| Total Containers: | 2 | Corrected Temperature: | 19.9 | |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Parameters: BOD | PHS | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 5/24/23 | 2:12 pm | | | | | | | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 5/24/23 2:58pm | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



6/2/2023

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8593-1

**Login Number: 8593**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8593-1

**Login Number: 8593**
**List Number: 2**
**Creator: Pena, Jesiel**

**List Source: Eurofins Houston**
**List Creation: 05/25/23 01:09 PM**

| 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? | N/A | |
| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 6/26/2023 4:19:45 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-8917-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



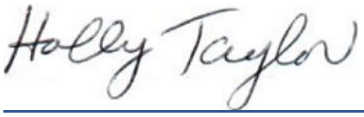
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## Job Notes

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## Authorization



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Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Job ID: 820-8917-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-8917-1**

**Receipt**

The sample was received on 6/19/2023 10:22 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 14.5°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Client Sample ID: C Lagoon

**Date Collected: 06/19/23 08:53**
**Date Received: 06/19/23 10:22**

## Lab Sample ID: 820-8917-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 76.0 | | 16.0 | 16.0 | mg/L | | | 06/22/23 10:33 | 1 |
| pH (SM 4500 H+ B) | 9.1 | HF | | | SU | | | 06/20/23 16:21 | 1 |
| Temperature (SM 4500 H+ B) | 19.8 | HF | | | Degrees C | | | 06/20/23 16:21 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 21.7 | | 12.0 | 12.0 | mg/L | | 06/20/23 14:45 | 06/20/23 17:45 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-109093/1**
**Matrix: Water**
**Analysis Batch: 109093**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 06/22/23 10:33 | 1 |

**Lab Sample ID: LCS 860-109093/2**
**Matrix: Water**
**Analysis Batch: 109093**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 103.0 | | mg/L | | 103 | 80 - 120 |

**Lab Sample ID: LCSD 860-109093/3**
**Matrix: Water**
**Analysis Batch: 109093**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 109.0 | | mg/L | | 109 | 80 - 120 | 6 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-109443/2**
**Matrix: Water**
**Analysis Batch: 109443**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.7380 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 06/20/23 17:13 | 1 |

**Lab Sample ID: USB 860-109443/1**
**Matrix: Water**
**Analysis Batch: 109443**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1100 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 06/20/23 17:11 | 1 |

**Lab Sample ID: LCS 860-109443/3**
**Matrix: Water**
**Analysis Batch: 109443**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 187.2 | | mg/L | | 95 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## General Chemistry

### Prep Batch: 108746

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 108803

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 109093

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-109093/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-109093/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-109093/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 109443

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Total/NA | Water | SM 5210B | 108746 |
| SCB 860-109443/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-109443/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-109443/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Client Sample ID: C Lagoon

**Date Collected: 06/19/23 08:53**
**Date Received: 06/19/23 10:22**

## Lab Sample ID: 820-8917-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 250 mL | 1000 mL | 109093 | 06/22/23 10:33 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 108803 | 06/20/23 16:21 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 108746 | 06/20/23 14:45 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 109443 | 06/20/23 17:45 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-23 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-8917-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-8917-1 | C Lagoon | Water | 06/19/23 08:53 | 06/19/23 10:22 |

Loc: 820
8917

# Chain of Custody

Eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-8917 Chain of Custody

Ph 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org jnoya@tahoka.org |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐Routine ☐Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.6 |
| Total Containers: | 2 | Corrected Temperature: | 14.5 |

**ANALYSIS REQUEST**

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters |
|---|---|---|---|---|---|---|---|---|
| C Lagoon | | 6/19/23 | 8:53am | | | 2 | | BOD, PHS, TSS |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Colby Tyler | 6/19/23 1022 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



6/26/2023

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8917-1

**Login Number: 8917**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-8917-1

**Login Number: 8917**
**List Number: 2**
**Creator: Babar, Syed**

**List Source: Eurofins Houston**
**List Creation: 06/20/23 12:12 PM**

| 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? | N/A | |
| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 7/24/2023 6:18:27 PM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-9272-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



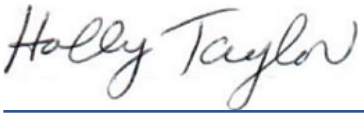
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## Authorization



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Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Job ID: 820-9272-1

**Laboratory: Eurofins Lubbock**

**Narrative**

**Job Narrative**
**820-9272-1**

**Receipt**

The sample was received on 7/17/2023 11:04 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 14.3°C

**General Chemistry**

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

**Client Sample ID: C. Lagoon**
**Date Collected: 07/17/23 09:48**
**Date Received: 07/17/23 11:04**

**Lab Sample ID: 820-9272-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 96.7 | | 26.7 | 26.7 | mg/L | | | 07/21/23 12:21 | 1 |
| pH (SM 4500 H+ B) | 9.0 | HF | | | SU | | | 07/19/23 16:41 | 1 |
| Temperature (SM 4500 H+ B) | 20.0 | HF | | | Degrees C | | | 07/19/23 16:41 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 34.0 | | 12.0 | 12.0 | mg/L | | 07/18/23 12:44 | 07/18/23 16:01 | 1 |

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-113433/1**
**Matrix: Water**
**Analysis Batch: 113433**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 07/21/23 12:21 | 1 |

**Lab Sample ID: LCS 860-113433/2**
**Matrix: Water**
**Analysis Batch: 113433**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 107.0 | | mg/L | | 107 | 80 - 120 |

**Lab Sample ID: LCSD 860-113433/3**
**Matrix: Water**
**Analysis Batch: 113433**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 | 2 | 10 |

**Lab Sample ID: 820-9272-1 DU**
**Matrix: Water**
**Analysis Batch: 113433**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 96.7 | | 94.00 | | mg/L | | 3 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-113749/2**
**Matrix: Water**
**Analysis Batch: 113749**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9000 | | 0.00000200 | 0.00000200 | mg/L | | | 07/18/23 13:42 | 1 |

**Lab Sample ID: USB 860-113749/1**
**Matrix: Water**
**Analysis Batch: 113749**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.2000 | | 0.00000200 | 0.00000200 | mg/L | | | 07/18/23 13:39 | 1 |

**Lab Sample ID: LCS 860-113749/3**
**Matrix: Water**
**Analysis Batch: 113749**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 222.6 | | mg/L | | 112 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## General Chemistry

### Prep Batch: 112890

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 113110

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 113433

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-113433/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-113433/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-113433/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-9272-1 DU | C. Lagoon | Total/NA | Water | SM 2540D | |

### Analysis Batch: 113749

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Total/NA | Water | SM 5210B | 112890 |
| SCB 860-113749/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-113749/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-113749/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Client Sample ID: C. Lagoon

**Date Collected: 07/17/23 09:48**
**Date Received: 07/17/23 11:04**

## Lab Sample ID: 820-9272-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 113433 | 07/21/23 12:21 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 113110 | 07/19/23 16:41 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 112890 | 07/18/23 12:44 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 113749 | 07/18/23 16:01 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-50 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9272-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-9272-1 | C. Lagoon | Water | 07/17/23 09:48 | 07/17/23 11:04 |

Loc: 820
9272

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-9272 Chain of Custody

Ph 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 308 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐Routine ☐Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.4 |
| Total Containers: | 2 | Corrected Temperature: | 14.3 |

**ANALYSIS REQUEST**

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: 1300 | PH | TSS |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 7/17/23 | 9:45 am | | | 2 | | ✓ | ✓ | ✓ |

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2SO_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

**Sample Comments**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 7/17/23 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2



7/24/2023

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-7377 1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-9272-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 7/24/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:

