Administrative Package Cover Page

This file contains the following documents:

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

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 TAC Section 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/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Aqua Texas, Inc, (CN604062463) operates Old Egypt Wastewater Treatment Plant (RN 102344116), a privately owned domestic wastewater treatment facility. The facility is located at 32515 FM 2978 Road, in Magnolia, Montgomery County, Texas 77354. The application is for a major amendment without renewal for expansion of the wastewater treatment plant to 2.0 MGD.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), nitrate nitrogen (NO_3-N), total Kjeldahl nitrogen (TKN), sulfate (SO_4^{2-}), chloride (Cl^-), total phosphorus and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7, Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater discharges are treated by an activated sludge process plant and the treatment units include aeration basins, clarifiers, aerobic digesters, a thickener, chlorine contact basin, and a bar screen.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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 es una representación ejecutiva fedérale 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. ubicada en 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 petición de solicitud aquí. *<<Para las solicitudes 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 contengan 14. 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.

SPANISH PLAIN LANGUAGE SUMMARY FOR TPDES RENEWAL APPLICATION FOR OLD EGYPT WASTEWATER TREATMENT PLANT

Aqua Texas, Inc, (CN604062463) opera la Planta de Tratamiento de Aguas Residuales del Antiguo Egipto (RN 102344116), una instalación de tratamiento de aguas residuales domésticas de propiedad privada. La instalación está ubicada en 32515 FM 2978 Road, en Magnolia, Condado de Montgomery, Texas 77354. La solicitud es para una enmienda importante sin renovación para la expansión de la planta de tratamiento de aguas residuales a 2.0 MGD.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonoso (CBOD5) de cinco días, sólidos suspendidos totales (SST), nitrógeno amoniacal (NH3-N), nitrógeno nitrato (NO3-N), nitrógeno Kjeldahl total (TKN), sulfato (SO42-), cloruro (Cl-), fósforo total y Escherichia coli. Se incluyen contaminantes potenciales adicionales en el Informe Técnico Nacional 1.0, Sección 7, Análisis de Contaminantes del Efluente Tratado y Hoja de Trabajo Doméstico 4.0 en el paquete de solicitud de permiso. Las descargas de aguas residuales domésticas son tratadas mediante una planta de proceso de lodos activados y las unidades de tratamiento incluyen balsas de aireación, clarificadores, digestores aeróbicos, espesador, balsa de contacto de cloro y una rejilla de barras.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0014141001

APPLICATION. Aqua Texas, Inc., 1106 Clayton Lane, Suite 400W, Austin, Texas 78723, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0014141001 (EPA I.D. No. TX0120073) to authorize an increase to the discharge of treated wastewater to a volume not to exceed an annual average flow of 2,000,000 gallons per day. The domestic wastewater treatment facility is located at 32515 Farm-to-Market Road 2978, near the city of Magnolia, in Montgomery County, Texas 77354. The discharge route is from the plant site to an unnamed tributary, thence to Bear Branch, thence to Bear Branch Reservoir, thence to Bear Branch, thence to Panther Branch, thence to Lake Woodlands, thence to Panther Branch, thence to Spring Creek. TCEQ received this application on September 9, 2024. The permit application will be available for viewing and copying at Montgomery County Central Library, 104 Interstate 45 North, Conroe, in Montgomery 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/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.567869,30.213171&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-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 Aqua Texas, Inc. at the address stated above or by calling Mr. Ram Goswami, Baxter & Woodman, Inc. at 281-569-0439.

Issuance Date: October 4, 2024

Comisión de Calidad Ambiental del Estado de Texas

AVISO DE RECIBO DE LA SOLICITUD Y
EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA
MODIFICACION

PERMISO NO. WQ0014141001

SOLICITUD. Aqua Texas, Inc., 1106 Clayton Lane, Suite 400W, Austin, Texas 78723, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para modificar el Permiso No. WQ0014141001 (EPA I.D. No. TX 0120073) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio anual de 2,000,000 galones por día. La planta está ubicada 32515 Farm-to-Market Road 2978, cerca de la ciudad de Magnolia, en el condado de Montgomery, Texas 77354. La ruta de descarga es del sitio de la planta a un afluente sin nombre, de allí a Bear Branch, de allí a Bear Branch Reservoir, de allí a Bear Branch, de allí a Panther Branch, de allí a Lake Woodlands, de allí a Panther Branch, de allí a Spring Creek. La TCEQ recibió esta solicitud el 9 de septiembre de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca central del condado de Montgomery, 104 Interestatal 45 norte, Conroe, en el condado de Montgomery, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-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://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.567869,30.213171&level=18

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. 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. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Aqua Texas, Inc a la dirección indicada arriba o llamando a Mr. Ram Goswami, Baxter & Woodman, Inc. al 281-569-0439.

Fecha de emisión: el 4 de octubre de 2024

Leah Whallon

From: Ram Goswami <rgoswami@baxterwoodman.com>
Sent: Friday, September 27, 2024 1:21 PM
To: Leah Whallon
Cc: Nancy Blackwell; Bill Rackley
Subject: RE: Application to Amend Permit No. WQ0014141001; Aqua Texas, Inc.; Old Egypt WWTF
Attachments: Administrative Report 1.0, Section 10, Item B.pdf; Administrative Report 1.1, Section 1.pdf; Affected Landowners List.pdf; Municipal Discharge Amendment Spanish NORI.doc; Avery 5160 Labels.doc

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon Leah,

Please refer attachments for items requested in NOD.

1. Administrative Report 1.0, Section 10, Item B
2. Administrative Report 1.1, Section 1, Avery 5160 formatted word file for owners list
3. Please change application contact to Mr. Ram Goswami, Baxter & Woodman, Inc, at 281-569-0439.
4. Municipal Discharge Amendment Spanish NORI has been updated to reflect no.3 change.

Please let us know if you have any questions or need additional information.

Best Regards,

2023 Best Firms To Work For

Ram Goswami
Engineer II

BAXTER & WOODMAN Consulting Engineers

direct: 281-569-0439
rgoswami@baxterwoodman.com
baxterwoodman.com
24285 Katy Freeway, St 550
Katy, TX 77494

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Thursday, September 19, 2024 5:04 PM
To: Ram Goswami <rgoswami@baxterwoodman.com>
Cc: Nancy Blackwell <NBlackwell@baxterwoodman.com>
Subject: Application to Amend Permit No. WQ0014141001; Aqua Texas, Inc.; Old Egypt WWTF

Good Afternoon,

Please see the attached Notice of Deficiency letter dated September 19, 2024 requesting additional information needed to declare the application administratively complete. Please send the complete response by October 3, 2024.

Please let me know if you have any questions.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey

E. Owner of effluent disposal site:

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Organization Name: N/A

Mailing Address: Click to enter text. City, State, Zip Code: Click to enter text.

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

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

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Organization Name: N/A

Mailing Address: Click to enter text. City, State, Zip Code: Click to enter text.

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

Section 10. TPDES Discharge Information (Instructions Page 31)

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:

Click to enter text.

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:

Click to enter text.

City nearest the outfall(s): Magnolia

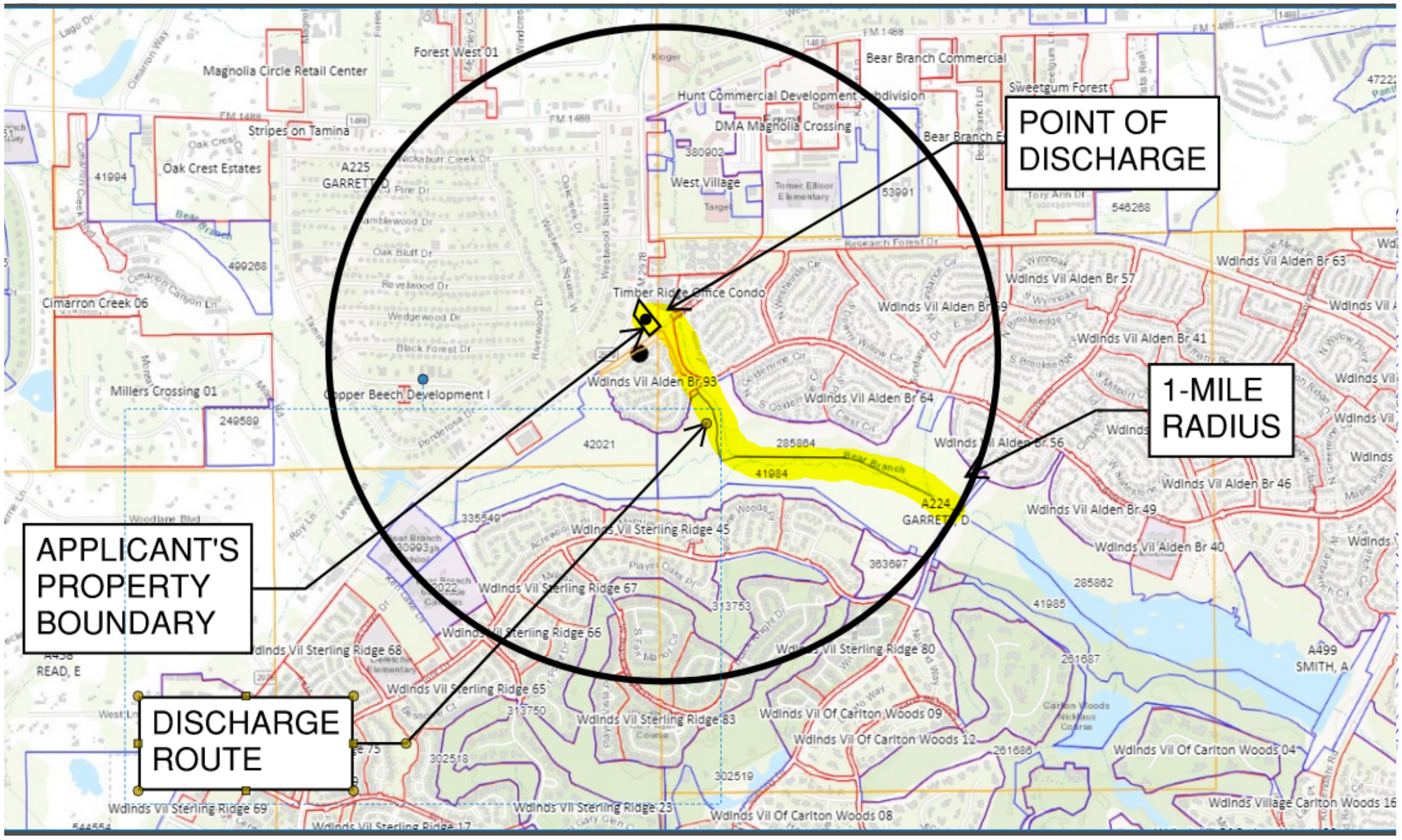
County in which the outfalls(s) is/are located: Montgomery

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

ATTACHMENT 6

AFFECTED LANDOWNERS MAP



N

GRAPHIC SCALE

600 0 300 600 1200

(IN FEET)

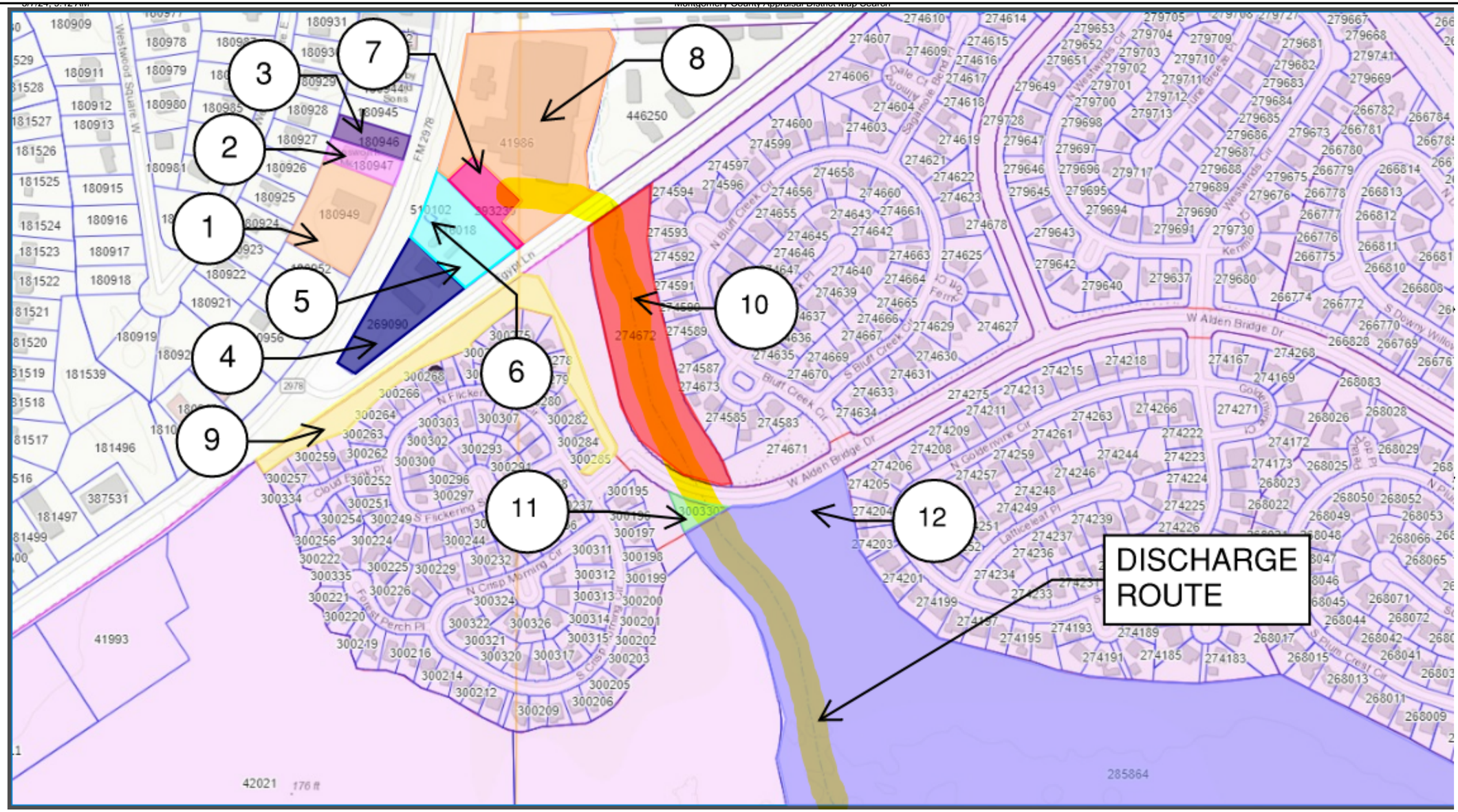
1 inch = 600 ft.

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

MONTGOMERY COUNTY APPRAISAL DISTRICT MAP

SEPTEMBER 2024 2325163.00



GRAPHIC SCALE

600 0 300 600 1200

(IN FEET)

1 inch = 600 ft.

BAXTER & WOODMAN Consulting Engineers

11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

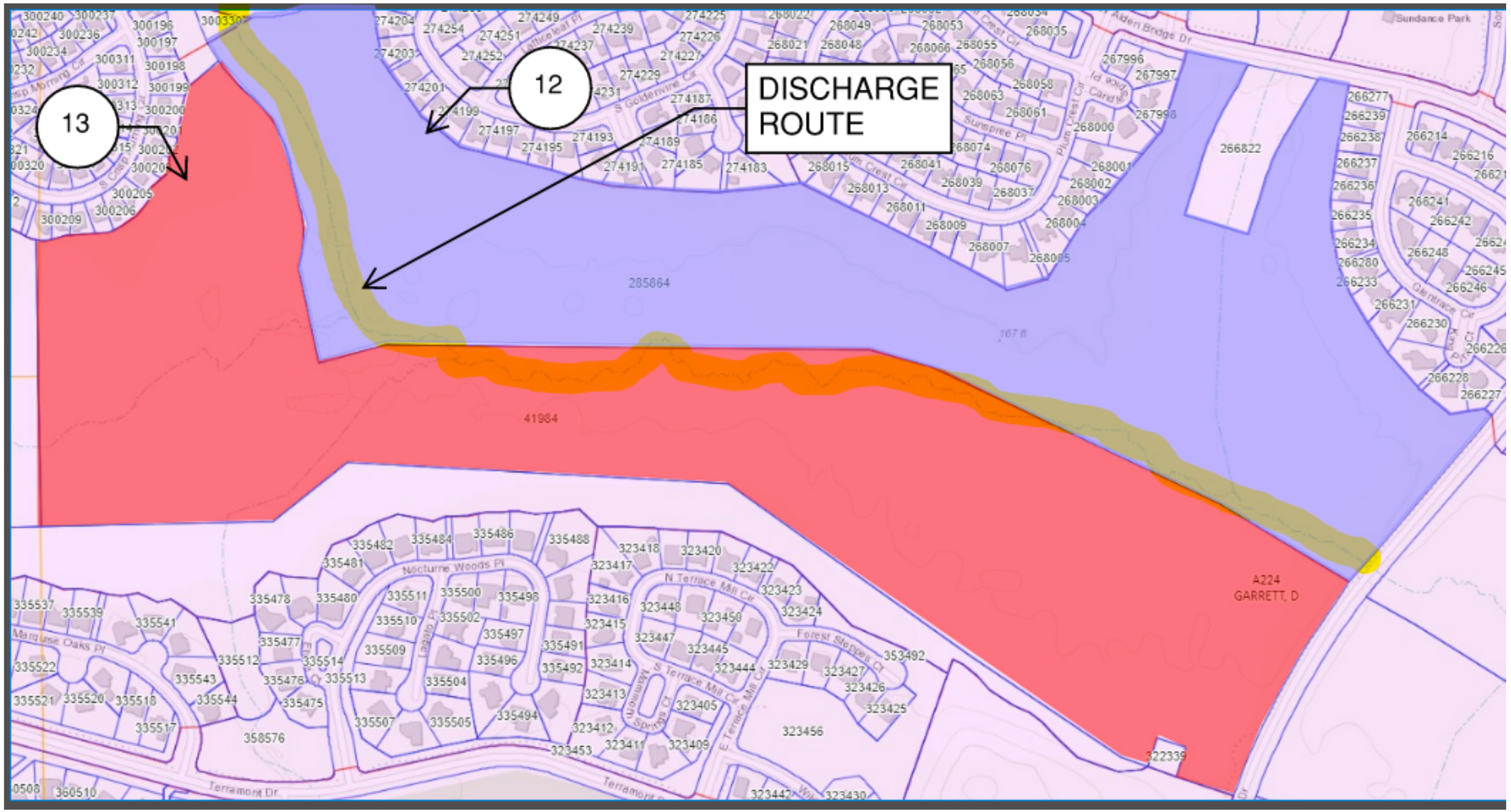
AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

MONTGOMERY COUNTY APPRAISAL DISTRICT MAP (1 OF 2)

SEPTEMBER 2024

2325163.00

SEE PREVIOUS SHEET



N

GRAPHIC SCALE

600 0 300 600 1200

(IN FEET)

1 inch = 600 ft.

BAXTER & WOODMAN Consulting Engineers

11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

MONTGOMERY COUNTY APPRAISAL DISTRICT MAP (2 OF 2)

SEPTEMBER 2024

2325163.00

P:\AQUAT\2325163-Old Egypt WWTP Expan\CAD\01_Civil 3D\02_Shts-Other\02_Exhibits\MCAD MAP.dwg, 6/19/2024 8:47:37 AM, Holly Stauffer

Reference #	Property ID	Landowner Name	Mailing Address
1	180949	RAMIRO LOPEZ	1327 BIG PNES TOMBALL TX 77375-4187
2	180947	RAYMOND SKELTON	40818 ROUNDUP RD MAGNOLIA TX 77354-4649
3	180946	RED TANGLE LLC	23 WOODMOOR PL, MAGNOLIA TX 77354-3311
4	269090	NTI DROP DOWN ONE LLC	1 VALERO WAY BLDG D, STE 200SAN ANTONIO TX 78249-1616
5	316018	AQUA TEXAS, INC	1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476
6	510102	CAMCON PROPERTIES LLC	12941 NORTH FWY STE 222 HOUSTON TX 77060-1241
7	293239	AQUA TEXAS, INC	1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476
8	41986	K-KIES VI LLC	480 WILDWOOD FOREST DR SUITE 140SPRING TX 77380-2649
9	300332	THE WOODLANDS TOWNSHIP	2801 TECHNOLOGY FOREST BLVD SPRING TX 77381-3901
10	274672	THE WOODLANDS LAND DEVELOPMENT	9950 WOODLOCH FOREST DR 1100SPRING TX 77380-3991
11	300330	THE WOODLANDS TOWNSHIP	2801 TECHNOLOGY FOREST BLVD SPRING TX 77381-3901
12	284864	SAN JACINTO RIVER AUTHORITY	2346 SAWDUST RD SPRING TX 77380-2704
13	41984	SAN JACINTO RIVER AUTHORITY	PO BOX 329 CONROE TX 77305-0329

RAMIRO LOPEZ
1327 BIG PNES TOMBALL TX 77375-4187

RAYMOND SKELTON
40818 ROUNDUP RD MAGNOLIA TX 77354-4649

RED TANGLE LLC
23 WOODMOOR PL, MAGNOLIA TX 77354-3311

NTI DROP DOWN ONE LLC
1 VALERO WAY BLDG D, STE 200
SAN ANTONIO TX 78249-1616

AQUA TEXAS, INC
1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476

CAMCON PROPERTIES LLC
12941 NORTH FWY STE 222 HOUSTON TX 77060-1241

AQUA TEXAS, INC
1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476

K-KIES VI LLC
480 WILDWOOD FOREST DR SUITE 140
SPRING TX 77380-2649

THE WOODLANDS TOWNSHIP
2801 TECHNOLOGY FOREST BLVD
SPRING TX 77381-3901

THE WOODLANDS LAND DEVELOPMENT
9950 WOODLOCH FOREST DR 1100
SPRING TX 77380-3991

THE WOODLANDS TOWNSHIP
2801 TECHNOLOGY FOREST BLVD
SPRING TX 77381-3901

SAN JACINTO RIVER AUTHORITY
2346 SAWDUST RD
SPRING TX 77380-2704

SAN JACINTO RIVER AUTHORITY
PO BOX 329
CONROE TX 77305-0329

Comisión de Calidad Ambiental del Estado de Texas

AVISO DE RECIBO DE LA SOLICITUD Y
EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA
MODIFICACION

PERMISO NO. WQ0014141001

SOLICITUD. Aqua Texas, Inc., 1106 Clayton Lane, Suite 400W, Austin, Texas 78723 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0014141001 (EPA I.D. No. TX 0120073) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 2,000,000galones por día. La planta está ubicada 32515 Farm-to-Market Road 2978 en el Condado de Montgomery, Texas. La ruta de descarga es del sitio de la planta a un afluente sin nombre, de allí a Bear Branch, de allí a Bear Branch Reservoir, de allí a Bear Branch, de allí a Panther Branch, de allí a Lake Woodlands, de allí a Panther Branch, de allí a Spring Creek. La TCEQ recibió esta solicitud el 9 de septiembre. La solicitud para el permiso estará disponible para leerla y copiarla en Montgomery, 104 Interestatal 45 norte, Conroe, en Montgomery Condado, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o 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/tpdes-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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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 A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía http://www14.tceq.texas.gov/epic/eComment/o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. 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. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Aqua Texas, Inc a la dirección indicada arriba o llamando a Mr. Ram Goswami, Baxter & Woodman, Inc. al 281-569-0439.

Fecha de emission:

TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

WWTP PERMIT APPLICATION WITH MAJOR AMENDMENT

OLD EGYPT WASTEWATER TREATMENT FACILITY
PERMIT NO. WQ0014141001

BAXTER & WOODMAN Consulting Engineers

TBPELS Firm No. 21783

Submitted to:
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

July 2024

AQUA TEXAS
OLD EGYPT WASTEWATER TREATMENT FACILITY
TPDES PERMIT APPLICATION WITH MAJOR AMENDMENT

TABLE OF CONTENTS

Attachment	Description	Reference
11	Treatment Process Description	Technical Report 1.0 Section 2C
12	Treatment Units	Technical Report 1.0 Section 2C
13	Process Flow Diagram	Technical Report 1.0 Section 2C
14	Site Drawing	Technical Report 1.0 Section 3
15	Solids Management Plan	Technical Report 1.0 Section 6F
16	Lab Effluent Test Report	Technical Report 1.0 Section 7
17	List of Nearby WWTPs	Technical Report 1.1 Section 3
18	Connection Request Letters	Technical Report 1.1 Section 3
19	Design Calculations	Technical Report 1.1 Section 4
20	Wind Rose	Technical Report 1.1 Section 5

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: Aqua Texas, Inc.

PERMIT NUMBER (If new, leave blank): WQ00 14141001

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

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

For any questions about this form, please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 26)

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: 1678

Check/Money Order Amount: $2,050.00

Name Printed on Check: Baxter & Woodman

EPAY — Voucher Number: Click to enter text.

Copy of Payment Voucher enclosed? Yes ☒ Attachment 1

Section 2. Type of Application (Instructions Page 26)

a. Check the box next to the appropriate authorization type.

☐ Publicly-Owned Domestic Wastewater

☒ Privately-Owned Domestic Wastewater

☐ Conventional Wastewater Treatment

b. Check the box next to the appropriate facility status.

☒ Active ☐ Inactive

c. Check the box next to the appropriate permit type.

- ☒ TPDES Permit
- ☐ TLAP
- ☐ TPDES Permit with TLAP component
- ☐ Subsurface Area Drip Dispersal System (SADDS)

d. Check the box next to the appropriate application type

- ☐ New
- ☐ Major Amendment *with* Renewal
- ☒ Major Amendment *without* Renewal
- ☐ Renewal without changes
- ☐ Minor Amendment *with* Renewal
- ☐ Minor Amendment *without* Renewal
- ☐ Minor Modification of permit

e. For amendments or modifications, describe the proposed changes: The existing WWTP has a current permitted capacity of 0.675 MGD. Due to current and projected growth in the facility service area, Aqua Texas intends to expand the existing plant to serve a total capacity of 2.0 MGD. This permit amendment is submitted to request issuance of a new final permit capacity of 2.0 MGD. Design of the proposed plant expansion is currently underway and is expected to go to construction in 2025.

f. For existing permits:

Permit Number: WQ00 14141001

EPA I.D. (TPDES only): TX 0120073

Expiration Date: February 21, 2028

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 26)

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

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

Aqua Texas, Inc.

(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: 604062463

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. Last Name, First Name: Blanchette, Craig

Title: President Credential: Click to enter text.

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?

N/A

(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 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: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Provide a brief description of the need for a co-permittee: Click 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 2

Section 4. Application Contact Information (Instructions Page 27)

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. Last Name, First Name: Goswami, Ram

Title: Project Engineer Credential: Click to enter text.

Organization Name: Baxter & Woodman, Inc.

Mailing Address: 11450 Compaq Canter Dr. Suite 660 City, State, Zip Code: Houston, TX 77070

Phone No.: 281-569-0439 E-mail Address: rgoswami@baxterwoodman.com

Check one or both: ☒ Administrative Contact ☐ Technical Contact

B. Prefix: Ms. Last Name, First Name: Blackwell, Nancy

Title: Vice President Credential: P.E.

Organization Name: Baxter & Woodman, Inc.

Mailing Address: 11450 Compaq Canter Dr. Suite 660 City, State, Zip Code: Houston, TX 77070

Phone No.: 281-3507028 E-mail Address: nblackwell@baxterwoodman.com

Check one or both: ☐ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

Provide the names and contact information for two individuals that can be contacted throughout the permit term.

A. Prefix: Mr. Last Name, First Name: Blanchette, Craig

Title: President Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 1106 Clayton Lane, Suite 400W City, State, Zip Code: Austin, TX 78723

Phone No.: 512-990-4400 EXT 56105 E-mail Address: clblanchette@aquaamerica.com

B. Prefix: Mr. Last Name, First Name: Bautista, Abel

Title: Wastewater Compliance Coordinator Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 19244 Ella Blvd City, State, Zip Code: Spring, TX 77388

Phone No.: 281-651-0174 EXT 54119 E-mail Address: abautista@aquaamerica.com

Section 6. Billing Contact Information (Instructions Page 27)

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. Last Name, First Name: Loya, Jose

Title: Accounts Payable Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 1106 Clayton Lane, Suite 400W City, State, Zip Code: Austin, TX 78723

Phone No.: 512-990-4400 E-mail Address: JLLoya@aquaamerica.com

Section 7. DMR/MER Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Bautista, Abel

Title: Wastewater Compliance Coordinator Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 19244 Ella Blvd City, State, Zip Code: Spring, TX 77388

Phone No.: 281-651-0174 EXT 54119 E-mail Address: abautista@aquaamerica.com

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr Last Name, First Name: Goswami, Ram

Title: Project Engineer Credential: Click to enter text.

Organization Name: Baxter & Woodman, Inc

Mailing Address: 11450 Compaq Center Dr, Suite 660 City, State, Zip Code: Houston, TX 77070

Phone No.: 281-569-0439 E-mail Address: rgoswami@baxterwoodman.com

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 permit to be listed in the Notices

Prefix: Mr. Last Name, First Name: Bautista, Abel

Title: Wastewater Compliance Coordinator Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 19244 Ella Blvd City, State, Zip Code: Spring, TX 77388

Phone No.: 281-651-0174 EXT 54119 E-mail Address: abautista@aquaamerica.com

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: Montgomery County Central Library

Location within the building: Reference Desk

Physical Address of Building: 104 I-45 North

City: Conroe County: Montgomery

Contact (Last Name, First Name): Click to enter text.

Phone No.: 936-788-8324 Ext.: Click 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. Plain Language Summary Template

Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment.

Attachment: 3

G. 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: 4

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 29)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN** 102344116

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):

Old Egypt Wastewater Treatment Plant

C. Owner of treatment facility: Aqua Texas, Inc

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

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

Prefix: Mr Last Name, First Name: Bautista, Abel

Title: Wastewater Compliance Coordinator Credential: Click to enter text.

Organization Name: Aqua Texas, Inc

Mailing Address: 2211 Louetta Road City, State, Zip Code: Spring, TX 77388

Phone No.: 281-651-0172 EXT 54119 E-mail Address: abautista@aquaamerica.com

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 to enter text.

E. Owner of effluent disposal site:

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Organization Name: N/A

Mailing Address: Click to enter text. City, State, Zip Code: Click to enter text.

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

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

Prefix: Click to enter text. Last Name, First Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

Organization Name: N/A

Mailing Address: Click to enter text. City, State, Zip Code: Click to enter text.

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

Section 10. TPDES Discharge Information (Instructions Page 31)

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:

Click to enter text.

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:

Click to enter text.

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

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

Section 11. TLAP Disposal Information (Instructions Page 32)

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:

N/A

B. City nearest the disposal site: Click to enter text.

C. County in which the disposal site is located: Click to enter text.

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

Click to enter text.

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

Section 12. Miscellaneous Information (Instructions Page 32)

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 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 to enter text.

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click to enter text.

Amount past due: Click 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 to enter text.

Amount past due: Click to enter text.

Section 13. Attachments (Instructions Page 33)

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: Click to enter text.

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0014141001

Applicant: Aqua Texas, Inc

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): Craig Blanchette

Signatory title: President

Signature: _____ Date: Aug 1st, 2024

(Use blue ink)

Subscribed and Sworn to before me by the said Craig Blanchette

on this 1st day of August, 20 24.

My commission expires on the 6th day of October, 20 24.

_____

Notary Public

[SEAL]

Alyssa Denise Orozco
My Commission Expires
10/6/2027
Notary ID134594697

Harris

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 36)

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: Montgomery County Appraisal District

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 to enter text.

Section 2. Original Photographs (Instructions Page 38)

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 38)

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

DOMESTIC WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: 10

ATTACHMENT 1

INDIVIDUAL INFORMATION

Section 1. Individual Information (Instructions Page 41)

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 to enter text.

Full legal name (Last Name, First Name, Middle Initial): Click to enter text.

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

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

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

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

E-mail Address: Click to enter text.

CN: Click to enter text.

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

DOMESTIC WASTEWATER PERMIT APPLICATION 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 application 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 ☒ 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)

Plain Language Summary ☒ Yes

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

For any questions about this form, please contact the Domestic Wastewater Permitting Team at 512-239-4671.

The following information is required for all renewal, new, and amendment applications.

Section 1. Permitted or Proposed Flows (Instructions Page 43)

A. Existing/Interim I Phase

Design Flow (MGD): 0.675

2-Hr Peak Flow (MGD): 2.0

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

B. Interim II Phase

Design Flow (MGD): Click to enter text.

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

Estimated construction start date: Click to enter text.

Estimated waste disposal start date: Click to enter text.

C. Final Phase

Design Flow (MGD): 2.0

2-Hr Peak Flow (MGD): 8.0

Estimated construction start date: 2025

Estimated waste disposal start date: 2027

D. Current Operating Phase

Provide the startup date of the facility: 2015

Section 2. Treatment Process (Instructions Page 43)

A. Current Operating Phase

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, a description of *each phase* must be provided**.

Refer Attachment 11

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 Attachment 12

Treatment Unit Type	Number of Units	Dimensions (L x W x D)

C. Process Flow Diagram

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

Attachment: 13

Section 3. Site Information and Drawing (Instructions Page 44)

Provide the TPDES discharge outfall latitude and longitude. Enter N/A if not applicable.

- Latitude: 30°12'46.94"N
- Longitude: 95°34'3.96"W

Provide the TLAP disposal site latitude and longitude. Enter N/A if not applicable.

- Latitude: N/A
- Longitude: N/A

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: 14

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

Old Egypt and Westwood residential neighborhoods and commercial areas

Collection System Information **for wastewater TPDES permits only**: Provide information for each **uniquely owned** collection system, existing and new, served by this facility, including satellite collection systems. **Please see the instructions for a detailed explanation and examples.**

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
Old Egypt Sanitary Sewer System	Aqua Texas, Inc.	**Privately Owned**	Estimated Ultimate: 12,800
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 45)

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 to enter text.

Section 5. Closure Plans (Instructions Page 45)

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 to enter text.

Section 6. Permit Specific Requirements (Instructions Page 45)

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: 2015 (existing phase)

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 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 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*.

Click to enter text.

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 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 512-239-2335. 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 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 512-239-2335.

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

Click 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 to enter text. or TXRNE Click 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 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 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 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 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, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions. Attachment 15

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

1. Acceptance of sludge from other WWTPs

Does or will the facility 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 the plant started 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 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 the date the plant started 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 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 or will the facility 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 to enter text.

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 50)

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). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

Table1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities Attachment 16

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
$CBOD_5$, mg/l	3.56	3.56	1	Grab	03/13/2024 05:00:00

Total Suspended Solids, mg/l	8.51	8.51	1	Grab	03/15/2024 09:58:00
Ammonia Nitrogen, mg/l	0.127	0.127	1	Grab	03/13/2024 11:20:00
Nitrate Nitrogen, mg/l	23.6	23.6	1	Grab	03/13/2024 02:18:00
Total Kjeldahl Nitrogen, mg/l	<1.00	<1.00	1	Grab	03/18/2024 12:40:00
Sulfate, mg/l	33.4	33.4	1	Grab	03/13/2024 01:58:00
Chloride, mg/l	149	149	1	Grab	03/13/2024 02:18:00
Total Phosphorus, mg/l	6.91	6.91	1	Grab	03/26/2024 09:02:00
pH, standard units	8.01	8.01	1	Grab	03/13/2024 14:20:00
Dissolved Oxygen*, mg/l	8.50	8.50	1	Grab	03/13/2024 14:20:00
Chlorine Residual, mg/l	2.5	2.5	1	Grab	03/13/2024 14:20:00
E.coli (CFU/100ml) freshwater	2.0	2.0	1	Grab	03/13/2024 14:20:00
Entercocci (CFU/100ml) saltwater	<1.00	<1.00	1	Grab	03/13/2024 15:22:00
Total Dissolved Solids, mg/l	640	640	1	Grab	03/15/2024 14:18:00
Electrical Conductivity, µmohs/cm, †	N/A	N/A			
Oil & Grease, mg/l	5.0	5.0	1	Grab	03/25/2024 08:48:00
Alkalinity ($CaCO_3$)*, mg/l	162	162	1	Grab	03/13/2024 15:24:00

*TPDES permits only
†TLAP permits only

Table1.0(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					
Total Dissolved Solids, mg/l					
pH, standard units					
Fluoride, mg/l					

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Aluminum, mg/l					
Alkalinity ($CaCO_3$), mg/l					

Section 8. Facility Operator (Instructions Page 50)

Facility Operator Name: Jeff Ernest

Facility Operator's License Classification and Level: B - Wastewater

Facility Operator's License Number: WW0018612

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 51)

A. WWTP's Biosolids Management Facility Type

Check all that apply. See instructions for guidance

- ☒ Design flow>= 1 MGD
- ☐ Serves >= 10,000 people
- ☐ Class I Sludge Management Facility (per 40 CFR § 503.9)
- ☐ Biosolids generator
- ☐ Biosolids end user – land application (onsite)
- ☐ Biosolids end user – surface disposal (onsite)
- ☐ Biosolids end user – incinerator (onsite)

B. WWTP's Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☒ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☒ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)

☐ Sludge Lagoon

☐ Temporary Storage (< 2 years)

☐ Long Term Storage (>= 2 years)

☐ Methane or Biogas Recovery

☐ Other Treatment Process: Click to enter text.

C. Biosolids Management

Provide information on the *intended* biosolids management practice. Do not enter every management practice that you want authorized in the permit, as the permit will authorize all biosolids management practices listed in the instructions. Rather indicate the management practice the facility plans to use.

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Other	Off-site Third-Party Handler or Preparer	Not Applicable		Class B: PSRP Aerobic Digestion	Option 1: Volatile solids reduced by 38%
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): Transport to another WWTP

D. Disposal site

Disposal site name: West Mt. Houston Road WWTP

TCEQ permit or registration number: WQ0011154001

County where disposal site is located: Harris

E. Transportation method

Method of transportation (truck, train, pipe, other): Truck

Name of the hauler: MagnaFlow

Hauler registration number: 21484

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal

(Instructions Page 53)

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 53)

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 to enter text.
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: Click to enter text.
- Federal Emergency Management Map:

  Attachment: Click to enter text.

- Site map:

  Attachment: Click 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 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 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 to enter text.

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

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

Phosphorus, mg/kg: Click to enter text.

Potassium, mg/kg: Click to enter text.

pH, standard units: Click to enter text.

Ammonia Nitrogen mg/kg: Click to enter text.

Arsenic: Click to enter text.

Cadmium: Click to enter text.

Chromium: Click to enter text.

Copper: Click to enter text.

Lead: Click to enter text.

Mercury: Click to enter text.

Molybdenum: Click to enter text.

Nickel: Click to enter text.

Selenium: Click to enter text.

Zinc: Click to enter text.

Total PCBs: Click to enter text.

Provide the following information:

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

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

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

D. Site development plan

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

Click to enter text.

Attach the following documents to the application.

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

  Attachment: Click to enter text.
- Copy of the closure plan

  Attachment: Click to enter text.
- Copy of deed recordation for the site

  Attachment: Click to enter text.
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: Click to enter text.
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: Click to enter text.
- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click 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 to enter text.

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 55)

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 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 to enter text.

Section 13. RCRA/CERCLA Wastes (Instructions Page 55)

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 to enter text.

Section 14. Laboratory Accreditation (Instructions Page 56)

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: Craig Blanchette

Title: President

Signature: _____

Date: Aug 1st, 2024

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.1

The following information is required for new and amendment major applications.

Section 1. Justification for Permit (Instructions Page 57)

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.

An evaluation of the existing defined service area for the Old Egypt WWTP was conducted and determined that the potential full build out of both residential and commercial development areas equates to a daily average flow of approximately 1.8 MGD. Aqua Texas intends to construct an expansion of the existing wastewater plant to an ultimate daily average flow of 2.0 MGD to cover the projected service area build out and allow for expansion of the service area. Rapid growth is currently underway in this area of Montgomery County necessitating moving forward with the proposed expansion of the plant.

B. Regionalization of facilities

For additional guidance, please review TCEQ's Regionalization Policy for Wastewater Treatment[1].

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: Click to enter text.

If yes, attach correspondence from the city.

Attachment: Click to enter text.

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 to enter text.

2. *Utility CCN areas*

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

☐ Yes ☒ No

[1] https://www.tceq.texas.gov/permitting/wastewater/tceq-regionalization-for-wastewater

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:

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 and collection systems that includes each permittee's name and permit number, and an area map showing the location of these facilities and collection systems.

Attachment: 17

If yes, attach proof of mailing a request for service to each facility and collection system, the letters requesting service, and correspondence from each facility and collection system.

Attachment: 18

If the facility or collection system agrees to provide service, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the facility or collection system versus the cost of the proposed facility or expansion.

Attachment: N/A

Section 2. Proposed Organic Loading (Instructions Page 59)

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): 2.0 (Final Phase)

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 350

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): 5838

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

Influent Sampling

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 BOD5 Concentration (mg/l)
Municipality	2.0	350
Subdivision		
Trailer park – transient		
Mobile home park		
School with cafeteria and showers		
School with cafeteria, no showers		
Recreational park, overnight use		
Recreational park, day use		
Office building or factory		
Motel		
Restaurant		
Hospital		
Nursing home		
Other		
TOTAL FLOW from all sources	2.0	
AVERAGE BOD_5 from all sources		350

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 59)

A. Existing/Interim I Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 3

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 4

Other: Click to enter text.

B. Interim II Phase Design Effluent Quality

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

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

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

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

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

Other: Click to enter text.

C. Final Phase Design Effluent Quality

Biochemical Oxygen Demand (5-day), mg/l: 10

Total Suspended Solids, mg/l: 15

Ammonia Nitrogen, mg/l: 3

Total Phosphorus, mg/l: 0.5

Dissolved Oxygen, mg/l: 4

Other: Click to enter text.

D. Disinfection Method

Identify the proposed method of disinfection.

☒ Chlorine: 1.0 mg/l after 20 minutes detention time at peak flow

Dechlorination process: Sodium bisulfate

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

☐ Other: Click to enter text.

Section 4. Design Calculations (Instructions Page 59)

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

Attachment: 19 - Evaluation Report dated 12-2023 – Design Scenario 1

Section 5. Facility Site (Instructions Page 60)

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 to enter text.

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

FEMA FIRMETTE # 48339C0505G

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 to enter text.

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

B. Wind rose

Attach a wind rose: Attachment 20

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

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)**: Click 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 the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)**: Click to enter text.

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 61)

Attach a solids management plan to the application.

Attachment: 15

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 WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: RECEIVING WATERS

The following information is required for all TPDES permit applications.

Section 1. Domestic Drinking Water Supply (Instructions Page 64)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge?

☐ Yes ☒ No

If **no**, proceed it Section 2. **If yes**, provide the following:

Owner of the drinking water supply: Click to enter text.

Distance and direction to the intake: Click to enter text.

Attach a USGS map that identifies the location of the intake.

Attachment: Click to enter text.

Section 2. Discharge into Tidally Affected Waters (Instructions Page 64)

Does the facility discharge into tidally affected waters?

☐ Yes ☒ No

If **no**, proceed to Section 3. **If yes**, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: Click to enter text.

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from outfall(s).

Click to enter text.

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If yes, provide the distance and direction from the outfall(s).

Click to enter text.

Section 3. Classified Segments (Instructions Page 64)

Is the discharge directly into (or within 300 feet of) a classified segment?

☐ Yes ☒ No

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 65)

Name of the immediate receiving waters: Unnamed tributary

A. Receiving water type

Identify the appropriate description of the receiving waters.

☒ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres: Click to enter text.

Average depth of the entire water body, in feet: Click to enter text.

Average depth of water body within a 500-foot radius of discharge point, in feet: Click to enter text.

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify: Click to enter text.

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

☒ Intermittent - dry for at least one week during most years

☐ Intermittent with Perennial Pools - enduring pools with sufficient habitat to maintain significant aquatic life uses

☐ Perennial - normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

☐ USGS flow records

☐ Historical observation by adjacent landowners

☒ Personal observation

☐ Other, specify: Click to enter text.

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

Bear Branch

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

☐ Yes ☒ No

If yes, discuss how.

Click to enter text.

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather conditions.

No flow upstream of discharge point

Date and time of observation: 05/06/2024 14:00:00

Was the water body influenced by stormwater runoff during observations?

☒ Yes ☐ No

Section 5. General Characteristics of the Waterbody (Instructions Page 66)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

☐ Oil field activities
☐ Urban runoff
☐ Upstream discharges
☐ Agricultural runoff
☐ Septic tanks
☒ Other(s), specify: Drainage

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Domestic water supply
- ☐ Park activities
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation
- ☐ Industrial water supply
- ☒ Other(s), specify: Drainage

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- ☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- ☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☒ Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- ☐ Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: POLLUTANT ANALYSIS REQUIREMENTS

The following **is required** for facilities with a permitted or proposed flow of **1.0 MGD or greater**, facilities with an approved **pretreatment** program, or facilities classified as a **major** facility. See instructions for further details.

This worksheet is not required minor amendments without renewal.

Section 1. Toxic Pollutants (Instructions Page 78)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab ☒ Composite ☐

Date and time sample(s) collected: 03/13/2024 14:20

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<50.0	<50.0	1	50
Aldrin	<0.01	<0.01	1	0.01
Aluminum	34.4	34.4	1	2.5
Anthracene	<10.0	<10.0	1	10
Antimony	<5.0	<5.0	1	5
Arsenic	2.04	2.04	1	0.5
Barium	168	168	1	3
Benzene	<10	<10	1	10
Benzidine	<50	<50	1	50
Benzo(a)anthracene	<5.0	<5.0	1	5
Benzo(a)pyrene	<5.0	<5.0	1	5
Bis(2-chloroethyl)ether	<10	<10	1	10
Bis(2-ethylhexyl)phthalate	<10	<10	1	10
Bromodichloromethane	<10	<10	1	10
Bromoform	<10	<10	1	10
Cadmium	<1	<1	1	1
Carbon Tetrachloride	<2	<2	1	2
Carbaryl			1	5
Chlordane*	<0.100	<0.100	1	0.2
Chlorobenzene	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Chlorodibromomethane	<10	<10	1	10
Chloroform	<10	<10	1	10
Chlorpyrifos	<0.0272	<0.0272	1	0.05
Chromium (Total)	<3	<3	1	3
Chromium (Tri) **(*1)**	<0.003	<0.003	1	N/A
Chromium (Hex)			1	3
Copper	8.78	8.78	1	2
Chrysene	<5	<5	1	5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol			1	10
Cyanide **(*2)**	<10	<10	1	10
4,4'- DDD	<0.1	<0.1	1	0.1
4,4'- DDE	<0.1	<0.1	1	0.1
4,4'- DDT	<0.02	<0.02	1	0.02
2,4-D	<0.7	<0.7	1	0.7
Demeton (O and S)	<0.0137	<0.0137	1	0.20
Diazinon	<0.0341	<0.0341	1	0.5/0.1
1,2-Dibromoethane	<10	<10	1	10
m-Dichlorobenzene				10
o-Dichlorobenzene	<10	<10	1	10
p-Dichlorobenzene	<10	<10	1	10
3,3'-Dichlorobenzidine	<5	<5	1	5
1,2-Dichloroethane	<10	<10	1	10
1,1-Dichloroethylene	<10	<10	1	10
Dichloromethane	<20	<20	1	20
1,2-Dichloropropane	<10	<10	1	10
1,3-Dichloropropene	<10	<10	1	10
Dicofol	<1	<1	1	1
Dieldrin	<0.02	<0.02	1	0.02
2,4-Dimethylphenol	<10	<10	1	10
Di-n-Butyl Phthalate	<10	<10	1	10
Diuron				0.09

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Endosulfan I (alpha)	<0.01	<0.01	1	0.01
Endosulfan II (beta)	<0.02	<0.02	1	0.02
Endosulfan Sulfate	<0.1	<0.1	1	0.1
Endrin	<0.2	<0.2	1	0.02
Ethylbenzene	<10	<10	1	10
Fluoride	373	373	1	500
Guthion	<0.0352	<0.0352	1	0.1
Heptachlor	<0.01	<0.01	1	0.01
Heptachlor Epoxide	<0.01	<0.01	1	0.01
Hexachlorobenzene	<5	<5	1	5
Hexachlorobutadiene	<10	<10	1	10
Hexachlorocyclohexane (alpha)	<0.5	<0.5	1	0.05
Hexachlorocyclohexane (beta)	<0.5	<0.5	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	0.06	0.06	1	0.05
Hexachlorocyclopentadiene	<10	<10	1	10
Hexachloroethane	<20	<20	1	20
Hexachlorophene	<10	<10	1	10
Lead	<0.5	<0.5	1	0.5
Malathion	<0.014	<0.014	1	0.1
Mercury	<0.005	<0.005	1	0.005
Methoxychlor	<2	<2	1	2
Methyl Ethyl Ketone	<50	<50	1	50
Mirex	<0.02	<0.02	1	0.02
Nickel	2.17	2.17	1	2
Nitrate-Nitrogen	23600	23600	1	100
Nitrobenzene	<10	<10	1	10
N-Nitrosodiethylamine	<20	<20	1	20
N-Nitroso-di-n-Butylamine	<20	<20	1	20
Nonylphenol	<333	<333	1	333
Parathion (ethyl)	<0.0219	<0.0219	1	0.1
Pentachlorobenzene	<20	<20	1	20
Pentachlorophenol	<5	<5	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Phenanthrene	<10	<10	1	10
Polychlorinated Biphenyls (PCB's) **(*3)**	<0.2	<0.2	1	0.2
Pyridine	<20	<20	1	20
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
1,2,4,5-Tetrachlorobenzene	<20	<20	1	20
1,1,2,2-Tetrachloroethane	<10	<10	1	10
Tetrachloroethylene	<10	<10	1	10
Thallium	<0.5	<0.5	1	0.5
Toluene	<10	<10	1	10
Toxaphene	<0.3	<0.3	1	0.3
2,4,5-TP (Silvex)	<0.3	<0.3	1	0.3
Tributyltin (see instructions for explanation)				0.01
1,1,1-Trichloroethane	<10	<10	1	10
1,1,2-Trichloroethane	<10	<10	1	10
Trichloroethylene	<10	<10	1	10
2,4,5-Trichlorophenol	<10	<10	1	50
TTHM (Total Trihalomethanes)	<10	<10	1	10
Vinyl Chloride	<10	<10	1	10
Zinc	52.8	52.8	1	5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab ☒ Composite ☐

Date and time sample(s) collected: 03/13/2024, 5:00

Table 4.0(2)A – Metals, Cyanide, and Phenols

Pollutant	**AVG Effluent Conc. (µg/l)**	**MAX Effluent Conc. (µg/l)**	**Number of Samples**	**MAL (µg/l)**
Antimony	<5	<5	1	5
Arsenic	2.04	2.04	1	0.5
Beryllium	<0.5	<0.5	1	0.5
Cadmium	<1.0	<1.0	1	1
Chromium (Total)	<3	<3	1	3
Chromium (Hex)				3
Chromium (Tri) **(*1)**	<0.003	<0.003	1	N/A
Copper	8.78	8.78	1	2
Lead	<0.5	<0.5	1	0.5
Mercury	<0.005	<0.005	1	0.005
Nickel	2.17	2.17	1	2
Selenium	<5.0	<5.0	1	5
Silver	<0.5	<0.5	1	0.5
Thallium	<0.5	<0.5	1	0.5
Zinc	52.8	52.8	1	5
Cyanide **(*2)**	<10	<10	1	10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein	<17	<17	1	50
Acrylonitrile	<50	<50	1	50
Benzene	<10	<10	1	10
Bromoform	<10	<10	1	10
Carbon Tetrachloride	<2	<2	1	2
Chlorobenzene	<10	<10	1	10
Chlorodibromomethane	<10	<10	1	10
Chloroethane	<50	<50	1	50
2-Chloroethylvinyl Ether				10
Chloroform	<10	<10	1	10
Dichlorobromomethane [Bromodichloromethane]	<10	<10		10
1,1-Dichloroethane	<10	<10	1	10
1,2-Dichloroethane	<10	<10	1	10
1,1-Dichloroethylene	<10	<10	1	10
1,2-Dichloropropane	<10	<10	1	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<10	<10	1	10
1,2-Trans-Dichloroethylene	<10	<10	1	10
Ethylbenzene	<10	<10	1	10
Methyl Bromide	<50	<50	1	50
Methyl Chloride	<50	<50	1	50
Methylene Chloride	<50	<50	1	20
1,1,2,2-Tetrachloroethane	<10	<10	1	10
Tetrachloroethylene	<10	<10	1	10
Toluene	<10	<10	1	10
1,1,1-Trichloroethane	<10	<10	1	10
1,1,2-Trichloroethane	<10	<10	1	10
Trichloroethylene	<10	<10	1	10
Vinyl Chloride	<10	<10	1	10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol	<10	<10	1	10
2,4-Dichlorophenol	<10	<10	1	10
2,4-Dimethylphenol	<10	<10	1	10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol	<50	<50	1	50
2-Nitrophenol	<20	<20	1	20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol	<10		1	10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acenaphthene	<10	<10	1	10
Acenaphthylene	<10	<10	1	10
Anthracene	<10	<10	1	10
Benzidine	<50	<50	1	50
Benzo(a)Anthracene	<5	<5	1	5
Benzo(a)Pyrene	<5	<5	1	5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene	<20	<20	1	20
Benzo(k)Fluoranthene	<5	<5	1	5
Bis(2-Chloroethoxy)Methane	<10	<10	1	10
Bis(2-Chloroethyl)Ether	<10	<10	1	10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether	<10	<10	1	10
Butyl benzyl Phthalate	<10	<10	1	10
2-Chloronaphthalene	<10	<10	1	10
4-Chlorophenyl phenyl ether	<10	<10	1	10
Chrysene	<5	<5	1	5
Dibenzo(a,h)Anthracene	<5	<5	1	5
1,2-(o)Dichlorobenzene	<10	<10	1	10
1,3-(m)Dichlorobenzene	<10	<10	1	10
1,4-(p)Dichlorobenzene	<10	<10	1	10
3,3-Dichlorobenzidine	<5	<5	1	5
Diethyl Phthalate	<10	<10	1	10
Dimethyl Phthalate	<10	<10	1	10
Di-n-Butyl Phthalate	<10	<10	1	10
2,4-Dinitrotoluene	<10	<10	1	10
2,6-Dinitrotoluene	<10	<10	1	10
Di-n-Octyl Phthalate	<10	<10	1	10
1,2-Diphenylhydrazine (as Azo-benzene)	<20	<20	1	20
Fluoranthene	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Fluorene	<10	<10	1	10
Hexachlorobenzene	<5	<5	1	5
Hexachlorobutadiene	<10	<10	1	10
Hexachlorocyclo-pentadiene	<10	<10	1	10
Hexachloroethane	<10	<10	1	20
Indeno(1,2,3-cd)pyrene	<5	<5	1	5
Isophorone	<10	<10	1	10
Naphthalene	<10	<10	1	10
Nitrobenzene	<10	<10	1	10
N-Nitrosodimethylamine	<50	<50	1	50
N-Nitrosodi-n-Propylamine	<20	<20	1	20
N-Nitrosodiphenylamine	<20	<20	1	20
Phenanthrene	<10	<10	1	10
Pyrene	<10	<10	1	10
1,2,4-Trichlorobenzene	<10	<10	1	10

Table 4.0(2)E – Pesticides

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Aldrin	<0.01	<0.01	1	0.01
alpha-BHC (Hexachlorocyclohexane)	<0.05	<0.05	1	0.05
beta-BHC (Hexachlorocyclohexane)	<0.05	<0.05	1	0.05
gamma-BHC (Hexachlorocyclohexane)	0.06	0.06	1	0.05
delta-BHC (Hexachlorocyclohexane)	<0.05	<0.05	1	0.05
Chlordane	<0.10	<0.10	1	0.2
4,4-DDT	<0.02	<0.02	1	0.02
4,4-DDE	<0.1	<0.1	1	0.1
4,4,-DDD	<0.1	<0.1	1	0.1
Dieldrin	<0.2	<0.2	1	0.02
Endosulfan I (alpha)	<0.01	<0.01	1	0.01
Endosulfan II (beta)	<0.02	<0.02	1	0.02
Endosulfan Sulfate	<0.1	<0.1	1	0.1
Endrin	<0.10	<0.10	1	0.02
Endrin Aldehyde	<0.1	<0.1	1	0.1
Heptachlor	<0.01	<0.01	1	0.01
Heptachlor Epoxide	<0.01	<0.01	1	0.01
PCB-1242	<0.2	<0.2	1	0.2
PCB-1254	<0.2	<0.2	1	0.2
PCB-1221	<0.2	<0.2	1	0.2
PCB-1232	<0.2	<0.2	1	0.2
PCB-1248	<0.2	<0.2	1	0.2
PCB-1260	<0.2	<0.2	1	0.2
PCB-1016	<0.2	<0.2	1	0.2
Toxaphene	<0.3	<0.3	1	0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a “<”.

Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

☐ 2,4,5-trichlorophenoxy acetic acid

Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid

Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate

Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate

Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol

Common Name TCP, CASRN 95-95-4

☐ hexachlorophene

Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

Click to enter text.

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

☐ Yes ☐ No

If **yes**, provide a brief description of the conditions for its presence.

Click to enter text.

C. If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab ☐ Composite ☐

Date and time sample(s) collected: Click to enter text.

Table 4.0(2)F – Dioxin/Furan Compounds

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					50
2,3,7,8 HxCDFs	0.1					50
2,3,4,7,8 HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

ATTACHMENT 1
COPY OF APPLICATION CHECK FEE

ATTACHMENT 2
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 604062463		**RN 102344116**

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:*

Aqua Texas, Inc.

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0800304878	32014405503		

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
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

1106 Clayton Lane, Suite 400W

City	Austin	**State**	TX	**ZIP**	78723	**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)*
(512) 990-4400	56101	( ) -

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.)*

Old Egypt Wastewater Treatment Plant

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	32515 FM 2978 Road							
	City	Magnolia	**State**	TX	**ZIP**	77354	**ZIP + 4**	
24. County	Montgomery							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**
Magnolia			TX		77354

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:	30.213611		**28. Longitude (W) In Decimal:**	-95.568056	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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		22132	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Wastewater Treatment

34. Mailing Address:	**2211 Louetta Road**							
	City	**Spting**	**State**	**TX**	**ZIP**	**77388**	**ZIP + 4**	
35. E-Mail Address:	**abautista@aquaamerica.com**							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(281) 651-174	**54119**	( ) -

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:
	WQ0014141001			

SECTION IV: Preparer Information

40. Name:	Ram S Goswami	**41. Title:**	Project Engineer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(281) 569-0439		( ) -	rgoswami@baxterwoodman.com

SECTION V: Authorized Signature

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

Company:	Aqua Texas, Inc	**Job Title:**	President	
Name *(In Print):*	Craig Blanchette		**Phone:**	(512) 990- **4400**
Signature:	CBlanchette		**Date:**	8/15/24

ATTACHMENT 3
PLAIN LAUGUAGE SUMMARY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

Applicants should use this template to develop a plain language summary as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. Applicants may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 TAC Section 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/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

Aqua Texas, Inc, (CN604062463) operates Old Egypt Wastewater Treatment Plant (RN 102344116), a privately owned domestic wastewater treatment facility. The facility is located at 32515 FM 2978 Road, in Magnolia, Montgomery County, Texas 77354. The application is for a major amendment without renewal for expansion of the wastewater treatment plant to 2.0 MGD.

Discharges from the facility are expected to contain five-day carbonaceous biochemical oxygen demand ($CBOD_5$), total suspended solids (TSS), ammonia nitrogen (NH_3-N), nitrate nitrogen (NO_3-N), total Kjeldahl nitrogen (TKN), sulfate (SO_4^{2-}), chloride (Cl^-), total phosphorus and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7, Pollutant Analysis of Treated Effluent and Domestic Worksheet 4.0 in the permit application package. Domestic wastewater discharges are treated by an activated sludge process plant and the treatment units include aeration basins, clarifiers, aerobic digesters, a thickener, chlorine contact basin, and a bar screen.

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

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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 es una representación ejecutiva fedérale 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. ubicada en 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 petición de solicitud aquí. *<<Para las solicitudes 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 contengan 14. 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.

SPANISH PLAIN LANGUAGE SUMMARY FOR TPDES RENEWAL APPLICATION FOR OLD EGYPT WASTEWATER TREATMENT PLANT

Aqua Texas, Inc, (CN604062463) opera la Planta de Tratamiento de Aguas Residuales del Antiguo Egipto (RN 102344116), una instalación de tratamiento de aguas residuales domésticas de propiedad privada. La instalación está ubicada en 32515 FM 2978 Road, en Magnolia, Condado de Montgomery, Texas 77354. La solicitud es para una enmienda importante sin renovación para la expansión de la planta de tratamiento de aguas residuales a 2.0 MGD.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno carbonoso (CBOD5) de cinco días, sólidos suspendidos totales (SST), nitrógeno amoniacal (NH3-N), nitrógeno nitrato (NO3-N), nitrógeno Kjeldahl total (TKN), sulfato (SO42-), cloruro (Cl-), fósforo total y Escherichia coli. Se incluyen contaminantes potenciales adicionales en el Informe Técnico Nacional 1.0, Sección 7, Análisis de Contaminantes del Efluente Tratado y Hoja de Trabajo Doméstico 4.0 en el paquete de solicitud de permiso. Las descargas de aguas residuales domésticas son tratadas mediante una planta de proceso de lodos activados y las unidades de tratamiento incluyen balsas de aireación, clarificadores, digestores aeróbicos, espesador, balsa de contacto de cloro y una rejilla de barras.

ATTACHMENT 4
PUBLIC INVOLVEMENT PLAN

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.

The permit amendment is for a domestic wastewater treatment facility that does not have significant public interest in the existing service area. Additionally, there has been no significant public interest related to past permitting actions for this facility. Therefore the facility does not meet the significant interest screening criteria and no PIP is required.

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.

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)

(County)

(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

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

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)

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 5
USGS MAP

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
OnDemand Topo

7.5-MINUTE TOPO QUADRANGLE
Custom Extent
7.5-MINUTE TOPO

POINT OF DISCHARGE
WWTP BOUNDARY
APPLICANT'S PROPERTY BOUNDARY
DISCHARGE ROUTE
1-MILE RADIUS

CONROE
THE WOODLANDS
HOUSTON
TOMBALL
Egypt
Oklahoma
Indian Hills

Goodson Pocket
Lake Cr
Lake Creek
Stone Branch Lake
Duck Pond
Stowe Br
Mayhaw Pond
Bear Br
Rice Br
Lake Egypt
Nickaburr Cr
Winslow Pond
Dry Cr
Magnolia Br
Long Lake
Spring Cr
Mill Cr
Bogs Gully
Panther Br
Mooney Pond
Schweinle Lake
Hogpen Pond
Bedias Lake
Clear Pond
Taylor Pond
Neidigk Lake
Marchs Pond

George Bell Madeley Cemetery
Pate - Sanders Cemetery
Oklahoma Cemetery
Barlow Cemetery
Zion Lutheran Cemetery

Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 15R

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

Learn About The National Map: https://nationalmap.gov

MN
GN
2°13′ 39 MILS
1°17′ 23 MILS
UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000 - m Square ID
TP
Grid Zone Designation 15R

SCALE 1:24 000
1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

USER DEFINED CONTENT

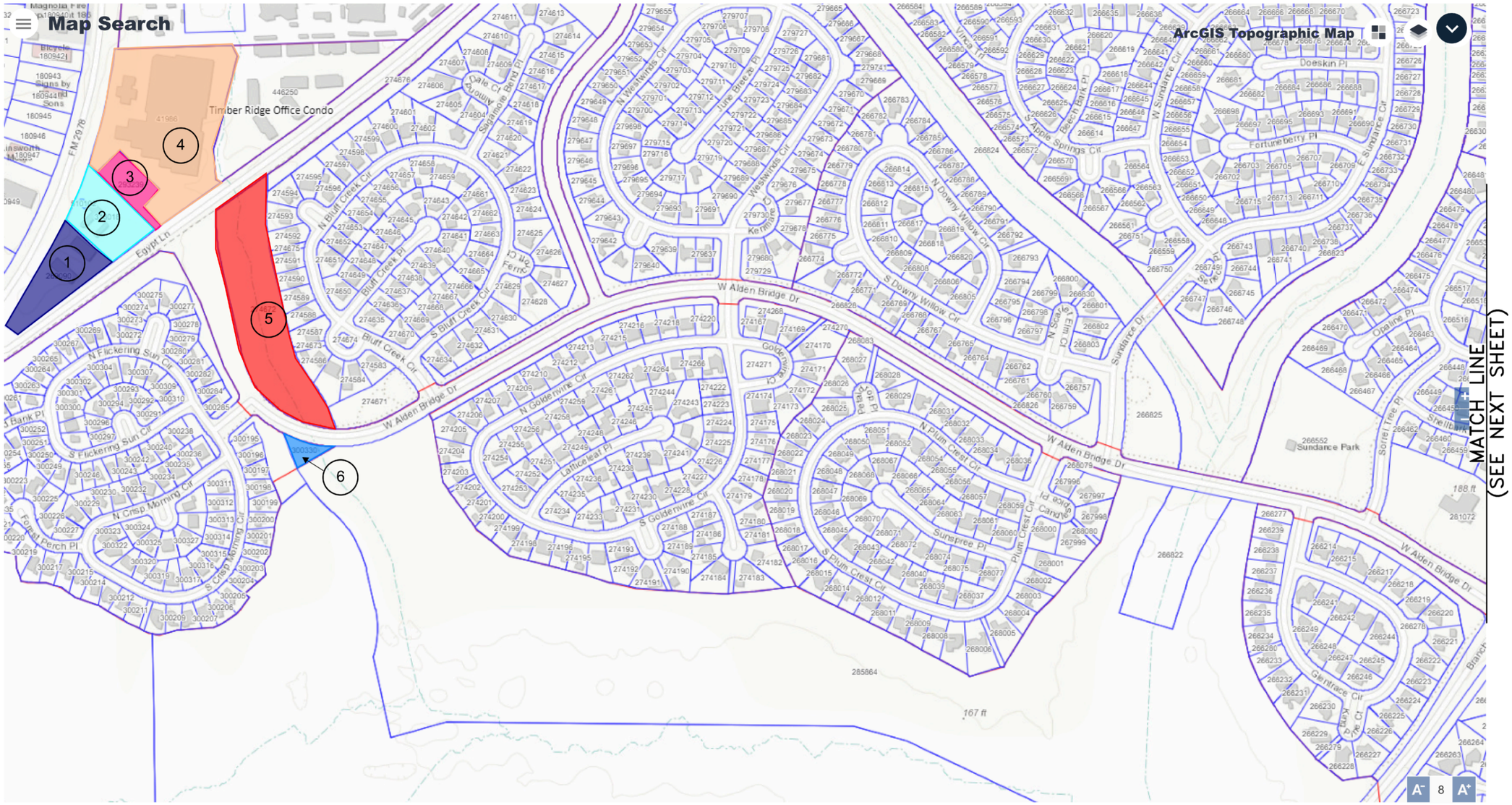
TEXAS
QUADRANGLE LOCATION
Cowl Spur | Conroe
Oklahoma | Tamina
ADJOINING QUADRANGLES

ROAD CLASSIFICATION
Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

7.5-MINUTE TOPO, TX
2024

ATTACHMENT 6

AFFECTED LANDOWNERS MAP



GRAPHIC SCALE

600 0 300 600 1200

(IN FEET)

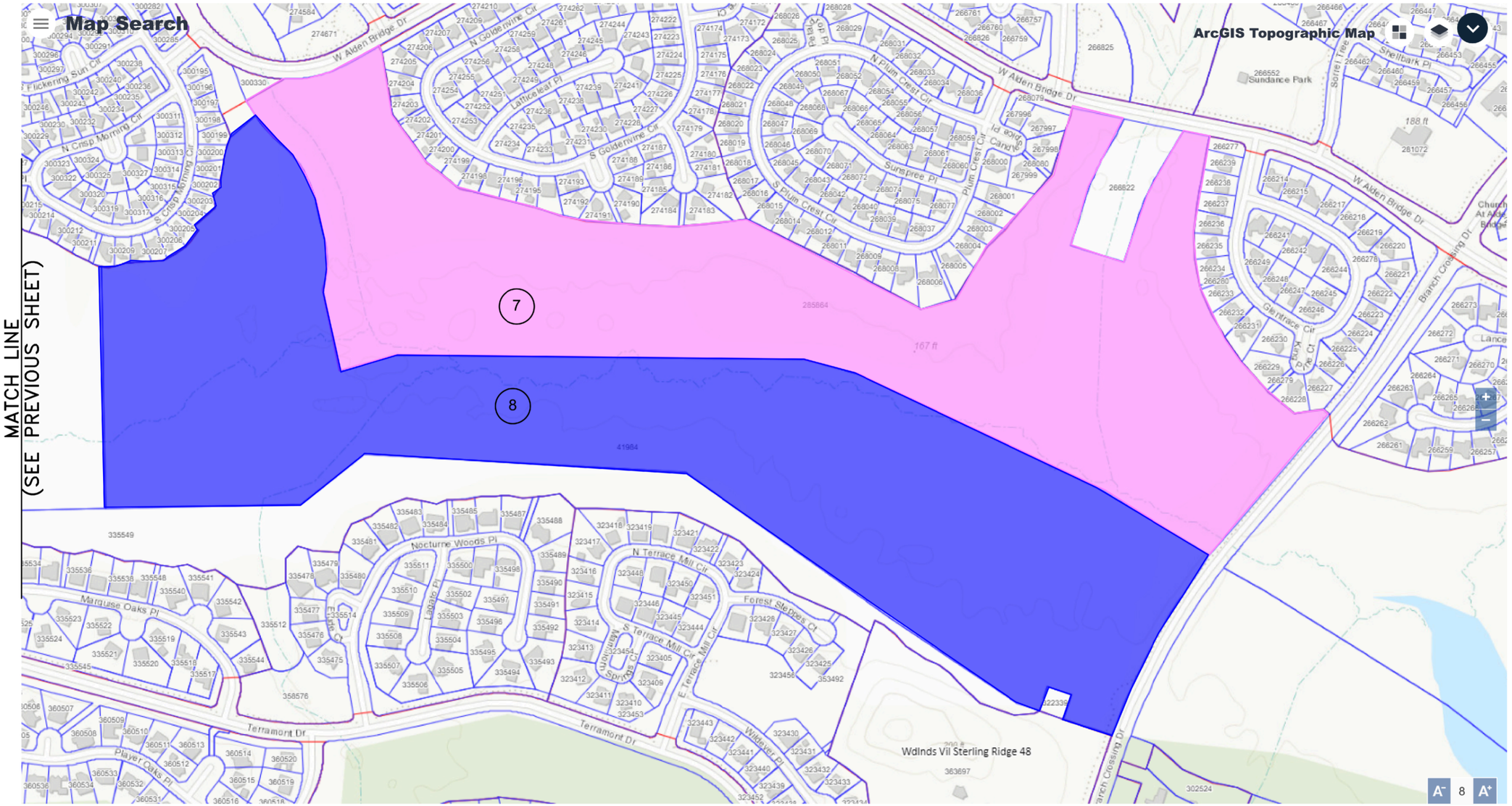
1 inch = 600 ft.

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

MONTGOMERY COUNTY APPRAISAL DISTRICT MAP (1 OF 2)

JUNE 2024 2325163.00



GRAPHIC SCALE

600 0 300 600 1200

(IN FEET)

1 inch = 600 ft.

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

MONTGOMERY COUNTY APPRAISAL DISTRICT MAP (2 OF 2)

JUNE 2024 2325163.00

ATTACHMENT 7
AFFECTED LANDOWNERS LIST

Reference #	Property ID	Landowner Name	Mailing Address
1	269090	NTI DROP DOWN ONE LLC	1 VALERO WAY BLDG D, STE 200SAN ANTONIO TX 78249-1616
2	316018	AQUA TEXAS, INC	1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476
3	293239	AQUA TEXAS, INC	1106 CLAYTON LN, STE 400W AUSTIN, TX 78723-2476
4	41986	K-KIES VI LLC	480 WILDWOOD FOREST DR SUITE 140SPRING TX 77380-2649
5	274672	THE WOODLANDS LAND DEVELOPMENT	9950 WOODLOCH FOREST DR 1100SPRING TX 77380-3991
6	300330	THE WOODLANDS TOWNSHIP	2801 TECHNOLOGY FOREST BLVD SPRING TX 77381-3901
7	284864	SAN JACINTO RIVER AUTHORITY	2346 SAWDUST RD SPRING TX 77380-2704
8	41984	SAN JACINTO RIVER AUTHORITY	PO BOX 329 CONROE TX 77305-0329

ATTACHMENT 8

ORIGINAL PHOTOGRAPHS WITH LOCATION MAP

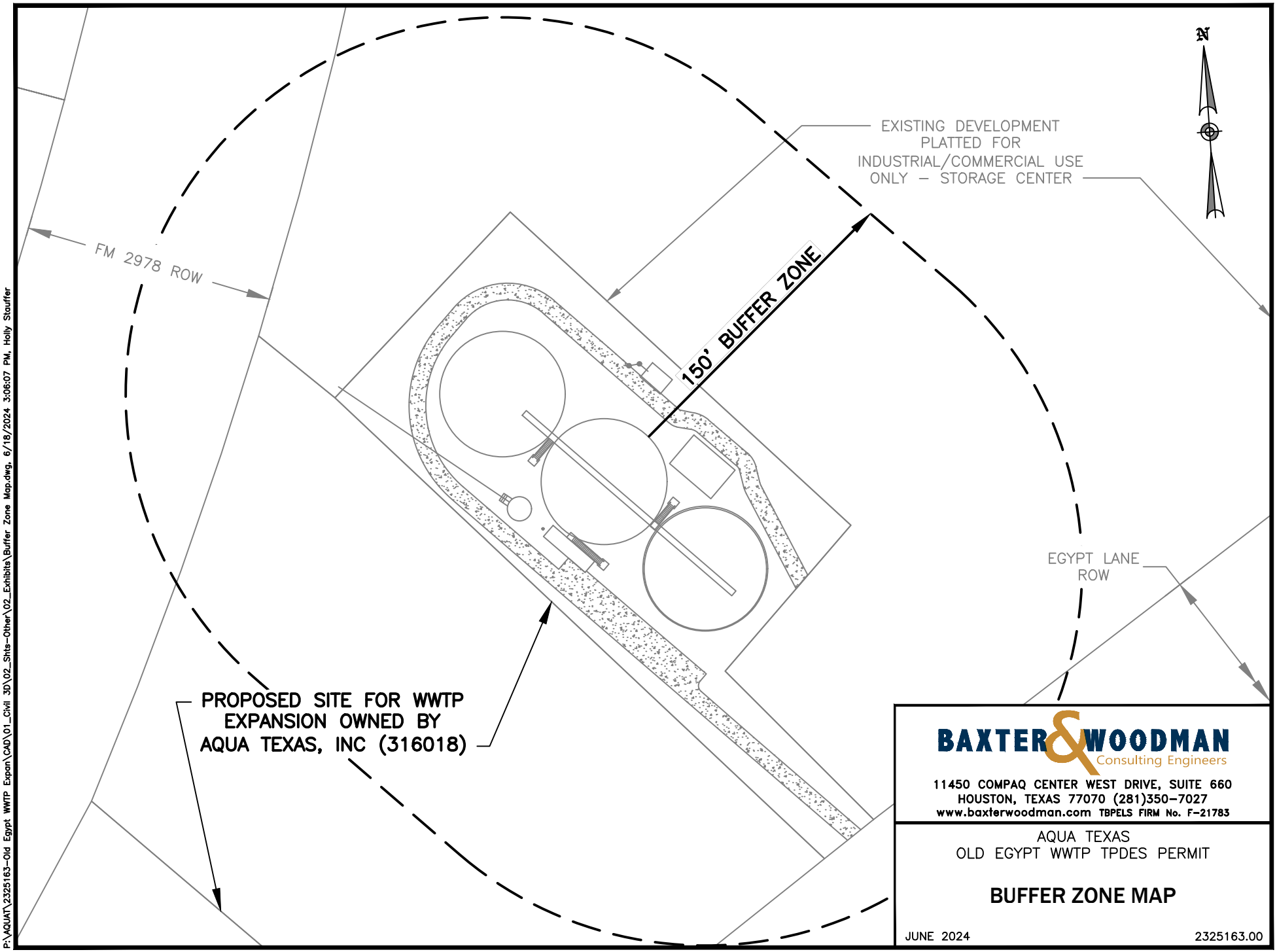

A
B
C
Old Egypt WWTP


A


B


C

ATTACHMENT 9
BUFFER ZONE MAP



BAXTER & WOODMAN
Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES PERMIT

BUFFER ZONE MAP

JUNE 2024 2325163.00

ATTACHMENT 10
SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL 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)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: Aqua Texas, Inc.

   Permit No. WQ00 14141001 EPA ID No. TX 0120073

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

   32515 FM 2978 Road, Magnolia, TX 77354, Montgomery County

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): Mr.

First and Last Name: Abel Bautista

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

Title: Wastewater Compliance Coordinator

Mailing Address: 2211 Louetta Road

City, State, Zip Code: Spring, TX 77388

Phone No.: 281-651-0174 Ext.: 54119 Fax No.: Click here to enter text.

E-mail Address: abautista@aquaamerica.com

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

N/A

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.

From the plant to an unnamed tributary: thence to Bear Branch: thence to Bear Branch Reservoir: thence to Bear Branch: thence to Panther Branch: thence to Lake Woodlands: thence to Panther Branch: thence to Spring Creek in Segment No. 1008 of the San Jacinto River Basin.

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

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

N/A

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

WWTF structures

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

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

2015

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

Click here to enter text.

ATTACHMENT 11

TREATMENT PROCESS DISCRIPTION

PROCESS TREATMENT
REFER TO TECHNICAL REPORT 1.0, SECTION 2

FOR

OLD EGYPT WASTEWATER TREATMENT FACILITY
TPDES PERMIT NO. WQ0014141001

The Old Egypt Wastewater Treatment Facility (WWTF) serves the Old Egypt and Westwood residential communities and commercial areas nearby.
The existing treatment facility consists of three 60-foot diameter steel bullseye type treatment plants. Each plant, or treatment train, has a 30-foot diameter clarifier, an aeration basin, two sludge digesters, and a chlorine contact basin. They discharge to a common discharge flow monitoring structure and meter.

A. Existing Treatment Process:

The facility consists of three concentrically activated sludge-complete mix plants each with a capacity to treat 0.225MGD for a total of 0.675MGD. The sewage in the lift station is pumped to a free-standing concrete headworks flowing through a mechanical and manual bar screens and splitter box; the sewage then flows into the aeration basin. The mixed liquor then flows to the clarifier where the solids will settle to the bottom and the clear water flow over the weirs and into the chlorine contact chamber. The treated effluent then flows to the receiving stream. The settled solids in the bottom of the clarifier are pumped back to the head of the aeration basin or to the aerobic digesters for sludge processing. Sludge is removed from the digesters by a license sludge hauler.

B. Proposed Treatment Process

The proposed facility will be a complete mix activated sludge plant with a capacity to treat 2.0 MGD. The proposed lift station will pump to a headworks structure with a mechanical bar screen and a manually-cleaned bypass screen. Sewage will flow into the two proposed aeration basins, then the mixed liquor will flow into the two proposed clarifiers, where solids will settle to the bottom for collection and clear water will flow over the weirs. From there, the flow will continue through a tertiary filtration system and then into the chlorine contact basins. Following dichlorination, the treated effluent will flow to the receiving stream. The settled solids in the clarifiers will be pumped back to the aeration basins or to the two proposed aerobic digesters for sludge processing. Sludge will be removed from the digesters by a licensed sludge hauler.

ATTACHMENT 12
TREATMENT UNITS

PROCESS TREATMENT UNITS
REFER TO TECHNICAL REPORT 1.0, SECTION 2

FOR

OLD EGYPT WASTEWATER TREATMENT FACILITY
TPDES PERMIT NO. WQ0014141001

A. Existing Treatment Units

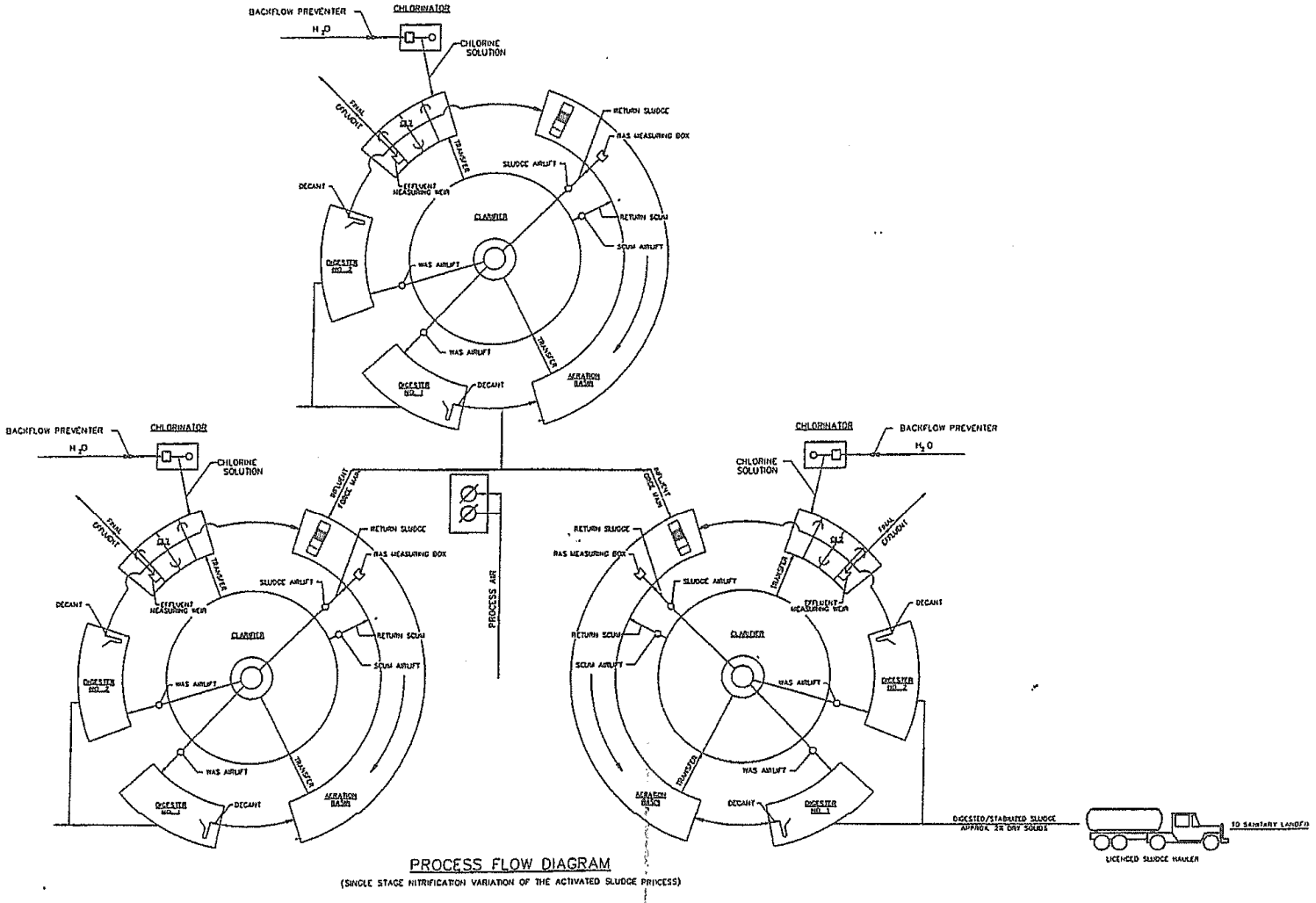
Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Clarifier	3	$2{,}121\ ft^3$
Aeration Basin	3	$23{,}233\ ft^3$
Sludge Digester	6	$23{,}821\ ft^3$
Chlorine Contact Chamber	3	n/a

B. Proposed Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)[1]
Equalization Basin Volume	1	$67{,}600\ ft^3$
Aeration Volume	2	$166{,}800\ ft^3$
Clarification Surface Area	2	$6{,}666\ ft^2$
Filtration Surface Area	2	$855\ ft^2$
Disinfection Volume	3	$14{,}854\ ft^3$
Digestion Volume	3	$70{,}330\ ft^3$

(1) Final dimensions to be determined.