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

Other:

| Sample Identification Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Preservation Code: | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-9272-1) | 7/17/23 | 09:48 Central | | Water | | X | X | X | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by | Date/Time: | Company |
|---|---|---|---|---|---|
| | 7/17/23 1700 | | FedEX | | |
| Relinquished by: FedEX | Date/Time: | Company | Received by: | Date/Time: 7/18/2023 10:06 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|
| | | Temp C/F -0.3 1.5 IR ID HOU-338 Corrected Temp 1.2 |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9272-1

**Login Number: 9272**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9272-1

**Login Number: 9272**
**List Number: 2**
**Creator: Pena, Jesiel**

**List Source: Eurofins Houston**
**List Creation: 07/18/23 01:12 PM**

| 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? | N/A | |
| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 8/28/2023 5:23:41 PM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-9753-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



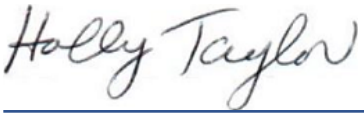
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## Job Notes

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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
8/28/2023 5:23:41 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Job ID: 820-9753-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-9753-1**

**Receipt**
The sample was received on 8/21/2023 11:54 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 14.6°C

**General Chemistry**
Method 2540D: Due to the matrix, the initial volume(s) used for the following sample(s) deviated from the standard procedure: total suspended solids. The reporting limits (RLs) have been adjusted proportionately.

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

**Client Sample ID: C. Lagoon**
**Date Collected: 08/21/23 09:05**
**Date Received: 08/21/23 11:54**

**Lab Sample ID: 820-9753-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 82.7 | | 26.7 | 26.7 | mg/L | | | 08/28/23 08:07 | 1 |
| pH (SM 4500 H+ B) | 8.9 | HF | | | SU | | | 08/28/23 12:19 | 1 |
| Temperature (SM 4500 H+ B) | 18.2 | HF | | | Degrees C | | | 08/28/23 12:19 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 20.9 | | 12.0 | 12.0 | mg/L | | 08/22/23 21:15 | 08/22/23 22:22 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-119004/1**
**Matrix: Water**
**Analysis Batch: 119004**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 08/28/23 08:07 | 1 |

**Lab Sample ID: LCS 860-119004/2**
**Matrix: Water**
**Analysis Batch: 119004**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 92.00 | | mg/L | | 92 | 80 - 120 |

**Lab Sample ID: LCSD 860-119004/3**
**Matrix: Water**
**Analysis Batch: 119004**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 89.00 | | mg/L | | 89 | 80 - 120 | 3 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-9753-1 DU**
**Matrix: Water**
**Analysis Batch: 119103**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 8.9 | HF | 8.9 | | SU | | 0.1 | 20 |
| Temperature | 18.2 | HF | 18.2 | | Degrees C | | 0 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-118984/2**
**Matrix: Water**
**Analysis Batch: 118984**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9900 | | 0.00000200 | 0.00000200 | mg/L | | | 08/22/23 21:31 | 1 |

**Lab Sample ID: USB 860-118984/1**
**Matrix: Water**
**Analysis Batch: 118984**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.00000200 | 0.00000200 | mg/L | | | 08/22/23 21:29 | 1 |

**Lab Sample ID: LCS 860-118984/3**
**Matrix: Water**
**Analysis Batch: 118984**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 191.4 | | mg/L | | 97 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## General Chemistry

### Prep Batch: 118383

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 118984

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 5210B | 118383 |
| SCB 860-118984/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-118984/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-118984/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 119004

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-119004/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-119004/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-119004/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 119103

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-9753-1 DU | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Client Sample ID: C. Lagoon

**Date Collected: 08/21/23 09:05**
**Date Received: 08/21/23 11:54**

## Lab Sample ID: 820-9753-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 150 mL | 1000 mL | 119004 | 08/28/23 08:07 | OH | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 119103 | 08/28/23 12:19 | TL | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 118383 | 08/22/23 21:15 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 118984 | 08/22/23 22:22 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-51 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-9753-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-9753-1 | C. Lagoon | Water | 08/21/23 09:05 | 08/21/23 11:54 |

Loc: 820
9753

# Chain of Custody

Eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

820-9753 Chain of Custody

PH 8.5

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 302 | Address: | Same |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 14.7 |
| Total Containers: | 2 | Corrected Temperature: | 14.6 |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Parameters: Bod | pH | 1:5 | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 8/24/23 | 9:05 am | | | 2 | ✓ | ✓ | ✓ | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Cathy Lightfoot | 8/25/23 1154 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

8/28/2023

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-7670.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP - Texas | | Job #: 820-9753-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 8/28/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-9753-1) | 8/21/23 | 09:05 Central | | Water | X | X | X | |

Temp: 1.8 IR ID:HOU-338
C/F:-0.3
Corrected Temp: 1.5

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Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 8/22/2023 9:23 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: Jeremiah Baker | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9753-1

**Login Number: 9753**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-9753-1

**Login Number: 9753**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 08/22/23 11:28 AM**

| 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 | |

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 9/29/2023 11:13:41 AM

## JOB DESCRIPTION

C. Lagoon

## JOB NUMBER

820-10198-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



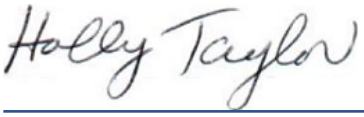
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
9/29/2023 11:13:41 AM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

## Job ID: 820-10198-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-10198-1**

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 9/21/2023 11:15 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 19.0°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

**Client Sample ID: C. Lagoon**
**Date Collected: 09/21/23 10:30**
**Date Received: 09/21/23 11:15**

**Lab Sample ID: 820-10198-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 76.0 | | 40.0 | 40.0 | mg/L | | | 09/27/23 09:24 | 1 |
| pH (SM 4500 H+ B) | 8.8 | HF | | | SU | | | 09/25/23 13:34 | 1 |
| Temperature (SM 4500 H+ B) | 19.1 | HF | | | Degrees C | | | 09/25/23 13:34 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 23.7 | | 12.0 | 12.0 | mg/L | | 09/22/23 13:26 | 09/22/23 15:14 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-123641/1**
**Matrix: Water**
**Analysis Batch: 123641**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 09/27/23 09:24 | 1 |

**Lab Sample ID: LCS 860-123641/2**
**Matrix: Water**
**Analysis Batch: 123641**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 860-123641/3**
**Matrix: Water**
**Analysis Batch: 123641**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 103.0 | | mg/L | | 103 | 80 - 120 | 2 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-123687/2**
**Matrix: Water**
**Analysis Batch: 123687**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.8700 | | 0.0000020 | 0.0000020 | mg/L | | | 09/22/23 14:14 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: USB 860-123687/1**
**Matrix: Water**
**Analysis Batch: 123687**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <0.00000200 | U | 0.0000020 | 0.0000020 | mg/L | | | 09/22/23 14:11 | 1 |
| | | | 0 | 0 | | | | | |

**Lab Sample ID: LCS 860-123687/3**
**Matrix: Water**
**Analysis Batch: 123687**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 169.4 | | mg/L | | 86 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## General Chemistry

### Prep Batch: 123014

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 123285

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 123641

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-123641/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-123641/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-123641/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 123687

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Total/NA | Water | SM 5210B | 123014 |
| SCB 860-123687/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-123687/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-123687/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-10198-1
Project/Site: C. Lagoon

**Client Sample ID: C. Lagoon** — **Lab Sample ID: 820-10198-1**
**Date Collected: 09/21/23 10:30** — **Matrix: Water**
**Date Received: 09/21/23 11:15**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 100 mL | 1000 mL | 123641 | 09/27/23 09:24 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 123285 | 09/25/23 13:34 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 123014 | 09/22/23 13:26 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 123687 | 09/22/23 15:14 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C. Lagoon

Job ID: 820-10198-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-10198-1 | C. Lagoon | Water | 09/21/23 10:30 | 09/21/23 11:15 |