ATTACHMENT 13
PROCESS FLOW DIAGRAM



PROCESS FLOW DIAGRAM

(SINGLE STAGE NITRIFICATION VARIATION OF THE ACTIVATED SLUDGE PROCESS)

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES RENEWAL

EXISTING PROCESS FLOW DIAGRAM

MAY 2024

2325163.00

LIFT STATION

HEADWORKS

AERATION BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3

DIGESTER BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3 BLOWER NO. 4

AIR

AERATION BASIN NO. 1

EQUALIZATION BASIN

AERATION BASIN NO. 2

SPLITTER BOX

MLSS

RAS

WAS

SCUM ALP

SLUDGE PUMPS

CLARIFIER NO. 1

CLARIFIER NO. 2

DIGESTER NO. 1

DIGESTER NO. 2

DIGESTER NO. 3

SOLIDS HANDLING/ DEWATERING

SLUDGE HAULER

TERTIARY FILTER

DISINFECTION

FLOW METER

PLANT OUTFALL

LEGEND

WASTEWATER

SOLIDS

AIR

AIR

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

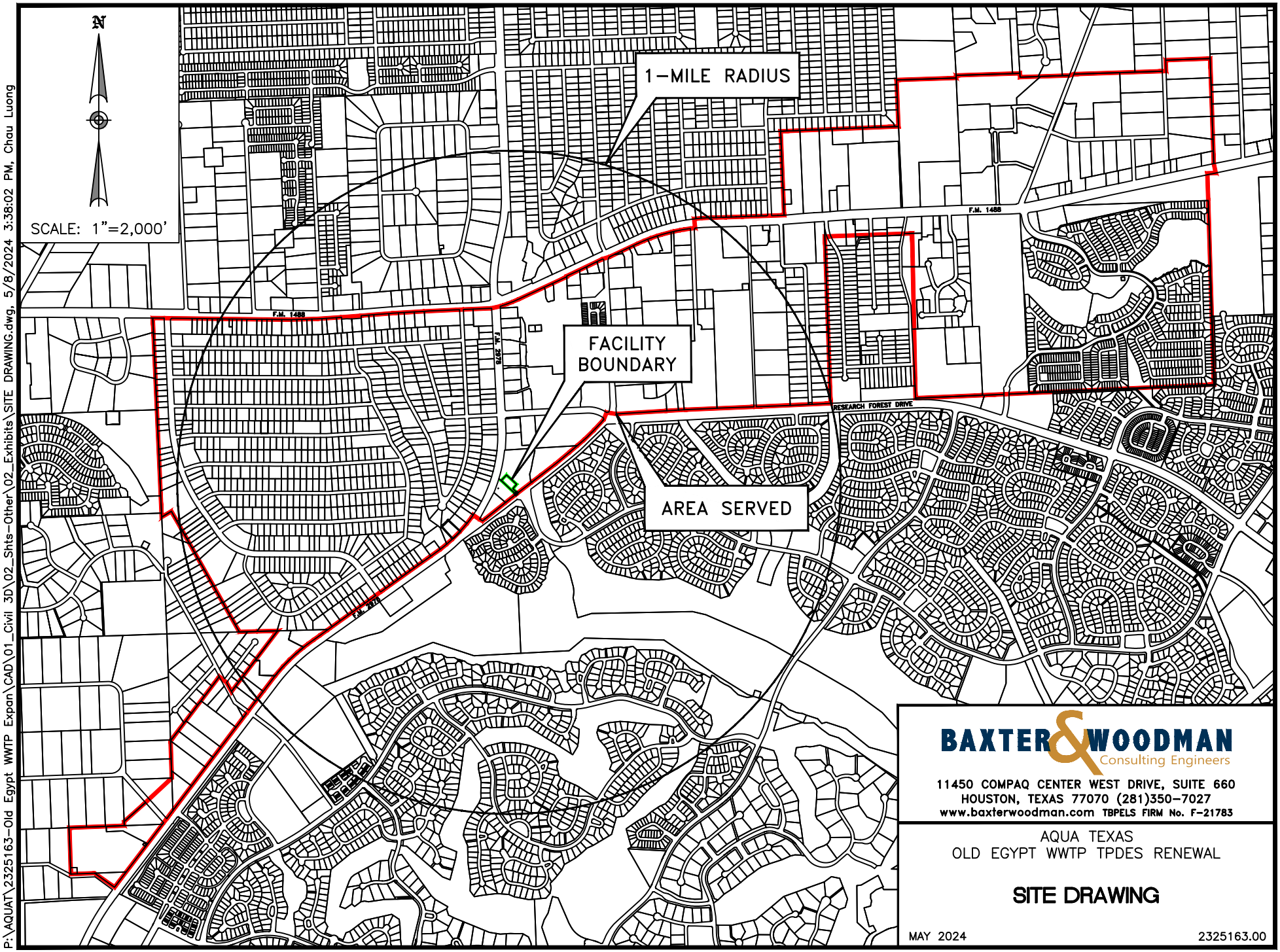
AQUA TEXAS
OLD EGYPT WWTP TPDES RENEWAL

PROPOSED PROCESS FLOW DIAGRAM

MAY 2024 2325163.00

ATTACHMENT 14

SITE DRAWING



P:\AQUAT\2325163-Old Egypt WWTP Expan\CAD\01_Civil 3D\02_Shts-Other\02_Exhibits\SITE DRAWING.dwg, 5/8/2024 3:38:02 PM, Chau Luong

BAXTER & WOODMAN
Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES RENEWAL

SITE DRAWING

MAY 2024

2325163.00

ATTACHMENT 15
SOLIDS MANAGEMENT PLAN

SOLIDS MANAGEMENT PLAN
REFER TO TECHNICAL REPORT 1.0, SECTION 13

FOR

OLD EGYPT WASTEWATER TREATMENT FACILITY
TPDES PERMIT NO. WQ0014141001

The Old Egypt Wastewater Treatment Facility (WWTF) serves the Old Egypt and Westwood residential communities and commercial areas nearby.
The existing treatment facility consists of three 60-foot diameter steel bullseye type treatment plants. Each plant, or treatment train, has a 30-foot diameter clarifier, an aeration basin, two sludge digesters, and a chlorine contact basin. They discharge to a common discharge flow monitoring structure and meter. The following solids management calculations are based on the proposed capacities for the proposed facility expansion.

1. The dimensions and capacities of all solids handling and treatment units are:

Equalization Basin
Dimension: TBD
Volume = 67,600 ft^3

Aeration Basin
Dimension: TBD
Volume = 166,800 ft^3

Clarifier
Dimension: Diameter = TBD
Surface Area = 6,666 ft^2

Filtration
Dimension: TBD
Surface Area = 855 ft^2

Disinfection
Dimension: TBD
Volume = 14,850 ft^3

Chlorine Contact Chamber
Dimension: TBD
Volume = 1,852 ft^3

Digestion
Dimension: TBD
Volume = 70,330 ft^3

2. The following calculations show the amount of solids generated at design flow and at 75%, 50% and 25% of design flow. The existing design flow is 0.675 MGD.

% Capacity	Flow, MGD	BOD, mg/l	Waste Solids, lbs/day[(1)]	Digested Solids, lbs/day[(2)]
25	0.5	350	1346	132
50	1	350	2692	263
75	1.5	350	4037	395
100	2.0	350	5383	527

[(1)] Assumes 1 lb Waste Actived Sludge per lb influent BOD.

[(2)] Typically, a 30% reduction in volatile solids is achieved in aerobic digesting. Volatile Solids make up 70% of total solids. Therefore, Digested Solids are [1-(.3)(.7)][Waste Solids].

3. The operating range for mixed liquor suspended solids when operated in the Complete Mix Activated Sludge mode is 2,500 to 6,500 mg/l. Actual operating MLSS will vary with the percentage of design flow encountered and other operation considerations such as sludge hauling schedule, sludge age and settleability.

4. The following is a description of the existing procedure and method of solids removal from both the wastewater and sludge treatment processes:

   Wastewater is pumped from the on-site lift station through the bar screen into the Aeration Basin. From the Aeration Basin, the mixed liquor flows to the Clarifier. In the Clarifier, the return sludge is separated from the plant effluent. Return sludge is routed back to the Aeration Basin for further treatment or to the Digester for processing. The plant effluent travels to the Chlorine Contact Chamber where it is chemically treated before being discharged at the outfall location.

   Waste sludge is pumped from to the Aerobic Digester where a licensed contract sludge hauler periodically removes sludge.

5. The following calculations show the quantity of solids to be removed from the process and the schedule for removal of solids that is designed to maintain an appropriate solids inventory

   Assume that the digester contains 70% volatile solids and that the volatile solids are reduced by 30%. Therefore, the solids reduction in the digester is:

   (.70)(.30) = .21 (or 21%)

Assume that the digester solids concentration is 2%. Calculate the solids retention time as follows:

SRT = Digester Volume / Sludge Volume

% Capacity	Flow, MGD	Digested Solids, lbs/day	SRT Days*
25	0.5	1346	52
50	1.0	2693	26
75	1.5	4037	17
100	2.0	5383	13

*Calculated with a Digester volume of 70,330 cf.

Sludge wasting frequency is determined as follows:

Sludge Hauling Truck Volume: 7,000 gallons
Percent Solids: 2.0%

% Capacity	Flow, MGD	Digested Solids, lbs/day	Thickened Solids (2%), GPD	# Times Sludge Wasted per Month
25	0.5	1346	790	4
50	1.0	2693	1580	7
75	1.5	4037	2370	11
100	2.0	5383	3160	14

6. The identification and ownership of the ultimate disposal site is included in the Technical Report, Section 10. The sludge disposal site name is MT Houston RD MUD WWTP.

ATTACHMENT 16
LAB EFFLUENT TEST REPORT

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com

May 22, 2024

Laboratory Report

Donald Francis
Aqua TX
2211 Louetta Road
Spring, TX 77388

Report ID: 20240522101856DLH

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

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

Sincerely,

Deena Higginbotham For Aundra Noe
Project Manager

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C2914-01
Old Egypt - Outfall 001 3 Part Grab Composite 1 [none]

Sample Matrix: Waste Water
Date Collected: 03/12/2024 8:15
Collected by: Mario Urquiza

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 13:15	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C2914-02
Old Egypt - Outfall 001 3 Part Grab Composite 1 [none]

Sample Matrix: Waste Water
Date Collected: 03/12/2024 8:15
Collected by: Mario Urquiza

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 13:24	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C2915-01
Old Egypt - Outfall 001 3 Part Grab Composite 2 [none]

Sample Matrix: Waste Water
Date Collected: 03/12/2024 13:50
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 15:00	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C2915-02
Old Egypt - Outfall 001 3 Part Grab Composite 2 [none]

Sample Matrix: Waste Water
Date Collected: 03/12/2024 13:50
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 15:15	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001
Lab Sample ID: 24C3241-01
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry											
EPA 1664A	n-Hexane Extractable Material (O&G)	A	<5.00	U	mg/L	1	5.00	5.00	BHC3928	03/25/2024 08:48	IDC
Microbiology											
Enterolert/ASTM D6503-99	Enterococci	A	<1.00	U	MPN/100 mL	1	1.00	1.00	BHC2222	03/14/2024 15:22	JKB
SM 9223 B (Colilert Quanti-Tray)	Escherichia coli (E. coli)	A	2.00		MPN/100 mL	1	1.00	1.00	BHC2229	03/14/2024 16:35	JKB
Field											
Calc	Flow Field	N	0.269		MGD	1	0.00	0.00	BHD3313	04/18/2024 12:41	DLH
Hach 10360	DO Field	N	8.50		mg/L	1	1.00	1.00	BHC2386	03/13/2024 14:20	HWR
Calc	Flow Field	N	0.360		MGD	1	0.00	0.00	BHC2386	03/13/2024 14:20	HWR
SM 4500-H+ B	pH	A	8.01		pH Units @ 25 °C	1	1.00	1.00	BHC2386	03/13/2024 14:20	HWR
SM 4500-Cl G	Total Residual Chlorine	A	2.50		mg/L	1	0.25	0.25	BHC2386	03/13/2024 14:20	HWR

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C3241-02
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Semivolatile Organic Compounds by GCMS										
EPA 625.1	1,2,4,5-Tetrachlorobenzene	A	<10.0U	ug/L	1	0.0760	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	1,2,4-Trichlorobenzene	A	<10.0U	ug/L	1	0.0943	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	1,2-Diphenylhydrazine	A	<20.0U	ug/L	1	0.250	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	A	<10.0U	ug/L	1	0.129	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4,5-Trichlorophenol	A	<10.0U	ug/L	1	0.210	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4,6-Trichlorophenol	A	<10.0U	ug/L	1	0.385	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4-Dichlorophenol	A	<10.0U	ug/L	1	0.256	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4-Dimethylphenol	A	<10.0U	ug/L	1	0.294	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4-Dinitrophenol	A	<50.0U	ug/L	1	2.85	50.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,4-Dinitrotoluene (2,4-DNT)	A	<10.0U	ug/L	1	0.0530	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2,6-Dinitrotoluene (2,6-DNT)	A	<10.0U	ug/L	1	0.584	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2-Chloronaphthalene	A	<10.0U	ug/L	1	0.123	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2-Chlorophenol	A	<10.0U	ug/L	1	0.147	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	A	<50.0U	ug/L	1	0.511	50.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	2-Nitrophenol	A	<20.0U	ug/L	1	0.218	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	3,4-Methylphenol	A	<10.0U	ug/L	1	0.462	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	4-Bromophenyl phenyl ether (BDE-3)	A	<10.0U	ug/L	1	0.0682	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	4-Chloro-3-methylphenol	A	<10.0U	ug/L	1	0.218	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	4-Chlorophenyl phenylether	A	<10.0U	ug/L	1	0.207	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	4-Nitrophenol	A	<50.0U	ug/L	1	2.40	50.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Acenaphthene	A	<10.0U	ug/L	1	0.0776	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Acenaphthylene	A	<10.0U	ug/L	1	0.0594	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Anthracene	A	<10.0U	ug/L	1	0.0532	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Benzo(a)anthracene	A	<5.00U	ug/L	1	0.0738	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Benzo(a)pyrene	A	<5.00U	ug/L	1	0.143	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Benzo(b)fluoranthene	A	<5.00U	ug/L	1	0.0486	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Benzo(g,h,i)perylene	A	<20.0U	ug/L	1	0.112	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Benzo(k)fluoranthene	A	<5.00U	ug/L	1	0.0747	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	bis(2-Chloroethoxy)methane	A	<10.0U	ug/L	1	0.112	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	bis(2-Chloroethyl) ether	A	<10.0U	ug/L	1	0.184	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Bis(2-ethylhexyl)phthalate	A	<10.0U	ug/L	1	0.500	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Butyl benzyl phthalate	A	<10.0U	ug/L	1	0.123	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Chrysene	A	<5.00U	ug/L	1	0.0573	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Dibenzo(a,h)anthracene	A	<5.00U	ug/L	1	0.152	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Diethyl phthalate	A	<10.0U	ug/L	1	0.150	10.0	BHC3129	03/26/2024 15:38	KRB

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)
Lab Sample ID: 24C3241-02
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Semivolatile Organic Compounds by GCMS (Continued)											
EPA 625.1	Dimethyl phthalate	A	<10.0	U	ug/L	1	0.0869	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Di-n-butyl phthalate	A	<10.0	U	ug/L	1	0.505	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Di-n-octyl phthalate	A	<10.0	U	ug/L	1	0.163	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Fluoranthene	A	<10.0	U	ug/L	1	0.0676	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Fluorene	A	<10.0	U	ug/L	1	0.0589	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Hexachlorobenzene	A	<5.00	U	ug/L	1	0.0629	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Hexachlorobutadiene	A	<10.0	U	ug/L	1	0.0697	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Hexachlorocyclopentadiene	A	<10.0	U	ug/L	1	0.250	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Hexachloroethane	A	<20.0	U	ug/L	1	0.0644	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Hexachlorophene	A	<10.0	U	ug/L	1	0.343	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Indeno(1,2,3-cd) pyrene	A	<5.00	U	ug/L	1	0.126	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Isophorone	A	<10.0	U	ug/L	1	0.0853	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Naphthalene	A	<10.0	U	ug/L	1	0.0742	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Nitrobenzene	A	<10.0	U	ug/L	1	0.118	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	n-Nitrosodiethylamine	A	<20.0	U	ug/L	1	0.162	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	n-Nitrosodimethylamine	A	<50.0	U	ug/L	1	1.24	50.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	n-Nitroso-di-n-butylamine	A	<20.0	U	ug/L	1	1.87	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	n-Nitrosodi-n-propylamine	A	<20.0	U	ug/L	1	0.445	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	n-Nitrosodiphenylamine	A	<20.0	U	ug/L	1	0.0609	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Pentachlorobenzene	A	<20.0	U	ug/L	1	0.0514	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Pentachlorophenol	A	<5.00	U	ug/L	1	0.437	5.00	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Phenanthrene	A	<10.0	U	ug/L	1	0.0816	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Phenol, Total	A	<10.0	U	ug/L	1	0.470	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Pyrene	A	<10.0	U	ug/L	1	0.0848	10.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	Pyridine	A	<20.0	U	ug/L	1	4.40	20.0	BHC3129	03/26/2024 15:38	KRB
EPA 625.1	*Surrogate: 2,4,6-Tribromophenol-surr*		*10.7%*	*S*	*33.6-139*					*03/26/2024 15:38*	
EPA 625.1	*Surrogate: 2-Fluorobiphenyl-surr*		*79.3%*		*32.2-138*					*03/26/2024 15:38*	
EPA 625.1	*Surrogate: 2-Fluorophenol-surr*		*0.0434%*	*S*	*32.7-137*					*03/26/2024 15:38*	
EPA 625.1	*Surrogate: Nitrobenzene-d5-surr*		*91.4%*		*31.2-136*					*03/26/2024 15:38*	
EPA 625.1	*Surrogate: Phenol-d5-surr*		*1.33%*	*S*	*28.9-155*					*03/26/2024 15:38*	
EPA 625.1	*Surrogate: p-Terphenyl-d14-surr*		*69.5%*		*37.6-117*					*03/26/2024 15:38*	
Organics by GC											
SM 6640 B	2,4-D	A	<0.700	U	ug/L	2	0.233	0.700	BHC3124	03/23/2024 21:41	cdg
SM 6640 B	Silvex (2,4,5-TP)	A	<0.300	U	ug/L	2	0.235	0.300	BHC3124	03/23/2024 21:41	cdg
EPA 608.3	4,4'-DDD	A	<0.100	U	ug/L	1	0.000800	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	4,4'-DDE	A	<0.100	U	ug/L	1	0.000400	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	4,4'-DDT	A	<0.0200	U	ug/L	1	0.00360	0.0200	BHC2968	04/10/2024 13:38	shu

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)
Lab Sample ID: 24C3241-02
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC (Continued)											
EPA 608.3	Aldrin	A	<0.0100	U	ug/L	1	0.000400	0.0100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	alpha-BHC (alpha-Hexachlorocyclohexane)	A	<0.0500	U	ug/L	1	0.00120	0.0500	BHC2968	04/10/2024 13:38	shu
EPA 608.3	beta-BHC (beta-Hexachlorocyclohexane)	A	<0.0500	U	ug/L	1	0.00240	0.0500	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Chlordane (Total)	A	<0.100	U	ug/L	1	0.00200	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	cis-Chlordane (alpha-Chlordane)	A	<0.100	U	ug/L	1	0.00200	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	delta-BHC	A	<0.0500	U	ug/L	1	0.00120	0.0500	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Dieldrin	A	<0.0200	U	ug/L	1	0.000400	0.0200	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Endosulfan I	A	<0.0100	U	ug/L	1	0.00160	0.0100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Endosulfan II	A	<0.0200	U	ug/L	1	0.000400	0.0200	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Endosulfan sulfate	A	<0.100	U	ug/L	1	0.00400	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Endrin aldehyde	A	<0.100	U	ug/L	1	0.00280	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Endrin ketone	A	<0.100	U	ug/L	1	0.00800	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	A	0.0600		ug/L	1	0.000400	0.0500	BHC2968	04/10/2024 13:38	shu
EPA 608.3	gamma-Chlordane	A	<0.100	U	ug/L	1	0.00200	0.100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Heptachlor	A	<0.0100	U	ug/L	1	0.000800	0.0100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Heptachlor epoxide	A	<0.0100	U	ug/L	1	0.00160	0.0100	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Methoxychlor	A	<2.00	U	ug/L	1	0.00400	2.00	BHC2968	04/10/2024 13:38	shu
EPA 608.3	Toxaphene (Chlorinated Camphene)	A	<0.300	U	ug/L	1	0.0400	0.300	BHC2968	04/10/2024 13:38	shu
EPA 608.3	*Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr*		*243%*	*S*	*25.2-154*					*04/10/2024 13:38*	
EPA 608.3	*Surrogate: Decachlorobiphenyl-surr*		*96.6%*		*41.2-118*					*04/10/2024 13:38*	
EPA 1657	Azinphos-methyl (Guthion)	A	<0.0352	U	ug/L	1	0.0352	0.106	BHC2474	03/16/2024 04:09	KRB
EPA 1657	Chlorpyrifos	A	<0.0272	U	ug/L	1	0.0272	0.0529	BHC2474	03/16/2024 04:09	KRB
EPA 1657	Demeton	A	<0.0137	U	ug/L	1	0.0137	0.212	BHC2474	03/16/2024 04:09	KRB
EPA 1657	Diazinon	A	<0.0341	U	ug/L	1	0.0341	0.529	BHC2474	03/16/2024 04:09	KRB
EPA 1657	Malathion	A	<0.0141	U	ug/L	1	0.0141	0.106	BHC2474	03/16/2024 04:09	KRB
EPA 1657	Parathion, ethyl	A	<0.0219	U	ug/L	1	0.0219	0.106	BHC2474	03/16/2024 04:09	KRB
EPA 1657	*Surrogate: Tributyl Phosphate-surr*		*162%*	*S*	*40-120*					*03/16/2024 04:09*	
EPA 1657	*Surrogate: Triphenyl Phosphate-surr*		*68.5%*		*40-120*					*03/16/2024 04:09*	
EPA 608	Aroclor-1016 (PCB-1016)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1221 (PCB-1221)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1232 (PCB-1232)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1242 (PCB-1242)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1248 (PCB-1248)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1254 (PCB-1254)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
EPA 608	Aroclor-1260 (PCB-1260)	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler (Continued)
Lab Sample ID: 24C3241-02
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC (Continued)											
EPA 608	PCBs, Total	A	<0.200	U	ug/L	1	0.00800	0.200	BHC4106	04/15/2024 23:01	shu
Metals, Total											
EPA 200.8	Aluminum	A	34.4		ug/L	1	0.167	5.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Antimony	A	<5.00	U	ug/L	1	0.0589	5.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Arsenic	A	2.04		ug/L	1	0.0468	0.500	BHC2256	03/17/2024 11:05	JKC
EPA 200.8	Barium	A	168		ug/L	1	0.0200	3.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Beryllium	A	<0.500	U	ug/L	1	0.0137	0.500	BHC2256	03/20/2024 14:23	TBB
EPA 200.8	Cadmium	A	<1.00	U	ug/L	1	0.00798	1.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Chromium	A	<3.00	U	ug/L	1	0.0839	3.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Copper	A	8.78		ug/L	1	0.182	2.00	BHC2256	03/15/2024 11:44	JKC
Calc	Chromium (III)		<0.00300		mg/L	1	8.39E-5	0.00300	[CALC]	03/14/2024 16:04	JKC
EPA 200.8	Lead	A	<0.500	U	ug/L	1	0.0120	0.500	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Nickel	A	2.17		ug/L	1	0.0398	2.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Selenium	A	<5.00	U	ug/L	1	0.354	5.00	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Silver	A	<0.500	U	ug/L	1	0.00467	0.500	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Thallium	A	<0.500	U	ug/L	1	0.0617	0.500	BHC2256	03/14/2024 16:04	JKC
EPA 200.8	Zinc	A	52.8		ug/L	1	0.207	5.00	BHC2256	03/14/2024 16:04	JKC
General Chemistry											
SM 2320 B	Alkalinity as CaCO3	A	162		mg/L	1	10.0	10.0	BHC2410	03/15/2024 12:52	AKA
SM 5210 B	Carbonaceous BOD (CBOD)	A	3.56	HP	mg/L	13514	2.03	2.03	BHC2348	03/20/2024 15:24	BAK
EPA 300.0	Chloride	A	149		mg/L	5	0.172	5.00	BHC2185	03/14/2024 02:18	ORP
SM 2510 B	Conductivity	A	1190		umhos/cm @ 25 °C	1	2.00	2.00	BHC2410	03/15/2024 12:52	AKA
EPA 300.0	Fluoride	A	0.373		mg/L	1	0.0105	0.250	BHC2185	03/14/2024 01:58	ORP
EPA 350.1	Ammonia as N	A	0.127		mg/L	1	0.0200	0.0500	BHC2250	03/14/2024 11:20	GJG
EPA 300.0	Nitrate as N	A	23600		ug/L	5	71.0	500	BHC2185	03/14/2024 02:18	ORP
EPA 300.0	Nitrite as N	A	<50.0	U	ug/L	1	5.10	50.0	BHC2185	03/14/2024 01:58	ORP
EPA 300.0	Sulfate	A	33.4		mg/L	1	0.0341	1.00	BHC2185	03/14/2024 01:58	ORP
SM 2540 C	Residue-filterable (TDS)	A	640		mg/L	1	10.0	10.0	BHC2261	03/15/2024 14:18	JRU
SM 4500-NH3 C	Total Kjeldahl Nitrogen - (TKN)	A	<1.00	U	mg/L	1	0.100	1.00	BHC2707	03/18/2024 12:40	GIW
EPA 365.1	Total Phosphorus	A	6.91		mg/L	1	0.117	0.200	BHC3109	03/26/2024 09:02	TBB
SM 2540 D	Residue-nonfilterable (TSS)	A	8.51	B1	mg/L	1	1.00	1.00	BHC2268	03/15/2024 09:58	JRU

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C3241-02RE1
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Semivolatile Organic Compounds by GCMS											
ASTM D7065	Nonylphenol (Rerun)	N	<333	U	ug/L	2	5.96	333	BHD1093	04/06/2024 01:11	KRB
ASTM D7065	*Surrogate: n-NP-surr (Rerun)*		*7.09%*	*S*	*60-140*					*04/06/2024 01:11*	
EPA 625.1	3,3'-Dichlorobenzidine (Rerun)	A	<5.00	U	ug/L	1	3.87	5.00	BHC3129	04/10/2024 23:48	KRB
EPA 625.1	Benzidine (Rerun)	A	<50.0	U	ug/L	1	11.8	50.0	BHC3129	04/10/2024 23:48	KRB
EPA 625.1	*Surrogate: 2,4,6-Tribromophenol-surr (Rerur*		*19.9%*	*S*	*33.6-139*					*04/10/2024 23:48*	
EPA 625.1	*Surrogate: 2-Fluorobiphenyl-surr (Rerun)*		*70.5%*		*32.2-138*					*04/10/2024 23:48*	
EPA 625.1	*Surrogate: 2-Fluorophenol-surr (Rerun)*		*0.347%*	*S*	*32.7-137*					*04/10/2024 23:48*	
EPA 625.1	*Surrogate: Nitrobenzene-d5-surr (Rerun)*		*106%*		*31.2-136*					*04/10/2024 23:48*	
EPA 625.1	*Surrogate: Phenol-d5-surr (Rerun)*		*2.84%*	*S*	*28.9-155*					*04/10/2024 23:48*	
EPA 625.1	*Surrogate: p-Terphenyl-d14-surr (Rerun)*		*69.5%*		*37.6-117*					*04/10/2024 23:48*	
Organics by GC											
EPA 608.3	Dicofol (Rerun)	A	<1.00	U	ug/L	1	0.0480	1.00	BHC2968	04/10/2024 20:10	shu
EPA 608.3	Mirex (Rerun)	A	<0.0200	U	ug/L	1	0.00400	0.0200	BHC2968	04/10/2024 20:10	shu
EPA 608.3	*Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr*		*152%*		*25.2-154*					*04/10/2024 20:10*	
EPA 608.3	*Surrogate: Decachlorobiphenyl-surr (Rerun)*		*115%*		*41.2-118*					*04/10/2024 20:10*	

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C3241-02RE2
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 5:00
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Organics by GC											
EPA 608.3	Endrin (Rerun)	A	<0.0200	U	ug/L	1	0.000800	0.0200	BHC2968	04/16/2024 23:36	shu
EPA 608.3	*Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr*		*143%*		*25.2-154*					*04/16/2024 23:36*	
EPA 608.3	*Surrogate: Decachlorobiphenyl-surr (Rerun)*		*66.4%*		*41.2-118*					*04/16/2024 23:36*	

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab
Lab Sample ID: 24C3241-03
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 14:22	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite
Lab Sample ID: 24C3241-04
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Volatile Organic Compounds by GCMS											
EPA 624.1	1,1,1-Trichloroethane	A	<10.0	U	ug/L	1	0.622	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,1,2,2-Tetrachloroethane	A	<10.0	U	ug/L	1	0.867	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,1,2-Trichloroethane	A	<10.0	U	ug/L	1	0.789	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,1-Dichloroethane	A	<10.0	U	ug/L	1	0.967	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,1-Dichloroethylene	A	<10.0	U	ug/L	1	0.849	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,2-Dibromoethane (EDB, Ethylene dibromide)	A	<10.0	U	ug/L	1	0.706	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,2-Dichlorobenzene (o-Dichlorobenzene)	A	<10.0	U	ug/L	1	0.881	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,2-Dichloroethane (Ethylene dichloride)	A	<10.0	U	ug/L	1	0.870	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,2-Dichloropropane	A	<10.0	U	ug/L	1	0.854	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,3-Dichlorobenzene (m-Dichlorobenzene)	A	<10.0	U	ug/L	1	0.717	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	1,4-Dichlorobenzene (p-Dichlorobenzene)	A	<10.0	U	ug/L	1	0.641	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	2-Butanone (Methyl ethyl ketone, MEK)	A	<50.0	U	ug/L	1	7.38	50.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	2-Chloroethyl vinyl ether	A	<10.0	U	ug/L	1	3.14	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Acrolein (Propenal)	A	<17.0	U	ug/L	1	5.68	17.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Acrylonitrile	A	<50.0	U	ug/L	1	1.60	50.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Benzene	A	<10.0	U	ug/L	1	0.604	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Carbon tetrachloride	A	<2.00	U	ug/L	1	0.500	2.00	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Chlorobenzene	A	<10.0	U	ug/L	1	0.724	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Chloroethane (Ethyl chloride)	A	<50.0	U	ug/L	1	1.30	50.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	cis-1,3-Dichloropropene	A	<10.0	U	ug/L	1	0.580	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Ethylbenzene	A	<10.0	U	ug/L	1	0.727	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Methyl bromide (Bromomethane)	A	<50.0	U	ug/L	1	1.42	50.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Methyl chloride (Chloromethane)	A	<50.0	U	ug/L	1	0.765	50.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Methylene chloride (Dichloromethane)	A	<20.0	U	ug/L	1	1.60	20.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Tetrachloroethylene (Perchloroethylene)	A	<10.0	U	ug/L	1	0.703	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Toluene	A	<10.0	U	ug/L	1	0.649	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	trans-1,2-Dichloroethylene	A	<10.0	U	ug/L	1	0.899	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	trans-1,3-Dichloropropylene	A	<10.0	U	ug/L	1	0.496	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Trichloroethene (Trichloroethylene)	A	<10.0	U	ug/L	1	0.744	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	Vinyl chloride (Chloroethene)	A	<10.0	U	ug/L	1	1.30	10.0	BHC2440	03/14/2024 17:10	EM
EPA 624.1	*Surrogate: 4-Bromofluorobenzene-surr*		*106%*		*70-130*					*03/14/2024 17:10*	
EPA 624.1	*Surrogate: 1,2-Dichloroethane-d4-surr*		*105%*		*70-130*					*03/14/2024 17:10*	

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 3 Part Grab Composite (Continued)
Lab Sample ID: 24C3241-04
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Volatile Organic Compounds by GCMS (Continued)											
EPA 624.1	*Surrogate: Dibromofluoromethane-surr*		*107%*		*70-130*					*03/14/2024 17:10*	
EPA 624.1	*Surrogate: Toluene-d8-surr*		*97.2%*		*70-130*					*03/14/2024 17:10*	

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: 18 Mohm DI
Lab Sample ID: 24C3241-05
Old Egypt - Large Permit Renewal [none]

Sample Matrix: Waste Water
Date Collected: 03/13/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Total											
EPA 1631E	Mercury	A	<0.00500	U	ug/L	1	0.00250	0.00500	BHC2441	04/04/2024 14:17	JKC

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001
Lab Sample ID: 24C4288-01
Old Egypt - Permit Renewal - Recollect [none]

Sample Matrix: Waste Water
Date Collected: 03/20/2024 14:20
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
General Chemistry											
SM 4500-CN⁻ G	Amenable Cyanide	A	<10.0	U	ug/L	1	5.00	10.0	BHC4607	03/28/2024 14:30	TBB
SM 4500-CN⁻ C	Total Cyanide	A	<10.0	U	ug/L	1	5.00	10.0	BHC4607	03/28/2024 14:30	TBB

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001 Sampler
Lab Sample ID: 24C4288-02
Old Egypt - Permit Renewal - Recollect [none]

Sample Matrix: Waste Water
Date Collected: 03/20/2024 12:30
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Metals, Dissolved											
SM 3500-Cr B	Chromium (VI)	A	5.77		ug/L	1	1.50	3.00	BHC3240	03/21/2024 16:32	JVG

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Results
(Continued)

Client Sample ID: Outfall 001
Lab Sample ID: 24D1868-01
Old Egypt - Permit Renewal - Recollect [none]

Sample Matrix: Waste Water
Date Collected: 04/03/2024 10:30
Collected by: Heath Reinke

Method	Analyte	*	Result	Q	Units	DF	SDL	LRL	Batch	Analyzed	Analyst
Volatile Organic Compounds by GCMS											
EPA 624.1	Bromodichloromethane	A	<10.0	U	ug/L	1	0.727	10.0	BHD0671	04/03/2024 18:38	EM
EPA 624.1	Bromoform	A	<10.0	U	ug/L	1	0.678	10.0	BHD0671	04/03/2024 18:38	EM
EPA 624.1	Chlorodibromomethane	A	<10.0	U	ug/L	1	0.802	10.0	BHD0671	04/03/2024 18:38	EM
EPA 624.1	Chloroform	A	<10.0	U	ug/L	1	0.688	10.0	BHD0671	04/03/2024 18:38	EM
EPA 624.1	Total Trihalomethanes (TTHMs)	A	<10.0	U	ug/L	1	2.00	10.0	BHD0671	04/03/2024 18:38	EM

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control

Volatile Organic Compounds by GCMS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624										
Blank (BHC2440-BLK1)					Prepared & Analyzed: 03/14/2024					
1,1,1-Trichloroethane	<10.0	U	10.0	ug/L						
1,1,2,2-Tetrachloroethane	<10.0	U	10.0	ug/L						
1,1,2-Trichloroethane	<10.0	U	10.0	ug/L						
1,1-Dichloroethane	<10.0	U	10.0	ug/L						
1,1-Dichloroethylene	<10.0	U	10.0	ug/L						
1,2-Dibromoethane (EDB, Ethylene dibromide)	<10.0	U	10.0	ug/L						
1,2-Dichlorobenzene (o-Dichlorobenzene)	<10.0	U	10.0	ug/L						
1,2-Dichloroethane (Ethylene dichloride)	<10.0	U	10.0	ug/L						
1,2-Dichloropropane	<10.0	U	10.0	ug/L						
1,3-Dichlorobenzene (m-Dichlorobenzene)	<10.0	U	10.0	ug/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<10.0	U	10.0	ug/L						
2-Butanone (Methyl ethyl ketone, MEK)	<50.0	U	50.0	ug/L						
2-Chloroethyl vinyl ether	<10.0	U	10.0	ug/L						
Acrolein (Propenal)	<17.0	U	17.0	ug/L						
Acrylonitrile	<50.0	U	50.0	ug/L						
Benzene	<10.0	U	10.0	ug/L						
Bromodichloromethane	<10.0	U	10.0	ug/L						
Bromoform	<10.0	U	10.0	ug/L						
Carbon tetrachloride	<2.00	U	2.00	ug/L						
Chlorobenzene	<10.0	U	10.0	ug/L						
Chlorodibromomethane	<10.0	U	10.0	ug/L						
Chloroethane (Ethyl chloride)	<50.0	U	50.0	ug/L						
Chloroform	<10.0	U	10.0	ug/L						
cis-1,3-Dichloropropene	<10.0	U	10.0	ug/L						
Ethylbenzene	<10.0	U	10.0	ug/L						
Methyl bromide (Bromomethane)	<50.0	U	50.0	ug/L						
Methyl chloride (Chloromethane)	<50.0	U	50.0	ug/L						
Methylene chloride (Dichloromethane)	<20.0	U	20.0	ug/L						
Tetrachloroethylene (Perchloroethylene)	<10.0	U	10.0	ug/L						
Toluene	<10.0	U	10.0	ug/L						
Total Trihalomethanes (TTHMs)	11.1		10.0	ug/L						
trans-1,2-Dichloroethylene	<10.0	U	10.0	ug/L						
trans-1,3-Dichloropropylene	<10.0	U	10.0	ug/L						
Trichloroethene (Trichloroethylene)	<10.0	U	10.0	ug/L						
Vinyl chloride (Chloroethene)	<10.0	U	10.0	ug/L						
Surrogate: 4-Bromofluorobenzene-surr			*51.7*	*ug/L*	*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*53.2*	*ug/L*	*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*53.4*	*ug/L*	*50.0*		*107*	*70-130*		
Surrogate: Toluene-d8-surr			*49.1*	*ug/L*	*50.0*		*98.3*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)										
LCS (BHC2440-BS1)					Prepared & Analyzed: 03/14/2024					
1,1,1-Trichloroethane	42.2		2.00	ug/L	50.0		84.5	70-130		
1,1,2,2-Tetrachloroethane	42.8		3.00	ug/L	50.0		85.7	60-140		
1,1,2-Trichloroethane	43.2		2.00	ug/L	50.0		86.4	70-130		
1,1-Dichloroethane	43.2		3.00	ug/L	50.0		86.4	70-130		
1,1-Dichloroethylene	42.4		3.00	ug/L	50.0		84.9	50-150		
1,2-Dibromoethane (EDB, Ethylene dibromide)	42.4		2.00	ug/L	50.0		84.8	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	40.9		3.00	ug/L	50.0		81.9	65-135		
1,2-Dichloroethane (Ethylene dichloride)	43.3		3.00	ug/L	50.0		86.7	70-130		
1,2-Dichloropropane	41.8		3.00	ug/L	50.0		83.6	35-165		
1,3-Dichlorobenzene (m-Dichlorobenzene)	40.6		2.00	ug/L	50.0		81.2	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	40.7		2.00	ug/L	50.0		81.5	65-135		
2-Butanone (Methyl ethyl ketone, MEK)	448		22.0	ug/L	500		89.7	70-130		
2-Chloroethyl vinyl ether	42.9		9.00	ug/L	50.0		85.9	0-225		
Acrolein (Propenal)	222		17.0	ug/L	250		88.7	60-140		
Acrylonitrile	46.5		5.00	ug/L	50.0		92.9	60-140		
Benzene	42.0		2.00	ug/L	50.0		84.1	65-135		
Bromodichloromethane	43.6		2.00	ug/L	50.0		87.1	65-135		
Bromoform	42.7		2.00	ug/L	50.0		85.4	70-130		
Carbon tetrachloride	42.6		1.00	ug/L	50.0		85.2	70-130		
Chlorobenzene	41.2		2.00	ug/L	50.0		82.4	65-135		
Chlorodibromomethane	43.7		2.00	ug/L	50.0		87.4	70-135		
Chloroethane (Ethyl chloride)	40.0		4.00	ug/L	50.0		80.0	40-160		
Chloroform	40.8		2.00	ug/L	50.0		81.5	70-135		
cis-1,3-Dichloropropene	42.7		2.00	ug/L	50.0		85.4	25-175		
Ethylbenzene	41.8		2.00	ug/L	50.0		83.7	60-140		
Methyl bromide (Bromomethane)	41.0		4.00	ug/L	50.0		82.0	15-185		
Methyl chloride (Chloromethane)	40.4		2.00	ug/L	50.0		80.8	0-205		
Methylene chloride (Dichloromethane)	42.8		5.00	ug/L	50.0		85.6	60-140		
Tetrachloroethylene (Perchloroethylene)	35.6		2.00	ug/L	50.0		71.2	70-130		
Toluene	42.0		10.0	ug/L	50.0		84.0	70-130		
Total Trihalomethanes (TTHMs)	171		10.0	ug/L	200		85.4	70-130		
trans-1,2-Dichloroethylene	42.8		3.00	ug/L	50.0		85.6	70-130		
trans-1,3-Dichloropropylene	42.4		1.00	ug/L	50.0		84.8	50-150		
Trichloroethene (Trichloroethylene)	42.6		2.00	ug/L	50.0		85.1	65-135		
Vinyl chloride (Chloroethene)	41.0		4.00	ug/L	50.0		82.1	5-195		
Surrogate: 4-Bromofluorobenzene-surr			*49.0*	*ug/L*	*50.0*		*97.9*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*50.9*	*ug/L*	*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*50.3*	*ug/L*	*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8-surr			*49.8*	*ug/L*	*50.0*		*99.5*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)										
LCS Dup (BHC2440-BSD1)					Prepared & Analyzed: 03/14/2024					
1,1,1-Trichloroethane	44.5		2.00	ug/L	50.0		89.0	70-130	5.26	36
1,1,2,2-Tetrachloroethane	45.3		3.00	ug/L	50.0		90.6	60-140	5.55	61
1,1,2-Trichloroethane	44.3		2.00	ug/L	50.0		88.5	70-130	2.39	45
1,1-Dichloroethane	44.0		3.00	ug/L	50.0		88.1	70-130	1.92	40
1,1-Dichloroethylene	44.2		3.00	ug/L	50.0		88.5	50-150	4.12	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	43.6		2.00	ug/L	50.0		87.2	70-130	2.81	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	43.9		3.00	ug/L	50.0		87.8	65-135	6.97	57
1,2-Dichloroethane (Ethylene dichloride)	44.7		3.00	ug/L	50.0		89.3	70-130	3.06	49
1,2-Dichloropropane	43.5		3.00	ug/L	50.0		87.1	35-165	4.08	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	43.5		2.00	ug/L	50.0		87.0	70-130	6.91	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	43.4		2.00	ug/L	50.0		86.7	65-135	6.24	57
2-Butanone (Methyl ethyl ketone, MEK)	463		22.0	ug/L	500		92.7	70-130	3.27	30
2-Chloroethyl vinyl ether	43.6		9.00	ug/L	50.0		87.3	0-225	1.62	71
Acrolein (Propenal)	231		17.0	ug/L	250		92.3	60-140	3.92	60
Acrylonitrile	50.2		5.00	ug/L	50.0		100	60-140	7.66	60
Benzene	44.2		2.00	ug/L	50.0		88.4	65-135	4.97	61
Bromodichloromethane	45.4		2.00	ug/L	50.0		90.9	65-135	4.20	56
Bromoform	42.9		2.00	ug/L	50.0		85.8	70-130	0.433	42
Carbon tetrachloride	44.7		1.00	ug/L	50.0		89.3	70-130	4.69	41
Chlorobenzene	43.7		2.00	ug/L	50.0		87.4	65-135	5.85	53
Chlorodibromomethane	45.2		2.00	ug/L	50.0		90.5	70-135	3.49	50
Chloroethane (Ethyl chloride)	42.1		4.00	ug/L	50.0		84.3	40-160	5.23	78
Chloroform	42.0		2.00	ug/L	50.0		84.0	70-135	2.98	54
cis-1,3-Dichloropropene	43.7		2.00	ug/L	50.0		87.5	25-175	2.36	58
Ethylbenzene	43.9		2.00	ug/L	50.0		87.9	60-140	4.90	63
Methyl bromide (Bromomethane)	43.8		4.00	ug/L	50.0		87.5	15-185	6.48	61
Methyl chloride (Chloromethane)	43.4		2.00	ug/L	50.0		86.8	0-205	7.17	60
Methylene chloride (Dichloromethane)	44.4		5.00	ug/L	50.0		88.9	60-140	3.80	28
Tetrachloroethylene (Perchloroethylene)	36.8		2.00	ug/L	50.0		73.5	70-130	3.23	39
Toluene	43.6		10.0	ug/L	50.0		87.3	70-130	3.86	41
Total Trihalomethanes (TTHMs)	176		10.0	ug/L	200		87.8	70-130	2.80	30
trans-1,2-Dichloroethylene	43.9		3.00	ug/L	50.0		87.7	70-130	2.42	45
trans-1,3-Dichloropropylene	43.8		1.00	ug/L	50.0		87.5	50-150	3.13	86
Trichloroethene (Trichloroethylene)	43.7		2.00	ug/L	50.0		87.3	65-135	2.57	48
Vinyl chloride (Chloroethene)	43.5		4.00	ug/L	50.0		86.9	5-195	5.70	66
Surrogate: 4-Bromofluorobenzene-surr			*49.5*	*ug/L*	*50.0*		*99.1*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*51.5*	*ug/L*	*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*49.7*	*ug/L*	*50.0*		*99.3*	*70-130*		
Surrogate: Toluene-d8-surr			*51.0*	*ug/L*	*50.0*		*102*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)										
Matrix Spike (BHC2440-MS1)	**Source: 24C3241-04**				Prepared & Analyzed: 03/14/2024					
1,1,1-Trichloroethane	30.3		2.00	ug/L	50.0	<2.00	60.6	52-162		
1,1,2,2-Tetrachloroethane	29.7		3.00	ug/L	50.0	<3.00	59.4	46-157		
1,1,2-Trichloroethane	29.1		2.00	ug/L	50.0	<2.00	58.2	52-150		
1,1-Dichloroethane	30.7		3.00	ug/L	50.0	<3.00	61.4	59-155		
1,1-Dichloroethylene	30.9		3.00	ug/L	50.0	<3.00	61.8	0-234		
1,2-Dibromoethane (EDB, Ethylene dibromide)	28.2	J1	2.00	ug/L	50.0	<2.00	56.5	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	29.3		3.00	ug/L	50.0	<3.00	58.6	18-190		
1,2-Dichloroethane (Ethylene dichloride)	29.7		3.00	ug/L	50.0	<3.00	59.5	49-155		
1,2-Dichloropropane	29.0		3.00	ug/L	50.0	<3.00	58.1	0-210		
1,3-Dichlorobenzene (m-Dichlorobenzene)	29.3	J1	2.00	ug/L	50.0	<2.00	58.7	59-156		
1,4-Dichlorobenzene (p-Dichlorobenzene)	29.8		2.00	ug/L	50.0	<2.00	59.6	18-190		
2-Butanone (Methyl ethyl ketone, MEK)	302	J1	22.0	ug/L	500	<22.0	60.4	70-130		
2-Chloroethyl vinyl ether	<9.00	U	9.00	ug/L	50.0	<9.00		0-305		
Acrolein (Propenal)	80.0	J1	17.0	ug/L	250	<17.0	32.0	40-160		
Acrylonitrile	30.7		5.00	ug/L	50.0	<5.00	61.3	40-160		
Benzene	29.8		2.00	ug/L	50.0	<2.00	59.7	37-151		
Bromodichloromethane	67.1		2.00	ug/L	50.0	45.3	43.5	35-155		
Bromoform	29.4		2.00	ug/L	50.0	0.747	57.3	45-169		
Carbon tetrachloride	31.4	J1	1.00	ug/L	50.0	<1.00	62.9	70-140		
Chlorobenzene	30.0		2.00	ug/L	50.0	<2.00	60.1	37-160		
Chlorodibromomethane	37.7		2.00	ug/L	50.0	10.2	55.1	53-149		
Chloroethane (Ethyl chloride)	22.4		4.00	ug/L	50.0	<4.00	44.8	14-230		
Chloroform	150	J1, L	2.00	ug/L	50.0	138	24.0	51-138		
cis-1,3-Dichloropropene	29.1		2.00	ug/L	50.0	<2.00	58.2	0-227		
Ethylbenzene	29.8		2.00	ug/L	50.0	<2.00	59.6	37-162		
Methyl bromide (Bromomethane)	24.2		4.00	ug/L	50.0	<4.00	48.3	0-242		
Methyl chloride (Chloromethane)	23.3		2.00	ug/L	50.0	<2.00	46.7	0-273		
Methylene chloride (Dichloromethane)	30.0		5.00	ug/L	50.0	<5.00	60.0	0-221		
Tetrachloroethylene (Perchloroethylene)	22.7	J1	2.00	ug/L	50.0	<2.00	45.4	64-148		
Toluene	31.4		10.0	ug/L	50.0	2.49	57.9	47-150		
Total Trihalomethanes (TTHMs)	284	J1	10.0	ug/L	200	194	45.0	70-130		
trans-1,2-Dichloroethylene	30.0		3.00	ug/L	50.0	<3.00	60.0	54-156		
trans-1,3-Dichloropropylene	29.3		1.00	ug/L	50.0	<1.00	58.5	17-183		
Trichloroethene (Trichloroethylene)	29.7	J1	2.00	ug/L	50.0	<2.00	59.3	70-157		
Vinyl chloride (Chloroethene)	24.0		4.00	ug/L	50.0	<4.00	48.0	0-251		
Surrogate: 4-Bromofluorobenzene-surr			*49.7*	*ug/L*	*50.0*		*99.5*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*52.9*	*ug/L*	*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*50.2*	*ug/L*	*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8-surr			*49.8*	*ug/L*	*50.0*		*99.6*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2440 - EPA 624 (Continued)										
Matrix Spike Dup (BHC2440-MSD1)	**Source: 24C3241-04**				Prepared & Analyzed: 03/14/2024					
1,1,1-Trichloroethane	39.5		2.00	ug/L	50.0	<2.00	79.0	52-162	26.4	36
1,1,2,2-Tetrachloroethane	37.6		3.00	ug/L	50.0	<3.00	75.2	46-157	23.6	61
1,1,2-Trichloroethane	38.0		2.00	ug/L	50.0	<2.00	76.0	52-150	26.5	45
1,1-Dichloroethane	39.1		3.00	ug/L	50.0	<3.00	78.2	59-155	24.0	40
1,1-Dichloroethylene	40.4		3.00	ug/L	50.0	<3.00	80.9	0-234	26.7	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	37.9		2.00	ug/L	50.0	<2.00	75.8	70-130	29.3	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	36.2		3.00	ug/L	50.0	<3.00	72.4	18-190	21.1	57
1,2-Dichloroethane (Ethylene dichloride)	38.0		3.00	ug/L	50.0	<3.00	75.9	49-155	24.3	49
1,2-Dichloropropane	38.4		3.00	ug/L	50.0	<3.00	76.8	0-210	27.8	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	36.2		2.00	ug/L	50.0	<2.00	72.5	59-156	21.0	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	36.3		2.00	ug/L	50.0	<2.00	72.5	18-190	19.6	57
2-Butanone (Methyl ethyl ketone, MEK)	395		22.0	ug/L	500	<22.0	79.1	70-130	26.7	30
2-Chloroethyl vinyl ether	<9.00	U	9.00	ug/L	50.0	<9.00		0-305		71
Acrolein (Propenal)	86.9	J1	17.0	ug/L	250	<17.0	34.8	40-160	8.26	60
Acrylonitrile	40.3		5.00	ug/L	50.0	<5.00	80.6	40-160	27.2	60
Benzene	38.5		2.00	ug/L	50.0	<2.00	77.0	37-151	25.3	61
Bromodichloromethane	72.5		2.00	ug/L	50.0	45.3	54.3	35-155	7.73	56
Bromoform	38.1		2.00	ug/L	50.0	0.747	74.7	45-169	25.8	42
Carbon tetrachloride	40.5		1.00	ug/L	50.0	<1.00	81.0	70-140	25.2	41
Chlorobenzene	37.8		2.00	ug/L	50.0	<2.00	75.6	37-160	22.9	53
Chlorodibromomethane	45.2		2.00	ug/L	50.0	10.2	70.0	53-149	18.0	50
Chloroethane (Ethyl chloride)	23.3		4.00	ug/L	50.0	<4.00	46.6	14-230	3.92	78
Chloroform	155	J1, L	2.00	ug/L	50.0	138	34.5	51-138	3.45	54
cis-1,3-Dichloropropene	38.1		2.00	ug/L	50.0	<2.00	76.2	0-227	26.7	58
Ethylbenzene	38.7		2.00	ug/L	50.0	<2.00	77.3	37-162	25.8	63
Methyl bromide (Bromomethane)	25.1		4.00	ug/L	50.0	<4.00	50.3	0-242	4.02	61
Methyl chloride (Chloromethane)	24.0		2.00	ug/L	50.0	<2.00	47.9	0-273	2.59	60
Methylene chloride (Dichloromethane)	39.7		5.00	ug/L	50.0	<5.00	79.3	0-221	27.8	28
Tetrachloroethylene (Perchloroethylene)	31.8	J1	2.00	ug/L	50.0	<2.00	63.6	64-148	33.4	39
Toluene	39.7		10.0	ug/L	50.0	2.49	74.4	47-150	23.2	41
Total Trihalomethanes (TTHMs)	311	J1	10.0	ug/L	200	194	58.4	70-130	9.02	30
trans-1,2-Dichloroethylene	38.9		3.00	ug/L	50.0	<3.00	77.8	54-156	25.9	45
trans-1,3-Dichloropropylene	37.5		1.00	ug/L	50.0	<1.00	74.9	17-183	24.6	86
Trichloroethene (Trichloroethylene)	38.6		2.00	ug/L	50.0	<2.00	77.1	70-157	26.1	48
Vinyl chloride (Chloroethene)	24.7		4.00	ug/L	50.0	<4.00	49.4	0-251	2.93	66
Surrogate: 4-Bromofluorobenzene-surr			*48.9*	*ug/L*	*50.0*		*97.7*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*50.4*	*ug/L*	*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*50.1*	*ug/L*	*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8-surr			*49.0*	*ug/L*	*50.0*		*98.0*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD0671 - EPA 624										
Blank (BHD0671-BLK1)					Prepared & Analyzed: 04/03/2024					
1,1,1-Trichloroethane	<10.0	U	10.0	ug/L						
1,1,2,2-Tetrachloroethane	<10.0	U	10.0	ug/L						
1,1,2-Trichloroethane	<10.0	U	10.0	ug/L						
1,1-Dichloroethane	<10.0	U	10.0	ug/L						
1,1-Dichloroethylene	<10.0	U	10.0	ug/L						
1,2-Dibromoethane (EDB, Ethylene dibromide)	<10.0	U	10.0	ug/L						
1,2-Dichlorobenzene (o-Dichlorobenzene)	<10.0	U	10.0	ug/L						
1,2-Dichloroethane (Ethylene dichloride)	<10.0	U	10.0	ug/L						
1,2-Dichloropropane	<10.0	U	10.0	ug/L						
1,3-Dichlorobenzene (m-Dichlorobenzene)	<10.0	U	10.0	ug/L						
1,4-Dichlorobenzene (p-Dichlorobenzene)	<10.0	U	10.0	ug/L						
2-Butanone (Methyl ethyl ketone, MEK)	<50.0	U	50.0	ug/L						
2-Chloroethyl vinyl ether	<10.0	U	10.0	ug/L						
Acrolein (Propenal)	<17.0	U	17.0	ug/L						
Acrylonitrile	<50.0	U	50.0	ug/L						
Benzene	<10.0	U	10.0	ug/L						
Bromodichloromethane	<10.0	U	10.0	ug/L						
Bromoform	<10.0	U	10.0	ug/L						
Carbon tetrachloride	<2.00	U	2.00	ug/L						
Chlorobenzene	<10.0	U	10.0	ug/L						
Chlorodibromomethane	<10.0	U	10.0	ug/L						
Chloroethane (Ethyl chloride)	<50.0	U	50.0	ug/L						
Chloroform	<10.0	U	10.0	ug/L						
cis-1,3-Dichloropropene	<10.0	U	10.0	ug/L						
Ethylbenzene	<10.0	U	10.0	ug/L						
Methyl bromide (Bromomethane)	<50.0	U	50.0	ug/L						
Methyl chloride (Chloromethane)	<50.0	U	50.0	ug/L						
Methylene chloride (Dichloromethane)	<20.0	U	20.0	ug/L						
Tetrachloroethylene (Perchloroethylene)	<10.0	U	10.0	ug/L						
Toluene	<10.0	U	10.0	ug/L						
Total Trihalomethanes (TTHMs)	<10.0	U	10.0	ug/L						
trans-1,2-Dichloroethylene	<10.0	U	10.0	ug/L						
trans-1,3-Dichloropropylene	<10.0	U	10.0	ug/L						
Trichloroethene (Trichloroethylene)	<10.0	U	10.0	ug/L						
Vinyl chloride (Chloroethene)	<10.0	U	10.0	ug/L						
Surrogate: 4-Bromofluorobenzene-surr			*49.5*	*ug/L*	*50.0*		*99.1*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*54.0*	*ug/L*	*50.0*		*108*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*53.4*	*ug/L*	*50.0*		*107*	*70-130*		
Surrogate: Toluene-d8-surr			*47.5*	*ug/L*	*50.0*		*95.0*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD0671 - EPA 624 (Continued)										
LCS (BHD0671-BS1)					Prepared & Analyzed: 04/03/2024					
1,1,1-Trichloroethane	40.3		10.0	ug/L	40.0		101	70-130		
1,1,2,2-Tetrachloroethane	36.6		10.0	ug/L	40.0		91.5	60-140		
1,1,2-Trichloroethane	38.7		10.0	ug/L	40.0		96.9	70-130		
1,1-Dichloroethane	37.0		10.0	ug/L	40.0		92.4	70-130		
1,1-Dichloroethylene	35.6		10.0	ug/L	40.0		89.0	50-150		
1,2-Dibromoethane (EDB, Ethylene dibromide)	39.8		10.0	ug/L	40.0		99.4	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	36.2		10.0	ug/L	40.0		90.5	65-135		
1,2-Dichloroethane (Ethylene dichloride)	39.6		10.0	ug/L	40.0		99.0	70-130		
1,2-Dichloropropane	37.6		10.0	ug/L	40.0		93.9	35-165		
1,3-Dichlorobenzene (m-Dichlorobenzene)	35.9		10.0	ug/L	40.0		89.6	70-130		
1,4-Dichlorobenzene (p-Dichlorobenzene)	35.9		10.0	ug/L	40.0		89.7	65-135		
2-Butanone (Methyl ethyl ketone, MEK)	397		50.0	ug/L	400		99.1	70-130		
2-Chloroethyl vinyl ether	38.2		10.0	ug/L	40.0		95.5	0-225		
Acrolein (Propenal)	187		50.0	ug/L	200		93.5	60-140		
Acrylonitrile	36.0	U	50.0	ug/L	40.0		90.1	60-140		
Benzene	37.4		10.0	ug/L	40.0		93.5	65-135		
Bromodichloromethane	31.3		10.0	ug/L	40.0		78.1	65-135		
Bromoform	40.4		10.0	ug/L	40.0		101	70-130		
Carbon tetrachloride	40.8		2.00	ug/L	40.0		102	70-130		
Chlorobenzene	37.4		10.0	ug/L	40.0		93.6	65-135		
Chlorodibromomethane	34.8		10.0	ug/L	40.0		87.0	70-135		
Chloroethane (Ethyl chloride)	35.9	U	50.0	ug/L	40.0		89.7	40-160		
Chloroform	30.0		10.0	ug/L	40.0		75.0	70-135		
cis-1,3-Dichloropropene	37.6		10.0	ug/L	40.0		94.0	25-175		
Ethylbenzene	36.6		10.0	ug/L	40.0		91.5	60-140		
Methyl bromide (Bromomethane)	36.2	U	50.0	ug/L	40.0		90.4	15-185		
Methyl chloride (Chloromethane)	32.6	U	50.0	ug/L	40.0		81.4	0-205		
Methylene chloride (Dichloromethane)	36.6		20.0	ug/L	40.0		91.6	60-140		
Tetrachloroethylene (Perchloroethylene)	45.5		10.0	ug/L	40.0		114	70-130		
Toluene	37.5		10.0	ug/L	40.0		93.8	70-130		
Total Trihalomethanes (TTHMs)	136		10.0	ug/L	160		85.3	70-130		
trans-1,2-Dichloroethylene	36.9		10.0	ug/L	40.0		92.3	70-130		
trans-1,3-Dichloropropylene	39.3		10.0	ug/L	40.0		98.1	50-150		
Trichloroethene (Trichloroethylene)	38.1		10.0	ug/L	40.0		95.3	65-135		
Vinyl chloride (Chloroethene)	33.7		10.0	ug/L	40.0		84.2	5-195		
Surrogate: 4-Bromofluorobenzene-surr			*47.7*	*ug/L*	*50.0*		*95.4*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*52.8*	*ug/L*	*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*51.3*	*ug/L*	*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8-surr			*50.5*	*ug/L*	*50.0*		*101*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD0671 - EPA 624 (Continued)										
LCS Dup (BHD0671-BSD1)					Prepared & Analyzed: 04/03/2024					
1,1,1-Trichloroethane	40.5		10.0	ug/L	40.0		101	70-130	0.484	36
1,1,2,2-Tetrachloroethane	38.1		10.0	ug/L	40.0		95.2	60-140	4.00	61
1,1,2-Trichloroethane	40.1		10.0	ug/L	40.0		100	70-130	3.45	45
1,1-Dichloroethane	37.4		10.0	ug/L	40.0		93.5	70-130	1.21	40
1,1-Dichloroethylene	36.8		10.0	ug/L	40.0		91.9	50-150	3.25	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	40.4		10.0	ug/L	40.0		101	70-130	1.73	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	37.2		10.0	ug/L	40.0		93.1	65-135	2.89	57
1,2-Dichloroethane (Ethylene dichloride)	39.9		10.0	ug/L	40.0		99.6	70-130	0.656	49
1,2-Dichloropropane	37.9		10.0	ug/L	40.0		94.8	35-165	0.974	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	37.8		10.0	ug/L	40.0		94.5	70-130	5.24	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	37.5		10.0	ug/L	40.0		93.8	65-135	4.47	57
2-Butanone (Methyl ethyl ketone, MEK)	400		50.0	ug/L	400		99.9	70-130	0.806	30
2-Chloroethyl vinyl ether	40.9		10.0	ug/L	40.0		102	0-225	6.68	71
Acrolein (Propenal)	191		50.0	ug/L	200		95.4	60-140	2.01	60
Acrylonitrile	39.8	U	50.0	ug/L	40.0		99.6	60-140	10.1	60
Benzene	38.4		10.0	ug/L	40.0		96.0	65-135	2.62	61
Bromodichloromethane	32.3		10.0	ug/L	40.0		80.8	65-135	3.34	56
Bromoform	39.6		10.0	ug/L	40.0		99.1	70-130	1.80	42
Carbon tetrachloride	41.2		2.00	ug/L	40.0		103	70-130	1.03	41
Chlorobenzene	38.8		10.0	ug/L	40.0		97.0	65-135	3.60	53
Chlorodibromomethane	35.8		10.0	ug/L	40.0		89.6	70-135	2.93	50
Chloroethane (Ethyl chloride)	38.3	U	50.0	ug/L	40.0		95.7	40-160	6.53	78
Chloroform	32.4		10.0	ug/L	40.0		80.9	70-135	7.58	54
cis-1,3-Dichloropropene	39.0		10.0	ug/L	40.0		97.5	25-175	3.68	58
Ethylbenzene	37.6		10.0	ug/L	40.0		93.9	60-140	2.56	63
Methyl bromide (Bromomethane)	39.1	U	50.0	ug/L	40.0		97.7	15-185	7.74	61
Methyl chloride (Chloromethane)	35.5	U	50.0	ug/L	40.0		88.7	0-205	8.55	60
Methylene chloride (Dichloromethane)	36.7		20.0	ug/L	40.0		91.7	60-140	0.0801	28
Tetrachloroethylene (Perchloroethylene)	44.6		10.0	ug/L	40.0		112	70-130	1.86	39
Toluene	38.2		10.0	ug/L	40.0		95.4	70-130	1.67	41
Total Trihalomethanes (TTHMs)	140		10.0	ug/L	160		87.6	70-130	2.71	30
trans-1,2-Dichloroethylene	38.1		10.0	ug/L	40.0		95.2	70-130	3.12	45
trans-1,3-Dichloropropylene	38.7		10.0	ug/L	40.0		96.7	50-150	1.49	86
Trichloroethene (Trichloroethylene)	39.7		10.0	ug/L	40.0		99.3	65-135	4.16	48
Vinyl chloride (Chloroethene)	36.6		10.0	ug/L	40.0		91.6	5-195	8.42	66
Surrogate: 4-Bromofluorobenzene-surr			*48.8*	*ug/L*	*50.0*		*97.6*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*51.3*	*ug/L*	*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*50.1*	*ug/L*	*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8-surr			*49.4*	*ug/L*	*50.0*		*98.8*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD0671 - EPA 624 (Continued)										
Matrix Spike (BHD0671-MS1)	**Source: 24D0095-02**				Prepared & Analyzed: 04/03/2024					
1,1,1-Trichloroethane	27.0		10.0	ug/L	50.0	<10.0	54.0	52-162		
1,1,2,2-Tetrachloroethane	22.6	J1	10.0	ug/L	50.0	<10.0	45.2	46-157		
1,1,2-Trichloroethane	22.7	J1	10.0	ug/L	50.0	<10.0	45.3	52-150		
1,1-Dichloroethane	23.3	J1	10.0	ug/L	50.0	<10.0	46.6	59-155		
1,1-Dichloroethylene	23.2		10.0	ug/L	50.0	<10.0	46.5	0-234		
1,2-Dibromoethane (EDB, Ethylene dibromide)	24.0	J1	10.0	ug/L	50.0	<10.0	48.0	70-130		
1,2-Dichlorobenzene (o-Dichlorobenzene)	23.3		10.0	ug/L	50.0	<10.0	46.6	18-190		
1,2-Dichloroethane (Ethylene dichloride)	23.6	J1	10.0	ug/L	50.0	<10.0	47.1	49-155		
1,2-Dichloropropane	21.2		10.0	ug/L	50.0	<10.0	42.4	0-210		
1,3-Dichlorobenzene (m-Dichlorobenzene)	22.8	J1	10.0	ug/L	50.0	<10.0	45.6	59-156		
1,4-Dichlorobenzene (p-Dichlorobenzene)	23.2		10.0	ug/L	50.0	<10.0	46.5	18-190		
2-Butanone (Methyl ethyl ketone, MEK)	209	J1	50.0	ug/L	500	<50.0	41.9	70-130		
2-Chloroethyl vinyl ether	<10.0	U	10.0	ug/L	50.0	<10.0		0-305		
Acrolein (Propenal)	57.3	J1	50.0	ug/L	250	<50.0	22.9	40-160		
Acrylonitrile	24.5	U	50.0	ug/L	50.0	<50.0	49.1	40-160		
Benzene	24.4		10.0	ug/L	50.0	<10.0	48.7	37-151		
Bromodichloromethane	27.6		10.0	ug/L	50.0	<10.0	55.2	35-155		
Bromoform	321	J1	10.0	ug/L	50.0	24.0	594	45-169		
Carbon tetrachloride	26.0	J1	2.00	ug/L	50.0	<2.00	52.0	70-140		
Chlorobenzene	23.8		10.0	ug/L	50.0	<10.0	47.6	37-160		
Chlorodibromomethane	76.5		10.0	ug/L	50.0	2.11	149	53-149		
Chloroethane (Ethyl chloride)	12.9	U	50.0	ug/L	50.0	<50.0	25.9	14-230		
Chloroform	9.17	J1, U	10.0	ug/L	50.0	<10.0	18.3	51-138		
cis-1,3-Dichloropropene	23.3		10.0	ug/L	50.0	<10.0	46.6	0-227		
Ethylbenzene	22.5		10.0	ug/L	50.0	<10.0	45.0	37-162		
Methyl bromide (Bromomethane)	23.4	U	50.0	ug/L	50.0	<50.0	46.9	0-242		
Methyl chloride (Chloromethane)	22.5	U	50.0	ug/L	50.0	<50.0	45.1	0-273		
Methylene chloride (Dichloromethane)	20.7		20.0	ug/L	50.0	<20.0	41.4	0-221		
Tetrachloroethylene (Perchloroethylene)	24.7	J1	10.0	ug/L	50.0	<10.0	49.4	64-148		
Toluene	24.5		10.0	ug/L	50.0	<10.0	48.9	47-150		
Total Trihalomethanes (TTHMs)	434	J1	10.0	ug/L	200	26.1	204	70-130		
trans-1,2-Dichloroethylene	24.3	J1	10.0	ug/L	50.0	<10.0	48.5	54-156		
trans-1,3-Dichloropropylene	25.0		10.0	ug/L	50.0	<10.0	50.1	17-183		
Trichloroethene (Trichloroethylene)	25.8	J1	10.0	ug/L	50.0	<10.0	51.6	70-157		
Vinyl chloride (Chloroethene)	20.7		10.0	ug/L	50.0	<10.0	41.5	0-251		
Surrogate: 4-Bromofluorobenzene-surr			*46.7*	*ug/L*	*50.0*		*93.4*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*49.8*	*ug/L*	*50.0*		*99.7*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*50.9*	*ug/L*	*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8-surr			*49.8*	*ug/L*	*50.0*		*99.5*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Volatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD0671 - EPA 624 (Continued)										
Matrix Spike Dup (BHD0671-MSD1)	**Source: 24D0095-02**				Prepared & Analyzed: 04/03/2024					
1,1,1-Trichloroethane	18.7	J1	10.0	ug/L	50.0	<10.0	37.3	52-162	36.6	36
1,1,2,2-Tetrachloroethane	17.4	J1	10.0	ug/L	50.0	<10.0	34.9	46-157	25.8	61
1,1,2-Trichloroethane	17.1	J1	10.0	ug/L	50.0	<10.0	34.2	52-150	27.9	45
1,1-Dichloroethane	16.6	J1	10.0	ug/L	50.0	<10.0	33.3	59-155	33.3	40
1,1-Dichloroethylene	16.3	J1	10.0	ug/L	50.0	<10.0	32.7	0-234	34.8	32
1,2-Dibromoethane (EDB, Ethylene dibromide)	18.2	J1	10.0	ug/L	50.0	<10.0	36.4	70-130	27.6	30
1,2-Dichlorobenzene (o-Dichlorobenzene)	17.3		10.0	ug/L	50.0	<10.0	34.6	18-190	29.5	57
1,2-Dichloroethane (Ethylene dichloride)	17.7	J1	10.0	ug/L	50.0	<10.0	35.4	49-155	28.5	49
1,2-Dichloropropane	16.2		10.0	ug/L	50.0	<10.0	32.3	0-210	27.1	55
1,3-Dichlorobenzene (m-Dichlorobenzene)	16.0	J1	10.0	ug/L	50.0	<10.0	31.9	59-156	35.3	43
1,4-Dichlorobenzene (p-Dichlorobenzene)	17.3		10.0	ug/L	50.0	<10.0	34.6	18-190	29.3	57
2-Butanone (Methyl ethyl ketone, MEK)	159	J1	50.0	ug/L	500	<50.0	31.8	70-130	27.2	30
2-Chloroethyl vinyl ether	<10.0	U	10.0	ug/L	50.0	<10.0		0-305		71
Acrolein (Propenal)	98.2	J1	50.0	ug/L	250	<50.0	39.3	40-160	52.7	60
Acrylonitrile	20.4	U	50.0	ug/L	50.0	<50.0	40.7	40-160	18.6	60
Benzene	17.7	J1	10.0	ug/L	50.0	<10.0	35.5	37-151	31.5	61
Bromodichloromethane	20.8		10.0	ug/L	50.0	<10.0	41.7	35-155	27.9	56
Bromoform	323	J1	10.0	ug/L	50.0	24.0	598	45-169	0.642	42
Carbon tetrachloride	17.0	J1	2.00	ug/L	50.0	<2.00	34.0	70-140	41.7	41
Chlorobenzene	17.2	J1	10.0	ug/L	50.0	<10.0	34.4	37-160	32.1	53
Chlorodibromomethane	68.5		10.0	ug/L	50.0	2.11	133	53-149	10.9	50
Chloroethane (Ethyl chloride)	25.4	U	50.0	ug/L	50.0	<50.0	50.8	14-230	65.0	78
Chloroform	1.60	J1, U	10.0	ug/L	50.0	<10.0	3.20	51-138	141	54
cis-1,3-Dichloropropene	16.7		10.0	ug/L	50.0	<10.0	33.5	0-227	32.7	58
Ethylbenzene	16.6	J1	10.0	ug/L	50.0	<10.0	33.2	37-162	30.2	63
Methyl bromide (Bromomethane)	34.6	U	50.0	ug/L	50.0	<50.0	69.2	0-242	38.5	61
Methyl chloride (Chloromethane)	38.0	U	50.0	ug/L	50.0	<50.0	76.0	0-273	51.0	60
Methylene chloride (Dichloromethane)	15.6	U	20.0	ug/L	50.0	<20.0	31.3	0-221	27.9	28
Tetrachloroethylene (Perchloroethylene)	16.5	J1	10.0	ug/L	50.0	<10.0	33.1	64-148	39.6	39
Toluene	17.0	J1	10.0	ug/L	50.0	<10.0	34.0	47-150	35.9	41
Total Trihalomethanes (TTHMs)	414	J1	10.0	ug/L	200	26.1	194	70-130	4.76	30
trans-1,2-Dichloroethylene	16.7	J1	10.0	ug/L	50.0	<10.0	33.4	54-156	37.0	45
trans-1,3-Dichloropropylene	19.0		10.0	ug/L	50.0	<10.0	38.0	17-183	27.3	86
Trichloroethene (Trichloroethylene)	18.0	J1	10.0	ug/L	50.0	<10.0	36.0	70-157	35.4	48
Vinyl chloride (Chloroethene)	37.0		10.0	ug/L	50.0	<10.0	74.1	0-251	56.5	66
Surrogate: 4-Bromofluorobenzene-surr			*46.2*	*ug/L*	*50.0*		*92.5*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4-surr			*48.5*	*ug/L*	*50.0*		*97.0*	*70-130*		
Surrogate: Dibromofluoromethane-surr			*48.9*	*ug/L*	*50.0*		*97.7*	*70-130*		
Surrogate: Toluene-d8-surr			*49.1*	*ug/L*	*50.0*		*98.2*	*70-130*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE										
Blank (BHC3129-BLK1)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
1,2,4,5-Tetrachlorobenzene	<10.0	U	10.0	ug/L						
1,2,4-Trichlorobenzene	<10.0	U	10.0	ug/L						
1,2-Diphenylhydrazine	<20.0	U	20.0	ug/L						
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	<10.0	U	10.0	ug/L						
2,4,5-Trichlorophenol	<10.0	U	10.0	ug/L						
2,4,6-Trichlorophenol	<10.0	U	10.0	ug/L						
2,4-Dichlorophenol	<10.0	U	10.0	ug/L						
2,4-Dimethylphenol	<10.0	U	10.0	ug/L						
2,4-Dinitrophenol	<50.0	U	50.0	ug/L						
2,4-Dinitrotoluene (2,4-DNT)	<10.0	U	10.0	ug/L						
2,6-Dinitrotoluene (2,6-DNT)	<10.0	U	10.0	ug/L						
2-Chloronaphthalene	<10.0	U	10.0	ug/L						
2-Chlorophenol	<10.0	U	10.0	ug/L						
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	<50.0	U	50.0	ug/L						
2-Nitrophenol	<20.0	U	20.0	ug/L						
3,4-Methylphenol	<10.0	U	10.0	ug/L						
4-Bromophenyl phenyl ether (BDE-3)	<10.0	U	10.0	ug/L						
4-Chloro-3-methylphenol	<10.0	U	10.0	ug/L						
4-Chlorophenyl phenylether	<10.0	U	10.0	ug/L						
4-Nitrophenol	<50.0	U	50.0	ug/L						
Acenaphthene	<10.0	U	10.0	ug/L						
Acenaphthylene	<10.0	U	10.0	ug/L						
Anthracene	<10.0	U	10.0	ug/L						
Benzo(a)anthracene	<5.00	U	5.00	ug/L						
Benzo(a)pyrene	<5.00	U	5.00	ug/L						
Benzo(b)fluoranthene	<5.00	U	5.00	ug/L						
Benzo(g,h,i)perylene	<20.0	U	20.0	ug/L						
Benzo(k)fluoranthene	<5.00	U	5.00	ug/L						
bis(2-Chloroethoxy)methane	<10.0	U	10.0	ug/L						
bis(2-Chloroethyl) ether	<10.0	U	10.0	ug/L						
Bis(2-ethylhexyl)phthalate	<10.0	U	10.0	ug/L						
Butyl benzyl phthalate	<10.0	U	10.0	ug/L						
Chrysene	<5.00	U	5.00	ug/L						
Dibenzo(a,h)anthracene	<5.00	U	5.00	ug/L						
Diethyl phthalate	<10.0	U	10.0	ug/L						
Dimethyl phthalate	<10.0	U	10.0	ug/L						
Di-n-butyl phthalate	<10.0	U	10.0	ug/L						
Di-n-octyl phthalate	<10.0	U	10.0	ug/L						
Fluoranthene	<10.0	U	10.0	ug/L						
Fluorene	<10.0	U	10.0	ug/L						
Hexachlorobenzene	<5.00	U	5.00	ug/L						
Hexachlorobutadiene	<10.0	U	10.0	ug/L						
Hexachlorocyclopentadiene	<10.0	U	10.0	ug/L						
Hexachloroethane	<20.0	U	20.0	ug/L						
Hexachlorophene	<10.0	U	10.0	ug/L						
Indeno(1,2,3-cd) pyrene	<5.00	U	5.00	ug/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
Blank (BHC3129-BLK1)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
Isophorone	<10.0	U	10.0	ug/L						
Naphthalene	<10.0	U	10.0	ug/L						
Nitrobenzene	<10.0	U	10.0	ug/L						
n-Nitrosodiethylamine	<20.0	U	20.0	ug/L						
n-Nitrosodimethylamine	<50.0	U	50.0	ug/L						
n-Nitroso-di-n-butylamine	<20.0	U	20.0	ug/L						
n-Nitrosodi-n-propylamine	<20.0	U	20.0	ug/L						
n-Nitrosodiphenylamine	<20.0	U	20.0	ug/L						
Pentachlorobenzene	<20.0	U	20.0	ug/L						
Pentachlorophenol	<5.00	U	5.00	ug/L						
Phenanthrene	<10.0	U	10.0	ug/L						
Phenol, Total	<10.0	U	10.0	ug/L						
Pyrene	<10.0	U	10.0	ug/L						
Pyridine	<20.0	U	20.0	ug/L						
Blank (BHC3129-BLK2)					Prepared: 03/20/2024 Analyzed: 04/10/2024					
3,3'-Dichlorobenzidine	<5.00	U	5.00	ug/L						
Benzidine	<50.0	U	50.0	ug/L						
BENZ LCS (BHC3129-BS1)					Prepared: 03/20/2024 Analyzed: 04/10/2024					
3,3'-Dichlorobenzidine	31.5		5.00	ug/L	50.0		63.0	0-262		
Benzidine	<50.0	U	50.0	ug/L	50.0			0-131		
Surrogate: 2,4,6-Tribromophenol-surr			*4.38*	*ug/L*	*4.00*		*110*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.40*	*ug/L*	*2.00*		*69.8*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr			*2.78*	*ug/L*	*4.00*		*69.6*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*1.94*	*ug/L*	*2.00*		*97.2*	*31.2-136*		
Surrogate: Phenol-d5-surr			*3.44*	*ug/L*	*4.00*		*85.9*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.59*	*ug/L*	*2.00*		*79.5*	*37.6-117*		

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

NWDLS
North Water District Laboratory Services, Inc.

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
LCS (BHC3129-BS2)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
1,2,4,5-Tetrachlorobenzene	1.42	U	10.0	ug/L	2.00		71.1	60-140		
1,2,4-Trichlorobenzene	1.39	U	10.0	ug/L	2.00		69.7	44-142		
1,2-Diphenylhydrazine	1.61	U	20.0	ug/L	2.00		80.7	60-140		
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.55	U	10.0	ug/L	2.00		77.6	60-140		
2,4,5-Trichlorophenol	3.34	U	10.0	ug/L	4.00		83.6	60-140		
2,4,6-Trichlorophenol	3.08	U	10.0	ug/L	4.00		77.0	37-144		
2,4-Dichlorophenol	3.58	U	10.0	ug/L	4.00		89.5	39-135		
2,4-Dimethylphenol	4.22	U	10.0	ug/L	4.00		105	32-120		
2,4-Dinitrophenol	9.69	U	50.0	ug/L	10.0		96.9	0-191		
2,4-Dinitrotoluene (2,4-DNT)	1.60	U	10.0	ug/L	2.00		80.2	39-139		
2,6-Dinitrotoluene (2,6-DNT)	1.66	U	10.0	ug/L	2.00		83.2	50-158		
2-Chloronaphthalene	1.60	U	10.0	ug/L	2.00		79.9	60-120		
2-Chlorophenol	3.41	U	10.0	ug/L	4.00		85.3	23-134		
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	3.77	U	50.0	ug/L	4.00		94.3	0-181		
2-Nitrophenol	3.67	U	20.0	ug/L	4.00		91.6	29-182		
3,4-Methylphenol	6.07	U	10.0	ug/L	8.00		75.8	60-140		
4-Bromophenyl phenyl ether (BDE-3)	1.47	U	10.0	ug/L	2.00		73.6	53-127		
4-Chloro-3-methylphenol	3.67	U	10.0	ug/L	4.00		91.8	22-147		
4-Chlorophenyl phenylether	1.41	U	10.0	ug/L	2.00		70.4	25-158		
4-Nitrophenol	7.46	U	50.0	ug/L	10.0		74.6	0-132		
Acenaphthene	1.52	U	10.0	ug/L	2.00		76.1	47-145		
Acenaphthylene	1.47	U	10.0	ug/L	2.00		73.7	33-145		
Anthracene	1.51	U	10.0	ug/L	2.00		75.3	27-133		
Benzo(a)anthracene	1.52	U	5.00	ug/L	2.00		76.1	33-143		
Benzo(a)pyrene	1.46	U	5.00	ug/L	2.00		73.0	17-163		
Benzo(b)fluoranthene	1.53	U	5.00	ug/L	2.00		76.5	24-159		
Benzo(g,h,i)perylene	1.63	U	20.0	ug/L	2.00		81.5	0-219		
Benzo(k)fluoranthene	1.58	U	5.00	ug/L	2.00		78.9	11-162		
bis(2-Chloroethoxy)methane	1.76	U	10.0	ug/L	2.00		87.9	33-184		
bis(2-Chloroethyl) ether	1.61	U	10.0	ug/L	2.00		80.7	12-158		
Bis(2-ethylhexyl)phthalate	1.83	U	10.0	ug/L	2.00		91.6	8-158		
Butyl benzyl phthalate	1.72	U	10.0	ug/L	2.00		86.1	0-152		
Chrysene	1.25	U	5.00	ug/L	2.00		62.7	17-168		
Dibenzo(a,h)anthracene	1.43	U	5.00	ug/L	2.00		71.7	0-227		
Diethyl phthalate	2.00	U	10.0	ug/L	2.00		100	0-120		
Dimethyl phthalate	1.80	U	10.0	ug/L	2.00		89.9	0-120		
Di-n-butyl phthalate	2.26	U	10.0	ug/L	2.00		113	1-120		
Di-n-octyl phthalate	1.76	U	10.0	ug/L	2.00		87.8	4-146		
Fluoranthene	1.49	U	10.0	ug/L	2.00		74.5	26-137		
Fluorene	1.51	U	10.0	ug/L	2.00		75.4	59-121		
Hexachlorobenzene	1.44	U	5.00	ug/L	2.00		72.2	0-152		
Hexachlorobutadiene	1.17	U	10.0	ug/L	2.00		58.4	24-120		
Hexachlorocyclopentadiene	1.70	U	10.0	ug/L	2.00		84.8	60-140		
Hexachloroethane	1.24	U	20.0	ug/L	2.00		61.8	40-120		
Hexachlorophene	4.37	U	10.0	ug/L	4.00		109	60-140		
Indeno(1,2,3-cd) pyrene	1.49	U	5.00	ug/L	2.00		74.6	0-171		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
LCS (BHC3129-BS2)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
Isophorone	1.58	U	10.0	ug/L	2.00		79.1	21-196		
Naphthalene	1.47	U	10.0	ug/L	2.00		73.5	21-133		
Nitrobenzene	1.73	U	10.0	ug/L	2.00		86.7	35-180		
n-Nitrosodiethylamine	1.31	U	20.0	ug/L	2.00		65.6	60-140		
n-Nitrosodimethylamine	1.89	U	50.0	ug/L	10.0		18.9	4.18-37.2		
n-Nitroso-di-n-butylamine	<20.0	U	20.0	ug/L	2.00			60-140		
n-Nitrosodi-n-propylamine	1.62	U	20.0	ug/L	2.00		80.9	0-230		
n-Nitrosodiphenylamine	0.660	J1, U	20.0	ug/L	2.00		33.0	60-140		
Pentachlorobenzene	1.26	U	20.0	ug/L	2.00		62.9	60-140		
Pentachlorophenol	3.82	U	5.00	ug/L	4.00		95.4	14-176		
Phenanthrene	1.51	U	10.0	ug/L	2.00		75.5	54-120		
Phenol, Total	3.83	U	10.0	ug/L	4.00		95.7	5-120		
Pyrene	1.51	U	10.0	ug/L	2.00		75.7	52-120		
Pyridine	<20.0	J1, U	20.0	ug/L	10.0			0-137		
Surrogate: 2,4,6-Tribromophenol-surr			*3.24*	*ug/L*	*4.00*		*80.9*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.56*	*ug/L*	*2.00*		*78.2*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr			*3.08*	*ug/L*	*4.00*		*77.1*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*1.71*	*ug/L*	*2.00*		*85.7*	*31.2-136*		
Surrogate: Phenol-d5-surr			*3.46*	*ug/L*	*4.00*		*86.5*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.51*	*ug/L*	*2.00*		*75.3*	*37.6-117*		
BENZ LCSD (BHC3129-BSD1)					Prepared: 03/20/2024 Analyzed: 04/10/2024					
3,3'-Dichlorobenzidine	28.4		5.00	ug/L	50.0		56.7	0-262	10.4	108
Benzidine	<50.0	J1, U	50.0	ug/L	50.0			0-131	200	40
Surrogate: 2,4,6-Tribromophenol-surr			*4.80*	*ug/L*	*4.00*		*120*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.47*	*ug/L*	*2.00*		*73.6*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr			*2.89*	*ug/L*	*4.00*		*72.3*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*2.15*	*ug/L*	*2.00*		*108*	*31.2-136*		
Surrogate: Phenol-d5-surr			*3.63*	*ug/L*	*4.00*		*90.7*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.50*	*ug/L*	*2.00*		*75.1*	*37.6-117*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
LCS Dup (BHC3129-BSD2)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
1,2,4,5-Tetrachlorobenzene	1.47	U	10.0	ug/L	2.00		73.7	60-140	3.60	40
1,2,4-Trichlorobenzene	1.36	U	10.0	ug/L	2.00		67.9	44-142	2.53	50
1,2-Diphenylhydrazine	1.39	U	20.0	ug/L	2.00		69.6	60-140	14.6	40
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.45	U	10.0	ug/L	2.00		72.4	60-140	6.89	40
2,4,5-Trichlorophenol	3.15	U	10.0	ug/L	4.00		78.7	60-140	6.03	40
2,4,6-Trichlorophenol	2.90	U	10.0	ug/L	4.00		72.4	37-144	6.11	58
2,4-Dichlorophenol	3.41	U	10.0	ug/L	4.00		85.4	39-135	4.70	50
2,4-Dimethylphenol	3.86	U	10.0	ug/L	4.00		96.4	32-120	8.95	58
2,4-Dinitrophenol	9.09	U	50.0	ug/L	10.0		90.9	0-191	6.43	132
2,4-Dinitrotoluene (2,4-DNT)	1.52	U	10.0	ug/L	2.00		75.9	39-139	5.59	42
2,6-Dinitrotoluene (2,6-DNT)	1.56	U	10.0	ug/L	2.00		77.8	50-158	6.70	48
2-Chloronaphthalene	1.54	U	10.0	ug/L	2.00		76.9	60-120	3.79	24
2-Chlorophenol	3.24	U	10.0	ug/L	4.00		81.1	23-134	5.12	61
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	3.52	U	50.0	ug/L	4.00		88.0	0-181	6.86	203
2-Nitrophenol	3.53	U	20.0	ug/L	4.00		88.4	29-182	3.64	55
3,4-Methylphenol	5.47	U	10.0	ug/L	8.00		68.3	60-140	10.4	40
4-Bromophenyl phenyl ether (BDE-3)	1.39	U	10.0	ug/L	2.00		69.4	53-127	5.85	43
4-Chloro-3-methylphenol	3.54	U	10.0	ug/L	4.00		88.5	22-147	3.68	73
4-Chlorophenyl phenylether	1.32	U	10.0	ug/L	2.00		66.2	25-158	6.17	61
4-Nitrophenol	6.95	U	50.0	ug/L	10.0		69.5	0-132	7.04	131
Acenaphthene	1.37	U	10.0	ug/L	2.00		68.3	47-145	10.8	48
Acenaphthylene	1.06	U	10.0	ug/L	2.00		53.1	33-145	32.4	74
Anthracene	1.19	U	10.0	ug/L	2.00		59.5	27-133	23.5	66
Benzo(a)anthracene	1.35	U	5.00	ug/L	2.00		67.4	33-143	12.1	53
Benzo(a)pyrene	0.162	J1, U	5.00	ug/L	2.00		8.09	17-163	160	72
Benzo(b)fluoranthene	1.43	U	5.00	ug/L	2.00		71.7	24-159	6.47	71
Benzo(g,h,i)perylene	1.23	U	20.0	ug/L	2.00		61.6	0-219	27.8	97
Benzo(k)fluoranthene	1.49	U	5.00	ug/L	2.00		74.7	11-162	5.47	63
bis(2-Chloroethoxy)methane	1.64	U	10.0	ug/L	2.00		82.2	33-184	6.66	54
bis(2-Chloroethyl) ether	1.53	U	10.0	ug/L	2.00		76.7	12-158	5.07	108
Bis(2-ethylhexyl)phthalate	1.85	U	10.0	ug/L	2.00		92.5	8-158	0.913	82
Butyl benzyl phthalate	1.69	U	10.0	ug/L	2.00		84.6	0-152	1.83	60
Chrysene	1.19	U	5.00	ug/L	2.00		59.6	17-168	5.19	87
Dibenzo(a,h)anthracene	1.43	U	5.00	ug/L	2.00		71.6	0-227	0.0781	126
Diethyl phthalate	1.83	U	10.0	ug/L	2.00		91.6	0-120	8.89	100
Dimethyl phthalate	1.65	U	10.0	ug/L	2.00		82.4	0-120	8.66	183
Di-n-butyl phthalate	2.13	U	10.0	ug/L	2.00		106	1-120	6.08	47
Di-n-octyl phthalate	1.72	U	10.0	ug/L	2.00		86.2	4-146	1.82	69
Fluoranthene	1.41	U	10.0	ug/L	2.00		70.7	26-137	5.25	66
Fluorene	1.41	U	10.0	ug/L	2.00		70.3	59-121	7.05	38
Hexachlorobenzene	1.36	U	5.00	ug/L	2.00		67.9	0-152	6.13	55
Hexachlorobutadiene	1.16	U	10.0	ug/L	2.00		58.1	24-120	0.422	62
Hexachlorocyclopentadiene	1.66	U	10.0	ug/L	2.00		83.0	60-140	2.12	40
Hexachloroethane	1.19	U	20.0	ug/L	2.00		59.7	40-120	3.50	52
Hexachlorophene	4.59	U	10.0	ug/L	4.00		115	60-140	4.92	40
Indeno(1,2,3-cd) pyrene	1.37	U	5.00	ug/L	2.00		68.7	0-171	8.28	99

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

NWDLS
North Water District Laboratory Services, Inc.