Loc: 820
10198

fins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH 8.5

820-10198 Chain of Custody

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 180 7 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahokatx.org raymondvega@windstream.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 | |
| ~~Sample Custody Seals:~~ | Yes No (N/A) | ~~Temperature Reading:~~ | 19.1 | |
| Total Containers: | 2 | Corrected Temperature: | 19.0 | |

**Preservative Codes**

None: NO; DI Water: $H_2O$; Cool: Cool; MeOH: Me; HCL: HC; $HNO_3$: HN; $H_2SO_4$: $H_2$; NaOH: Na; $H_3PO_4$: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: $NaSO_3$; ~~Zn Acetate+NaOH: Zn~~; NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | pH | TSS | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon | | 9-21-23 | 10:30 am | | | 2 | | ✓ | ✓ | ✓ | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | Colby Teagle | 9/21/23 11:15 am | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10198-1

**Login Number: 10198**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10198-1

**Login Number: 10198**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 09/22/23 10:20 AM**

| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 10/25/2023 6:44:17 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-10592-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



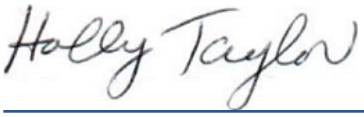
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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10/25/2023 6:44:17 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Job ID: 820-10592-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-10592-1**

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 10/19/2023 10:35 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 10.2°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

**Client Sample ID: C Lagoon**
**Date Collected: 10/19/23 08:57**
**Date Received: 10/19/23 10:35**

**Lab Sample ID: 820-10592-1**
**Matrix: Water**

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 82.0 | | 20.0 | 20.0 | mg/L | | | 10/23/23 10:13 | 1 |
| pH (SM 4500 H+ B) | 8.5 | HF | | | SU | | | 10/20/23 16:53 | 1 |
| Temperature (SM 4500 H+ B) | 14.1 | HF | | | Degrees C | | | 10/20/23 16:53 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 31.5 | | 12.0 | 12.0 | mg/L | | 10/20/23 16:34 | 10/20/23 17:03 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-127508/1**
**Matrix: Water**
**Analysis Batch: 127508**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 10/23/23 10:13 | 1 |

**Lab Sample ID: LCS 860-127508/2**
**Matrix: Water**
**Analysis Batch: 127508**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | | | 100 | 97.00 | | mg/L | | 97 | 80 - 120 | | |

**Lab Sample ID: LCSD 860-127508/3**
**Matrix: Water**
**Analysis Batch: 127508**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | | | 100 | 100.0 | | mg/L | | 100 | 80 - 120 | 3 | 10 |

**Lab Sample ID: 820-10592-1 DU**
**Matrix: Water**
**Analysis Batch: 127508**

**Client Sample ID: C Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | | DU Result | DU Qualifier | Unit | D | | | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 82.0 | | | 85.50 | | mg/L | | | | 4 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-128041/2**
**Matrix: Water**
**Analysis Batch: 128041**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9690 | | 0.00000200 | 0.00000200 | mg/L | | | 10/20/23 16:17 | 1 |

**Lab Sample ID: USB 860-128041/1**
**Matrix: Water**
**Analysis Batch: 128041**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1200 | | 0.00000200 | 0.00000200 | mg/L | | | 10/20/23 16:14 | 1 |

**Lab Sample ID: LCS 860-128041/3**
**Matrix: Water**
**Analysis Batch: 128041**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | | | 198 | 205.8 | | mg/L | | 104 | 85 - 115 | | |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## General Chemistry

### Prep Batch: 127382

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 127404

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 127508

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-127508/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-127508/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-127508/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-10592-1 DU | C Lagoon | Total/NA | Water | SM 2540D | |

### Analysis Batch: 128041

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Total/NA | Water | SM 5210B | 127382 |
| SCB 860-128041/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-128041/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-128041/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-10592-1
Project/Site: C Lagoon

## Client Sample ID: C Lagoon
**Lab Sample ID: 820-10592-1**

**Date Collected: 10/19/23 08:57**
**Matrix: Water**

**Date Received: 10/19/23 10:35**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 127508 | 10/23/23 10:13 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 127404 | 10/20/23 16:53 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 127382 | 10/20/23 16:34 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 128041 | 10/20/23 17:03 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-10592-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-10592-1 | C Lagoon | Water | 10/19/23 08:57 | 10/19/23 10:35 |

Loc: 820
10592

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Ph 8.5

820-10592 Chain of Custody

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| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | Same |
| Address: | 1807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka TX 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org & Raymond.Vega@wingatenm.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.3 |
| Total Containers: | 2 | Corrected Temperature: | 10.2 |

**Preservative Codes**

None: NO | DI Water: $H_2O$
Cool: Cool | MeOH: Me
HCL: HC | $HNO_3$: HN
$H_2SO_4$: $H_2$ | NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: BOD | pH | TSS | X | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chagoon | | 10/11/23 | 8:57am | | | 2 | | ✓ | ✓ | ✓ | X | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 10/11/23 10:35am | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

10/25/2023

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8215.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-10592-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 10/26/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | |
| C Lagoon (820-10592-1) | 10/19/23 | 08:57 Central | | Water | | | X | X | X | 2 | |
| | | | | | | | | | | | HW365 1-4 1-4 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 10/20/2023 9.35 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10592-1

**Login Number: 10592**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-10592-1

**Login Number: 10592**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 10/20/23 11:33 AM**

| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 11/30/2023 2:33:34 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-11030-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



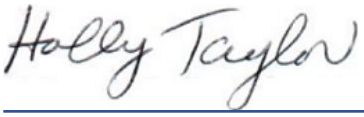
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
11/30/2023 2:33:34 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

# Case Narrative

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Job ID: 820-11030-1

### Laboratory: Eurofins Lubbock

**Narrative**

**Job Narrative**
**820-11030-1**

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 11/21/2023 9:57 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 10.1°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Client Sample ID: C Lagoon

**Lab Sample ID: 820-11030-1**

**Date Collected: 11/21/23 08:39**

**Matrix: Water**

**Date Received: 11/21/23 09:57**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 69.0 | | 20.0 | 20.0 | mg/L | | | 11/27/23 17:43 | 1 |
| pH (SM 4500 H+ B) | 7.8 | HF | | | SU | | | 11/27/23 15:01 | 1 |
| Temperature (SM 4500 H+ B) | 12.6 | HF | | | Degrees C | | | 11/27/23 15:01 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 36.7 | | 12.0 | 12.0 | mg/L | | 11/22/23 14:03 | 11/22/23 14:58 | 1 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-132668/1**
**Matrix: Water**
**Analysis Batch: 132668**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 11/27/23 17:43 | 1 |

**Lab Sample ID: LCS 860-132668/2**
**Matrix: Water**
**Analysis Batch: 132668**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 106.0 | | mg/L | | 106 | 80 - 120 |

**Lab Sample ID: LCSD 860-132668/3**
**Matrix: Water**
**Analysis Batch: 132668**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 102.0 | | mg/L | | 102 | 80 - 120 | 4 | 10 |

**Lab Sample ID: 820-11030-1 DU**
**Matrix: Water**
**Analysis Batch: 132668**

**Client Sample ID: C Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 69.0 | | 74.00 | | mg/L | | 7 | 10 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-132607/2**
**Matrix: Water**
**Analysis Batch: 132607**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.7980 | | 0.00000200 | 0.00000200 | mg/L | | | 11/22/23 13:23 | 1 |

**Lab Sample ID: USB 860-132607/1**
**Matrix: Water**
**Analysis Batch: 132607**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.1200 | | 0.00000200 | 0.00000200 | mg/L | | | 11/22/23 13:20 | 1 |

**Lab Sample ID: LCS 860-132607/3**
**Matrix: Water**
**Analysis Batch: 132607**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 195.7 | | mg/L | | 99 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## General Chemistry