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
LCS Dup (BHC3129-BSD2)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
Isophorone	1.50	U	10.0	ug/L	2.00		74.9	21-196	5.47	93
Naphthalene	1.40	U	10.0	ug/L	2.00		69.9	21-133	5.08	65
Nitrobenzene	1.65	U	10.0	ug/L	2.00		82.4	35-180	5.09	62
n-Nitrosodiethylamine	1.30	U	20.0	ug/L	2.00		64.8	60-140	1.24	40
n-Nitrosodimethylamine	1.52	U	50.0	ug/L	10.0		15.2	4.18-37.2	21.8	40
n-Nitroso-di-n-butylamine	<20.0	U	20.0	ug/L	2.00			60-140	200	40
n-Nitrosodi-n-propylamine	1.52	U	20.0	ug/L	2.00		76.1	0-230	6.09	87
n-Nitrosodiphenylamine	0.118	J1, U	20.0	ug/L	2.00		5.89	60-140	139	40
Pentachlorobenzene	1.26	U	20.0	ug/L	2.00		63.0	60-140	0.101	40
Pentachlorophenol	3.65	U	5.00	ug/L	4.00		91.2	14-176	4.49	86
Phenanthrene	1.42	U	10.0	ug/L	2.00		71.2	54-120	5.77	39
Phenol, Total	3.33	U	10.0	ug/L	4.00		83.3	5-120	13.8	64
Pyrene	1.33	U	10.0	ug/L	2.00		66.7	52-120	12.7	49
Pyridine	<20.0	J1, U	20.0	ug/L	10.0			0-137	200	40
Surrogate: 2,4,6-Tribromophenol-surr			*2.96*	*ug/L*	*4.00*		*74.1*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.42*	*ug/L*	*2.00*		*71.0*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr			*2.84*	*ug/L*	*4.00*		*71.1*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*1.55*	*ug/L*	*2.00*		*77.6*	*31.2-136*		
Surrogate: Phenol-d5-surr			*3.08*	*ug/L*	*4.00*		*77.0*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.41*	*ug/L*	*2.00*		*70.3*	*37.6-117*		
Matrix Spike (BHC3129-MS1)			**Source: 24C3241-02**		Prepared: 03/20/2024 Analyzed: 03/26/2024					
1,2,4,5-Tetrachlorobenzene	1.73	U	10.0	ug/L	2.00	<10.0	86.4	60-140		
1,2,4-Trichlorobenzene	1.58	U	10.0	ug/L	2.00	0.103	73.8	44-142		
1,2-Diphenylhydrazine	1.34	U	20.0	ug/L	2.00	<20.0	66.9	60-140		
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.65	J1, U	10.0	ug/L	2.00	0.649	50.2	60-140		
2,4,5-Trichlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		60-140		
2,4,6-Trichlorophenol	3.23	U	10.0	ug/L	4.00	0.442	69.6	37-144		
2,4-Dichlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		39-135		
2,4-Dimethylphenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		32-120		
2,4-Dinitrophenol	<50.0	U	50.0	ug/L	10.0	<50.0		0-191		
2,4-Dinitrotoluene (2,4-DNT)	1.61	U	10.0	ug/L	2.00	<10.0	80.7	39-139		
2,6-Dinitrotoluene (2,6-DNT)	1.75	U	10.0	ug/L	2.00	<10.0	87.5	50-158		
2-Chloronaphthalene	1.61	U	10.0	ug/L	2.00	<10.0	80.7	60-120		
2-Chlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		23-134		
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	3.50	U	50.0	ug/L	4.00	<50.0	87.5	0-181		
2-Nitrophenol	<20.0	J1, U	20.0	ug/L	4.00	<20.0		29-182		
3,4-Methylphenol	<10.0	J1, U	10.0	ug/L	8.00	<10.0		60-140		
4-Bromophenyl phenyl ether (BDE-3)	1.46	U	10.0	ug/L	2.00	<10.0	73.2	53-127		
4-Chloro-3-methylphenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		22-147		
4-Chlorophenyl phenylether	1.35	U	10.0	ug/L	2.00	<10.0	67.7	25-158		
4-Nitrophenol	<50.0	U	50.0	ug/L	10.0	<50.0		0-132		
Acenaphthene	0.206	J1, U	10.0	ug/L	2.00	<10.0	10.3	47-145		
Acenaphthylene	0.0738	J1, U	10.0	ug/L	2.00	<10.0	3.69	33-145		
Anthracene	0.323	J1, U	10.0	ug/L	2.00	<10.0	16.1	27-133		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
Matrix Spike (BHC3129-MS1)	**Source: 24C3241-02**				Prepared: 03/20/2024 Analyzed: 03/26/2024					
Benzo(a)anthracene	1.17	U	5.00	ug/L	2.00	<5.00	58.7	33-143		
Benzo(a)pyrene	0.299	J1, U	5.00	ug/L	2.00	<5.00	14.9	17-163		
Benzo(b)fluoranthene	1.40	U	5.00	ug/L	2.00	<5.00	69.9	24-159		
Benzo(g,h,i)perylene	1.69	U	20.0	ug/L	2.00	<20.0	84.6	0-219		
Benzo(k)fluoranthene	1.36	U	5.00	ug/L	2.00	<5.00	68.0	11-162		
bis(2-Chloroethoxy)methane	2.18	U	10.0	ug/L	2.00	<10.0	109	33-184		
bis(2-Chloroethyl) ether	1.97	U	10.0	ug/L	2.00	<10.0	98.3	12-158		
Bis(2-ethylhexyl)phthalate	1.86	U	10.0	ug/L	2.00	0.536	66.4	8-158		
Butyl benzyl phthalate	1.63	U	10.0	ug/L	2.00	<10.0	81.7	0-152		
Chrysene	1.14	U	5.00	ug/L	2.00	<5.00	56.9	17-168		
Dibenzo(a,h)anthracene	1.71	U	5.00	ug/L	2.00	<5.00	85.3	0-227		
Diethyl phthalate	1.74	U	10.0	ug/L	2.00	0.386	67.8	0-120		
Dimethyl phthalate	1.76	U	10.0	ug/L	2.00	0.250	75.5	0-120		
Di-n-butyl phthalate	0.917	U	10.0	ug/L	2.00	<10.0	45.9	1-120		
Di-n-octyl phthalate	1.67	U	10.0	ug/L	2.00	<10.0	83.5	4-146		
Fluoranthene	1.39	U	10.0	ug/L	2.00	<10.0	69.5	26-137		
Fluorene	1.43	U	10.0	ug/L	2.00	<10.0	71.7	59-121		
Hexachlorobenzene	1.44	U	5.00	ug/L	2.00	<5.00	72.1	0-152		
Hexachlorobutadiene	1.44	U	10.0	ug/L	2.00	<10.0	72.1	24-120		
Hexachlorocyclopentadiene	2.86	U	10.0	ug/L	2.00	0.453	120	60-140		
Hexachloroethane	1.39	U	20.0	ug/L	2.00	<20.0	69.3	40-120		
Hexachlorophene	1.56	J1, U	10.0	ug/L	4.00	<10.0	38.9	60-140		
Indeno(1,2,3-cd) pyrene	1.77	U	5.00	ug/L	2.00	<5.00	88.5	0-171		
Isophorone	1.83	U	10.0	ug/L	2.00	<10.0	91.5	21-196		
Naphthalene	1.41	U	10.0	ug/L	2.00	<10.0	70.5	21-133		
Nitrobenzene	2.05	U	10.0	ug/L	2.00	<10.0	103	35-180		
n-Nitrosodiethylamine	1.57	U	20.0	ug/L	2.00	<20.0	78.3	60-140		
n-Nitrosodimethylamine	2.03	U	50.0	ug/L	10.0	<50.0	20.3	4.18-91		
n-Nitroso-di-n-butylamine	2.02	U	20.0	ug/L	2.00	<20.0	101	60-140		
n-Nitrosodi-n-propylamine	1.79	U	20.0	ug/L	2.00	<20.0	89.3	0-230		
n-Nitrosodiphenylamine	<20.0	J1, U	20.0	ug/L	2.00	<20.0		60-140		
Pentachlorobenzene	1.38	U	20.0	ug/L	2.00	<20.0	69.0	60-140		
Pentachlorophenol	3.31	U	5.00	ug/L	4.00	<5.00	82.8	14-176		
Phenanthrene	1.40	U	10.0	ug/L	2.00	<10.0	70.0	54-120		
Phenol, Total	0.594	U	10.0	ug/L	4.00	<10.0	14.9	5-120		
Pyrene	1.01	J1, U	10.0	ug/L	2.00	<10.0	50.5	52-120		
Pyridine	<20.0	J1, U	20.0	ug/L	10.0	<20.0		60-140		
Surrogate: 2,4,6-Tribromophenol-surr			*4.49*	*ug/L*	*4.00*		*112*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.60*	*ug/L*	*2.00*		*80.1*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr		*S*	*0.00561*	*ug/L*	*4.00*		*0.140*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*1.81*	*ug/L*	*2.00*		*90.3*	*31.2-136*		
Surrogate: Phenol-d5-surr		*S*	*0.0680*	*ug/L*	*4.00*		*1.70*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.40*	*ug/L*	*2.00*		*70.1*	*37.6-117*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
Matrix Spike Dup (BHC3129-MSD1)	**Source: 24C3241-02**			Prepared: 03/20/2024 Analyzed: 03/26/2024						
1,2,4,5-Tetrachlorobenzene	1.61	U	10.0	ug/L	2.00	<10.0	80.6	60-140	6.96	40
1,2,4-Trichlorobenzene	1.79	U	10.0	ug/L	2.00	0.103	84.2	44-142	12.4	50
1,2-Diphenylhydrazine	1.45	U	20.0	ug/L	2.00	<20.0	72.7	60-140	8.33	40
2,2'-Oxybis(1-chloropropane), bis(2-Chloro-1-methy	1.81	J1, U	10.0	ug/L	2.00	0.649	57.9	60-140	8.91	40
2,4,5-Trichlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		60-140		40
2,4,6-Trichlorophenol	3.02	U	10.0	ug/L	4.00	0.442	64.4	37-144	6.72	58
2,4-Dichlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		39-135		50
2,4-Dimethylphenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		32-120		58
2,4-Dinitrophenol	<50.0	U	50.0	ug/L	10.0	<50.0		0-191		132
2,4-Dinitrotoluene (2,4-DNT)	1.76	U	10.0	ug/L	2.00	<10.0	88.1	39-139	8.71	42
2,6-Dinitrotoluene (2,6-DNT)	1.88	U	10.0	ug/L	2.00	<10.0	94.1	50-158	7.24	48
2-Chloronaphthalene	1.82	U	10.0	ug/L	2.00	<10.0	91.0	60-120	11.9	24
2-Chlorophenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		23-134		61
2-Methyl-4,6-dinitrophenol (4,6-Dinitro-2-methylph	3.81	U	50.0	ug/L	4.00	<50.0	95.3	0-181	8.61	203
2-Nitrophenol	<20.0	J1, U	20.0	ug/L	4.00	<20.0		29-182		55
3,4-Methylphenol	<10.0	J1, U	10.0	ug/L	8.00	<10.0		60-140		40
4-Bromophenyl phenyl ether (BDE-3)	1.65	U	10.0	ug/L	2.00	<10.0	82.3	53-127	11.7	43
4-Chloro-3-methylphenol	<10.0	J1, U	10.0	ug/L	4.00	<10.0		22-147		73
4-Chlorophenyl phenylether	1.49	U	10.0	ug/L	2.00	<10.0	74.6	25-158	9.64	61
4-Nitrophenol	<50.0	U	50.0	ug/L	10.0	<50.0		0-132		131
Acenaphthene	0.157	J1, U	10.0	ug/L	2.00	<10.0	7.85	47-145	26.9	48
Acenaphthylene	<10.0	J1, U	10.0	ug/L	2.00	<10.0		33-145	200	74
Anthracene	0.231	J1, U	10.0	ug/L	2.00	<10.0	11.5	27-133	33.2	66
Benzo(a)anthracene	1.14	U	5.00	ug/L	2.00	<5.00	57.0	33-143	2.95	53
Benzo(a)pyrene	<5.00	J1, U	5.00	ug/L	2.00	<5.00		17-163	200	72
Benzo(b)fluoranthene	1.64	U	5.00	ug/L	2.00	<5.00	82.1	24-159	16.0	71
Benzo(g,h,i)perylene	1.81	U	20.0	ug/L	2.00	<20.0	90.7	0-219	6.89	97
Benzo(k)fluoranthene	1.61	U	5.00	ug/L	2.00	<5.00	80.5	11-162	16.9	63
bis(2-Chloroethoxy)methane	2.32	U	10.0	ug/L	2.00	<10.0	116	33-184	6.35	54
bis(2-Chloroethyl) ether	2.06	U	10.0	ug/L	2.00	<10.0	103	12-158	4.89	108
Bis(2-ethylhexyl)phthalate	1.94	U	10.0	ug/L	2.00	0.536	70.0	8-158	3.88	82
Butyl benzyl phthalate	1.84	U	10.0	ug/L	2.00	<10.0	92.1	0-152	12.0	60
Chrysene	1.26	U	5.00	ug/L	2.00	<5.00	62.9	17-168	9.99	87
Dibenzo(a,h)anthracene	1.85	U	5.00	ug/L	2.00	<5.00	92.4	0-227	7.99	126
Diethyl phthalate	1.96	U	10.0	ug/L	2.00	0.386	78.9	0-120	12.0	100
Dimethyl phthalate	1.92	U	10.0	ug/L	2.00	0.250	83.3	0-120	8.43	183
Di-n-butyl phthalate	1.07	U	10.0	ug/L	2.00	<10.0	53.7	1-120	15.8	47
Di-n-octyl phthalate	1.94	U	10.0	ug/L	2.00	<10.0	97.0	4-146	14.9	69
Fluoranthene	1.56	U	10.0	ug/L	2.00	<10.0	78.2	26-137	11.8	66
Fluorene	1.57	U	10.0	ug/L	2.00	<10.0	78.4	59-121	9.02	38
Hexachlorobenzene	1.59	U	5.00	ug/L	2.00	<5.00	79.4	0-152	9.69	55
Hexachlorobutadiene	1.65	U	10.0	ug/L	2.00	<10.0	82.4	24-120	13.3	62
Hexachlorocyclopentadiene	3.27	J1, U	10.0	ug/L	2.00	0.453	141	60-140	13.2	40
Hexachloroethane	1.62	U	20.0	ug/L	2.00	<20.0	80.8	40-120	15.4	52
Hexachlorophene	1.42	J1, U	10.0	ug/L	4.00	<10.0	35.5	60-140	9.18	40
Indeno(1,2,3-cd) pyrene	1.92	U	5.00	ug/L	2.00	<5.00	96.2	0-171	8.36	99

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3129 - EPA 625 LLE (Continued)										
Matrix Spike Dup (BHC3129-MSD1)	**Source: 24C3241-02**				Prepared: 03/20/2024 Analyzed: 03/26/2024					
Isophorone	1.95	U	10.0	ug/L	2.00	<10.0	97.5	21-196	6.35	93
Naphthalene	1.56	U	10.0	ug/L	2.00	<10.0	78.0	21-133	10.1	65
Nitrobenzene	2.19	U	10.0	ug/L	2.00	<10.0	109	35-180	6.21	62
n-Nitrosodiethylamine	1.41	U	20.0	ug/L	2.00	<20.0	70.6	60-140	10.3	40
n-Nitrosodimethylamine	2.05	U	50.0	ug/L	10.0	<50.0	20.5	4.18-91	0.871	40
n-Nitroso-di-n-butylamine	<20.0	U	20.0	ug/L	2.00	<20.0		60-140	200	40
n-Nitrosodi-n-propylamine	1.91	U	20.0	ug/L	2.00	<20.0	95.4	0-230	6.65	87
n-Nitrosodiphenylamine	<20.0	J1, U	20.0	ug/L	2.00	<20.0		60-140		40
Pentachlorobenzene	1.31	U	20.0	ug/L	2.00	<20.0	65.3	60-140	5.62	40
Pentachlorophenol	3.74	U	5.00	ug/L	4.00	<5.00	93.6	14-176	12.3	86
Phenanthrene	1.56	U	10.0	ug/L	2.00	<10.0	77.9	54-120	10.7	39
Phenol, Total	<10.0	J1, U	10.0	ug/L	4.00	<10.0		5-120	200	64
Pyrene	1.01	J1, U	10.0	ug/L	2.00	<10.0	50.7	52-120	0.535	49
Pyridine	<20.0	J1, U	20.0	ug/L	10.0	<20.0		60-140		40
Surrogate: 2,4,6-Tribromophenol-surr			*3.78*	*ug/L*	*4.00*		*94.5*	*33.6-139*		
Surrogate: 2-Fluorobiphenyl-surr			*1.63*	*ug/L*	*2.00*		*81.3*	*32.2-138*		
Surrogate: 2-Fluorophenol-surr		*S*	*0.00226*	*ug/L*	*4.00*		*0.0565*	*32.7-137*		
Surrogate: Nitrobenzene-d5-surr			*1.78*	*ug/L*	*2.00*		*89.2*	*31.2-136*		
Surrogate: Phenol-d5-surr		*S*	*0.0702*	*ug/L*	*4.00*		*1.76*	*28.9-155*		
Surrogate: p-Terphenyl-d14-surr			*1.42*	*ug/L*	*2.00*		*71.0*	*37.6-117*		
Batch: BHC3499 - SW-3511										
MB NP (BHC3499-BLK1)					Prepared: 03/21/2024 Analyzed: 03/28/2024					
Nonylphenol	<333	U	333	ug/L						
BS NP (BHC3499-BS1)					Prepared: 03/21/2024 Analyzed: 03/28/2024					
Nonylphenol	43.0	U	333	ug/L	39.9		108	56-112		
Surrogate: n-NP-surr			*8.45*	*ug/L*	*7.98*		*106*	*60-140*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3499 - SW-3511 (Continued)										
BSD NP (BHC3499-BSD1)					Prepared: 03/21/2024 Analyzed: 03/28/2024					
Nonylphenol	41.5	U	333	ug/L	39.3		105	56-112	3.57	22
Surrogate: n-NP-surr			*8.45*	*ug/L*	*7.87*		*107*	*60-140*		
24C2933-02 MS (BHC3499-MS1)		**Source: 24C2933-02**			Prepared: 03/21/2024 Analyzed: 03/28/2024					
Nonylphenol	<333	J1, U	333	ug/L	39.4	<333		56-112		
Surrogate: n-NP-surr		*S*	*0.458*	*ug/L*	*7.87*		*5.82*	*60-140*		
24C2933-02 MSD (BHC3499-MSD1)		**Source: 24C2933-02**			Prepared: 03/21/2024 Analyzed: 03/28/2024					
Nonylphenol	<333	J1, U	333	ug/L	39.6	<333		56-112		22
Surrogate: n-NP-surr		*S*	*0.617*	*ug/L*	*7.93*		*7.78*	*60-140*		
Batch: BHD1093 - SW-3511										
Blank (BHD1093-BLK1)					Prepared & Analyzed: 04/05/2024					
Nonylphenol	<333	U	333	ug/L						
LCS (BHD1093-BS1)					Prepared & Analyzed: 04/05/2024					
Nonylphenol	35.0	U	333	ug/L	39.6		88.3	56-112		
Surrogate: n-NP-surr			*6.60*	*ug/L*	*7.93*		*83.3*	*60-140*		
LCS Dup (BHD1093-BSD1)					Prepared & Analyzed: 04/05/2024					
Nonylphenol	36.3	U	333	ug/L	39.9		91.1	56-112	3.65	22
Surrogate: n-NP-surr			*6.93*	*ug/L*	*7.97*		*86.9*	*60-140*		
Matrix Spike (BHD1093-MS1)		**Source: 24C4650-02**			Prepared & Analyzed: 04/05/2024					
Nonylphenol	29.4	J1, U	333	ug/L	39.9	11.3	45.4	56-112		
Surrogate: n-NP-surr		*S*	*4.04*	*ug/L*	*7.98*		*50.6*	*60-140*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Semivolatile Organic Compounds by GCMS (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHD1093 - SW-3511 (Continued)										
Matrix Spike Dup (BHD1093-MSD1)		**Source: 24C4650-02**			Prepared & Analyzed: 04/05/2024					
Nonylphenol	30.0	J1, U	333	ug/L	39.7	11.3	47.2	56-112	2.09	22
Surrogate: n-NP-surr		*S*	*3.99*	*ug/L*	*7.94*		*50.2*	*60-140*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2474 - EPA 1657 SPE										
Blank (BHC2474-BLK1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	<0.100	U	0.100	ug/L						
Chlorpyrifos	<0.0500	U	0.0500	ug/L						
Demeton	<0.200	U	0.200	ug/L						
Diazinon	<0.500	U	0.500	ug/L						
Malathion	<0.100	U	0.100	ug/L						
Parathion, ethyl	<0.100	U	0.100	ug/L						
LCS (BHC2474-BS1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.256		0.100	ug/L	0.250		102	37-150		
Chlorpyrifos	0.200		0.0500	ug/L	0.250		80.0	48-150		
Demeton	0.183		0.200	ug/L	0.250		73.0	16-150		
Diazinon	0.256		0.500	ug/L	0.250		102	50-150		
Malathion	0.162		0.100	ug/L	0.250		64.9	50-150		
Parathion, ethyl	0.215		0.100	ug/L	0.250		86.2	50-150		
Surrogate: Tributyl Phosphate-surr	*S*		*0.259*	*ug/L*	*0.200*		*130*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.198*	*ug/L*	*0.200*		*99.1*	*40-120*		
LCS Dup (BHC2474-BSD1)				Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.165	J1	0.100	ug/L	0.249		66.3	37-150	43.0	40
Chlorpyrifos	0.167		0.0500	ug/L	0.249		67.1	48-150	17.9	40
Demeton	0.178		0.200	ug/L	0.249		71.6	16-150	2.32	40
Diazinon	0.222		0.500	ug/L	0.249		89.0	50-150	14.5	40
Malathion	0.142		0.100	ug/L	0.249		57.0	50-150	13.3	40
Parathion, ethyl	0.190		0.100	ug/L	0.249		76.3	50-150	12.5	40
Surrogate: Tributyl Phosphate-surr			*0.171*	*ug/L*	*0.199*		*86.0*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.153*	*ug/L*	*0.199*		*76.6*	*40-120*		
Matrix Spike (BHC2474-MS1)	**Source: 24C3502-02**			Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	0.0506	J1	0.103	ug/L	0.258	<0.103	19.6	25-150		
Chlorpyrifos	0.151		0.0516	ug/L	0.258	<0.0516	58.4	25-150		
Demeton	0.0157	J1	0.206	ug/L	0.258	<0.206	6.10	25-150		
Diazinon	0.245		0.516	ug/L	0.258	<0.516	95.2	25-150		
Malathion	0.186		0.103	ug/L	0.258	<0.103	72.2	25-150		
Parathion, ethyl	0.179		0.103	ug/L	0.258	<0.103	69.3	25-150		
Surrogate: Tributyl Phosphate-surr	*S*		*0.472*	*ug/L*	*0.206*		*229*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.117*	*ug/L*	*0.206*		*56.8*	*40-120*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2474 - EPA 1657 SPE (Continued)										
Matrix Spike Dup (BHC2474-MSD1)	**Source: 24C3502-02**			Prepared: 03/14/2024 Analyzed: 03/16/2024						
Azinphos-methyl (Guthion)	<0.108	J1, U	0.108	ug/L	0.269	<0.108		25-150	200	40
Chlorpyrifos	0.161		0.0539	ug/L	0.269	<0.0539	59.9	25-150	6.83	40
Demeton	0.0162	J1	0.216	ug/L	0.269	<0.216	6.01	25-150	2.80	40
Diazinon	0.238		0.539	ug/L	0.269	<0.539	88.4	25-150	3.09	40
Malathion	0.173		0.108	ug/L	0.269	<0.108	64.1	25-150	7.62	40
Parathion, ethyl	0.183		0.108	ug/L	0.269	<0.108	67.8	25-150	2.08	40
Surrogate: Tributyl Phosphate-surr		*S*	*0.455*	*ug/L*	*0.216*		*211*	*40-120*		
Surrogate: Triphenyl Phosphate-surr			*0.106*	*ug/L*	*0.216*		*49.2*	*40-120*		
Batch: BHC2968 - EPA 608 SPE										
Blank (BHC2968-BLK1)				Prepared: 03/18/2024 Analyzed: 04/09/2024						
4,4'-DDD	<0.00240	U	0.00240	ug/L						
4,4'-DDE	<0.00120	U	0.00120	ug/L						
4,4'-DDT	<0.00800	U	0.00800	ug/L						
Aldrin	<0.00160	U	0.00160	ug/L						
alpha-BHC (alpha-Hexachlorocyclohexane)	<0.00360	U	0.00360	ug/L						
beta-BHC (beta-Hexachlorocyclohexane)	<0.00800	U	0.00800	ug/L						
Chlordane (Total)	<0.00800	U	0.00800	ug/L						
cis-Chlordane (alpha-Chlordane)	<0.00800	U	0.00800	ug/L						
delta-BHC	<0.00360	U	0.00360	ug/L						
Dieldrin	<0.00120	U	0.00120	ug/L						
Endosulfan I	<0.00400	U	0.00400	ug/L						
Endosulfan II	<0.00120	U	0.00120	ug/L						
Endosulfan sulfate	<0.0160	U	0.0160	ug/L						
Endrin	<0.00240	U	0.00240	ug/L						
Endrin aldehyde	<0.00800	U	0.00800	ug/L						
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	<0.00120	U	0.00120	ug/L						
gamma-Chlordane	<0.00800	U	0.00800	ug/L						
Heptachlor	<0.00240	U	0.00240	ug/L						
Heptachlor epoxide	<0.00400	U	0.00400	ug/L						
Methoxychlor	<0.0160	U	0.0160	ug/L						
Toxaphene (Chlorinated Camphene)	<0.120	U	0.120	ug/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2968 - EPA 608 SPE (Continued)										
Blank (BHC2968-BLK2)				Prepared: 03/18/2024 Analyzed: 04/10/2024						
Dicofol	<0.0480	U	0.0480	ug/L						
Mirex	<0.00400	U	0.00400	ug/L						
TOX LCS (BHC2968-BS1)				Prepared: 03/18/2024 Analyzed: 04/09/2024						
Toxaphene (Chlorinated Camphene)	1.03		0.120	ug/L	1.20		85.5	41-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0854*	*ug/L*	*0.120*		*71.2*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0338*	*ug/L*	*0.120*		*28.2*	*41.2-118*		
M/D LCS (BHC2968-BS2)				Prepared: 03/18/2024 Analyzed: 04/10/2024						
Dicofol	0.629		0.0480	ug/L	0.480		131	21.1-147		
Mirex	0.0425		0.00400	ug/L	0.0480		88.6	14-163		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0950*	*ug/L*	*0.120*		*79.1*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr			*0.0545*	*ug/L*	*0.120*		*45.4*	*41.2-118*		
LCS (BHC2968-BS3)				Prepared: 03/18/2024 Analyzed: 04/10/2024						
4,4'-DDD	0.0741		0.00240	ug/L	0.120		61.8	31-141		
4,4'-DDE	0.0671		0.00120	ug/L	0.120		55.9	30-145		
4,4'-DDT	0.0779		0.00800	ug/L	0.120		64.9	25-160		
Aldrin	0.0640		0.00160	ug/L	0.120		53.3	42-140		
alpha-BHC (alpha-Hexachlorocyclohexane)	0.0678		0.00360	ug/L	0.120		56.5	37-140		
beta-BHC (beta-Hexachlorocyclohexane)	0.0710		0.00800	ug/L	0.120		59.2	17-147		
Chlordane (Total)	0.263	J1	0.00800	ug/L	0.480		54.8	60-140		
cis-Chlordane (alpha-Chlordane)	0.0687		0.00800	ug/L	0.120		57.3	45-140		
delta-BHC	0.0639		0.00360	ug/L	0.120		53.2	19-140		
Dieldrin	0.0715		0.00120	ug/L	0.120		59.6	36-146		
Endosulfan I	0.0611		0.00400	ug/L	0.120		51.0	45-153		
Endosulfan II	0.0721		0.00120	ug/L	0.120		60.1	1-202		
Endosulfan sulfate	0.0877		0.0160	ug/L	0.120		73.0	26-144		
Endrin	0.0858		0.00240	ug/L	0.120		71.5	30-147		
Endrin aldehyde	0.0708		0.00800	ug/L	0.120		59.0	15.1-142		
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.0685		0.00120	ug/L	0.120		57.1	32-140		
gamma-Chlordane	0.0653		0.00800	ug/L	0.120		54.4	45-140		
Heptachlor	0.0635		0.00240	ug/L	0.120		52.9	34-140		
Heptachlor epoxide	0.0657		0.00400	ug/L	0.120		54.7	37-142		
Methoxychlor	0.0827		0.0160	ug/L	0.120		69.0	23.2-144		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0929*	*ug/L*	*0.120*		*77.4*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0368*	*ug/L*	*0.120*		*30.7*	*41.2-118*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2968 - EPA 608 SPE (Continued)										
TOX LCSD (BHC2968-BSD1)			Prepared: 03/18/2024 Analyzed: 04/09/2024							
Toxaphene (Chlorinated Camphene)	1.08		0.120	ug/L	1.20		89.8	41-140	4.88	41
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0872*	*ug/L*	*0.120*		*72.7*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0460*	*ug/L*	*0.120*		*38.3*	*41.2-118*		
M/D LCSD (BHC2968-BSD2)			Prepared: 03/18/2024 Analyzed: 04/10/2024							
Dicofol	0.624		0.0480	ug/L	0.480		130	21.1-147	0.880	40
Mirex	0.0349		0.00400	ug/L	0.0480		72.6	14-163	19.8	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.106*	*ug/L*	*0.120*		*88.5*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0476*	*ug/L*	*0.120*		*39.7*	*41.2-118*		
LCS Dup (BHC2968-BSD3)			Prepared: 03/18/2024 Analyzed: 04/10/2024							
4,4'-DDD	0.0936		0.00240	ug/L	0.120		78.0	31-141	23.2	39
4,4'-DDE	0.0877		0.00120	ug/L	0.120		73.1	30-145	26.6	35
4,4'-DDT	0.0987		0.00800	ug/L	0.120		82.2	25-160	23.6	42
Aldrin	0.0799		0.00160	ug/L	0.120		66.6	42-140	22.1	35
alpha-BHC (alpha-Hexachlorocyclohexane)	0.0840		0.00360	ug/L	0.120		70.0	37-140	21.3	36
beta-BHC (beta-Hexachlorocyclohexane)	0.0803		0.00800	ug/L	0.120		67.0	17-147	12.3	44
Chlordane (Total)	0.329		0.00800	ug/L	0.480		68.5	60-140	22.2	40
cis-Chlordane (alpha-Chlordane)	0.0857		0.00800	ug/L	0.120		71.4	45-140	22.0	35
delta-BHC	0.0798		0.00360	ug/L	0.120		66.5	19-140	22.1	52
Dieldrin	0.0910		0.00120	ug/L	0.120		75.9	36-146	24.1	49
Endosulfan I	0.0776		0.00400	ug/L	0.120		64.7	45-153	23.8	28
Endosulfan II	0.0868		0.00120	ug/L	0.120		72.4	1-202	18.5	53
Endosulfan sulfate	0.109		0.0160	ug/L	0.120		90.5	26-144	21.3	38
Endrin	0.103		0.00240	ug/L	0.120		86.2	30-147	18.7	48
Endrin aldehyde	0.0902		0.00800	ug/L	0.120		75.2	15.1-142	24.2	50.1
gamma-BHC (Lindane, gamma-HexachlorocyclohexanE)	0.0851		0.00120	ug/L	0.120		70.9	32-140	21.6	39
gamma-Chlordane	0.0822		0.00800	ug/L	0.120		68.5	45-140	23.0	35
Heptachlor	0.0764		0.00240	ug/L	0.120		63.6	34-140	18.5	43
Heptachlor epoxide	0.0845		0.00400	ug/L	0.120		70.4	37-142	25.1	26
Methoxychlor	0.105		0.0160	ug/L	0.120		87.4	23.2-144	23.6	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.109*	*ug/L*	*0.120*		*91.0*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr			*0.0523*	*ug/L*	*0.120*		*43.6*	*41.2-118*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2968 - EPA 608 SPE (Continued)										
Matrix Spike (BHC2968-MS1)	**Source: 24C2933-02**			Prepared: 03/18/2024 Analyzed: 04/10/2024						
4,4'-DDD	0.0816		0.00240	ug/L	0.120	<0.00240	68.0	31-141		
4,4'-DDE	0.0662		0.00120	ug/L	0.120	<0.00120	55.2	30-145		
4,4'-DDT	0.0813		0.00800	ug/L	0.120	<0.00800	67.7	25-160		
Aldrin	0.0723		0.00160	ug/L	0.120	0.00869	53.0	42-140		
alpha-BHC (alpha-Hexachlorocyclohexane)	0.0910		0.00360	ug/L	0.120	0.0344	47.2	37-140		
beta-BHC (beta-Hexachlorocyclohexane)	0.385	B	0.00800	ug/L	0.120	<0.00800	321	17-147		
Chlordane (Total)	0.306		0.00800	ug/L	0.480	<0.00800	63.8	60-140		
cis-Chlordane (alpha-Chlordane)	0.0701		0.00800	ug/L	0.120	<0.00800	58.4	45-140		
delta-BHC	0.0954		0.00360	ug/L	0.120	0.0307	53.9	19-140		
Dieldrin	0.0801		0.00120	ug/L	0.120	<0.00120	66.8	36-146		
Endosulfan I	0.0770		0.00400	ug/L	0.120	<0.00400	64.1	45-153		
Endosulfan II	0.0870		0.00120	ug/L	0.120	<0.00120	72.5	1-202		
Endosulfan sulfate	0.0938		0.0160	ug/L	0.120	<0.0160	78.2	26-144		
Endrin	0.114		0.00240	ug/L	0.120	0.0423	59.4	30-147		
Endrin aldehyde	0.0693	J1	0.00800	ug/L	0.120	<0.00800	57.8	60-140		
gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)	0.0960		0.00120	ug/L	0.120	0.0402	46.5	32-140		
gamma-Chlordane	0.0733		0.00800	ug/L	0.120	<0.00800	61.1	45-140		
Heptachlor	0.0812		0.00240	ug/L	0.120	<0.00240	67.7	34-140		
Heptachlor epoxide	0.0816		0.00400	ug/L	0.120	<0.00400	68.0	37-142		
Methoxychlor	0.114		0.0160	ug/L	0.120	<0.0160	94.8	60-140		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.180*	*ug/L*	*0.120*		*150*	*25.2-154*		
Surrogate: Decachlorobiphenyl-surr			*0.119*	*ug/L*	*0.120*		*99.1*	*41.2-118*		
Batch: BHC3124 - SM 6640 B										
Blank (BHC3124-BLK1)				Prepared: 03/20/2024 Analyzed: 03/23/2024						
2,4-D	<0.700	U	0.700	ug/L						
Silvex (2,4,5-TP)	<0.300	U	0.300	ug/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3124 - SM 6640 B (Continued)										
LCS (BHC3124-BS1)					Prepared: 03/20/2024 Analyzed: 03/23/2024					
2,4-D	6.38		0.700	ug/L	5.15		124	70-130		
Silvex (2,4,5-TP)	5.41		0.300	ug/L	5.00		108	70-130		
Surrogate: DCAA-surr			*32.1*	*ug/L*	*25.0*		*128*	*70-130*		
LCS Dup (BHC3124-BSD1)					Prepared: 03/20/2024 Analyzed: 03/23/2024					
2,4-D	6.22		0.700	ug/L	5.15		121	70-130	2.65	30
Silvex (2,4,5-TP)	5.34		0.300	ug/L	5.00		107	70-130	1.38	30
Surrogate: DCAA-surr		*S*	*33.6*	*ug/L*	*25.0*		*134*	*70-130*		
Matrix Spike (BHC3124-MS1)			**Source: 24C3241-02**		Prepared: 03/20/2024 Analyzed: 03/23/2024					
2,4-D	6.36		0.700	ug/L	5.14	<0.700	124	70-130		
Silvex (2,4,5-TP)	5.50		0.300	ug/L	4.99	<0.300	110	70-130		
Surrogate: DCAA-surr		*S*	*33.5*	*ug/L*	*24.9*		*134*	*70-130*		
Matrix Spike Dup (BHC3124-MSD1)			**Source: 24C3241-02**		Prepared: 03/20/2024 Analyzed: 03/23/2024					
2,4-D	6.00		0.700	ug/L	5.12	<0.700	117	70-130	5.85	30
Silvex (2,4,5-TP)	5.07		0.300	ug/L	4.97	<0.300	102	70-130	8.20	30
Surrogate: DCAA-surr			*29.3*	*ug/L*	*24.9*		*118*	*70-130*		
Batch: BHC4106 - EPA 608 SPE										
Blank (BHC4106-BLK1)					Prepared: 03/25/2024 Analyzed: 04/15/2024					
Aroclor-1016 (PCB-1016)	<0.0160	U	0.0160	ug/L						
Aroclor-1221 (PCB-1221)	<0.0160	U	0.0160	ug/L						
Aroclor-1232 (PCB-1232)	<0.0160	U	0.0160	ug/L						
Aroclor-1242 (PCB-1242)	<0.0160	U	0.0160	ug/L						
Aroclor-1248 (PCB-1248)	<0.0160	U	0.0160	ug/L						
Aroclor-1254 (PCB-1254)	<0.0160	U	0.0160	ug/L						
Aroclor-1260 (PCB-1260)	<0.0160	U	0.0160	ug/L						
PCBs, Total	<0.0160	U	0.0160	ug/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Organics by GC (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC4106 - EPA 608 SPE (Continued)										
LCS (BHC4106-BS1)				Prepared: 03/25/2024 Analyzed: 04/15/2024						
Aroclor-1016 (PCB-1016)	0.658		0.0160	ug/L	0.800		82.2	50-140		
Aroclor-1260 (PCB-1260)	0.247		0.0160	ug/L	0.800		30.9	8-140		
PCBs, Total	0.332		0.0160	ug/L	0.800		41.5	24.9-152		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0638*	*ug/L*	*0.0800*		*79.8*	*34.8-160*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0124*	*ug/L*	*0.0800*		*15.4*	*36.2-129*		
LCS Dup (BHC4106-BSD1)				Prepared: 03/25/2024 Analyzed: 04/15/2024						
Aroclor-1016 (PCB-1016)	0.582		0.0160	ug/L	0.800		72.8	50-140	12.2	36
Aroclor-1260 (PCB-1260)	0.402	J1	0.0160	ug/L	0.800		50.2	8-140	47.6	38
PCBs, Total	0.439		0.0160	ug/L	0.800		54.9	24.9-152	27.9	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0526*	*ug/L*	*0.0800*		*65.8*	*34.8-160*		
Surrogate: Decachlorobiphenyl-surr		*S*	*0.0150*	*ug/L*	*0.0800*		*18.8*	*36.2-129*		
Matrix Spike (BHC4106-MS1)		**Source: 24C3241-02**		Prepared: 03/25/2024 Analyzed: 04/15/2024						
Aroclor-1016 (PCB-1016)	<0.0160	L, U	0.0160	ug/L	0.800	<0.0160		50-140		
Aroclor-1260 (PCB-1260)	0.541		0.0160	ug/L	0.800	<0.0160	67.7	8-140		
PCBs, Total	1.71	J1, L	0.0160	ug/L	0.800	<0.0160	213	25.5-136		
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0721*	*ug/L*	*0.0800*		*90.2*	*34.8-160*		
Surrogate: Decachlorobiphenyl-surr			*0.0458*	*ug/L*	*0.0800*		*57.3*	*36.2-129*		
Matrix Spike Dup (BHC4106-MSD1)		**Source: 24C3241-02**		Prepared: 03/25/2024 Analyzed: 04/15/2024						
Aroclor-1016 (PCB-1016)	<0.0160	L, U	0.0160	ug/L	0.800	<0.0160		50-140		36
Aroclor-1260 (PCB-1260)	0.435		0.0160	ug/L	0.800	<0.0160	54.4	8-140	21.7	38
PCBs, Total	1.42	J1	0.0160	ug/L	0.800	<0.0160	177	25.5-136	18.5	40
Surrogate: 2,4,5,6 Tetrachloro-m-xylene-surr			*0.0737*	*ug/L*	*0.0800*		*92.2*	*34.8-160*		
Surrogate: Decachlorobiphenyl-surr			*0.0340*	*ug/L*	*0.0800*		*42.5*	*36.2-129*		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Total

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2256 - EPA 200.8										
Blank (BHC2256-BLK1)					Prepared & Analyzed: 03/14/2024					
Aluminum	<5.00	U	5.00	ug/L						
Antimony	<5.00	U	5.00	ug/L						
Barium	<3.00	U	3.00	ug/L						
Cadmium	<1.00	U	1.00	ug/L						
Chromium	<3.00	U	3.00	ug/L						
Lead	<0.500	U	0.500	ug/L						
Nickel	<2.00	U	2.00	ug/L						
Selenium	<5.00	U	5.00	ug/L						
Silver	<0.500	U	0.500	ug/L						
Thallium	<0.500	U	0.500	ug/L						
Zinc	<5.00	U	5.00	ug/L						
Blank (BHC2256-BLK2)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	<2.00	U	2.00	ug/L						
Blank (BHC2256-BLK3)					Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	<0.500	U	0.500	ug/L						
Blank (BHC2256-BLK5)					Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	<0.500	U	0.500	ug/L						
LCS (BHC2256-BS1)					Prepared & Analyzed: 03/14/2024					
Aluminum	256		5.00	ug/L	250		102	85-115		
Antimony	107		1.00	ug/L	100		107	85-115		
Barium	307		3.00	ug/L	300		102	85-115		
Cadmium	103		1.00	ug/L	100		103	85-115		
Chromium	309		3.00	ug/L	300		103	85-115		
Lead	51.3		0.500	ug/L	50.0		103	85-115		
Nickel	103		2.00	ug/L	100		103	85-115		
Selenium	206		5.00	ug/L	200		103	85-115		
Silver	53.4		0.500	ug/L	50.0		107	85-115		
Thallium	51.6		0.500	ug/L	50.0		103	85-115		
Zinc	207		4.00	ug/L	200		104	85-115		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2256 - EPA 200.8 (Continued)										
LCS (BHC2256-BS2)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	105		2.00	ug/L	100		105	85-115		
LCS (BHC2256-BS3)					Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	51.1		0.500	ug/L	50.0		102	85-115		
LCS (BHC2256-BS4)					Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	21.3		0.200	ug/L	20.0		106	85-115		
Duplicate (BHC2256-DUP1)			**Source: 24C3043-02**		Prepared & Analyzed: 03/14/2024					
Aluminum	18.7		5.00	ug/L		19.3			3.53	20
Antimony	1.00		1.00	ug/L		1.04			3.91	20
Barium	104		3.00	ug/L		107			2.96	20
Cadmium	0.0110	U	1.00	ug/L		<1.00			200	20
Chromium	1.90	U	3.00	ug/L		1.97			3.41	20
Lead	0.131	U	0.500	ug/L		0.135			3.01	20
Nickel	4.27		2.00	ug/L		4.31			0.886	20
Selenium	1.53	U	5.00	ug/L		1.74			12.7	20
Silver	0.0170	U	0.500	ug/L		0.0140			19.4	20
Thallium	<0.500	U	0.500	ug/L		<0.500				20
Zinc	50.5		4.00	ug/L		51.6			2.07	20
Duplicate (BHC2256-DUP2)			**Source: 24C3241-02**		Prepared & Analyzed: 03/14/2024					
Aluminum	35.5		5.00	ug/L		34.4			3.22	20
Antimony	0.628	U	1.00	ug/L		0.615			2.09	20
Barium	164		3.00	ug/L		168			2.05	20
Cadmium	0.0240	U	1.00	ug/L		<1.00			200	20
Chromium	0.513	U	3.00	ug/L		0.463			10.2	20
Lead	0.144	U	0.500	ug/L		0.149			3.41	20
Nickel	2.14		2.00	ug/L		2.17			1.11	20
Selenium	0.745	U	5.00	ug/L		0.795			6.49	20
Silver	0.0240	U	0.500	ug/L		0.0230			4.26	20
Thallium	<0.500	U	0.500	ug/L		<0.500				20
Zinc	51.1		4.00	ug/L		52.8			3.25	20

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2256 - EPA 200.8 (Continued)										
Duplicate (BHC2256-DUP3)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	6.37		2.00	ug/L		6.74			5.68	20
Duplicate (BHC2256-DUP4)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	8.92		2.00	ug/L		8.78			1.58	20
Duplicate (BHC2256-DUP5)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	5.47		0.500	ug/L		5.79			5.60	20
Duplicate (BHC2256-DUP6)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	1.99		0.500	ug/L		2.04			2.53	20
Duplicate (BHC2256-DUP7)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	<0.200	U	0.200	ug/L		<0.200				20
Duplicate (BHC2256-DUP8)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	0.0140	U	0.200	ug/L		<0.200			200	20
Matrix Spike (BHC2256-MS1)		**Source: 24C3043-02**			Prepared & Analyzed: 03/14/2024					
Aluminum	272		5.00	ug/L	250	19.3	101	75-125		
Antimony	107		1.00	ug/L	100	1.04	106	75-125		
Barium	400		3.00	ug/L	300	107	97.8	75-125		
Cadmium	100		1.00	ug/L	100	<1.00	100	75-125		
Chromium	302		3.00	ug/L	300	1.97	99.9	75-125		
Lead	48.9		0.500	ug/L	50.0	0.135	97.6	75-125		
Nickel	101		2.00	ug/L	100	4.31	96.7	75-125		
Selenium	196		5.00	ug/L	200	1.74	97.3	75-125		
Silver	51.0		0.500	ug/L	50.0	0.0140	102	75-125		
Thallium	49.6		0.500	ug/L	50.0	<0.500	99.2	75-125		
Zinc	240		4.00	ug/L	200	51.6	94.5	75-125		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2256 - EPA 200.8 (Continued)										
Matrix Spike (BHC2256-MS2)		**Source: 24C3241-02**			Prepared & Analyzed: 03/14/2024					
Aluminum	270		5.00	ug/L	250	34.4	94.2	75-125		
Antimony	97.6		1.00	ug/L	100	0.615	96.9	75-125		
Barium	433		3.00	ug/L	300	168	88.5	75-125		
Cadmium	90.2		1.00	ug/L	100	<1.00	90.2	75-125		
Chromium	274		3.00	ug/L	300	0.463	91.0	75-125		
Lead	45.2		0.500	ug/L	50.0	0.149	90.1	75-125		
Nickel	90.9		2.00	ug/L	100	2.17	88.8	75-125		
Selenium	183		5.00	ug/L	200	0.795	91.1	75-125		
Silver	46.6		0.500	ug/L	50.0	0.0230	93.2	75-125		
Thallium	44.2		0.500	ug/L	50.0	<0.500	88.3	75-125		
Zinc	230		4.00	ug/L	200	52.8	88.5	75-125		
Matrix Spike (BHC2256-MS3)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	106		2.00	ug/L	100	6.74	99.1	75-125		
Matrix Spike (BHC2256-MS4)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Copper	99.9		2.00	ug/L	100	8.78	91.2	75-125		
Matrix Spike (BHC2256-MS5)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	57.6		0.500	ug/L	50.0	5.79	104	75-125		
Matrix Spike (BHC2256-MS6)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/17/2024					
Arsenic	52.8		0.500	ug/L	50.0	2.04	101	75-125		
Matrix Spike (BHC2256-MS7)		**Source: 24C3043-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	23.1		0.200	ug/L	20.0	<0.200	115	75-125		
Matrix Spike (BHC2256-MS8)		**Source: 24C3241-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Beryllium	20.8		0.200	ug/L	20.0	<0.200	104	75-125		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Total (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2441 - EPA 1631										
Blank (BHC2441-BLK1)					Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Blank (BHC2441-BLK2)					Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Blank (BHC2441-BLK3)					Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	<0.00500	U	0.00500	ug/L						
Matrix Spike (BHC2441-MS1)		**Source: 24C0019-01**			Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	0.0421	J1	0.00526	ug/L	0.0526	0.00810	64.6	71-125		
Matrix Spike (BHC2441-MS2)		**Source: 24C2915-02**			Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	0.00439	J1, U	0.00526	ug/L	0.0526	<0.00526	8.33	71-125		
Matrix Spike Dup (BHC2441-MSD1)		**Source: 24C0019-01**			Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	0.0391	J1	0.00526	ug/L	0.0526	0.00810	58.9	71-125	7.33	24
Matrix Spike Dup (BHC2441-MSD2)		**Source: 24C2915-02**			Prepared: 03/14/2024 Analyzed: 04/04/2024					
Mercury	0.00408	J1, U	0.00526	ug/L	0.0526	<0.00526	7.76	71-125	7.16	24

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Metals, Dissolved

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3240 - Cr VI										
Matrix Spike (BHC3240-MS1)		**Source: 24C3039-01**			Prepared & Analyzed: 03/21/2024					
Chromium (VI)	233		3.00	ug/L	250	2.42	92.0	70-130		
Matrix Spike Dup (BHC3240-MSD1)		**Source: 24C3039-01**			Prepared & Analyzed: 03/21/2024					
Chromium (VI)	227		3.00	ug/L	250	2.42	89.8	70-130	2.46	20

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2185 - EPA 300.0										
Duplicate (BHC2185-DUP1)		**Source: 24C2933-02**			Prepared & Analyzed: 03/13/2024					
Chloride	357		10.0	mg/L		364			2.03	15
Fluoride	2.90		0.250	mg/L		2.85			1.64	15
Nitrate as N	32500		1000	ug/L		33100			1.86	15
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Sulfate	28.7		1.00	mg/L		28.7			0.0593	15
Duplicate (BHC2185-DUP2)		**Source: 24C2393-01**			Prepared & Analyzed: 03/13/2024					
Nitrite as N	<50.0	U	50.0	ug/L		<50.0				15
Sulfate	10.9		1.00	mg/L		10.9			0.532	15
Fluoride	0.233	U	0.250	mg/L		<0.250			200	15
Nitrate as N	167		100	ug/L		153			8.75	15
Chloride	29.1		1.00	mg/L		27.2			6.63	15
MRL Check (BHC2185-MRL1)					Prepared & Analyzed: 03/13/2024					
Fluoride	0.318		0.250	mg/L	0.250		127	50-150		
Nitrate as N	110		100	ug/L	100		110	50-150		
Sulfate	1.18		1.00	mg/L	1.00		118	50-150		
Nitrite as N	56.0		50.0	ug/L	50.0		112	50-150		
Chloride	1.12		1.00	mg/L	1.00		112	50-150		
Matrix Spike (BHC2185-MS1)		**Source: 24C2933-02**			Prepared & Analyzed: 03/13/2024					
Sulfate	50.3		1.11	mg/L	22.2	28.7	97.2	80-120		
Nitrate as N	33800	J1	1110	ug/L	2220	33100	32.9	80-120		
Chloride	365	J1	11.1	mg/L	11.1	364	7.88	80-120		
Nitrite as N	4480	J1	55.6	ug/L	1110	<55.6	404	80-120		
Fluoride	8.38		0.278	mg/L	5.56	2.85	99.5	80-120		
Matrix Spike (BHC2185-MS2)		**Source: 24C2393-01**			Prepared & Analyzed: 03/13/2024					
Chloride	39.4		1.11	mg/L	11.1	27.2	110	80-120		
Nitrate as N	2190		111	ug/L	2220	153	91.5	80-120		
Nitrite as N	1420	J1	55.6	ug/L	1110	<55.6	128	80-120		
Fluoride	5.65		0.278	mg/L	5.56	<0.278	102	80-120		
Sulfate	32.4		1.11	mg/L	22.2	10.9	97.0	80-120		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2250 - NH3-N SEAL-350.1										
Matrix Spike (BHC2250-MS1)		**Source: 24C3211-01**			Prepared & Analyzed: 03/14/2024					
Ammonia as N	0.414		0.0500	mg/L	0.400	0.0418	93.0	90-110		
Matrix Spike (BHC2250-MS2)		**Source: 24C3069-02**			Prepared & Analyzed: 03/14/2024					
Ammonia as N	0.426		0.0500	mg/L	0.400	0.0472	94.7	90-110		
Matrix Spike Dup (BHC2250-MSD1)		**Source: 24C3211-01**			Prepared & Analyzed: 03/14/2024					
Ammonia as N	0.389	J1	0.0500	mg/L	0.400	0.0418	86.9	90-110	6.08	20
Matrix Spike Dup (BHC2250-MSD2)		**Source: 24C3069-02**			Prepared & Analyzed: 03/14/2024					
Ammonia as N	0.420		0.0500	mg/L	0.400	0.0472	93.3	90-110	1.32	20
Batch: BHC2261 - TDS										
Blank (BHC2261-BLK1)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-filterable (TDS)	<10.0	U	10.0	mg/L						
LCS (BHC2261-BS1)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-filterable (TDS)	145		10.0	mg/L	150		96.7	90-110		
Duplicate (BHC2261-DUP1)		**Source: 24C0453-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-filterable (TDS)	506		10.0	mg/L		508			0.394	10
Batch: BHC2268 - TSS										
Blank (BHC2268-BLK1)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-nonfilterable (TSS)	<1.00	U	1.00	mg/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2268 - TSS (Continued)										
LCS (BHC2268-BS1)					Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-nonfilterable (TSS)	99.6		1.00	mg/L	100		99.6	85-115		
Duplicate (BHC2268-DUP1)		**Source: 24C0453-02**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-nonfilterable (TSS)	3.16		1.00	mg/L		3.16			0.00	10
Duplicate (BHC2268-DUP2)		**Source: 24C3246-01**			Prepared: 03/14/2024 Analyzed: 03/15/2024					
Residue-nonfilterable (TSS)	3.37		1.00	mg/L		3.37			0.00	10
Batch: BHC2348 - CBOD-5210										
LCS (BHC2348-BS1)					Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	225			mg/L	198		113	85-115		
Duplicate (BHC2348-DUP1)		**Source: 24C3327-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	2.52	J1	2.40	mg/L		5.34			71.8	40
Duplicate (BHC2348-DUP2)		**Source: 24C3314-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	4.46		2.40	mg/L		3.29			30.2	40
Duplicate (BHC2348-DUP3)		**Source: 24C3146-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	5.09		2.40	mg/L		5.40			5.87	40
Duplicate (BHC2348-DUP4)		**Source: 24C3135-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	7.19		2.40	mg/L		6.54			9.56	40
Duplicate (BHC2348-DUP5)		**Source: 24C0315-01**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	4.27	J1	2.40	mg/L		6.65			43.5	40

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2348 - CBOD-5210 (Continued)										
Duplicate (BHC2348-DUP6)		**Source: 24C3277-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	4.33		2.40	mg/L		4.40			1.56	40
Duplicate (BHC2348-DUP7)		**Source: 24C3228-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	5.19		2.40	mg/L		5.08			2.06	40
Duplicate (BHC2348-DUP8)		**Source: 24C3223-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	8.07		2.40	mg/L		7.76			3.98	40
Duplicate (BHC2348-DUP9)		**Source: 24C3278-05**			Prepared: 12/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	224	H	50.0	mg/L		191			15.8	20
Duplicate (BHC2348-DUPA)		**Source: 24C3501-02**			Prepared: 03/14/2024 Analyzed: 03/20/2024					
Carbonaceous BOD (CBOD)	2.60		2.40	mg/L		3.84			38.6	40
Batch: BHC2410 - Alkalinity										
Blank (BHC2410-BLK1)					Prepared & Analyzed: 03/15/2024					
Conductivity	<2.00	U	2.00	umhos/cm @ 25 °C						
LCS (BHC2410-BS1)					Prepared & Analyzed: 03/15/2024					
Conductivity	1410			umhos/cm @ 25 °C	1410		99.9	90-110		
QSC (BHC2410-BS2)					Prepared & Analyzed: 03/15/2024					
Conductivity	515			umhos/cm @ 25 °C	500		103	90-110		
LCS (BHC2410-BS4)					Prepared & Analyzed: 03/15/2024					
Alkalinity as CaCO3	100			mg/L	100		100	90-110		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2410 - Alkalinity (Continued)										
Duplicate (BHC2410-DUP1)		**Source: 24C2565-03**			Prepared & Analyzed: 03/15/2024					
Conductivity	466		2.00	umhos/cm @ 25 °C		468			0.428	15
Alkalinity as CaCO3	130		10.0	mg/L		133			1.89	15
Duplicate (BHC2410-DUP2)		**Source: 24B0466-01**			Prepared & Analyzed: 03/15/2024					
Conductivity	36600		2.00	umhos/cm @ 25 °C		36400			0.548	15
Alkalinity as CaCO3	89.7		10.0	mg/L		90.9			1.36	15
Batch: BHC2707 - TKN T										
Blank (BHC2707-BLK1)					Prepared: 03/15/2024 Analyzed: 03/18/2024					
Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L						
LCS (BHC2707-BS1)					Prepared: 03/15/2024 Analyzed: 03/18/2024					
Total Kjeldahl Nitrogen - (TKN)	2.02		1.00	mg/L	1.97		102	85-115		
Duplicate (BHC2707-DUP1)		**Source: 24C3117-02**			Prepared: 03/15/2024 Analyzed: 03/18/2024					
Total Kjeldahl Nitrogen - (TKN)	<1.00	U	1.00	mg/L		<1.00				20
Matrix Spike (BHC2707-MS1)		**Source: 24C3117-02**			Prepared: 03/15/2024 Analyzed: 03/18/2024					
Total Kjeldahl Nitrogen - (TKN)	<1.00	J1, U	1.00	mg/L	4.00	<1.00		85-115		
Batch: BHC3109 - Phosphorus EPA 365.1										
LCS (BHC3109-BS1)					Prepared: 03/20/2024 Analyzed: 03/26/2024					
Total Phosphorus	0.250		0.0100	mg/L	0.250		99.9	90-110		

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC3109 - Phosphorus EPA 365.1 (Continued)										
Matrix Spike (BHC3109-MS1)		**Source: 24B6405-01**			Prepared: 03/20/2024 Analyzed: 03/26/2024					
Total Phosphorus	5.24		0.200	mg/L	5.00	<0.200	105	80-120		
Matrix Spike (BHC3109-MS2)		**Source: 24C3005-02RE1**			Prepared: 03/20/2024 Analyzed: 03/26/2024					
Total Phosphorus	0.566		0.0114	mg/L	0.286	0.278	101	80-120		
Matrix Spike Dup (BHC3109-MSD1)		**Source: 24B6405-01**			Prepared: 03/20/2024 Analyzed: 03/26/2024					
Total Phosphorus	5.30		0.200	mg/L	5.00	<0.200	106	80-120	1.18	20
Matrix Spike Dup (BHC3109-MSD2)		**Source: 24C3005-02RE1**			Prepared: 03/20/2024 Analyzed: 03/26/2024					
Total Phosphorus	0.579		0.0114	mg/L	0.286	0.278	105	80-120	2.31	20
Batch: BHC3928 - EPA 1664										
Blank (BHC3928-BLK1)					Prepared & Analyzed: 03/25/2024					
n-Hexane Extractable Material (O&G)	<5.00	U	5.00	mg/L						
LCS (BHC3928-BS1)					Prepared & Analyzed: 03/25/2024					
n-Hexane Extractable Material (O&G)	39.2		5.00	mg/L	40.0		97.9	77.5-114.5		
LCS Dup (BHC3928-BSD1)					Prepared & Analyzed: 03/25/2024					
n-Hexane Extractable Material (O&G)	44.5		5.00	mg/L	40.0		111	77.5-114.5	12.9	20
Matrix Spike (BHC3928-MS1)		**Source: 24C4400-01**			Prepared & Analyzed: 03/25/2024					
n-Hexane Extractable Material (O&G)	110	J1	5.00	mg/L	160	13.2	60.4	77.5-114.5		
Batch: BHC4607 - CN-4500										
Blank (BHC4607-BLK1)					Prepared & Analyzed: 03/28/2024					
Total Cyanide	<10.0	U	10.0	ug/L						

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC4607 - CN-4500 (Continued)										
LCS (BHC4607-BS1)					Prepared & Analyzed: 03/28/2024					
Total Cyanide	216		10.0	ug/L	200		108	90-110		
QCS (BHC4607-BS2)					Prepared & Analyzed: 03/28/2024					
Total Cyanide	218		10.0	ug/L	200		109	90-110		
MRL Check (BHC4607-MRL1)					Prepared & Analyzed: 03/28/2024					
Total Cyanide	9.60	U	10.0	ug/L	10.0		96.0	50-150		
Matrix Spike (BHC4607-MS1)		**Source: 24C4182-01**			Prepared & Analyzed: 03/28/2024					
Total Cyanide	233		10.2	ug/L	204	<10.2	114	80-120		
Matrix Spike Dup (BHC4607-MSD1)		**Source: 24C4182-01**			Prepared & Analyzed: 03/28/2024					
Total Cyanide	236		10.2	ug/L	204	<10.2	116	80-120	1.37	20

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Quality Control
(Continued)

Microbiology

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BHC2222 - ENT Quantitray										
Blank (BHC2222-BLK1)					Prepared: 03/13/2024 Analyzed: 03/14/2024					
Enterococci	<1.00	U	1.00	MPN/100 mL						
Duplicate (BHC2222-DUP1)			**Source: 24C3056-01**		Prepared: 03/13/2024 Analyzed: 03/14/2024					
Enterococci	2.00		1.00	MPN/100 mL		6.30			104	200
Batch: BHC2229 - TC EC Quantitray										
Blank (BHC2229-BLK1)					Prepared: 03/13/2024 Analyzed: 03/14/2024					
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL						
Duplicate (BHC2229-DUP1)			**Source: 24C3248-01**		Prepared: 03/13/2024 Analyzed: 03/14/2024					
Escherichia coli (E. coli)	<1.00	U	1.00	MPN/100 mL		1.00			200	200

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Sample Condition Checklist

Work Order: 24C2914

Check Points	
No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

Work Order: 24C2915

Check Points	
No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

Work Order: 24C3241

Check Points	
No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Work Order: 24C4288

Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

Work Order: 24D1868

Check Points

No	Custody Seals
Yes	Containers Intact
Yes	COC/Labels Agree
Yes	Received On Ice
Yes	Appropriate Containers
Yes	Appropriate Sample Volume
Yes	Coolers Intact
Yes	Samples Accepted

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

130 S. Trade Center Parkway, Conroe TX 77385
Tel: (936) 321-6060
Email: lab@nwdls.com
www. NWDLS.com
TCEQ TX-C24-00185

Aqua TX
2211 Louetta Road
Spring, TX 77388

Reported:
05/22/2024 10:18

Term and Qualifier Definitions

Item	Definition
B	Analyte was found in the associated method blank.
B1	Associated method blank is lower than the established quality control criteria.
H	The parameter was analyzed outside the method specified holding time.
HP	The time between preparation and analysis was outside the method specified holding time this for parameter.
J1	Estimated value - The reported value is outside the established quality control criteria for accuracy and/or precision.
L	Off scale high - The concentration of the analyte exceeds the linear range.
S	The surrogate recovery was outside the established laboratory recovery limit.
U	Non-detected compound.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated
*	A = Accredited, N = Not Accredited or Accreditation not available
DF	Dilution Factor - the factor applied to the reported data due to sample preparation, dilution, or moisture content
MDL	Method Detection Limit - The minimum concentration of a substance (or analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. Based on standard deviation of replicate spiked samples take through all steps of the analytical procedure following 40 CFR Part 136 Appendix B.
SDL	Sample Detection Limit - The minimum concentration of a substance (analyte) that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The SDL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MDL = SDL.
MRL	Method Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The MRL is at or above the lowest calibration standard.
LRL	Laboratory Reporting Limit - Analyte concentration that corresponds to the lowest level lab reports with confidence in accuracy of quantitation and without qualification (i.e. J-flagged). The LRL is an adjusted limit thus sample specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments. If there are no sample specific parameters, the MRL = LRL.

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

CHAIN OF CUSTODY RECORD

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

TCEQ T104704238-23-39

24C2914

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Outfall 001 3 Part Grab Composite 1	**Schedule Comments:**
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: DAY OF GRAB 1 - TAKE GLASS RECEPTACLE & PLACE IN SAMPLER COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED	Code 1149

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24C2914-01	18 Mohm DI		3/12/2024 8:15	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631 BrCl	
24C2914-02	Outfall 001 3 Part Grab		3/12/2024	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 BrCl Composite VOA 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:

Sampler (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Mario Urquiza				
Print Name Mario Urquiza	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) Mario Urquiza	Date/Time 3.12.24 13:25	Received for Laboratory By: (Signature) KMC	Date/Time 1325 3.12.24

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID:

Egypt & 2854

CHAIN OF CUSTODY RECORD

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

24C2915

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Outfall 001 3 Part Grab Composite 2	**Schedule Comments**:
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: COORDINATE GRAB 1 & GRAB 2 COLLECTION TIMES WITH OTHER FIELD TECH IF NEEDED	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results
24C2915-01	18 Mohm DI		3/12/2024 1350	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631	BrCl	
24C2915-02	Outfall 001 3 Part Grab		3/12/2024	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA	BrCl 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other:

Sampler (Signature) HWR	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name Heath Reinke	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) HWR	Date/Time 1430 3-12-24	Received for Laboratory By: (Signature) KMC	Date/Time 1430 3.12.24

Custody Seal : Yes / No COC Labels Agree: Yes / No Appropriate Volume: Yes / No Received on Ice: Yes / No Temperature: °C

Container Intact : Yes / No Appropriate Containers: Yes / No Coolers Intact: Yes / No Samples Accepted: Yes / No Thermometer ID:

Egypt & 2854

CHAIN OF CUSTODY RECORD

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

24C3241

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Large Permit Renewal	**Schedule Comments**
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: DO reading must be recorded before 9am If CL2 not between 1.0 - 4.0 Call Office Unless Dechlor plant <.1 Mark out Dup Outfall samples on the regular chain 32515 FM 2978, 77354 Combo 1149 Key # 0464	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results	
24C3241-01	Outfall 001		3/13/2024 HR ~~0900~~ 1420	AQ Grab	A HDPE 250mL NaOH B HDPE S250mL Na2S2O3 C Glass Wide 1L w/ Teflon-lined Lid D HDPE S250mL Na2S2O3	ENT-ASTMD6503 TC EC-9223 O&G-1664 CN AMEN-4500 CN T-4500	Na2S2O3 <10°C Na2S2O3 <10°C HCl 4°C NaOH 4°C NaOH 4°C	DO Field Flow MGD Field pH Field Total Chlorine Residual WW Field	8.50 .360 8.01 2.5

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39

24C3241

(Continued)

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Large Permit Renewal	**Schedule Comments:**
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: DO reading must be recorded before 9am If CL2 not between 1.0 - 4.0 Call Office Unless Dechlor plant <.1 Mark out Dup Outfall samples on the regular chain 32515 FM 2978, 77354 Combo 1149 Key # 0464	

24C3241-03	Outfall 001 3 Part Grab		3/13/2024 ~~0900~~ HR 1420	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2 D Glass VOA 40mL E Glass VOA 40mL F Glass VOA 40mL G Glass 4oz Boston Round	LL Hg-1631 Composite VOA	BrCl 4°C	
24C3241-04	Outfall 001 3 Part Grab C		3/13/2024	AQ Grab 3-Part Cor		VOA-624	4°C	
24C3241-05	18 Mohm DI		3/13/2024	AQ Grab	A Glass 4oz Boston Round	LL Hg-1631	BrCl	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other: _____

Sampler (Signature) HWR	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name Heath Reinke	Relinquished By: (Signature)	Date/Time 1440	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) HWR	Date/Time ~~1420~~ HR 3-13-24	Received for Laboratory By: (Signature) VMC	Date/Time 3.13.24 1440

Custody Seal : Yes / No COC Labels Agree: Yes / No Appropriate Volume: Yes / No Received on Ice: Yes / No Temperature: _____ °C

Container Intact : Yes / No Appropriate Containers: Yes / No Coolers Intact: Yes / No Samples Accepted: Yes / No Thermometer ID: _____

Egypt & 2854

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com

TCEQ T104704238-23-39

24C3241

(Continued)

Lab PM : Aundra Noe

Project Name : Old Egypt - Large Permit Renewal

Schedule Comments:

Aqua TX
Donald Francis
2211 Louetta Road
Spring, TX 77388
Phone: (713) 805-1660

Project Comments: DO reading must be recorded before 9am If CL2 not between 1.0 - 4.0 Call Office
Unless Dechlor plant <.1 Mark out Dup Outfall samples on the regular chain
32515 FM 2978, 77354 Combo 1149 Key # 0464

24C3241-02	Outfall 001 Sampler 3-12-24 0500		3/13/2024 HR ~~0900~~ 0500	AQ 24HR Comp	A HDPE 250mL AAHDPE 1L B Amber Glass 1L w/ Teflon-lined Lid C Amber Glass 1L w/ Teflon-lined Lid D HDPE 1L E PreCleaned HDPE 250mL HNO3 F HDPE 250mL G Glass VOA 60mL H Glass VOA 60mL I Glass VOA 60mL J HDPE 250mL K HDPE 250mL H2SO4 L Amber Glass 250mL w/ Teflon-lined Lid M Amber Glass 250mL w/ Teflon-lined Lid N Amber Glass 250mL w/ Teflon-lined Lid O Amber Glass 250mL w/ Teflon-lined Lid P Amber Glass 1L w/ Teflon-lined Lid Q Amber Glass 1L w/ Teflon-lined Lid R ~~Amber Glass 1L w/ Teflon-lined~~ Lid S ~~Amber Glass 1L w/ Teflon-lined~~ Lid T Amber Glass 250mL w/ Teflon-lined Lid U Amber Glass 250mL w/ Teflon-lined Lid V Amber Glass 250mL w/ Teflon-lined Lid W Amber Glass 250mL w/ Teflon-lined Lid X HDPE 250mL Y HDPE 250mL H2SO4 Z HDPE 250mL H2SO4	Aluminum ICPMS 200.8 HNO3 Antimony ICPMS 200.8 HNO3 Arsenic ICPMS 200.8 HNO3 Barium ICPMS 200.8 HNO3 Beryllium ICPMS 200.8 HNO3 Cadmium ICPMS 200.8 HNO3 Chromium ICPMS 200.8 HNO3 Copper ICPMS 200.8 HNO3 Lead ICPMS 200.8 HNO3 LPR Metals [Group Analysis] Nickel ICPMS 200.8 HNO3 Selenium ICPMS 200.8 HNO3 Silver ICPMS 200.8 HNO3 Thallium ICPMS 200.8 HNO3 Zinc ICPMS 200.8 HNO3 HERB-6640 4°C Nonylphenol-D7065 4°C OCP-608 4°C OPP-1657 4°C PCB-608 4°C SVOA-625 4°C Sub_CBURP-632 4°C Alkalinity-2320 4°C CBOD-5210 4°C ~~Chloride IC 300.0~~ ~~4°C~~ ~~Conductivity~~-2510 ~~4°C~~ ~~Cr III ICPMS~~ [Group Analysis] Cr VI-D 3500 Cr6+Buf 4°C Fluoride IC 300.0 4°C LPR Anions [Group Analysis] NH3-N SEAL-350.1 H2SO4 4°C Nitrate as N IC 300.0 4°C Nitrite as N IC 300.0 4°C Sulfate IC 300.0 4°C TDS-2540 4°C TKN T-4500 C H2SO4 4°C Total Phosphorus-365.1- H2SO4 4°C TSS-2540 4°C	

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ TX-C24-00086

24C4288

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Permit Renewal - Recollect	**Schedule Comments:**
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: DO reading must be recorded before 9am If CL2 not between 1.0 - 4.0 Call Office Unless Dechlor plant <.1 Mark out Dup Outfall samples on the regular chain 32515 FM 2978, 77354 Combo 1149 Key # 0464	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation		Field Results
24C4288-01	Outfall 001		3/20/2024 1210	AQ Grab	A HDPE 250mL NaOH	CN AMEN-4500 CN T-4500	NaOH 4°C NaOH 4°C	
24C4288-02	Outfall 001 Sampler	3-19-24 0600	3/20/2024 0600	AQ 24HR Comp	A HDPE 250 Cr6+Buf after filtration	Cr VI-D 3500	Cr6+Buf 4°C	

Field Remarks:		**Lab Preservation: (Circle and Write ID Below)** H2SO4 HNO3 NaOH Other:		
Sampler (Signature) HWR	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name Heath Reinke	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) HWR	Date/Time 1500 3-20-24	Received for Laboratory By: (Signature) VMC	Date/Time 1500 3.20.24

Custody Seal : Yes / No — COC Labels Agree: Yes / No — Appropriate Volume: Yes / No — Received on Ice: Yes / No — Temperature: °C

Container Intact : Yes / No — Appropriate Containers: Yes / No — Coolers Intact: Yes / No — Samples Accepted: Yes / No — Thermometer ID:

Egypt & 2854

CHAIN OF CUSTODY RECORD

NWDLS
North Water District Laboratory Services
130 S. Trade Center Pkwy, Conroe Tx 77385
(936) 321-6060 - lab@nwdls.com
TCEQ TX-C24-00086

24D1868

Lab PM : Aundra Noe	**Project Name** : Old Egypt - Permit Renewal - Recollect	**Schedule Comments:**
Aqua TX Donald Francis 2211 Louetta Road Spring, TX 77388 Phone: (713) 805-1660	**Project Comments**: DO reading must be recorded before 9am If CL2 not between 1.0 - 4.0 Call Office Unless Dechlor plant <.1 Mark out Dup Outfall samples on the regular chain 32515 FM 2978, 77354 Combo 1149 Key # 0464	

Sample ID	Collection Point	Date/Time Begin	Date/Time Sampled	Sample Type	Container	Analysis/Preservation	Field Results
24D1868-01	Outfall 001		4/3/2024 1030	AQ Grab	A Glass VOA 40mL HCl pH<2 B Glass VOA 40mL HCl pH<2 C Glass VOA 40mL HCl pH<2	VOA-624 4°C	

Field Remarks:

Lab Preservation: (Circle and Write ID Below) H2SO4 HNO3 NaOH Other: _____

Sampler (Signature) HWR	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Print Name Heath Reinke	Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Affiliation NWDLS	Relinquished To Lab By: (Signature) HWR	Date/Time 1130 4-3-24	Received for Laboratory By: (Signature) KDH	Date/Time 4-3-24 1130

Custody Seal : Yes / No | COC Labels Agree: Yes / No | Appropriate Volume: Yes / No | Received on Ice: Yes / No | Temperature: _____ °C

Container Intact : Yes / No | Appropriate Containers: Yes / No | Coolers Intact: Yes / No | Samples Accepted: Yes / No | Thermometer ID: _____

Egypt & 2854

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

Project
1095856

NWDS-G

North Water District Laboratory
Deena McDaniel
130 S Trade Center Parkway
Conroe, TX 77385

Printed 03/22/2024
8:16

TABLE OF CONTENTS

24C3241

This report consists of this Table of Contents and the following pages:

Email: Kilgore.ProjectManagement@spllabs.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

SAMPLE CROSS REFERENCE

Project
1095856

North Water District Laboratory
Deena McDaniel
130 S Trade Center Parkway
Conroe, TX 77385

Sample	Sample ID	Taken	Time	Received
2282088	*24C3241-02*	03/13/2024	05:00:00	03/18/2024

Bottle 01 Client Supplied Amber Glass
Bottle 02 Client Supplied Amber Glass
Bottle 03 Prepared Bottle: 632L\632S 2 mL Autosampler Vial (Batch 1109803) Volume: 1.00000 mL <== Derived from 02 (934 ml)

Method	Bottle	PrepSet	Preparation	QcGroup	Analytical
EPA 632	03	1109803	03/18/2024	1110537	03/21/2024

Email: Kilgore.ProjectManagement@spllabs.com

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
Office: 903-984-0551 * Fax: 903-984-5914

SPL The Science of Sure

NWDS-G

Project
1095856

North Water District Laboratory
Deena McDaniel
130 S Trade Center Parkway
Conroe, TX 77385

Printed: 03/22/2024

24C3241

RESULTS

Sample Results

2282088 **24C3241-02** Received: 03/18/2024

Non-Potable Water | Collected by: Client | North Water District | PO: #26201
Taken: 03/13/2024 05:00:00

EPA 632 Prepared: 1109803 03/19/2024 06:30:00 Analyzed 1110537 03/21/2024 00:25:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	**Carbaryl (Sevin)**	**<2.68**	**ug/L**	2.68		**63-25-2**	03
z	**Diuron**	**<0.0482**	**ug/L**	0.0482		**330-54-1**	03

Sample Preparation

2282088 **24C3241-02** Received: 03/18/2024

#26201

03/13/2024

Prepared: 03/18/2024 17:10:26 Calculated 03/18/2024 17:10:26 CAL

z	**Environmental Fee (per Project)**	**Verified**	

EPA 632 Prepared: 1109803 03/19/2024 06:30:00 Analyzed 1109803 03/19/2024 06:30:00 MCC

	Liquid-Liquid Extr. W/Hex Ex	**1/934**	**ml**	02

EPA 632 Prepared: 1109803 03/19/2024 06:30:00 Analyzed 1110537 03/21/2024 00:25:00 BRU

NELAC	**Carbaryl/Diuron**	**Entered**	03

2600 Dudley Rd. Kilgore, Texas 75662
24 Waterway Avenue, Suite 375 The Woodlands, TX 77380
*Office: 903-984-0551 * Fax: 903-984-5914*

SPL The Science of Sure

NWDS-G

Project
1095856

North Water District Laboratory
Deena McDaniel
130 S Trade Center Parkway
Conroe, TX 77385

Printed: 03/22/2024

Qualifiers:

We report results on an As Received (or Wet) basis unless marked Dry Weight.

Unless otherwise noted, testing was performed at SPL, Inc.- Kilgore laboratory which holds International, Federal, and state accreditations. Please see our Websites for details.

(N)ELAC - Covered in our NELAC scope of accreditation
z -- Not covered by our NELAC scope of accreditation

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of SPL Kilgore. Unless otherwise specified, these test results meet the requirements of NELAC.
RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

Bill Peery

Bill Peery, MS, VP Technical Services

QUALITY CONTROL

NWDS-G

North Water District Laboratory
Deena McDaniel
130 S Trade Center Parkway
Conroe, TX 77385

Project
1095856

Printed 03/22/2024

Analytical Set 1110537 **EPA 632**

Blank

Parameter	*PrepSet*	*Reading*	*MDL*	*MQL*	*Units*	*File*
Carbaryl (Sevin)	1109803	ND	66.1	2500	ug/L	126123843
Diuron	1109803	ND	44.4	45.0	ug/L	126123843

CCV

Parameter	*Reading*	*Known*	*Units*	*Recover%*	*Limits%*	*File*
Carbaryl (Sevin)	1030	1000	ug/L	103	70.0 - 130	126123837
Carbaryl (Sevin)	1070	1000	ug/L	107	70.0 - 130	126123842
Carbaryl (Sevin)	1060	1000	ug/L	106	70.0 - 130	126123846
Carbaryl (Sevin)	1090	1000	ug/L	109	70.0 - 130	126123849
Diuron	1050	1000	ug/L	105	70.0 - 130	126123837
Diuron	1090	1000	ug/L	109	70.0 - 130	126123842
Diuron	1080	1000	ug/L	108	70.0 - 130	126123846
Diuron	1120	1000	ug/L	112	70.0 - 130	126123849

LCS Dup

Parameter	*PrepSet*	*LCS*	*LCSD*	*Known*	*Limits%*	*LCS%*	*LCSD%*	*Units*	*RPD*	*Limit%*
Carbaryl (Sevin)	1109803	1000	926	1000	17.1 - 131	100	92.6	ug/L	7.68	30.0
Diuron	1109803	794	16.0	1000	0.100 - 138	79.4	1.60	ug/L	192 *	30.0

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100% Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank (reagent water or other blank matrices that contains all reagents except standard(s) and is processed simultaneously with and under the same conditions as samples; carried through preparation and analytical procedures exactly like a sample; monitors); CCV - Continuing Calibration Verification (same standard used to prepare the curve; typically a mid-range concentration; verifies the continued validity of the calibration curve); LCS Dup - Laboratory Control Sample Duplicate (replicate LCS; analyzed when there is insufficient sample for duplicate or MSD; quantifies accuracy and precision.)

1095856 CoC Print Group 001 of 001

NWDLS
North Water District Laboratory Services

SUBCONTRACT ORDER

Sending Laboratory:

North Water District Laboratory Services, Inc.
130 South Trade Center Parkway
Conroe, TX 77385
Phone: 936-321-6060
Fax: 936-321-6061

Project Manager: Aundra Noe

Subcontracted Laboratory: 2282088

SPL
2600 Dudley Rd
Kilgore, TX 75662
Phone: (903) 984-0551
Fax:

Work Order: 24C3241

Analysis	Due	Expires	Comments
Sample ID: 24C3241-02	***Waste Water***	***Sampled: 03/13/2024 05:00***	
Sub_CBURP-632	03/27/2024	03/20/2024 05:00	
Analyte(s):			
Carbaryl	Diuron		
Containers Supplied:			

AmA — Released By — 03.14.24 — Date

UPS — Received By — 03.14.24 — Date

UPS — 3/18/24 1030

Jennifer Garrett SPL, Inc. — 1030 3/18/24

Report Page 6 of 7

1095856 CoC Print Group 001 of 001

3/18 1100 RT
Date Time Tech
Temp: 5.7/5.9 C
Therm#: 6444 Corr Fact: 0.2 C

ATTACHMENT 17
LIST OF NEARBY WWTP

Name	Permit Number	Map Location	Address
WOODLAND OAKS UTILITY LP	0118028	A	PO BOX 247 Conroe TX 77305 - 247
AQUA TEXAS INC	122327	B	2211 Louetta Road, Spring TX 77388

ATTACHMENT 18
CONNECTION REQUEST LETTERS

BAXTER & WOODMAN
Consulting Engineers
11450 Compaq Center W Dr., Suite 660, Houston, TX 77070 • baxterwoodman.com

May 24, 2024

Woodland Oaks Utility Company Inc
PO BOX 247
Conroe, TX, 77305-247

Reference: ***Old Egypt Wastewater Treatment Facility***
TPDES Permit Application
B&W Job No. 2325163.00

Permit Holder:

The Old Egypt Wastewater Treatment Facility is preparing an application for an existing Texas Pollutant Discharge Elimination System (TPDES) waste discharge permit. The existing facility is permitted for a daily average flow of 0.675 million gallons per day (MGD). As part of this permit application, correspondence is required with all entities that own and operate a wastewater treatment system located within a 3-mile radius of the Old Egypt Wastewater Treatment Plant. This correspondence is required to determine if capacity to accept the proposed wastewater flow is available in an existing system.