### Prep Batch: 132339

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 132607

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 5210B | 132339 |
| SCB 860-132607/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-132607/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-132607/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 132649

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 4500 H+ B | |

### Analysis Batch: 132668

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-132668/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-132668/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-132668/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |
| 820-11030-1 DU | C Lagoon | Total/NA | Water | SM 2540D | |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Client Sample ID: C Lagoon

**Date Collected: 11/21/23 08:39**
**Date Received: 11/21/23 09:57**

## Lab Sample ID: 820-11030-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 132668 | 11/27/23 17:43 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 132649 | 11/27/23 15:01 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 132339 | 11/22/23 14:03 | HN | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 132607 | 11/22/23 14:58 | HN | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11030-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-11030-1 | C Lagoon | Water | 11/21/23 08:39 | 11/21/23 09:57 |

Loc: 820
11030

# Chain of Custody

Eurofins | Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH

820-11030 Chain of Custody

www.xenco.com Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | Same |
| City, State ZIP: | Tahoka TX 79373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | rvega@tahoka.org & raymondvega@windstream.net |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 10.2 | |
| Total Containers: | 2 | Corrected Temperature: | 10.1 | |

Pres. Code

Parameters: BOD, PH, TSS

**ANALYSIS REQUEST**

**Preservative Codes**

None: NO DI Water: $H_2O$
Cool: Cool MeOH: Me
HCL: HC $HNO_3$: HN
$H_2SO_4$: $H_2$ NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: NaSO$_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Sample Comments |
|---|---|---|---|---|---|---|---|
| C. Lagoon | | 11/22/23 | 8:39 | | | 2 | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 11/21/23 9:57 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

11/30/2023

| Client Information (Sub Contract Lab) | Sampler | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8530.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-11030-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 12/4/2023 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

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

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | |
| C Lagoon (820-11030-1) | 11/21/23 | 08:39 Central | | Water | | | X | X | X | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: 11/22/2023 9:59 | Company EX |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11030-1

**Login Number: 11030**

**List Number: 1**

**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11030-1

**Login Number: 11030**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 11/22/23 01:35 PM**

| 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: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 1/5/2024 1:38:38 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-11465-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



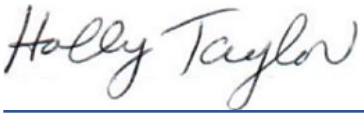
myEOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



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1/5/2024 1:38:38 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

**Job Narrative**
**820-11465-1**

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 12/27/2023 11:01 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 7.0°C

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

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Client Sample ID: C. Lagoon

**Date Collected: 12/27/23 10:05**
**Date Received: 12/27/23 11:01**

## Lab Sample ID: 820-11465-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids (SM 2540D) | 80.0 | | 20.0 | 20.0 | mg/L | | | 12/29/23 10:48 | 1 |
| pH (SM 4500 H+ B) | 7.5 | HF | | | SU | | | 01/05/24 12:34 | 1 |
| Temperature (SM 4500 H+ B) | 11.6 | HF | | | Degrees C | | | 01/05/24 12:34 | 1 |
| Biochemical Oxygen Demand (SM 5210B) | 26.2 | | 12.0 | 12.0 | mg/L | | 12/28/23 17:30 | 12/28/23 17:49 | 1 |

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-138624/1**
**Matrix: Water**
**Analysis Batch: 138624**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 12/29/23 10:48 | 1 |

**Lab Sample ID: LCS 860-138624/2**
**Matrix: Water**
**Analysis Batch: 138624**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 105.0 | | mg/L | | 105 | 80 - 120 |

**Lab Sample ID: LCSD 860-138624/3**
**Matrix: Water**
**Analysis Batch: 138624**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 100 | 104.0 | | mg/L | | 104 | 80 - 120 | 2 | 10 |

## Method: SM 4500 H+ B - pH

**Lab Sample ID: 820-11465-1 DU**
**Matrix: Water**
**Analysis Batch: 139421**

**Client Sample ID: C. Lagoon**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| pH | 7.5 | HF | 7.5 | | SU | | 0.3 | 20 |
| Temperature | 11.6 | HF | 11.0 | | Degrees C | | 5 | 20 |

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: SCB 860-138928/2**
**Matrix: Water**
**Analysis Batch: 138928**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.9300 | | 0.00000200 | 0.00000200 | mg/L | | | 12/28/23 17:13 | 1 |

**Lab Sample ID: USB 860-138928/1**
**Matrix: Water**
**Analysis Batch: 138928**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 0.04000 | | 0.00000200 | 0.00000200 | mg/L | | | 12/28/23 17:09 | 1 |

**Lab Sample ID: LCS 860-138928/3**
**Matrix: Water**
**Analysis Batch: 138928**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | 198 | 185.3 | | mg/L | | 94 | 85 - 115 |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## General Chemistry

### Prep Batch: 138540

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 138624

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-138624/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-138624/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-138624/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Analysis Batch: 138928

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 5210B | 138540 |
| SCB 860-138928/2 | Method Blank | Total/NA | Water | SM 5210B | |
| USB 860-138928/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 860-138928/3 | Lab Control Sample | Total/NA | Water | SM 5210B | |

### Analysis Batch: 139421

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |
| 820-11465-1 DU | C. Lagoon | Total/NA | Water | SM 4500 H+ B | |

# Lab Chronicle

Client: City of Tahoka
Job ID: 820-11465-1
Project/Site: C Lagoon

## Client Sample ID: C. Lagoon
**Lab Sample ID: 820-11465-1**

**Date Collected: 12/27/23 10:05**
**Matrix: Water**

**Date Received: 12/27/23 11:01**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | SM 2540D | | 1 | 200 mL | 1000 mL | 138624 | 12/29/23 10:48 | SA | EET HOU |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | | | 139421 | 01/05/24 12:34 | KEG | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 138540 | 12/28/23 17:30 | ALL | EET HOU |
| Total/NA | Analysis | SM 5210B | | 1 | 50 mL | 300 mL | 138928 | 12/28/23 17:49 | ALL | EET HOU |

**Laboratory References:**

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

## Laboratory: Eurofins Houston

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Texas | NELAP | T104704215-23-53 | 06-30-24 |

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| SM 4500 H+ B | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 H+ B | pH | SM | EET HOU |
| SM 5210B | BOD, 5-Day | SM | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

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

**Laboratory References:**

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-11465-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-11465-1 | C. Lagoon | Water | 12/27/23 10:05 | 12/27/23 11:01 |

Loc: 820
11465

ofins | Environment Testing Xenco

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

PH. 8

820-11465 Chain of Custody

| | | | |
|---|---|---|---|
| Project Manager: | Jesus Moya | Bill to: (if different) | |
| Company Name: | City of Tahoka | Company Name: | |
| Address: | 1807 Main Box 300 | Address: | |
| City, State ZIP: | Tahoka Tx 79373 | City, State ZIP: | |
| Phone: | (806) 561-4211 | Email: | RVega@tahoka.com |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | |
|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.1 |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 7.1 |
| Total Containers: | 2 | Corrected Temperature: | 7.0 |

ANALYSIS REQUEST

Pres. Code

Parameters: BOD, PH, TSS

**Preservative Codes**

None: NO — DI Water: $H_2O$
Cool: Cool — MeOH: Me
HCL: HC — $HNO_3$: HN
$H_2SO_4$: $H_2$ — NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Sample Comments |
|---|---|---|---|---|---|---|---|
| C. Lagoon | | X1/27 | X10:05 | | | 2 | |

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8729.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-11465-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 1/8/2024 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: General | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Preservation Code: | SM5210B_Calc/BOD_Prep BOD, 5-Day | 2540D | SM4500_H+/ pH and Temperature | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| C. Lagoon (820-11465-1) | 12/27/23 | 10:05 Central | | Water | | X | X | X | |

Temp. 3.0 IR ID:HOU-369
C/F -0.0
Corrected Temp 3.0

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| | 12/27/23 1700 | | Fedex | | |
| Relinquished by: Fedex | Date/Time: | Company | Received by: | Date/Time: 12/28 10.01 am | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11465-1

**Login Number: 11465**

**List Source: Eurofins Lubbock**

**List Number: 1**

**Creator: Triplett, Colby**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-11465-1

**Login Number: 11465**
**List Number: 2**
**Creator: Jimenez, Nicanor**

**List Source: Eurofins Houston**
**List Creation: 12/28/23 02:18 PM**

| 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 | |

# ATTACHMENT L

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Pollutant Analysis of Treated Effluent
Laboratory Results & Chain of Custody

eurofins | Environment Testing



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Raymond Vega
City of Tahoka
PO BOX 300
Tahoka, Texas 79373

Generated 3/18/2024 12:26:58 PM

## JOB DESCRIPTION

C Lagoon

## JOB NUMBER

820-12174-1

Eurofins Lubbock
6701 Aberdeen Ave.
Suite 8
Lubbock TX 79424

See page two for job notes and contact information.