Please check the appropriate response for your wastewater plant and mail or email this form back to this office.

1. Does your existing WWTF have sufficient capacity to accommodate an additional 0.675 MGD?

_____ YES _____ NO

2. If the existing facilities are not adequate, would an expansion to provide sufficient capacity be feasible?

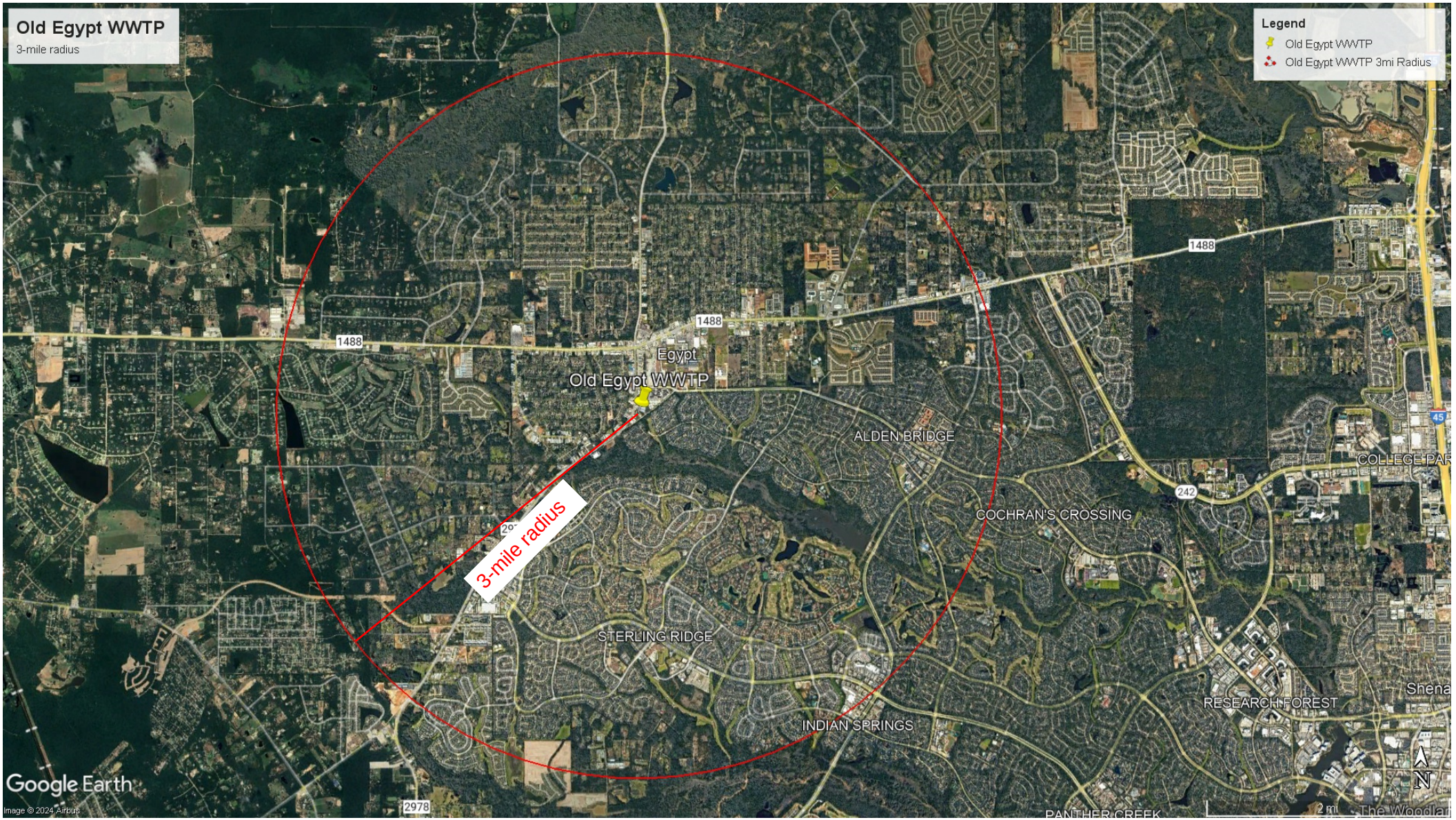
_____ YES _____ NO

Please see the map below which indicates the location of the Old Egypt WWTP with a 3-mile radius shown

Sincerely,

Ram S. Goswami
Project Engineer

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS
TBPELS REGISTRATION NO. F-21783


Old Egypt WWTP
3-mile radius
Legend
Old Egypt WWTP
Old Egypt WWTP 3mi Radius
1488
1488
1488
Egypt
Old Egypt WWTP
ALDEN BRIDGE
COCHRAN'S CROSSING
242
45
3-mile radius
STERLING RIDGE
INDIAN SPRINGS
RESEARCH FOREST
2978
Google Earth
Image © 2024 Airbus
N
2 mi

BAXTER & WOODMAN
Consulting Engineers
11450 Compaq Center W Dr., Suite 660, Houston, TX 77070 • baxterwoodman.com

June 12, 2024

Aqua Texas, Inc.
2211 Louetta Road
Spring, TX 77388

Reference: ***Old Egypt Wastewater Treatment Facility***
TPDES Permit Application
B&W Job No. 2325163.00

Permit Holder:

The Old Egypt Wastewater Treatment Facility is preparing an application for an existing Texas Pollutant Discharge Elimination System (TPDES) waste discharge permit. The existing facility is permitted for a daily average flow of 0.675 million gallons per day (MGD). As part of this permit application, correspondence is required with all entities that own and operate a wastewater treatment system located within a 3-mile radius of the Old Egypt Wastewater Treatment Plant. This correspondence is required to determine if capacity to accept the proposed wastewater flow is available in an existing system.

Please check the appropriate response for your wastewater plant and mail or email this form back to this office.

1. Does your existing WWTF have sufficient capacity to accommodate an additional 0.675 MGD?

_____ YES _____ NO

2. If the existing facilities are not adequate, would an expansion to provide sufficient capacity

be feasible?

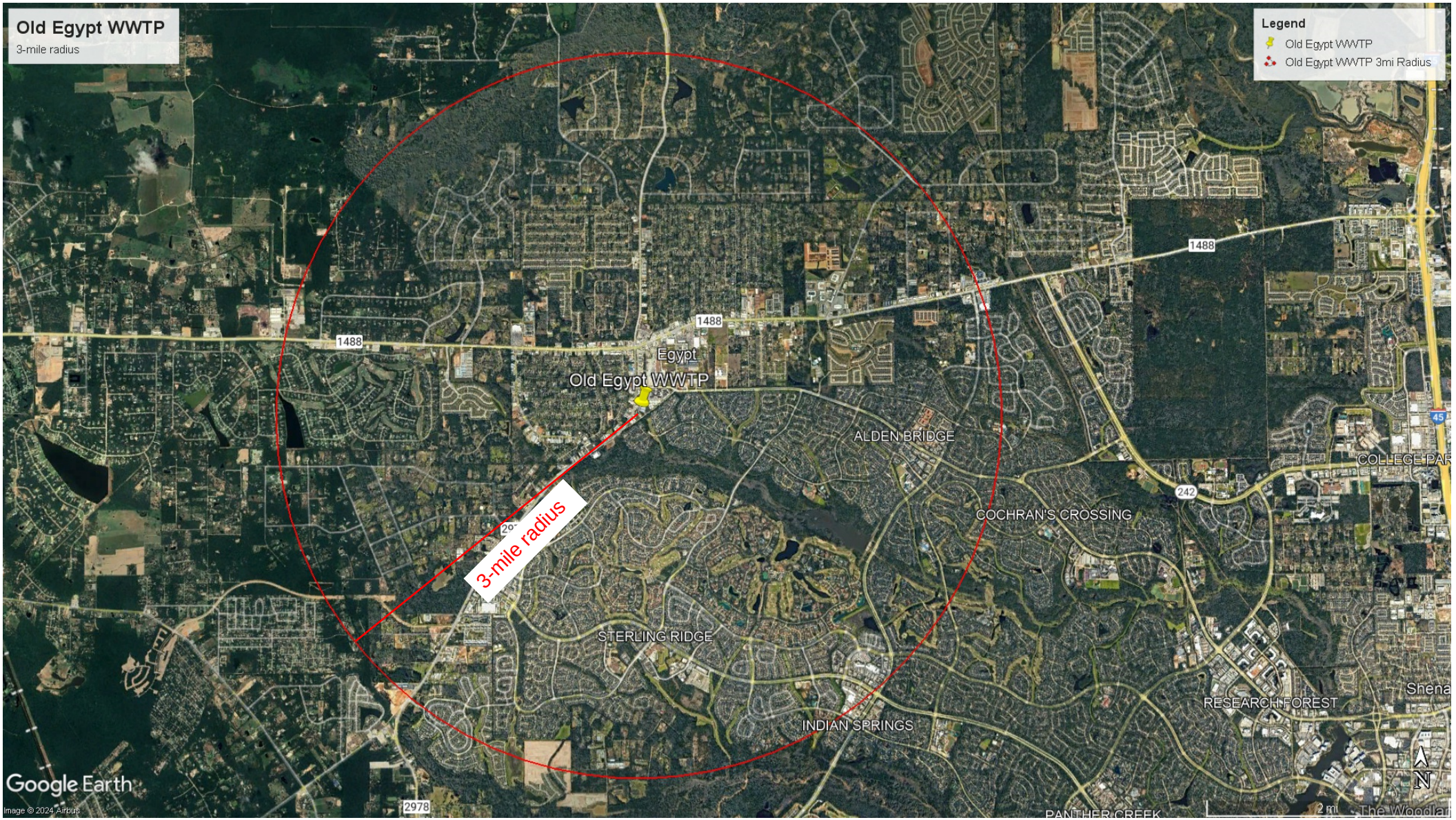
_____ YES _____ NO

Please see the map below which indicates the location of the Old Egypt WWTP with a 3-mile radius shown

Sincerely,

Ram S. Goswami
Project Engineer

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS
TBPELS REGISTRATION NO. F-21783


Old Egypt WWTP
3-mile radius
Legend
Old Egypt WWTP
Old Egypt WWTP 3mi Radius
1488
1488
1488
Egypt
Old Egypt WWTP
ALDEN BRIDGE
COCHRAN'S CROSSING
242
45
3-mile radius
STERLING RIDGE
INDIAN SPRINGS
RESEARCH FOREST
2978
Google Earth
Image © 2024 Airbus
N
2 mi

ATTACHMENT 19
DESIGN CALCULATIONS

AQUA Texas℠

OLD EGYPT WASTEWATER TREATMENT PLANT EXPANSION

CONCEPTUAL DESIGN REPORT

JOB NO. 2325163.00

DECEMBER 2023

BAXTER & WOODMAN Consulting Engineers

11450 COMPAQ CENTER W DR
SUITE 660
HOUSTON, TEXAS 77070
T. 281.350.7027
TBPELS Registration No. F-21783

AQUA TEXAS
OLD EGYPT WASTEWATER TREATMENT PLANT EXPANSION

CONCEPTUAL DESIGN REPORT

TABLE OF CONTENTS

ATTACHMENTS

A. Service Area Map
B. FIRMette Flood Map
C. 1.52-Acre Tract
D. Proposed Flow Schematic – Scenario 1 and 2
E. Proposed Site Plan – Scenario 1 and 2
F. Detailed Opinions of Construction Costs

AQUA TEXAS

OLD EGYPT WASTEWATER TREATMENT PLANT EXPANSION CONCEPTUAL DESIGN REPORT

I. INTRODUCTION

The Old Egypt Wastewater Treatment Plant (WWTP), owned and operated by Aqua Texas, Inc., is located on Egypt Lane south of FM 1488 in Montgomery County, Texas. The current permitted average daily discharge flow (ADF) limit of treated wastewater is 0.675 million gallons per day (MGD) with a peak 2-hour flow (PF) limit of 1,406 gpm (2.0 MGD). Due to the projected increase in wastewater flow within the WWTP service area, Aqua Texas authorized Baxter & Woodman, Inc. to prepare a Conceptual Design Report for the expansion of the wastewater treatment plant. The current service area has the potential to produce up to 2.0 MGD of wastewater.

If the plant is expanded and the treated discharge to the waste stream is increased, the TCEQ will likely require the removal of total phosphorus from the discharge and add a limit of 0.5 mg/l to the permit. The existing permitted discharge limits should remain the same.

The scope of this report includes:

- Confirming the potential wastewater flow from the current Old Egypt service area.
- Establishing wastewater treatment design criteria and land space for a plant capable of treating the required flow (potentially up to 2.0 MGD).
- Determining the potential treatment process options that include conventional treatment with an equalization basin and tertiary filtration.
- Site layout meeting drainage and adjacent property buffer zone requirements; and
- Improvement recommendations, opinion of cost, and preliminary project schedule.

II. DESIGN CRITERIA

Before designing improvements to the facility, design criteria associated with service area, flow capacities, site location and elevation, and both the influent and discharge wastewater quality should be established. The service area map is provided as **Attachment A**.

A. Service Area

The Old Egypt WWTP service area wastewater sources are from single-family residents, commercial developments, a multi-family residential complex and Ellisor Elementary School. Additional flows are expected from both residential and commercial future developments in the area.

The service area for Old Egypt WWTP can be separated in two areas, Service Area A and B, as shown below. Service Area A is located to the northeast of the WWTP. Aqua Texas, Inc. provides sewer services for every development within Area A. Service Area B is located northwest of the WWTP. Aqua Texas, Inc. does not provide sewer services to the single family residential developments in Area B. Sewer services in Area B are limited to commercial and multifamily.

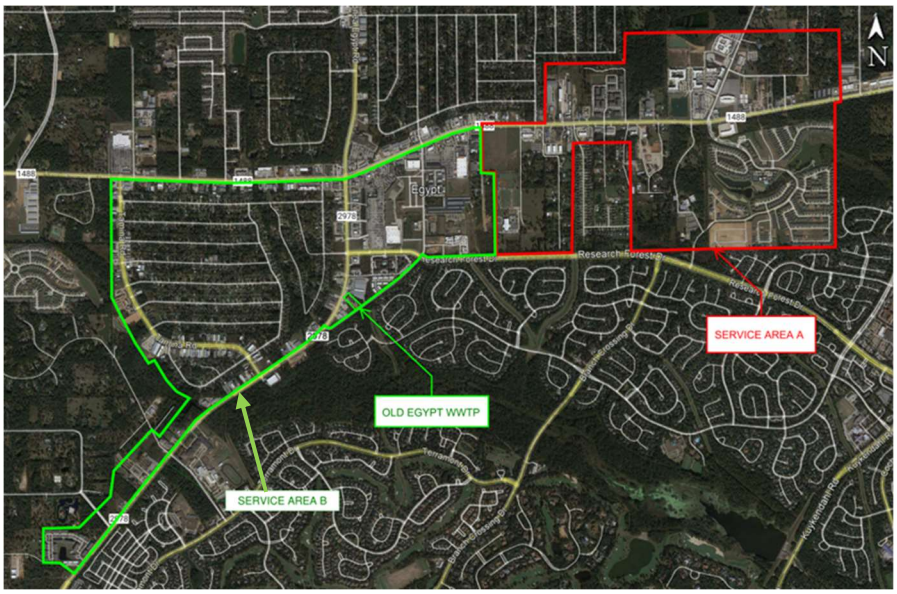


Figure 1: Service Area A & B Map

The evaluation of Service Area A by Baxter & Woodman, Inc. called: “Old Egypt Service Area Montgomery County Force Main Capacity Evaluation” from November 2021, determined that the estimated ultimate peak flow for Service Area A is 4.33 MGD, this equates to an average daily flow of 1.08 MGD. The ultimate connections for Service Area A are estimated at 3,100 connections. The connections for future residential areas were estimated at 10 connections per acre and 5 connections per acre for commercial areas. A conservative average daily wastewater flow of 350 gallons per day per connection and a peak flow factor of 4 were used to estimate future flows.

The estimated flows from Service Area B equate to 0.7 MGD average daily flow. The estimated flows were calculated using the same parameters as the evaluation for Service Area A. The connections for commercial areas were estimated at 5 connections per acre and multifamily as 1 connection per unit. An average daily wastewater flow of 350 gallons per day per connection and a peak flow factor of 4 were used. The flows for Service area B include the existing commercial developments along FM 2978 and FM 1488 and the multifamily developments along FM 2978.

Using the ultimate average daily flow of 1.08 MGD for Service Area A, from the evaluation, and the estimated flow from Service Area B of 0.7 MGD, the total daily flow from Service Area A and B is 1.78 MGD, this includes future growth for Service Area A but does not include growth for Service Area B. Based on the estimated ultimate flow for the total service area, it was assumed that a 2.0 MGD treatment facility was the largest that could fit on the existing plant site.

There are two gravity sanitary sewer mains that discharge to the existing treatment plant. An 8-inch main enters from the west conveying flow from Service Area B and a 12-inch main enters from the east conveying flow from Service Area A. Since there is no anticipated growth from Service Area B it is assumed most of the anticipated 8.0 MGD peak flow would be delivered from the east. The east gravity main would need the equivalent flow area of a 30-inch diameter pipe. The existing 12-inch gravity main has the capacity to deliver only approximately 1.1 MGD to the plant. Therefore, the 12-inch sanitary sewer line would eventually require upsizing or an alternate delivery method, such as a lift station and pressure main, be added. If treatment larger than 1.1 MGD is planned for this site, the collection system will need to be expanded to have any benefit.

B. Site Location and Elevations

The original WWTP was planned and constructed in three phases each with a treatment capacity of 0.225 MGD. The first 0.225 MGD phase was constructed in 2001 and included an on-site lift station with a steel constructed bullseye type conventional treatment unit. The second 0.225 MGD phase was placed into operation in 2015. A common headworks structure with a mechanically cleaned bar screen was added to serve both treatment units. The third 0.225 MGD phase went into operation in 2022 bringing the total average daily flow capacity to 0.675 MGD.

The plant site is at elevation 183.10 feet mean sea level (msl). The Federal Emergency Management Agency (FEMA) Federal Flood Insurance Rate Map (FIRM) Number 48339C0505G, August 18, 2014, **Attachment B,** indicates the 100-year flood elevation is 174.5 feet msl. The plant site is located above the 100-year and 500-year base flood elevations. Aqua Texas acquired a 1.52 acre property south of the WWTP for the expansion. This property is also located above the 100 and 500-year base flood elevations.

The existing plant currently discharges to an unnamed tributary; thence to Bear Branch; thence to Panther Branch and on to Spring Creek Segment No. 1008 of the San Jacinto River Basin.

C. Buffer Zone

The TCEQ requires a 150-foot buffer zone be maintained between the treatment units and nearest property line to reduce the effect of any odors emanating from the facility. The proposed expansion must be in compliance with the buffer zone requirements or include an odor abatement and prevention plan and design. Expansion of the facility to the desired capacity would require treatment units within the buffer zone. A rule variance will need to be requested in writing to the TCEQ. In order to increase the likelihood of variance approval, it is recommended to locate the lower odor producing treatment units, such as clarifications, tertiary filtration, and disinfection within the buffer zone. The site layout options presented include the concept of placing these units within the buffer zone.

D. Design Criteria

The design for all new wastewater treatment plants must comply with the new TCEQ criteria under the Texas Administrative Code, Title 30, §217 entitled “Design Criteria for Domestic Wastewater Systems.” Wastewater treatment volumes (treatment unit size) is determined by the required reduction of raw wastewater pollutants prior to discharge. The Texas Pollutant Discharge Elimination System (TPDES) permit

requires a reduction in the 5-Day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia Nitrogen (NH_3-N), and Escherichia Coli Bacteria (E. Coli). Based on initial conversations with the TCEQ, it is anticipated a Total Phosphorus limit of 0.5 mg/l will be implemented for any increase in discharge flow over the current permit. Therefore, it is anticipated that Total Phosphorus will also require reduction.

The existing plant is permitted for a 2-hour peak flow limit of 1,406 gpm (2.0 MGD). This is equivalent to a peaking factor of 3.0. The TCEQ Chapter 217 regulations require facilities to be designed with a peak flow factor of 4 unless site-specific data is available to calculate a lower factor. The TCEQ Chapter 217 regulations also indicate that an owner designing a new wastewater treatment facility that will serve the same area as an existing facility must use historical data to determine the peak flow factor. The client, Aqua Texas, Inc., has also requested an equalization basin be incorporated into the plant design. According to TCEQ Chapter 217, if a treatment facility has flow equalization, the subsequent treatment units may be designed for a lower estimated peak flow. It is likely the wastewater treatment expansion can be designed using a peak flow factor of 3. However, to confirm the treatment unit configuration will fit on the existing plant site a peak flow factor of 4 was used to calculate the conceptual treatment unit sizes.

The current and proposed discharge limits are presented in the tables below.

Table 1: Current TPDES Discharge Limits

Constituent	Permitted Concentration Limit	Average Daily Flow 0.675 MGD	Peak 2-Hour Flow 1,406 GPM (2.0 MGD)
		Average Load	Peak Load
$CBOD_5$	10 mg/l	56.3 lbs/day	166.8 lbs/day
TSS	15 mg/l	84.4 lbs/day	250.2 lbs/day
NH_3-N	3 mg/l	16.9 lbs/day	50.0 lbs/day
Phosphorous	-	-	-
Chlorine Residual	1 – 4 mg/l		
Dissolved Oxygen	4 mg/l		
pH	6 - 9 s.u.		
E. Coli	63 CFU		

Table 2: Proposed TPDES Discharge Limits

Constituent	Permitted Concentration Limit	Average Daily Flow 2.0 MGD	Peak 2-Hour Flow 4167 GPM (8.0 MGD)
		Average Load	Peak Load
$CBOD_5$	10 mg/l	166.8 lbs/day	667.2 lbs/day
TSS	15 mg/l	250.2 lbs/day	1,000.8 lbs/day
NH_3-N	3 mg/l	50.0 lbs/day	200.2 lbs/day
Phosphorus	0.5 mg/l	8.3 lbs/day	33.4 lbs/day
Chlorine Residual	1 – 4 mg/l		
Dissolved Oxygen	4 mg/l		
pH	6 - 9 s.u.		
E. Coli	63 CFU		

The TCEQ influent concentration design criteria for new facilities or facilities which influent flow and concentration data are not available is provided in the table below. The client, Aqua Texas, has stipulated their own minimum influent concentration design criteria for the identified constituents. The treatment units purposed were based on the client's design criteria.

Table 3: Influent Design Criteria

Influent Constituent	TCEQ Influent Concentrations	Client Influent Concentrations	2.0 MGD Flow Influent Loading Per Client Concentration
BOD_5	250 - 400 mg/l	350 mg/l	5,838 lbs/day
$CBOD_5$	-	300 mg/l	5,004 lbs/day
TSS	250 - 400 mg/l	350 mg/l	5,838 lbs/day
NH_3-N	15 - 75 mg/l	50 mg/l	834 lbs/day
Phosphorus	-	8 mg/l*	134 lbs/day

* Average of influent sampling. Also compared to reference from Metcalf & Eddy, Inc. Wastewater Engineering, Fourth Edition.

III. EXISTING FACILITIES

The existing 0.675 MGD treatment facility utilizes three 60-foot diameter steel bullseye type treatment plants. Each plant, or treatment train, has a 30-foot diameter clarifier, an aeration basin, two sludge digesters, and a chlorine contact basin. They discharge to a common discharge flow monitoring structure and meter.

Preliminary treatment is through a common headworks with a ¼-inch opening mechanically cleaned bar screen to separate and dispose of large solids. The secondary biological treatment was designed for a single stage nitrification variation of the activated sludge process. Disinfection of the clarified wastewater is by the addition of liquid sodium hypochlorite. Discharge of the plant effluent is to an unnamed tributary outside of the northeastern plant property line. The sludge is removed from the plant via liquid transport and disposed of off-site.

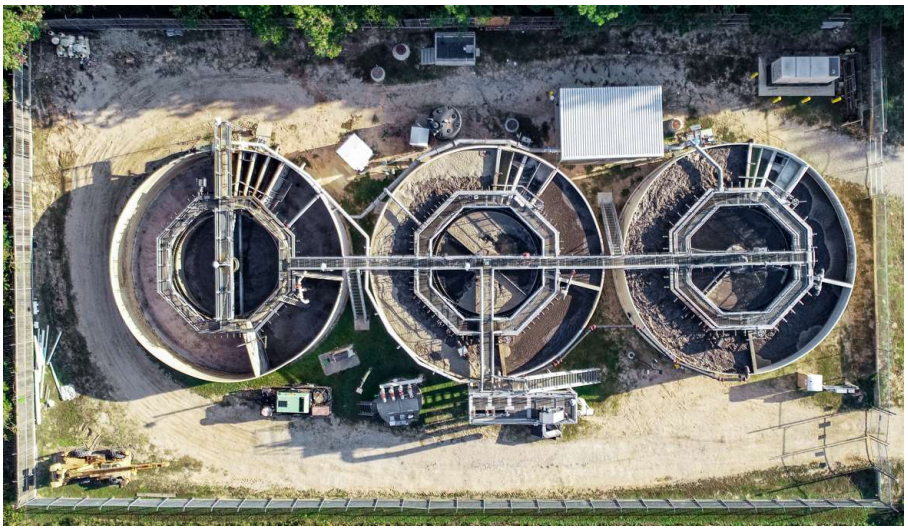


Figure 2: Existing 0.675 MGD WWTP

A. Lift Station

The existing lift station is a submersible type pump station with a reinforced concrete wet well and above ground station piping. The station is equipped with level monitoring for pump control. The wet well is 10-feet diameter with an overall depth of 18 feet and equipped with four submersible non-clog sewage pumps. The top of the wet well is approximately 4.5 feet above plant grade, approximately 13 feet above the 100-year flood elevation. Each pump is rated at 640 gpm at 26 feet total head and driven by a 10 hp motor. The station has a firm pumping capacity of 1,920 gpm or 2.76 MGD.

In accordance with TCEQ Chapter 217, the wet well active storage volume must be 375 ft^3 for a firm pumping capacity of 1,920 gpm and a minimum 6 minute pump cycle time. The existing wet well has an operating depth of 5.3 feet between the minimum allowable water surface elevation and the invert of the 12-inch influent pipe. With a wet well diameter of 10-feet, an operating depth of only 4.7 feet is all that is required for a 0.675 MGD average daily flow. Further, it was determined that the maximum influent flow the existing 10-feet diameter wet well could receive without surcharging the collection system is 0.75 MGD.

B. Preliminary Treatment

Raw sewage from the lift station is pumped to the headworks structure which contains a 2-foot wide primary channel and a 2-foot wide bypass channel. The primary channel contains a mechanically cleaned bar screen with ¼-inch openings which filters debris and trash from the raw sewage. Debris removed is then deposited in a screw compactor which directs the debris to a dumpster. In the event the mechanical screen fails, and channel flow becomes restricted, an overflow port in the common wall between the two channels allows sewage to pass from the mechanical screen channel to the bypass channel where the sewage would pass through a manual bar screen. The headworks was designed for 0.675 MGD average daily flow and 2.0 MGD peak flow. Once sewage is screened, it is equally split and sent to one of the three bullseye type treatment units.

C. Secondary Treatment

Aeration Basin

Each of the existing aeration basins take up approximately half of the outer “ring” or tankage of the bullseye treatment unit. Each is 14 feet wide with a side water depth (SWD) of 10.86 feet. The top of the wall measures 12.36 feet in height, which allows for a freeboard of 1.50 feet. The aeration basin volume in both the original treatment train, Train 1, and the second phase Train 2 is 11,384 ft^3. Both were designed based on TCEQ Chapter 317 regulations. The aeration basin volume in Train 3 is 11,849 ft^3.

Process air for the existing systems is supplied by four multi-stage centrifugal blowers. The four blowers were installed as part of the last expansion with piping to all treatment trains. Each blower uses a 100 hp motor to provide a rated 1,530 SCFM at 7.00 psig.

Clarification

There are three 30-foot diameter clarifiers, each with a surface area of 707 ft^2, a weir length of 88 feet, and a 10.86 feet SWD. These dimensions met the TCEQ Chapter

317 requirements and the Chapter 217 requirements. Activated sludge is returned to the aeration basin via an air lift pump capable of delivering between 0.14 and 0.28 MGD. Activated sludge is also wasted to either of two digesters within the train via a similar air lift pump.

D. Disinfection and Flow Measurement

From the clarifiers the effluent is disinfected in the chlorine contact basins. Both TCEQ Chapters 317 and 217 require a minimum of 20 minutes of contact time during the permitted 2-hour peak flow. Calculations indicate the existing basins meet this criteria. After disinfection, the flow from each train is measured by the water level crossing a v-notched weir as read by an ultrasonic level transmitter. The level transmitter sends a signal to both the flow recording device and the chlorination controls for flow paced chemical dosing.

Liquid sodium hypochlorite is used for disinfection and is stored in a 2,500-gallon polyethylene tank. The chemical is pumped to the disinfection basins using peristaltic metering pumps. The pumps and process controllers are housed in a 4-foot by 4-foot fiberglass enclosure. While the current total effluent flow is 0.675 MGD, the TCEQ deemed de-chlorination is not required since this is a previously permitted phased expansion; however, if the permit is amended or the plant is again expanded de-chlorination will be required.

Each train has a duplex pump non-potable water (NPW) system to recirculate plant effluent for plant service water

E. Sludge Treatment

Activated sludge resulting from clarification is returned via air lift pumps to the aeration basins or wasted to digesters. Each treatment train has two digesters tanks with a total volume of 7,940 ft^3. As one tank is filling the other can be in decant. Sludge is held in the digesters and thickened until it can be hauled off site by a third-party liquid sludge hauler.

F. Electrical and Instrumentation

The plants existing equipment draws a total amp load of approximately 656 amps. As part of the last expansion the electrical service was upgraded from 400 amps to 800 amps and a new 800 amp motor control center (MCC) was installed. Power is distributed from the new MCC to local equipment control panels throughout the plant. The operation of the blowers, clarifiers, mechanical bar screen, and non-potable water systems is monitored by an auto dialer system.

G. Emergency Power

This facility is equipped with a 350 KW diesel driven emergency power generator with sound attenuating enclosure and 48-hour diesel supply tank. As part of the last expansion a new power distribution system (service rack) that includes a main breaker disconnect and an automatic transfer switch for the emergency power generator was installed.

IV. PROPOSED IMPROVEMENTS

The Egypt community in Montgomery County, Texas is seeing significant commercial and residential growth. An expansion of the wastewater treatment plant must be considered. Aqua Texas, Inc. recently obtained the 1.52-acre tract south and adjacent to the existing WWTP. The majority of the new improvements for the proposed expansion will be located on this new section. The total plant site is bordered to the east by Egypt Lane, south by a gas station, north by a public storage facility and west by FM 2978. There is an easement within the 1.52 acre tract for a commercial sign at the southwest side of the property, as shown on **Attachment C**.

Two concepts were evaluated. Scenario 1 considers the treatment unit capacities needed for the potential average daily flow of 2.0 MGD, 8.0 MGD peak flow. Scenario 2 provides the feasible average daily flow based achieving the client's desired layout and repurposing the existing treatment units. The treatment units for Scenario 2 are sized to treat a 1.70 MGD average daily flow, 6.8 MGD peak flow. The limiting factors for the proposed expansion are the size of the existing treatment basins repurposed for sludge digestion, the additional chemical sludge production due to anticipated phosphorus limits, and anticipated increase to the peak factor (from 3 to 4) for the discharge capacity.

Table 4: Each Scenario Design Loading Rates

Constituent	Client Influent Concentrations	Design Loading Scenario 1 2.0 MGD Flow	Design Loading Scenario 2 1.70 MGD
BOD_5	350 mg/l	5,838 lbs/day	4,962 lbs/day
$CBOD_5$	300 mg/l	5,004 lbs/day	4,253 lbs/day
TSS	350 mg/l	5,838 lbs/day	4,962 lbs/day
NH_3-N	50 mg/l	834 lbs/day	709 lbs/day
Phosphorus	8 mg/l*	134 lbs/day	113 lbs/day

* Average of influent sampling. Also compared to reference from Metcalf & Eddy, Inc. Wastewater Engineering, Fourth Edition.

The minimum treatment process capacities required to meet TCEQ design criteria are provided below.

Table 5: Each Scenario Treatment Capacities

Process	Capacities Scenario 1 2.0 MGD Flow	Capacities Scenario 2 1.70 MGD
Equalization Basin Volume	67,600 ft^3	56,800 ft^3
Aeration Volume	166,800 ft^3	141,800 ft^3
Clarification Surface Area	6,666 ft^2	5,644 ft^2
Filtration Surface Area	855 ft^2	727 ft^2
Disinfection Volume	14,850 ft^3	12,630 ft^3
Dechlorination Volume	1,852 ft^3	1,574 ft^3
Digestion Volume	70,330 ft^3	59,780 ft^3

For reference, a proposed process flow diagram for each scenario is presented as **Attachment D** with proposed site plans presented as **Attachment E**.

A. Lift Station

There are two gravity sanitary sewer mains that discharge to the existing treatment plant. An 8-inch main enters from the west conveying flow from Service Area B and a 12-inch main enters from the east conveying flow from Service Area A. Since there is no anticipated growth from Service Area B, it is assumed most of the anticipated 8.0 MGD peak flow would be delivered from the east. The east gravity main would need the equivalent flow area of a 30-inch diameter pipe. The existing 12-inch gravity main has the capacity to deliver only approximately 1.1 MGD to the plant. Therefore, the 12-inch sanitary sewer line would eventually require upsizing or an alternate delivery method, such as a lift station and pressure main, be added. If treatment larger than 1.1 MGD is planned for this site, the collection system will need to be expanded to have any benefit.

As previously determined, the existing 10-feet diameter wet well has enough active storage volume to receive 0.75 MGD flow. For an influent flow of 2.0 MGD, the minimum active storage volume is 1,114.2 ft^3. To maintain a reasonable total depth of the wet well, the operating depth can be assumed to be 8-feet. An influent flow of 2.0 MGD will require a minimum 14-feet diameter wet well and a 1.7 MGD influent will require a minimum 12-feet diameter wet well.

Scenario 1: Treatment Expansion to 2.0 MGD

A new lift station sized for 8.0 MGD peak flow will require four 30 hp submersible non-clog pumps each rated for 1,860 gpm and a 14-feet diameter wet well. The wet well depth should accommodate treatment unit drain lines.

Scenario 2: Treatment Expansion to 1.7 MGD

A new lift station sized for 6.8 MGD peak flow will require four 25 hp submersible non-clog pumps each rated for 1,580 gpm and a 12-feet diameter wet well. The wet well depth should accommodate treatment unit drain lines.

B. Preliminary Treatment

Both the existing headworks channel and existing bar screen are undersized for the proposed expansion. A new headworks structure with a new self-cleaning mechanical screen is necessary for any treatment expansion. If a mechanical self-cleaning mechanical screen is used, the TCEQ requires the headworks design to have an emergency bypass channel equipped with a coarse screen to treat flow when the primary screen is out of service. The primary screen can be either a coarse screen or a fine screen. The TCEQ Chapter 217 regulations require a coarse screen upstream of the fine screen whenever the fine screen manufacturer recommends pre-screening.

Self-cleaning mechanical screens should be designed to screen the 2-hour peak flow or the maximum pumped flow from the pump station whichever is greater. The flow velocity before the screen should not be higher than 3 feet per second to prevent debris from being forced through the screen. The new headworks should be an elevated concrete structure at an elevation of approximately 200-feet (17 feet above

natural grade) to allow for the hydraulic flow through the plant. The structure should have enough working area to provide access around the equipment and also provide space for any required operating and maintenance platforms needed to service both the manual screen and mechanical screen. Aqua Texas, Inc. has expressed a preference for externally fed rotary drum screens because of the ease of operation and maintenance as well as the high solids capture rate. The rotating stainless steel drum can be manufactured with either a wedge wire screen or perforated rolled plate with openings sized for the desired solids capture rates. A washer/compactor unit should be provided to discharge screenings to a dumpster below the headworks. Most self-cleaning mechanical screens, regardless of the type, will require service water for washing the screen and the collected debris.

The concept plan is to locate the proposed screening equipment south of the existing Treatment Train 3. Effluent from the headworks will gravity flow to proposed aeration basins. An equalization basin can be constructed to allow raw sewage to be stored during high peak flows and reintroduced by pumping to the aeration basin when flows subside.

Scenario 1: Treatment Expansion to 2.0 MGD

A new headworks structure sized for 8.0 MGD peak flow (5,580 gpm pumped flow) maintaining an approach flow velocity of 3 feet per second or less. A self-cleaning rotary drum screen with a manually screened bypass is preferred.

Scenario 2: Treatment Expansion to 1.7 MGD

A new headworks structure sized for 6.8 MGD peak flow (4,740 gpm pumped flow) maintaining an approach flow velocity of 3 feet per second or less. A self-cleaning rotary drum screen with a manually screened bypass is preferred.

C. Equalization Basin

Aqua Texas, Inc. design guidelines indicate to consider an equalization basin (EQ) when the ratio of design peak hourly flow to average flow is 3:1 or greater. The design guidelines indicate to size the EQ basin to be 25% to 35% of the average daily flow with a minimum of two pumps. The EQ basin should be mixed and aerated to keep solids in suspension and to maintain a dissolved oxygen level of at least 1.0 mg/l throughout the basin.

Equalization basins may be designed as in-line or side-line units. In an in-line design, all flow passes through the equalization basin. In a side-line design, only the amount of flow above the average daily flow, or another predetermined number, is diverted to the equalization basin. An advantage to an in-line basin are improvements to primary settling or clarification through pre-aeration. Primary clarifiers are generally used on larger treatment facilities to remove settable solids and BOD_5 before the biological process. The pre-aeration and primary settling occurring in an in-line design will vastly increase the performance of the plant, especially when considering additional processes such as tertiary filtration and phosphorous removal using chemical coagulants.

The advantage of a side-line design is the minimized pumping requirements compared to an in-line design, which requires the pumps to operate constantly. A disadvantage is the basins require washing out and draining after uses. If the EQ

basins are placed close to the aeration basins, air lift pumps or low head submersible pumps can be used to transfer sewage to the aeration basins. EQ basins, as does the other treatment unit tanks, require drains that typically lead back to the influent lift station.

Scenario 1: Treatment Expansion to 2.0 MGD

An EQ basin with a capacity of 25% of the proposed average daily flow requires a minimum volume of 67,600 ft^3 feet. The required volume can be achieved with basin dimensions of 62 ft x 45 ft and a 24 ft side water depth (SWD). To achieve this depth, the basin floor would be constructed approximately 14 feet below natural grade with drain lines approximately 3 feet below the basin structure. The proposed location for the EQ basin is between the proposed aeration basins. In order to provide influent overflow to the EQ basin, common wall construction with the two aeration basins could be utilized with an overflow weir near the top of the separation walls. An air lift or submersible pump will return influent to either of the aeration basins.

Scenario 2: Treatment Expansion to 1.7 MGD

Similar to Scenario 1, except the minimum basin volume would be 56,800 ft^3.

D. Secondary Treatment

Aeration Basin

The anticipated effluent discharge limits are achievable through the conventional activated sludge (CAS) process. To achieve the ammonia-nitrogen reduction required, nitrification should considered in the biological treatment process. TCEQ Chapter 217 allows a maximum organic loading rate of 35 lbs $CBOD_5$/day/1000 ft^3 of biological treatment capacity for conventional activated sludge (CAS) processes with nitrification. The oxygen rate required for CAS processes with nitrification is 2.2 lb O_2 / lb BOD_5. Wastewater treatment facilities with a design flow equal to or greater than 0.4 MGD are required to have a minimum of two aeration basins. Aeration basin configurations were evaluated to determine compliance with the design criteria and buffer zone limits. Two aeration basins, each with a three basin serpentine configuration, including influent and effluent channels, are recommended. The aeration and mixing in each basin will be provided by efficient fine bubble diffusers. Once treated, the biomass (activated sludge) will gravity flow from the aeration basins to the clarifiers.

Scenario 1: Treatment Expansion to 2.0 MGD

The required aeration basin volume to treat 2 MGD is 166,800 ft^3 to achieve nitrification. The required volume can be accomplished with two basins each with dimensions of 76 ft x 60 ft and an 18.50 ft SWD. To achieve this depth, the basin floor would be constructed approximately 8 feet below natural grade to keep the above ground height the same as the existing treatment units. The hydraulic retention time is 15 hours at the 2.0 MGD ADF and 4 hours at the 8.0 MGD PK.

Scenario 2: Treatment Expansion to 1.7 MGD

The required aeration basin volume to treat 1.7 MGD is 141,800 ft^3 to achieve nitrification. The required volume can be accomplished with two basins each with dimensions of 64 ft x 60 ft and an 18.50 ft SWD. To achieve this depth, the basin floor would be constructed approximately 8 feet below natural grade to keep the above ground height the same as the existing treatment units. The hydraulic retention time is 15 hours at ADF and 4 hours at PK.

Clarification

Two new circular concrete clarifiers south of the proposed aeration basins will be required for the proposed expansion. The return activated sludge (RAS) and the waste activated sludge (WAS) will require pumping to the aeration basin and digesters respectively.

Scenario 1: Treatment Expansion to 2.0 MGD

To meet TCEQ requirements, the total clarification surface water area will need to be 6,666 ft^2 (3,333 ft^2 each). Each clarifier will need to be a minimum of 66-feet diameter with a SWD of 11.7 feet. The calculated maximum weir loading is 20,210 GPD/ft at peak flow which is less than the maximum allowable loading rate of 30,000 GPD/ft as outlined in TCEQ Chapter 217. The minimum acceptable weir diameter is 63 ft with a weir length of 198 ft.

Scenario 2: Treatment Expansion to 1.7 MGD

To meet TCEQ requirements, the total clarification surface water area will need to be 5,644 ft^2 (2,822 ft^2 each). Each clarifier will need to be a minimum of 61-feet diameter with a SWD of 11.7 feet. The calculated maximum weir loading is 18,659 GPD/ft at peak flow which is less than the maximum allowable loading rate of 30,000 GPD/ft as outlined in TCEQ Chapter 217. The minimum acceptable weir diameter is 58 ft with a weir length of 182 ft.

E. Phosphorous Removal

Based on initial conversations with the TCEQ, a phosphorous limit will likely be imposed once an application for any increase to the discharge capacity is submitted. The indicated discharge concentration limit from the TCEQ is 0.5 mg/L. A phosphorous removal process, chemical or biological or both, will be required. Also, to help remove phosphorus in the form of TSS, the addition of tertiary filtration is recommended.

Enhanced biological phosphorus removal (EBHR) can be a complex treatment process and can challenge operator abilities. To achieve EBPR, an anaerobic-aerobic sequence is necessary to select phosphorus accumulating organisms (PAO). First, the influent wastewater proceeds through an anaerobic zone. In the absence of oxygen, the organisms release phosphorus. The anaerobic zone is followed by an aerobic zone where the PAOs consume the phosphorus. This is enhanced with an inventory of volatile fatty acids (VFA) through anerobic treatment or fermentation.

The phosphorus storing POAs in the biomass are settled out and removed from the plant. To support EBHR, processes like aerated EQ basins that add oxygen to raw wastewater hinders EBHR since anerobic treatment or fermentation are needed to generate VFAs. EBHR is typically considered for larger wastewater treatment facilities where it is considered cost effective to provide the additional tankage and equipment.

Chemical phosphorus removal (CPR) was considered in this conceptual design. Chemical phosphorus removal typically involves precipitating influent phosphorus with metal salts, iron or aluminum. Using an iron salt, such as ferric chloride, provides the ancillary benefits of reducing scum in secondary treatment and managing sulfides and odors in anaerobically digested sludge. Disadvantages of CPR include storage requirements and an increase in sludge production of 20% to 30%.This process involves the addition of which will likely increase the volume of produced sludge, thus directly increasing the required digester volume.

Metal salts are added to the wastewater to react with phosphates to form insoluble aluminum or iron phosphate precipitates which settle with the sludge during clarification. These metal salt compounds include aluminum sulfate (alum), sodium aluminate, ferric chloride, ferrous chloride, and ferrous sulfate. They are generally added upstream of either a primary or secondary clarifier.

When dosing to an activated sludge process, there are two possible dosing points:

- At the end of the anaerobic zone where the concentration of orthophosphate is the highest.
- In the aerobic zone near the area just prior to the secondary clarifier. However, because of the lower phosphorus concentrations at this location, the dosage needs to be higher than at the end of the anaerobic zone. This dosing point is preferred when effluent residual based dosing control is used.

At either point, the metal salt must be thoroughly mixed with the activated sludge. A dedicated mixing box with mechanical mixing is typically added to the process.

Table 6: Advantages and Disadvantages of Metal Salt Addition

Advantages	Disadvantages
• Reliable, well documented phosphorus removal technique. • Chemical usage requirement is basically dependent on total phosphorus concentration of wastewater and required effluent levels. • Controls required for phosphorus removal are simple and straightforward. • Sludge produced can be processed in same manner as in non-phosphorus removal systems. • Effluent phosphorus levels can be controlled by metal salt dosages to maximum efficiency levels.	• Chemical costs higher than for biological phosphorus removal systems which require little or no metal salt addition. • Significantly more sludge produced than with treatment process without metal addition. This leads to higher costs of sludge treatment, disposal and final management. • Sludge produced generally does not dewater as well or as easily as conventional wastewater treatment plant sludges where metal salts are not added. • Metal salt addition may react aggressively with existing treatment equipment.

The addition of chemicals to remove phosphorus will increase the mass of sludge generated. This increase can be attributed to the formation and removal of chemical solids such as metal phosphates and metal hydroxides. When an existing plant is to be upgraded for chemical phosphorus removal, the preferred approach for estimating sludge generation rates is to conduct full-scale trials at the facility and measure sludge production under expected operating conditions. However, such studies are costly and may not be economically feasible for small plants. In such cases, jar tests are recommended to provide data to estimate additional sludge generation resulting from chemical addition, although such tests may not be representative of full-scale, dynamic conditions. Per EPA's Phosphorus Removal Design Manual, the theoretical mass of solids generated from wastewater treatment schemes employing chemical phosphorus precipitation can be estimated using a stoichiometry calculation. However, because the stoichiometry is only an approximation of the chemical reactions which occur, the EPA Phosphorus Removal Design Manual recommends that the calculated sludge production value be increased by 35 percent.

The phosphorus removal system will consist of chemical feed pumps, a phosphorus residual sensor and pump controller, and associated equipment to provide one injection point. A mixing device should be considered at the injection point and the chemical feed system should be housed in a non-corrosive enclosure.

Scenario 1: Treatment Expansion to 2.0 MGD

At 2.0 MGD, the CPR sludge production is 1,238 lb/day increasing the final sludge produced by about 27%.

Biological Waste Activated Sludge Produced	4,612 lbs/day
Chemical Sludge Produced	1,238 lbs/day
Total Sludge Produced	5,850 lbs/day

Scenario 2: Treatment Expansion to 1.7 MGD

At 1.7 MGD, the CPR sludge production is 1,052 lb/day increasing the final sludge produced by about 27%.

Biological Waste Activated Sludge Produced	3,920 lbs/day
Chemical Sludge Produced	1,052 lbs/day
Total Sludge Produced	4,972 lbs/day

F. Tertiary Filtration System

Aqua Texas design guidelines require tertiary filtration if TSS effluent limits are 15 mg/l and BOD_5 limits are 10 mg/l or less. The TCEQ Chapter 217 requires cloth media filters to be designed for a maximum filtration rate of 6.5 gpm/ft^2 with a total filtered surface area capable of passing the peak flow. The proposed filter basin will be located prior to the chlorine basin and will be sized to treat peak flow with the largest filter unit out of service. Two concrete basins are proposed to house cloth media disks filters with backwash pumps.

Scenario 1: Treatment Expansion to 2.0 MGD

The concrete basins will be constructed for a filter media surface area of 855 ft^2 (minimum number of disk per unit 9) in each basin which will be capable of treating 8 MGD of clarified effluent with 100% redundancy.

Scenario 2: Treatment Expansion to 1.7 MGD

The concrete basins will be constructed for a filter media surface area of 727 ft^2 (minimum number of disk per unit 8) in each basin which will be capable of treating 6.8 MGD of clarified effluent with 100%.

G. Chemical Disinfection

Currently the treated effluent is disinfected in each of the three individual treatment units. The proposed expanded facility will need a dedicated disinfection basin sized to meet the minimum 20 minutes of contact time at peak flow. The basin should also have coarse air diffusers installed to provide post aeration and mixing. If land space is available, redundant contact basins is preferred to allow for cleaning and maintenance without interrupting operations.

The existing facility uses 12.5% sodium hypochlorite solution (bleach) to disinfect the treated water prior to discharge. This method works well and is recommended for the expanded facility. Unlike the existing plant, the expanded facility will be required to dechlorinate. Feeding sodium bisulfite after chlorine disinfection and prior to final discharge is recommended. The feed system for each chemical shall include a storage tank and at least two chemical solutions pumps to ensure capacity requirements are met with the largest pump out of service for redundancy.

Scenario 1: Treatment Expansion to 2.0 MGD

The required chlorine contact volume to meet the minimum 20 minute detention time at 8 MGD flow is 14,854 ft^3. The required dichlorination volume to meet the 20 second detention time at 8 MGD is 1,852 ft^3.

Scenario 2: Treatment Expansion to 1.7 MGD

The required chlorine contact volume to meet the minimum 20 minute detention time at 6.8 MGD flow is 12,626 ft^3. The required dichlorination volume to meet the 20 second detention time at 6.8 MGD is 1,574 ft^3.

H. Non-Potable Water System and Discharge Flow Monitoring

The treated effluent will pass through a new concrete flow measuring structure adjacent to the new chlorine basin larger enough to accept the designed peak flow. The existing 12-inch discharge pipe will also need to be upsized. Flow can be measured using a weir or flume with water level sensors. It is typically measured with either a V-notch Weir or a Parshall Flume. The WWTP flow discharge location will not change. A new non-potable water system to serve the proposed headworks, aeration basins, clarifiers, digesters, and filters by means of a 3-inch PVC non-potable water line is recommended. The proposed system will include a new skid mounted non-potable water pump station including two 15-hp self-priming pumps suction lift pumps or submersible pumps drawing from the chlorine contact basin with control panel.

I. Sludge Treatment

In lieu of constructing new digester basins, it is possible to repurpose the existing treatment tanks into larger digester tanks specifically Train 3 being recently constructed and Train 2, constructed in 2015 and recently rehabilitated. It advisable to incorporate these structures into the expansion plan as needed as their location

does not impact the buffer zone. The recently installed centrifugal blowers and the existing aeration piping and coarse bubble diffusers could be reused for the digestion process. The internal steel walls in each train should not be removed, as these wall add structural stiffness to the tank system. If these walls must be removed, a structural evaluation would be required.

New mixed liquor suspended solids (MLSS) piping will be routed from each of the aeration effluent channels to a concrete mixed liquor flow control structure to split the flow to each clarifier.

An activated sludge line from the new clarifiers will convey flow to a proposed sludge pump station. Sludge flow from each clarifier should be able to be controlled or isolated by operation to allow proper sludge settling and sludge blanket balancing in each clarifier. The sludge pumps will convey sludge back to the aeration basins as return activated sludge (RAS) or to the digesters as waste activated sludge (WAS).

Air lift pumps, positive displacement pumps, centrifugal suction lift pumps or centrifugal submersible pumps have been used as sludge pumps depending on the preference of the operator. An advantage to mechanical pumping is the sludge velocity in the piping can be maintained to at least 3 ft/second to prevent clogging. Air lift pumps will require the suction or discharge piping to be amply sloped to maintain the required velocity. Progressive cavity pumps work well in applications where there is a flooded suction. Suction lift or submersible pumps would be needed if a flooded suction is not achievable.

The existing 60-foot diameter welded steel bullseye trains will be converted to digesters. The digesters are sized based on a 15-day solids retention time, a 0.79 yield coefficient, and 2.0% solids. The TCEQ requires a 15-day retention time to obtain stabilized sludge. Additional digester criteria for each scenario is provided below:

Scenario 1: Treatment Expansion to 2.0 MGD

Sludge Storage Volume

Biological Waste Activated Sludge Produced	4,612 lbs/day
Chemical Sludge Produced	1,238 lbs/day
Total Sludge Produced	5,850 lbs/day

Minimum Digester Volume	70,330 ft^3
Existing Tank SWD	10.75 ft

Each of the three existing tanks has a volume of 30,390 ft^3, therefore two of the existing tanks and a portion of the third tank would be needed for stabilized digestion if the expansion was designed for an ADF of 2.0 MGD with chemical phosphorus removal. For the proposed expansion it is recommended to convert the entire Train 1 and Train 2 and the outer ring of Train 3 to full digestion to meet the volume requirement. Two (2) 60- foot diameter digesters can provide 60,780 ft^3 and the outer section of Train 3 can provide 22,796 ft^3 of volume. The inner section of Train 3 could be converted to a gravity sludge thickener. However, for plants greater than 1.0 MGD, the TCEQ requires at least two thickeners or an alternative sludge disposal method. If all three existing tanks are used, it would severely limit the available space for on-site sludge dewatering.

To provide available space for sludge dewatering, Train 1 could be demolished and a smaller 10,000 ft^3 digester tank constructed (approximately 34-feet diameter).

Scenario 2: Treatment Expansion to 1.7 MGD

Sludge Storage Volume

Biological Waste Activated Sludge Produced	3,920 lbs/day
Chemical Sludge Produced	1,052 lbs/day
Total Sludge Produced	4,972 lbs/day
Minimum Digester Volume	59,780 ft^3
Existing Tank SWD	10.75 ft

The digester volume to meet a 1.7 MGD is expansion can be accomplished by converting Train 2 and Train 3 to full digestion. This scenario allows Train 1 to be completely demolished to provide space for solids dewatering. No additional tankage would be needed.

J. Process Air System

Process air for the existing systems is supplied by four multi-stage centrifugal blowers. The four blowers were installed as part of the last expansion with piping to all treatment trains. Each blower uses a 100 hp motor to provide a rated 1,530 SCFM at 7.00 psig. For the proposed expansion, it is recommended to utilize the existing multistage centrifugal blowers for the expanded digesters and install new blowers for the new aeration basins, EQ basin and disinfection basin. These blowers could either be multistage centrifugal blowers or efficient positive displacement blowers such as twisted tri-lobe or screw blowers.

K. Electrical

During the last plant expansion, the incoming power service was upgraded from 400 amp to 800 amp. The existing plants equipment draws a total load of approximately 656 amps. The existing service and MCC could provide power to the solids treatment facilities, namely digesters and sludge dewatering facility, and perhaps the new mechanical screening equipment. It is anticipated an additional power service and MCC of similar size will be needed to power the new equipment needed for the new lift station, aeration basins, clarifiers, filters, disinfection and additional blowers.

This facility is equipped with a 350 KW diesel driven emergency power generator with sound attenuating enclosure and 48-hour diesel supply tank. Like the electrical system, this generator can remain to provide back-up power to the equipment served by the existing MCC. A new diesel driven generator could be added to serve the new MCC that would serve the expansion equipment.

L. Site Improvements

The recommended site improvements for both options include a new gravel plant road looping the proposed improvements, a new chain link fence along the perimeter of the new property, a new double gate at the west side entrance, relocation of the existing double gate at the east side, site grading and drainage improvements, and a new effluent outfall pipe. It will also include a new CMU building to house the additional MCC and provide office space and a restroom for operations.

V. CONSTRUCTION SEQUENCING

The existing treatment plant must remain online and capable of treating design flows and meeting discharge permit limits during the expansion construction. Since a majority of the new treatment units are planned to be located on land not currently occupied by the existing treatment units, new construction of the lift station, aeration basin, clarifiers, tertiary filters and disinfection basin can take place without any interruption of the existing plant operations. Construction of the new headworks structure could begin once a new perimeter road is established as to not interrupt the continuous flow of traffic around the plant. The headworks structure can be constructed adjacent to the existing structure without any interruption of service.

Once the new expansion is constructed and commissioned, it will be able to provide wastewater treatment but not sludge treatment. The existing digesters would be used for sludge treatment and liquid haul. The aeration basin and two digesters in Train 2 could be used for digester volume while Train 3 is converted to full digestion. Then Train 2 would be converted to full digestion. Train 1 could be removed from service and demolished to be able to construct the sludge dewatering facility.

VI. OPINION OF COST AND SCHEDULE

The following tables summarize the opinion of probable cost for each scenario evaluated. Detailed breakdowns of the opinions of construction costs are provided in **Attachment F.** Costs are subject to change due to market volatility and progression of the design.

Scenario 1 - Preliminary Opinion of Probable Construction Cost

	Description	Cost
1	Site Work / Yard Piping / Misc. Work	$ 1,130,000
2	New Lift Station & Force Main	$ 2,085,000
3	New Headworks	$ 1,300,000
4	Equalization Basin	$ 1,400,000
5	Aeration Basins	$ 5,150,000
6	Secondary Clarifiers	$ 3,700,000
7	Tertiary Filtration	$ 1,340,000
8	Disinfection Basin and Flow Measurement	$ 2,160,000
9	Digester Conversion	$ 1,150,000
10	Solids Processing with Additional Digester Tank	$ 1,450,000
10	New Blowers	$ 1,085,000
11	Electrical, Instrumentation and Control	$ 9,600,000
	Mobilization, Overhead, Insurance, Bonds, Profit (25%)	$ 7,888,000
	Contingencies (25%)	$ 9,860,000
	PROJECT TOTAL	**$ 49,298,000**

Option 2- Preliminary Opinion of Probable Construction Cost Summary		
	Description	**Cost**
1	Site Work / Yard Piping / Misc. Work	$ 1,100,000
2	New Lift Station & Force Main	$ 1,730,000
3	New Headworks	$ 1,100,000
4	Equalization Basin	$ 1,200,000
5	Aeration Basins	$ 4,300,000
6	Secondary Clarifiers	$ 3,100,000
7	Tertiary Filtration	$ 1,100,000
8	Disinfection Basin and Flow Measurement	$ 1,800,000
9	Digester Conversion	$ 1,150,000
10	Solids Processing	$ 800,000
11	New Blowers	$ 920,000
12	Electrical, Instrumentation and Control	$ 8,650,000
	Mobilization, Overhead, Insurance, Bonds, Profit (25%)	$ 6,738,000
	Contingencies (25%)	$ 8,422,000
	PROJECT TOTAL	**$ 42,110,000**

Once authorization for design has been granted, the preliminary and final design should be completed within 48 weeks, including reviews (internal, client, and agencies). Bid phase should take 8 weeks.

Construction duration will be dependent upon the final design options selected. Approximate construction time based on previous projects of similar size and equipment selected is 550 to 730 days.

VII. CONCLUSION

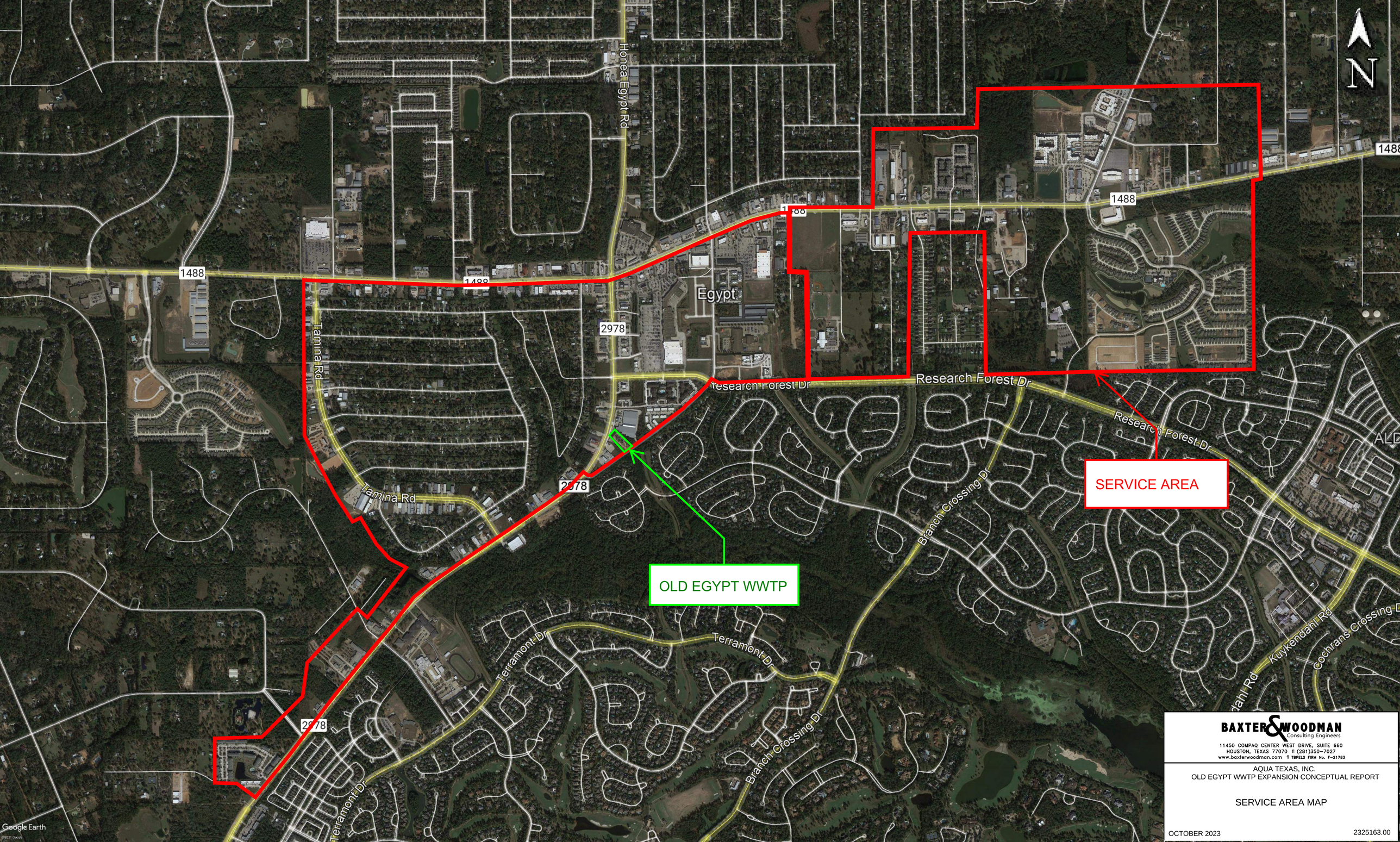
The two scenarios evaluated provide additional capacity for the WWTP. Scenario 1 would provide 2.0 MGD average daily flow with space for a sludge dewatering facility if existing Train 1 is demolished with a tank added for digestion volume. Scenario 2 would provide only 1.7 MGD but allows more space for a sludge dewatering facility.

The opinions of cost in the previous section only apply to the expansion of the treatment plant. As previously stated, no anticipated growth from Service Area B it is assumed and most of the anticipated 8.0 MGD peak flow would be delivered from the east. The east gravity main would need the equivalent flow area of a 30-inch diameter pipe. The existing 12-inch gravity main only has the capacity to deliver approximately 1.1 MGD. Therefore, the 12-inch sanitary sewer line would eventually require upsizing to a 30-inch main or an alternate delivery method, such as a lift station and pressure main, be added.

The project would benefit from a phased approach by first expanding the treatment capacity of the plant and then expanding the collection system to the plant.

ATTACHMENT A

Service Area Map



BAXTER & WOODMAN Consulting Engineers

11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS, INC.
OLD EGYPT WWTP EXPANSION CONCEPTUAL REPORT

SERVICE AREA MAP

OCTOBER 2023

2325163.00

ATTACHMENT B

FIRMette Flood Map

National Flood Hazard Layer FIRMette

FEMA

95°34'24"W 30°13'1"N

95°33'46"W 30°12'30"N

Feet

0 250 500 1,000 1,500 2,000

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/8/2023 at 1:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT C

1.52-Acre Tract

Montgomery CAD Web Map

6/28/2023, 12:44:12 PM

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.03 0.05 km

Abstracts	Lot Lines	Abstracts
World Transportation	Lot Lines	
Parcels	Parcel Line	

Montgomery County Appraisal District, BIS Consulting -

ATTACHMENT D

Proposed Flow Schematic – Scenario 1 & 2

LIFT STATION

HEADWORKS

AERATION BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3

DIGESTER BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3 BLOWER NO. 4

AIR

AERATION BASIN NO. 1

EQUALIZATION BASIN

AERATION BASIN NO. 2

SPLITTER BOX

MLSS

RAS

WAS

SCUM ALP

SLUDGE PUMPS

CLARIFIER NO. 1

CLARIFIER NO. 2

DIGESTER NO. 1

DIGESTER NO. 2

DIGESTER NO. 3

SOLIDS HANDLING/ DEWATERING

SLUDGE HAULER

TERTIARY FILTER

DISINFECTION

FLOW METER

PLANT OUTFALL

LEGEND

WASTEWATER

SOLIDS

AIR

AIR

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 ¶ (281)350-7027
www.baxterwoodman.com ¶ TBPELS FIRM No. F-21783

AQUA TEXAS, INC.
OLD EGYPT WWTP EXPANSION CONCEPTUAL REPORT

PROCESS FLOW DIAGRAM
SCENARIO 1 - 2.0 MGD

OCTOBER 2023

2325163.00

LIFT STATION

HEADWORKS

AERATION BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3

DIGESTER BLOWERS

BLOWER NO. 1 BLOWER NO. 2 BLOWER NO. 3 BLOWER NO. 4

AIR

AERATION BASIN NO. 1

EQUALIZATION BASIN

AERATION BASIN NO. 2

SPLITTER BOX

MLSS

RAS

WAS

SCUM ALP

SLUDGE PUMPS

CLARIFIER NO. 1

CLARIFIER NO. 2

DIGESTER NO. 1

DIGESTER NO. 2

SOLIDS HANDLING/ DEWATERING

SLUDGE HAULER

TERTIARY FILTER

DISINFECTION

FLOW METER

PLANT OUTFALL

LEGEND

WASTEWATER

SOLIDS

AIR

AIR

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 ▯ (281)350-7027
www.baxterwoodman.com ▯ TBPELS FIRM No. F-21783

AQUA TEXAS, INC.
OLD EGYPT WWTP EXPANSION CONCEPTUAL REPORT

PROCESS FLOW DIAGRAM
SCENARIO 2 - 1.7 MGD

OCTOBER 2023

2325163.00

ATTACHMENT E

Proposed Site Plan – Scenario 1 & 2

Montgomery CAD Web Map

6/28/2023, 12:44:12 PM

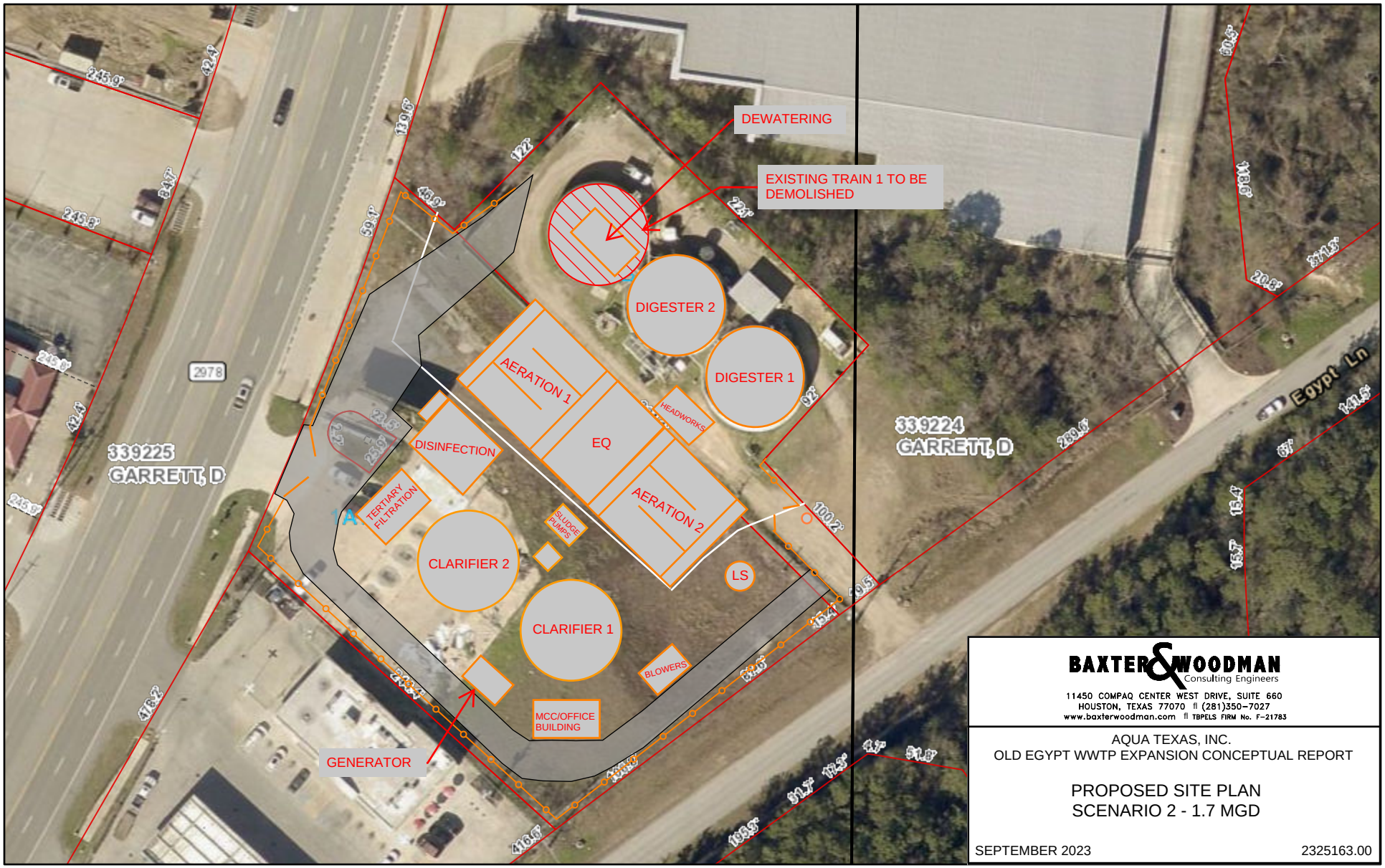
1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.03 0.05 km

Abstracts	Lot Lines	Abstracts
World Transportation	Lot Lines	
Parcels	Parcel Line	

Montgomery CAD Web Map



6/28/2023, 12:44:12 PM

Abstracts
World Transportation
Parcels

Lot Lines
Lot Lines
Parcel Line

Abstracts

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.03 0.05 km

Montgomery County Appraisal District, BIS Consulting -

ATTACHMENT F

Detailed Opinions of Construction Costs

Old Egypt WWTP Expansion Conceptual Plan

Scenario 1 - 2 MGD Average Flow; 8 MGD Peak Flow

Scenario 1 - Preliminary Opinion of Probable Construction Cost			
	Description		**Cost**
1.0	**Site Work and Miscellaneous Work**	$	550,000
2.0	**New Lift Station & Force Main**	$	1,850,000
3.0	**New Headworks**	$	1,350,000
4.0	**Equalization Basin**	$	1,400,000
5.0	**Aeration Basins**	$	4,530,000
6.0	**Secondary Clarifiers**	$	3,450,000
7.0	**Tertiary Filtration**	$	1,340,000
8.0	**Disinfection Basin and Flow Measurement**	$	2,000,000
9.0	**Existing Unit Conversion to Digesters**	$	1,150,000
10.0	**Solids Processing**	$	1,360,000
11.0	**New Blowers**	$	1,220,000
12.0	**MCC**	$	950,000
13.0	**Generator**	$	800,000
14.0	**Electrical, Instrumentation and Control**	$	7,850,000
15.0	**Piping**	$	1,750,000
	Contractor Mobilization/Demobilization, Overhead, Insurance, Bonds, Profit	$	7,888,000
	Contingencies	$	9,860,000
	PROJECT TOTAL	**$**	**49,298,000**

Preliminary Opinion of Probable Construction Cost Details

	Equipment / Material Description	Qty	Unit	Unit Cost	Installation	Total Cost
1.0	**Site Work and Miscellaneous Work**					
	Demolition, Disposal, Fence, driveway, Site Grading, Hyrdomulch, SWPPP	1	LS	$ 550,000		$ 550,000
		Category Subtotal				**$ 550,000**
2.0	**New Lift Station & Force Main**					
	Wet Well Structure	1	LS	$ 650,000		$ 650,000
	Equipment : Submersible pumps, motors	1	LS	$ 800,000		$ 800,000
	Construction Appurtenances	1	LS	$ 400,000		$ 400,000
		Category Subtotal				**$ 1,850,000**
3.0	**New Headworks**					
	Headworks Structure	1	LS	$ 400,000		$ 400,000
	Equipment: Mechanical Screen, Washer/Compactor	1	LS	$ 700,000		$ 700,000
	Construction Appurtenances	1	LS	$ 250,000		$ 250,000
		Category Subtotal				**$ 1,350,000**
4.0	**Equalization Basin**					
	Concrete Basin	1	LS	$ 1,000,000		$ 1,000,000
	Equipment	1	LS	$ 150,000		$ 150,000
	Construction Appurtenances	1	LS	$ 250,000		$ 250,000
		Category Subtotal				**$ 1,400,000**
5.0	**Aeration Basins**					
	Concrete Basins	1	LS	$ 3,400,000		$ 3,400,000
	Equipment	1	LS	$ 730,000		$ 730,000
	Construction Appurtenances	1	LS	$ 400,000		$ 400,000
		Category Subtotal				**$ 4,530,000**
6.0	**Secondary Clarifiers**					
	Concrete Basins	1	LS	$ 2,450,000		$ 2,450,000
	Equipment	1	LS	$ 700,000		$ 700,000
	Construction Appurtenances	1	LS	$ 300,000		$ 300,000
		Category Subtotal				**$ 3,450,000**
7.0	**Tertiary Filtration**					
	Concrete Basins	1	LS	$ 500,000		$ 500,000
	Equipment: Cloth Media Disk Filters, Pumps,and Appurtenances	1	LS	$ 740,000		$ 740,000
	Construction Appurtenances	1	LS	$ 100,000		$ 100,000
		Category Subtotal				**$ 1,340,000**
8.0	**Disinfection Basin and Flow Measurement**					
	Concrete Structure	1	LS	$ 850,000		$ 850,000
	Equipment: Chemical Pumps, NPW, Di-Chlorination	1	LS	$ 750,000		$ 750,000
	Construction Appurtenances	1	LS	$ 400,000		$ 400,000
		Category Subtotal				**$ 2,000,000**
9.0	**Existing Unit Conversion to Digesters**					
	Demolition	1	LS	$ 300,000		$ 300,000
	New Digester Tank	1	LS	$ 150,000		$ 150,000
	Equipment	1	LS	$ 450,000		$ 450,000
	Construction Appurtenances	1	LS	$ 250,000		$ 250,000
		Category Subtotal				**$ 1,150,000**

Preliminary Opinion of Probable Construction Cost Details								
Equipment / Material Description		**Qty**	**Unit**	**Unit Cost**		**Installation**		**Total Cost**
10.0	**Solids Processing**							
	New Building	1	LS	$	600,000		$	600,000
	Equipment	1	LS	$	510,000		$	510,000
	Construction Appurtenances	1	LS	$	250,000		$	250,000
		Category Subtotal					**$**	**1,360,000**
11.0	**New Blowers**							
	CMU Building	1	LS	$	200,000		$	200,000
	Equipment: Blowers	1	LS	$	900,000		$	900,000
	Construction Appurtenances	1	LS	$	120,000		$	120,000
		Category Subtotal					**$**	**1,220,000**
12.0	**MCC**							
	CMU Building	1	LS	$	250,000		$	250,000
	Equipment	1	LS	$	550,000		$	550,000
	Construction Appurtenances	1	LS	$	150,000		$	150,000
		Category Subtotal					**$**	**950,000**
13.0	**Generator**							
	Concrete Structure	1	LS	$	50,000		$	50,000
	Equipment	1	LS	$	450,000		$	450,000
	Construction Appurtenances	1	LS	$	300,000		$	300,000
		Category Subtotal					**$**	**800,000**
14.0	**Electrical, Instrumentation and Control**							
	Conduit & Wiring	1	LS	$	3,900,000		$	3,900,000
	Instrumentation & Control	1	LS	$	2,000,000		$	2,000,000
	Construction Appurtenances	1	LS	$	1,950,000		$	1,950,000
		Category Subtotal					**$**	**7,850,000**
15.0	**Piping**							
	RAS/WAS	1	LS	$	500,000		$	500,000
	Sludge Pumps	1	LS	$	250,000		$	250,000
	Yard Piping	1	LS	$	400,000		$	400,000
	Air Piping	1	LS	$	600,000		$	600,000
		Category Subtotal					**$**	**1,750,000**
				Subtotal			**$**	**31,550,000**
	Contractor Mobilization/Demobilization, Overhead, Insurance, Bonds, Profit			**25%**			**$**	**7,888,000**
				Subtotal			**$**	**39,438,000**
	Contingencies			**25.0%**			**$**	**9,860,000**
		PROJECT TOTAL					**$**	**49,298,000**

Old Egypt WWTP Expansion Conceptual Plan

Scenario 1 - 1.7 MGD Average Flow; 6.8 MGD Peak Flow

Scenario 2 - Preliminary Opinion of Probable Construction Cost			
	Description	**Cost**	
1.0	**Site Work and Miscellaneous Work**	$	550,000
2.0	**New Lift Station & Force Main**	$	1,600,000
3.0	**New Headworks**	$	1,140,000
4.0	**Equalization Basin**	$	1,260,000
5.0	**Aeration Basins**	$	3,850,000
6.0	**Secondary Clarifiers**	$	2,800,000
7.0	**Tertiary Filtration**	$	1,140,000
8.0	**Disinfection Basin and Flow Measurement**	$	1,700,000
9.0	**Existing Unit Conversion to Digesters**	$	1,000,000
10.0	**Solids Processing**	$	1,150,000
11.0	**New Blowers**	$	1,050,000
12.0	**MCC**	$	850,000
13.0	**Generator**	$	680,000
14.0	**Electrical, Instrumentation and Control**	$	6,430,000
15.0	**Piping**	$	1,750,000
	Contractor Mobilization/Demobilization, Overhead, Insurance, Bonds, Profit	$	6,738,000
	Contingencies	$	8,422,000
	PROJECT TOTAL	**$**	**42,110,000**

Preliminary Opinion of Probable Construction Cost Details

	Equipment / Material Description	Qty	Unit	Unit Cost	Installation	Total Cost
1.0	**Site Work and Miscellaneous Work**					
	Demolition, Disposal, Fence, driveway, Site Grading, Hyrdomulch, SWPPP	1	LS	$ 550,000		$ 550,000
		Category Subtotal				**$ 550,000**
2.0	**New Lift Station & Force Main**					
	Wet Well Structure	1	LS	$ 600,000		$ 600,000
	Equipment : Submersible pumps, motors	1	LS	$ 700,000		$ 700,000
	Construction Appurtenances	1	LS	$ 300,000		$ 300,000
		Category Subtotal				**$ 1,600,000**
3.0	**New Headworks**					
	Headworks Structure	1	LS	$ 340,000		$ 340,000
	Equipment: Mechanical Screen, Washer/Compactor	1	LS	$ 600,000		$ 600,000
	Construction Appurtenances	1	LS	$ 200,000		$ 200,000
		Category Subtotal				**$ 1,140,000**
4.0	**Equalization Basin**					
	Concrete Basin	1	LS	$ 900,000		$ 900,000
	Equipment	1	LS	$ 130,000		$ 130,000
	Construction Appurtenances	1	LS	$ 230,000		$ 230,000
		Category Subtotal				**$ 1,260,000**
5.0	**Aeration Basins**					
	Concrete Basins	1	LS	$ 2,850,000		$ 2,850,000
	Equipment	1	LS	$ 600,000		$ 600,000
	Construction Appurtenances	1	LS	$ 400,000		$ 400,000
		Category Subtotal				**$ 3,850,000**
6.0	**Secondary Clarifiers**					
	Concrete Basins	1	LS	$ 1,900,000		$ 1,900,000
	Equipment	1	LS	$ 600,000		$ 600,000
	Construction Appurtenances	1	LS	$ 300,000		$ 300,000
		Category Subtotal				**$ 2,800,000**
7.0	**Tertiary Filtration**					
	Concrete Basins	1	LS	$ 400,000		$ 400,000
	Equipment: Cloth Media Disk Filters, Pumps,and Appurtenances	1	LS	$ 640,000		$ 640,000
	Construction Appurtenances	1	LS	$ 100,000		$ 100,000
		Category Subtotal				**$ 1,140,000**
8.0	**Disinfection Basin and Flow Measurement**					
	Concrete Structure	1	LS	$ 650,000		$ 650,000
	Equipment: Chemical Pumps, NPW, Di-Chlorination	1	LS	$ 700,000		$ 700,000
	Construction Appurtenances	1	LS	$ 350,000		$ 350,000
		Category Subtotal				**$ 1,700,000**
9.0	**Existing Unit Conversion to Digesters**					
	Demolition	1	LS	$ 300,000		$ 300,000
	Equipment	1	LS	$ 450,000		$ 450,000
	Construction Appurtenances	1	LS	$ 250,000		$ 250,000
		Category Subtotal				**$ 1,000,000**

Preliminary Opinion of Probable Construction Cost Details

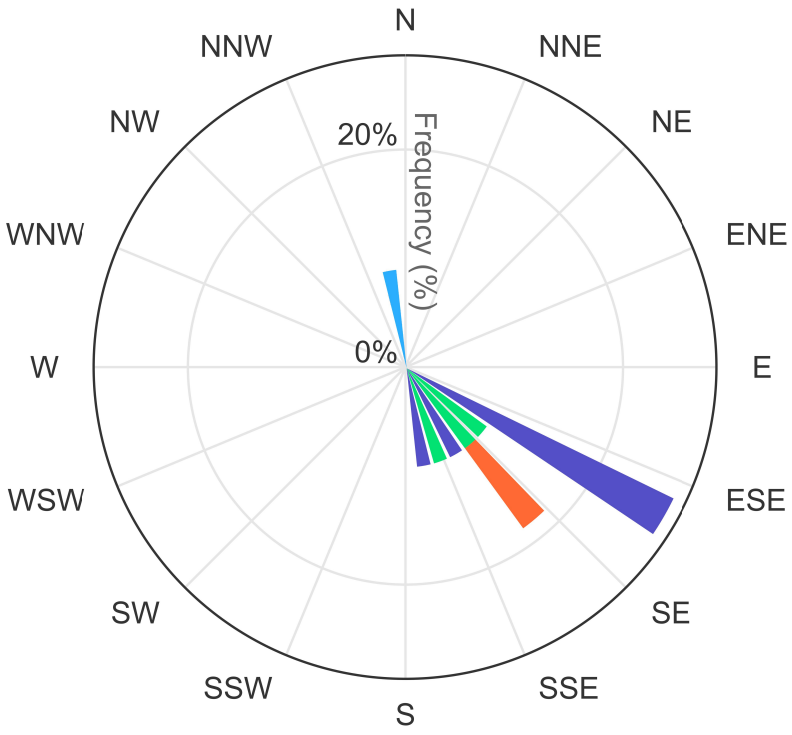
	Equipment / Material Description	Qty	Unit	Unit Cost	Installation	Total Cost
10.0	**Solids Processing**					
	New Building	1	LS	$ 450,000		$ 450,000
	Equipment	1	LS	$ 500,000		$ 500,000
	Construction Appurtenances	1	LS	$ 200,000		$ 200,000
		Category Subtotal				**$ 1,150,000**
11.0	**New Blowers**					
	CMU Building	1	LS	$ 200,000		$ 200,000
	Equipment: Blowers	1	LS	$ 750,000		$ 750,000
	Construction Appurtenances	1	LS	$ 100,000		$ 100,000
		Category Subtotal				**$ 1,050,000**
12.0	**MCC**					
	CMU Building	1	LS	$ 200,000		$ 200,000
	Equipment	1	LS	$ 500,000		$ 500,000
	Construction Appurtenances	1	LS	$ 150,000		$ 150,000
		Category Subtotal				**$ 850,000**
13.0	**Generator**					
	Concrete Structure	1	LS	$ 50,000		$ 50,000
	Equipment	1	LS	$ 380,000		$ 380,000
	Construction Appurtenances	1	LS	$ 250,000		$ 250,000
		Category Subtotal				**$ 680,000**
14.0	**Electrical, Instrumentation and Control**					
	Conduit & Wiring	1	LS	$ 3,200,000		$ 3,200,000
	Instrumentation & Control	1	LS	$ 1,650,000		$ 1,650,000
	Construction Appurtenances	1	LS	$ 1,580,000		$ 1,580,000
		Category Subtotal				**$ 6,430,000**
15.0	**Piping**					
	RAS/WAS	1	LS	$ 500,000		$ 500,000
	Sludge Pumps	1	LS	$ 250,000		$ 250,000
	Yard Piping	1	LS	$ 400,000		$ 400,000
	Air Piping	1	LS	$ 600,000		$ 600,000
		Category Subtotal				**$ 1,750,000**
				Subtotal		**$ 26,950,000**
	Contractor Mobilization/Demobilization, Overhead, Insurance, Bonds, Profit			**25%**		**$ 6,738,000**
				Subtotal		**$ 33,688,000**
	Contingencies			**25.0%**		**$ 8,422,000**
		PROJECT TOTAL				**$ 42,110,000**

ATTACHMENT 20

WIND ROSE

HOUSTON INTERCONT AP (TX) Wind Rose

May 1, 2024 - May 2, 2024
Sub-Interval: Jan. 1 - Dec. 31, 0 - 23



Wind Speed (mph)

- 1.3 - 4
- 4 - 8
- 8 - 13
- 13 - 19
- 19 - 25
- 25 - 32
- 32 - 39
- 39 - 47
- 47 -

BAXTER & WOODMAN Consulting Engineers
11450 COMPAQ CENTER WEST DRIVE, SUITE 660
HOUSTON, TEXAS 77070 (281)350-7027
www.baxterwoodman.com TBPELS FIRM No. F-21783

AQUA TEXAS
OLD EGYPT WWTP TPDES RENEWAL

WIND ROSE

MAY 2024 2325163.00