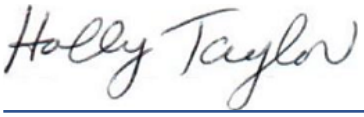
my EOL

## 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.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

## Authorization



Generated
3/18/2024 12:26:58 PM

Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296

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# Definitions/Glossary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| HF | Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time. |
| 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 |

**Job Narrative**
**820-12174-1**

**Receipt**
The sample was received on 2/22/2024 10:03 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 was 9.1º C.

**General Chemistry**
Method 350.1: The matrix spike duplicate (MSD) recoveries for analytical batch 860-147820 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method SM 4500 Cl G: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 860-147656 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

**Subcontract non-Sister**
See attached subcontract report.

# Client Sample Results

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Client Sample ID: C Lagoon

**Date Collected: 02/22/24 08:51**
**Date Received: 02/22/24 10:03**

## Lab Sample ID: 820-12174-1

**Matrix: Water**

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia (EPA 350.1) | 9.65 | | 1.00 | 0.508 | mg/L | | | 02/29/24 19:35 | 10 |
| Nitrogen, Kjeldahl (EPA 351.2) | 128 | | 20.0 | 8.90 | mg/L | | 03/01/24 09:29 | 03/06/24 19:23 | 10 |
| Phosphorus Total (EPA 365.1) | 4.92 | | 0.200 | 0.143 | mg/L | | | 03/01/24 19:51 | 10 |
| pH (SW846 9040C) | 7.70 | HF | | | SU | | | 03/01/24 17:40 | 1 |
| Temperature (SW846 9040C) | 18.1 | HF | | | Degrees C | | | 03/01/24 17:40 | 1 |
| Specific Conductance (SM 2510B) | 2300 | | 10.0 | 10.0 | umho/cm @ 25C | | | 03/01/24 17:40 | 1 |
| Total Dissolved Solids (SM 2540C) | 1240 | | 20.0 | 20.0 | mg/L | | | 02/27/24 22:22 | 1 |
| Total Suspended Solids (SM 2540D) | 46.7 | | 6.67 | 6.67 | mg/L | | | 02/29/24 19:57 | 1 |
| Chlorine, Total Residual (SM 4500 Cl G) | <0.250 | U HF | 0.250 | 0.250 | mg/L | | | 02/29/24 14:48 | 5 |
| Carbonaceous Biochemical Oxygen Demand (SM5210B CBOD) | 22.3 | | 12.0 | 12.0 | mg/L | | 02/23/24 10:00 | 02/23/24 15:03 | 1 |

## Method: 350.1 - Nitrogen, Ammonia

**Lab Sample ID: MB 860-147820/164**
**Matrix: Water**
**Analysis Batch: 147820**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | <0.0508 | U | 0.100 | 0.0508 | mg/L | | | 02/29/24 18:10 | 1 |

**Lab Sample ID: MB 860-147820/56**
**Matrix: Water**
**Analysis Batch: 147820**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ammonia | <0.0508 | U | 0.100 | 0.0508 | mg/L | | | 02/29/24 13:04 | 1 |

**Lab Sample ID: LCS 860-147820/165**
**Matrix: Water**
**Analysis Batch: 147820**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.085 | | mg/L | | 108 | 90 - 110 | | |

**Lab Sample ID: LCS 860-147820/57**
**Matrix: Water**
**Analysis Batch: 147820**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 0.9831 | | mg/L | | 98 | 90 - 110 | | |

**Lab Sample ID: LCSD 860-147820/166**
**Matrix: Water**
**Analysis Batch: 147820**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.085 | | mg/L | | 108 | 90 - 110 | 0 | 20 |

**Lab Sample ID: LCSD 860-147820/58**
**Matrix: Water**
**Analysis Batch: 147820**

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ammonia | | | 1.00 | 1.015 | | mg/L | | 102 | 90 - 110 | 3 | 20 |

## Method: 351.2 - Nitrogen, Total Kjeldahl

**Lab Sample ID: MB 860-147764/32-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | <0.0890 | U | 0.200 | 0.0890 | mg/L | | 03/01/24 09:29 | 03/06/24 18:42 | 1 |

## Method: 351.2 - Nitrogen, Total Kjeldahl (Continued)

**Lab Sample ID: MB 860-147764/4-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | <0.0890 | U | 0.200 | 0.0890 | mg/L | | 03/01/24 09:29 | 03/06/24 18:29 | 1 |

**Lab Sample ID: LCS 860-147764/33-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 2.00 | 1.992 | | mg/L | | 100 | 90 - 110 |

**Lab Sample ID: LCSD 860-147764/34-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 2.00 | 1.967 | | mg/L | | 98 | 90 - 110 | 1 | 20 |

**Lab Sample ID: LLCS 860-147764/5-A**
**Matrix: Water**
**Analysis Batch: 150055**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 147764**

| Analyte | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Nitrogen, Kjeldahl | 0.200 | 0.2498 | | mg/L | | 125 | 50 - 150 |

## Method: 365.1 - Phosphorus, Total

**Lab Sample ID: MB 860-148079/93**
**Matrix: Water**
**Analysis Batch: 148079**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus Total | <0.0143 | U | 0.0200 | 0.0143 | mg/L | | | 03/01/24 19:21 | 1 |

**Lab Sample ID: LCS 860-148079/94**
**Matrix: Water**
**Analysis Batch: 148079**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Phosphorus Total | 0.250 | 0.2440 | | mg/L | | 98 | 90 - 110 |

**Lab Sample ID: LCSD 860-148079/95**
**Matrix: Water**
**Analysis Batch: 148079**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Phosphorus Total | 0.250 | 0.2450 | | mg/L | | 98 | 90 - 110 | 0 | 20 |

## Method: SM 2510B - Conductivity, Specific Conductance

**Lab Sample ID: MB 860-147894/82**
**Matrix: Water**
**Analysis Batch: 147894**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Specific Conductance | <10.0 | U | 10.0 | 10.0 | umho/cm @ 25C | | | 03/01/24 17:11 | 1 |

**Lab Sample ID: LCS 860-147894/39**
**Matrix: Water**
**Analysis Batch: 147894**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Specific Conductance | 1410 | 1412 | | umho/cm @ 25C | | 100 | 85 - 115 |

**Lab Sample ID: LCSD 860-147894/40**
**Matrix: Water**
**Analysis Batch: 147894**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Specific Conductance | 1410 | 1412 | | umho/cm @ 25C | | 100 | 85 - 115 | 0 | 20 |

## Method: SM 2540C - Solids, Total Dissolved (TDS)

**Lab Sample ID: MB 860-147301/1**
**Matrix: Water**
**Analysis Batch: 147301**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | <5.00 | U | 5.00 | 5.00 | mg/L | | | 02/27/24 22:22 | 1 |

**Lab Sample ID: LCS 860-147301/2**
**Matrix: Water**
**Analysis Batch: 147301**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | 1110 | | mg/L | | 111 | 80 - 120 |

**Lab Sample ID: LCSD 860-147301/3**
**Matrix: Water**
**Analysis Batch: 147301**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 1000 | 1111 | | mg/L | | 111 | 80 - 120 | 0 | 10 |

**Lab Sample ID: LLCS 860-147301/4**
**Matrix: Water**
**Analysis Batch: 147301**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Dissolved Solids | 5.00 | 6.000 | | mg/L | | 120 | 50 - 150 |

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 860-147706/1**
**Matrix: Water**
**Analysis Batch: 147706**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <4.00 | U | 4.00 | 4.00 | mg/L | | | 02/29/24 19:57 | 1 |

**Lab Sample ID: LCS 860-147706/2**
**Matrix: Water**
**Analysis Batch: 147706**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 10.0 | 11.30 | | mg/L | | 113 | 80 - 120 |

**Lab Sample ID: LCSD 860-147706/3**
**Matrix: Water**
**Analysis Batch: 147706**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 10.0 | 11.30 | | mg/L | | 113 | 80 - 120 | 0 | 10 |

## Method: SM 4500 Cl G - Chlorine, Residual

**Lab Sample ID: MB 860-147656/3**
**Matrix: Water**
**Analysis Batch: 147656**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | <0.0500 | U | 0.0500 | 0.0500 | mg/L | | | 02/29/24 14:48 | 1 |

**Lab Sample ID: LCS 860-147656/4**
**Matrix: Water**
**Analysis Batch: 147656**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | 0.250 | 0.2699 | | mg/L | | 108 | 85 - 115 |

**Lab Sample ID: LCSD 860-147656/5**
**Matrix: Water**
**Analysis Batch: 147656**

**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 |
|---|---|---|---|---|---|---|---|---|---|
| Chlorine, Total Residual | 0.250 | 0.2572 | | mg/L | | 103 | 85 - 115 | 5 | 20 |

## Method: SM5210B CBOD - Carbonaceous BOD, 5 Day

**Lab Sample ID: SCB 860-147369/2**
**Matrix: Water**
**Analysis Batch: 147369**

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

| Analyte | SCB Result | SCB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | 0.7770 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 02/23/24 11:00 | 1 |

## Method: SM5210B CBOD - Carbonaceous BOD, 5 Day (Continued)

**Lab Sample ID: USB 860-147369/1**
**Matrix: Water**
**Analysis Batch: 147369**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | 0.09000 | | 0.0000020<br>0 | 0.0000020<br>0 | mg/L | | | 02/23/24 10:52 | 1 |

**Lab Sample ID: LCS 860-147369/3**
**Matrix: Water**
**Analysis Batch: 147369**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carbonaceous Biochemical Oxygen Demand | | | 198 | 203.2 | | mg/L | | 103 | 85 - 115 | | |

## General Chemistry

### Prep Batch: 146675

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | BOD Prep | |

### Analysis Batch: 147301

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2540C | |
| MB 860-147301/1 | Method Blank | Total/NA | Water | SM 2540C | |
| LCS 860-147301/2 | Lab Control Sample | Total/NA | Water | SM 2540C | |
| LCSD 860-147301/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540C | |
| LLCS 860-147301/4 | Lab Control Sample | Total/NA | Water | SM 2540C | |

### Analysis Batch: 147369

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM5210B CBOD | 146675 |
| SCB 860-147369/2 | Method Blank | Total/NA | Water | SM5210B CBOD | |
| USB 860-147369/1 | Method Blank | Total/NA | Water | SM5210B CBOD | |
| LCS 860-147369/3 | Lab Control Sample | Total/NA | Water | SM5210B CBOD | |

### Analysis Batch: 147656

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 4500 Cl G | |
| MB 860-147656/3 | Method Blank | Total/NA | Water | SM 4500 Cl G | |
| LCS 860-147656/4 | Lab Control Sample | Total/NA | Water | SM 4500 Cl G | |
| LCSD 860-147656/5 | Lab Control Sample Dup | Total/NA | Water | SM 4500 Cl G | |

### Analysis Batch: 147706

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2540D | |
| MB 860-147706/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 860-147706/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| LCSD 860-147706/3 | Lab Control Sample Dup | Total/NA | Water | SM 2540D | |

### Prep Batch: 147764

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 351.2 | |
| MB 860-147764/32-A | Method Blank | Total/NA | Water | 351.2 | |
| MB 860-147764/4-A | Method Blank | Total/NA | Water | 351.2 | |
| LCS 860-147764/33-A | Lab Control Sample | Total/NA | Water | 351.2 | |
| LCSD 860-147764/34-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | |
| LLCS 860-147764/5-A | Lab Control Sample | Total/NA | Water | 351.2 | |

### Analysis Batch: 147820

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 350.1 | |
| MB 860-147820/164 | Method Blank | Total/NA | Water | 350.1 | |
| MB 860-147820/56 | Method Blank | Total/NA | Water | 350.1 | |
| LCS 860-147820/165 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCS 860-147820/57 | Lab Control Sample | Total/NA | Water | 350.1 | |
| LCSD 860-147820/166 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |
| LCSD 860-147820/58 | Lab Control Sample Dup | Total/NA | Water | 350.1 | |

# QC Association Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## General Chemistry

### Analysis Batch: 147885

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 9040C | |

### Analysis Batch: 147894

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | SM 2510B | |
| MB 860-147894/82 | Method Blank | Total/NA | Water | SM 2510B | |
| LCS 860-147894/39 | Lab Control Sample | Total/NA | Water | SM 2510B | |
| LCSD 860-147894/40 | Lab Control Sample Dup | Total/NA | Water | SM 2510B | |

### Analysis Batch: 148079

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 365.1 | |
| MB 860-148079/93 | Method Blank | Total/NA | Water | 365.1 | |
| LCS 860-148079/94 | Lab Control Sample | Total/NA | Water | 365.1 | |
| LCSD 860-148079/95 | Lab Control Sample Dup | Total/NA | Water | 365.1 | |

### Analysis Batch: 150055

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Total/NA | Water | 351.2 | 147764 |
| MB 860-147764/32-A | Method Blank | Total/NA | Water | 351.2 | 147764 |
| MB 860-147764/4-A | Method Blank | Total/NA | Water | 351.2 | 147764 |
| LCS 860-147764/33-A | Lab Control Sample | Total/NA | Water | 351.2 | 147764 |
| LCSD 860-147764/34-A | Lab Control Sample Dup | Total/NA | Water | 351.2 | 147764 |
| LLCS 860-147764/5-A | Lab Control Sample | Total/NA | Water | 351.2 | 147764 |

# Lab Chronicle

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Client Sample ID: C Lagoon

**Date Collected: 02/22/24 08:51**
**Date Received: 02/22/24 10:03**

## Lab Sample ID: 820-12174-1

**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 350.1 | | 10 | 10 mL | 10 mL | 147820 | 02/29/24 19:35 | ADL | EET HOU |
| Total/NA | Prep | 351.2 | | | 2 mL | 20 mL | 147764 | 03/01/24 09:29 | LD | EET HOU |
| Total/NA | Analysis | 351.2 | | 10 | | | 150055 | 03/06/24 19:23 | LD | EET HOU |
| Total/NA | Analysis | 365.1 | | 10 | 10 mL | 10 mL | 148079 | 03/01/24 19:51 | HN | EET HOU |
| Total/NA | Analysis | 9040C | | 1 | | | 147885 | 03/01/24 17:40 | SC | EET HOU |
| Total/NA | Analysis | SM 2510B | | 1 | | | 147894 | 03/01/24 17:40 | SC | EET HOU |
| Total/NA | Analysis | SM 2540C | | 1 | 50 mL | 200 mL | 147301 | 02/27/24 22:22 | FN | EET HOU |
| Total/NA | Analysis | SM 2540D | | 1 | 600 mL | 1000 mL | 147706 | 02/29/24 19:57 | FN | EET HOU |
| Total/NA | Analysis | SM 4500 Cl G | | 5 | 10 mL | 10 mL | 147656 | 02/29/24 14:48 | SCI | EET HOU |
| Total/NA | Prep | BOD Prep | | | | | 146675 | 02/23/24 10:00 | HN | EET HOU |
| Total/NA | Analysis | SM5210B CBOD | | 1 | 50 mL | 300 mL | 147369 | 02/23/24 15:03 | HN | EET HOU |

**Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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

# Accreditation/Certification Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

## Laboratory: Eurofins Albuquerque

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

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| Arizona | State | AZ0682 | 10-20-24 |
| New Mexico | State | NM9425, NM0901 | 02-26-25 |
| Oregon | NELAP | NM100001 | 02-26-25 |
| Texas | NELAP | T104704424-23-16 | 05-31-24 |

## Laboratory: Eurofins Houston

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

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

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

| Analysis Method | Prep Method | Matrix | Analyte |
|---|---|---|---|
| 9040C | | Water | Temperature |

# Method Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 350.1 | Nitrogen, Ammonia | EPA | EET HOU |
| 351.2 | Nitrogen, Total Kjeldahl | EPA | EET HOU |
| 365.1 | Phosphorus, Total | EPA | EET HOU |
| 9040C | pH | SW846 | EET HOU |
| SM 2510B | Conductivity, Specific Conductance | SM | EET HOU |
| SM 2540C | Solids, Total Dissolved (TDS) | SM | EET HOU |
| SM 2540D | Solids, Total Suspended (TSS) | SM | EET HOU |
| SM 4500 Cl G | Chlorine, Residual | SM | EET HOU |
| SM5210B CBOD | Carbonaceous BOD, 5 Day | SM | EET HOU |
| 300.0 | EPA 300.0 | EPA | EET ALB |
| 351.2 | Nitrogen, Total Kjeldahl | EPA | EET HOU |
| BOD Prep | Preparation, BOD | SM | EET HOU |

**Protocol References:**

EPA = US Environmental Protection Agency

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

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

**Laboratory References:**

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

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

# Sample Summary

Client: City of Tahoka
Project/Site: C Lagoon

Job ID: 820-12174-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 820-12174-1 | C Lagoon | Water | 02/22/24 08:51 | 02/22/24 10:03 |

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*Eurofins Environment Testing South Central, LLC*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

March 01, 2024

Holly Taylor

Eurofins Lubbock
6701 Aberdeen Ave Suite 8
Lubbuck, TX 79424
TEL: (806) 794-1296
FAX

RE: Permint Renewal 820 12174 1 OrderNo.: 2402B49

Dear Holly Taylor:

Eurofins Environment Testing South Central, LLC received 1 sample(s) on 2/23/2024 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please do not hesitate to contact Eurofins Albuquerque for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE
Albuquerque, NM 87109

**Analytical Report**
Lab Order **2402B49**
Date Reported: **3/1/2024**

# Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Eurofins Lubbock
**Project:** Permint Renewal 820 12174 1
**Lab ID:** 2402B49-001 **Matrix:** AQUEOUS

**Client Sample ID:** C Lagoon (820-12174-1)
**Collection Date:** 2/22/2024 7:51:00 AM
**Received Date:** 2/23/2024 8:34:00 AM

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **RBC** |
| Chloride | 430 | 50 | * | mg/L | 100 | 2/23/2024 1:26:05 PM |
| Nitrogen, Nitrate (As N) | ND | 1.0 | | mg/L | 10 | 2/23/2024 12:21:25 PM |
| Sulfate | 150 | 5.0 | | mg/L | 10 | 2/23/2024 12:21:25 PM |

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Above Quantitation Range/Estimated Value |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit | RL | Reporting Limit |
| S | % Recovery outside of standard limits. If undiluted results may be estimated. | | |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: **2402B49**

***01-Mar-24***

**Client:** Eurofins Lubbock

**Project:** Permint Renewal 820 12174 1

Sample ID: **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R103315** RunNo: **103315**

Prep Date: Analysis Date: **2/23/2024** SeqNo: **3821262** Units: **mg/L**

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | ND | 0.50 | | | | | | | | |
| Nitrogen, Nitrate (As N) | ND | 0.10 | | | | | | | | |
| Sulfate | ND | 0.50 | | | | | | | | |

Sample ID: **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R103315** RunNo: **103315**

Prep Date: Analysis Date: **2/23/2024** SeqNo: **3821263** Units: **mg/L**

| Analyte | Result | PQL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|---|
| Chloride | 4.9 | 0.50 | 5.000 | 0 | 98.7 | 90 | 110 | | | |
| Nitrogen, Nitrate (As N) | 2.6 | 0.10 | 2.500 | 0 | 104 | 90 | 110 | | | |
| Sulfate | 9.9 | 0.50 | 10.00 | 0 | 99.0 | 90 | 110 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level. | B | Analyte detected in the associated Method Blank |
| D | Sample Diluted Due to Matrix | E | Above Quantitation Range/Estimated Value |
| H | Holding times for preparation or analysis exceeded | J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit | P | Sample pH Not In Range |
| PQL | Practical Quanitative Limit | RL | Reporting Limit |
| S | % Recovery outside of standard limits. If undiluted results may be estimated. | | |

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*Eurofins Environment Testing South Central, LLC*
*4901 Hawkins NE*
*Albuquerque, NM 87109*
*TEL: 505-345-3975 FAX: 505-345-4107*
*Website: www.hallenvironmental.com*

# Sample Log-In Check List

Client Name: **Eurofins Lubbock** Work Order Number: **2402B49** RcptNo: 1

Received By: **Cheyenne Cason** **2/23/2024 8:34:00 AM**

Completed By: **Cheyenne Cason** **2/23/2024 9:17:20 AM**

Reviewed By: 2/23/24

## Chain of Custody

| | | | |
|---|---|---|---|
| 1. Is Chain of Custody complete? | Yes ☑ | No ☐ | Not Present ☐ |
| 2. How was the sample delivered? | FedEx | | |

## Log In

| | | | |
|---|---|---|---|
| 3. Was an attempt made to cool the samples? | Yes ☑ | No ☐ | NA ☐ |
| 4. Were all samples received at a temperature of >0° C to 6.0°C | Yes ☑ | No ☐ | NA ☐ |
| 5. Sample(s) in proper container(s)? | Yes ☑ | No ☐ | |
| 6. Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 7. Are samples (except VOA and ONG) properly preserved? | Yes ☑ | No ☐ | |
| 8. Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 9. Received at least 1 vial with headspace <1/4" for AQ VOA? | Yes ☐ | No ☐ | NA ☑ |
| 10. Were any sample containers received broken? | Yes ☐ | No ☑ | |
| 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) | Yes ☑ | No ☐ | |
| 12. Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 13. Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 14. Were all holding times able to be met? (If no, notify customer for authorization.) | Yes ☑ | No ☐ | |

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: M 2/23/24

## Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|---|---|---|---|---|---|---|
| 1 | 0.6 | Good | Yes | Morty | | |

Page 1 of 1

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

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| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor, Holly | Carrier Tracking No(s): | COC No: 820-8964.1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP - Texas | | Job #: 820-12174-1 |
| Address: 4901 Hawkins NE, , | Due Date Requested: 2/29/2024 | | | |
| City: Albuquerque | TAT Requested (days): | | | |
| State, Zip: NM, 87109 | | | | |
| Phone: 505-345-3975(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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

Other:

2402B49

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SUB (Nitrate, Chloride, Sulfate)/ Nitrate, Chloride, Sulfate | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | 1 | OC1 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Empty Kit Relinquished by: | | Date: | | Time: | | Method of Shipment: | |
| Relinquished by: | | Date/Time: 2/22/24 1700 | Company | Received by: | | Date/Time: 2/23/24 0834 | Company |
| Relinquished by: | | Date/Time: | Company | Received by: | | Date/Time: | Company |
| Relinquished by: | | Date/Time: | Company | Received by: | | Date/Time: | Company |
| Custody Seals Intact: △ Yes △ No | Custody Seal No.: | | | Cooler Temperature(s) °C and Other Remarks: 0.5 ± 0.1 = 0.6 mark | | | |

Ver: 06/08/2021



3/18/2024

Loc: 820
12174

fins | Environment Testing

# Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199
Little Rock, AR (501) 224-5060

820-12174 Chain of Custody

Page _____ of _____

| | | | |
|---|---|---|---|
| Project Manager: | Raymond Vega | Bill to: (if different) | |
| Company Name: | City of Talokla | Company Name: | Same |
| Address: | 807 Main Box 310 | Address: | |
| City, State ZIP: | Talokla Tx 77373 | City, State ZIP: | |
| Phone: | 806-561-4211 | Email: | RVega@talokla.org (Windstream .net) |

**Work Order Comments**

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

| | | | |
|---|---|---|---|
| Project Name: | | Turn Around | |
| Project Number: | | ☐ Routine ☐ Rush | |
| Project Location: | | Due Date: | |
| Sampler's Name: | | TAT starts the day received by the lab, if received by 4:30pm | |
| PO #: | | | |

| SAMPLE RECEIPT | | | | |
|---|---|---|---|---|
| Temp Blank: | Yes (No) | Wet Ice: | (Yes) No | |
| Samples Received Intact: | (Yes) No | Thermometer ID: | IR-4 | |
| Cooler Custody Seals: | Yes No (N/A) | Correction Factor: | -0.4 | |
| Sample Custody Seals: | Yes No (N/A) | Temperature Reading: | 9.5 | |
| Total Containers: | 6 | Corrected Temperature: | 9.1 | |

**Preservative Codes**

None: NO — DI Water: $H_2O$
Cool: Cool — MeOH: Me
HCL: HC — $HNO_3$
$H_2SO_4$: $H_2$ — NaOH: Na
$H_3PO_4$: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

| Sample Identification | Matrix | Date Sampled | Time Sampled | Depth | Grab/ Comp | # of Cont | Pres. Code | Parameters: CBOD, mg/l | TSS mg/l | Nitrate Nitrogen | Total Kjeldahl Nitrogen | Sulfate mg/l | Chloride mg/l | Total Phosphorus, mg/l | pH | Chlorine residual mg/l | Total dissolved solids | Electrical conductivity umoho/cm, µ | Sample Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C Lagoon | | 2/22/24 | 8:57 | | | 6 | | | | | | | | | | | | | |

**Analysis Request**

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag $SiO_2$ Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed — TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U — Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $65.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

| Relinquished by: (Signature) | Received by: (Signature) | Date/Time | Relinquished by: (Signature) | Received by: (Signature) | Date/Time |
|---|---|---|---|---|---|
| 1 | | 2/22/24 10:03 | 2 | | |
| 3 | | | 4 | | |
| 5 | | | 6 | | |

Revised Date: 08/25/2020 Rev. 2020.2

## Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☐ No ☐

**If no**, this section is not applicable. Proceed to Section 8.

**If yes**, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). ***Water treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

Note: The sample date must be within 1 year of application submission.

***Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities***

| Pollutant | Average Conc. | Max Conc. | No. of Samples | Sample Type | Sample Date/Time |
|---|---|---|---|---|---|
| $CBOD_5$, mg/l | | | | | |
| Total Suspended Solids, mg/l | | | | | |
| Ammonia Nitrogen, mg/l | | | | | |
| Nitrate Nitrogen, mg/l | | | | | |
| Total Kjeldahl Nitrogen, mg/l | | | | | |
| Sulfate, mg/l | | | | | |
| Chloride, mg/l | | | | | |
| Total Phosphorus, mg/l | | | | | |
| pH, standard units | | | | | |
| ~~Dissolved Oxygen*, mg/l~~ | | | | | |
| Chlorine Residual, mg/l | | | | | |
| *E.coli* (CFU/100ml) freshwater | | | | | |
| Entercocci (CFU/100ml) saltwater | | | | | |
| ~~Total Dissolved Solids~~, mg/l | | | | | |
| Electrical Conductivity, µmohs/cm, † | | | | | |

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8966.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-12174-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 2/29/2024 | | | Preservation Codes: |
| City: Stafford | TAT Requested (days): | | | A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other: |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

Analysis Requested

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_CBODCal/BOD_Prep CBOD | 2540D | 350.1/ Ammonia | 351.2/351.2_Prep Total Kjeldahl Nitrogen (TKN) | 365.1_NP | 9040C/ (MOD) Local Method | 4500_CL_G | 2540C_Calcd | 2510B/ Specific Conductance | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | | | | | | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | X | X | X | X | X | X | X | X | | | | | 6 | |
| | | | | | | | | | | | | | | | | | | | | | Hcv369<br>3.0<br>3.0 |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|
| CS | 2/22/24 1700 | | | | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| | | | GB | 2/23/24 9:20 | E |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021

**Eurofins Lubbock**
6701 Aberdeen Ave. Suite 8
Lubbock, TX 79424
Phone: 806-794-1296

# Chain of Custody Record

eurofins | Environment Testing

| | | | | |
|---|---|---|---|---|
| **Client Information (Sub Contract Lab)** | Sampler: | Lab PM: Taylor Holly | Carrier Tracking No(s): | COC No: 820-8966-1 |
| Client Contact: Shipping/Receiving | Phone: | E-Mail: Holly.Taylor@et.eurofinsus.com | State of Origin: Texas | Page: Page 1 of 1 |
| Company: Eurofins Environment Testing South Centr | | Accreditations Required (See note): NELAP Texas | | Job #: 820-12174-1 |
| Address: 4145 Greenbriar Dr | Due Date Requested: 2/29/2024 | | | |
| City: Stafford | TAT Requested (days): | | | |
| State, Zip: TX, 77477 | | | | |
| Phone: 281-240-4200(Tel) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: Permit Renewal | Project #: 82000937 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

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

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | SM5210B_CBODCal/BOD_Prep CBOD | 2540D | 350.1/ Ammonia | 351.2/351.2_Prep Total Kjeldahl Nitrogen (TKN) | 365.1_NP | 9040C/ (MOD) Local Method | 4500_CL_G | 2540C_Calcd | 2510B/ Specific Conductance | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | | | | | | | | | | | | | |
| C Lagoon (820-12174-1) | 2/22/24 | 08:51 Central | | Water | | | X | X | X | X | X | X | X | X | X | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | Hen369 30 3.0 |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

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

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

| | | | | | | |
|---|---|---|---|---|---|---|
| Relinquished by: CT | Date/Time: 2/22/24 1700 | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: GB | Date/Time: 2/23/24 9:20 | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| | | |
|---|---|---|
| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks: |

Ver: 06/08/2021

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-12174-1

**Login Number: 12174**
**List Number: 1**
**Creator: Triplett, Colby**

**List Source: Eurofins Lubbock**

| Question | Answer | Comment |
|---|---|---|
| The cooler's custody seal, if present, is intact. | N/A | |
| Sample custody seals, if present, are intact. | N/A | |
| 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"). | N/A | |

# Login Sample Receipt Checklist

Client: City of Tahoka

Job Number: 820-12174-1

**Login Number: 12174**
**List Number: 2**
**Creator: Baker, Jeremiah**

**List Source: Eurofins Houston**
**List Creation: 02/23/24 10:57 AM**

| 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 | |