



Administrative Package Cover Page

This file contains the following documents:

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



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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

PLAIN LANGUAGE SUMMARY
TLAP PERMIT RENEWAL AND AMENDMENT APPLICATION
WQ0002013000
HOLMES FOODS, INC.
NIXON, TEXAS

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.

Holmes Foods, Inc. (CN600800023) operates the Holmes Foods Poultry Processing Plant (RN101526374), a poultry processing facility that utilizes a zero discharge land application system for the management of wastewater from the facility. The facility is located at 101 South Liberty Avenue, in Nixon, Gonzales County, Texas 78140. The water quality permit application is being submitted to renew existing TLAP Permit No. WQ0002013000 and to amend the existing permit to add an additional 87.75 acres of land application area to accommodate an increase in allowable average daily flow from 700,000 gallons per day to 880,000 gallons per day. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD, total suspended solids, oil and grease, and nitrogen compounds. Wastewater discharges including processing plant flows, plant sanitation wastewater, boiler blowdown water, and cooling tower blowdown water are treated by screening, dissolved air flotation, facultative lagoons, storage lagoons, and zero discharge land application.

RESUMEN EN LENGUAJE SENCILLO
SOLICITUD DE RENOVACIÓN Y ENMIENDA DEL PERMISO TLAP
WQ0002013000
HOLMES FOODS, INC.
NIXON, TEXAS

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 exige el Capítulo 39 del 30 TAC. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

Holmes Foods, Inc. (CN600800023) opera la Planta de Procesamiento de Aves de Corral (RN101526374) de Holmes Foods, una instalación de procesamiento de aves de corral que utiliza un sistema de aplicación de tierra de descarga cero para el manejo de las aguas residuales de la instalación. La instalación está ubicada en 101 South Liberty Avenue, en Nixon, Condado de Gonzales, Texas 78140. La solicitud de permiso de calidad del agua se está presentando para renovar el Permiso TLAP existente No. WQ0002013000 y enmendar el permiso existente para agregar 87.75 acres adicionales de área de aplicación terrestre para acomodar un aumento en el flujo diario promedio permitido de 700,000 galones por día a 880,000 galones por día. Este permiso no autorizará la descarga de contaminantes en el agua del estado.

Se espera que las descargas de la instalación contengan DBO, sólidos suspendidos totales, aceite y grasa, y compuestos de nitrógeno. Las descargas de aguas residuales, incluidos los flujos de la planta de procesamiento, las aguas residuales de saneamiento de la planta, el agua de purga de calderas y el agua de purga de torres de enfriamiento se tratan mediante cribado, flotación por aire disuelto, lagunas facultativas, lagunas de almacenamiento y aplicación terrestre de descarga cero.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0002013000

APPLICATION. Holmes Foods, Inc., 101 South Liberty Avenue, Nixon, Texas 78140, which owns a poultry processing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Land Application Permit (TLAP) No. WQ0002013000 to authorize the addition of 87.75 acres of additional land application area to increase the total land application area to 429.02 acres and an increase to the disposal of treated wastewater to a volume not to exceed a daily average flow of 880,000 gallons per day via surface application. The facility is located at 101 South Liberty Avenue, Nixon, in Gonzales County, Texas 78140 and the disposal site is located on Farm-to-Market Road 1681, approximately one mile northwest of the City of Nixon, in Gonzales and Wilson Counties, Texas 78140. TCEQ received this application on July 24, 2024. The permit application will be available for viewing and copying at Nixon Public Library, 401 North Nixon Avenue, Nixon, in Gonzales County, Texas, and at Stockdale Public Library, 602 West Main Street, Stockdale, in Wilson County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.788333,29.271388&level=18>

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

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the

opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

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

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

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

Further information may also be obtained from Holmes Foods, Inc. at the address stated above or by calling Mr. Vernon Rowe, P.E., Rowenvironmental, at 903-767-0945.

Issuance Date: August 21, 2024

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECEPCIÓN DE LA SOLICITUD Y LA INTENCIÓN DE OBTENER CALIDAD DEL AGUA PERMISO MODIFICACION

PERMISO NO. WQ0002013000

SOLICITUD. Holmes Foods, Inc., 101 South Liberty Avenue, Nixon, Texas 78140, propietario de una instalación de procesamiento de aves de corral, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0002013000 de disposición de aguas residuales para autorizar la adición de 87,75 acres de área de aplicación de tierra adicional para aumentar el área de aplicación de tierra total a 429,02 acres y un aumento en la eliminación de aguas residuales tratadas a un volumen que no exceda un flujo promedio diario de 880,000 galones por día mediante aplicación superficial. La instalación está ubicada en 101 South Liberty Avenue, Nixon, en el condado de Gonzales, Texas 78140 y el sitio de disposición está ubicado en Farm-to-Market Road 1681, aproximadamente a una milla al noroeste de la ciudad de Nixon, en los condados de Gonzales y Wilson, Texas 78140. La TCEQ recibió esta solicitud el 24 de julio de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Nixon Public Library, 401 North Nixon Avenue, Nixon, en el Condado de Gonzales, Texas, y en Stockdale Public Library, 602 West Main Street, Stockdale, en el Condado de Wilson, 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/tlap-applications>.

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.788333,29.271388&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/tlap-applications>.

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo,

la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de 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 específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía 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 Holmes Foods, Inc. a la dirección indicada arriba o llamando a Sr. Vernon Rowe, P.E., Rowenvironmental, al 903-767-0945.

Fecha de emisión el 21 de agosto de 2024

Jon Niermann, *Chairman*
Bobby Janecka, *Commissioner*
Catarina R. Gonzales, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 24, 2024

Dear Applicant:

Re: Confirmation of Submission of the Major Amendment with Renewal for Industrial Wastewater Authorization.

This is an acknowledgement that you have successfully completed Major Amendment with Renewal for the Industrial Wastewater authorization.

ER Account Number: ER063948
Application Reference Number: 665766
Authorization Number: WQ0002013000
Site Name: Holmes Foods Nixon Processing Plant
Regulated Entity: RN101526374 - Holmes Foods
Customer(s): CN600800023 - Holmes Foods, Inc.

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality
Update Domestic or Industrial Individual Permit
WQ0002013000

Site Information (Regulated Entity)

What is the name of the site to be authorized?	HOLMES FOODS NIXON PROCESSING PLANT
Does the site have a physical address?	No
Because there is no physical address, describe how to locate this site:	LOCATED ON FM 1681 APPROX 1 MI NW OF THE CITY
City	NIXON
State	TX
ZIP	78140
County	GONZALES
Latitude (N) (##.#####)	29.271388
Longitude (W) (-###.#####)	-97.788333
Primary SIC Code	2015
Secondary SIC Code	
Primary NAICS Code	311615
Secondary NAICS Code	

Regulated Entity Site Information

What is the Regulated Entity's Number (RN)?	RN101526374
What is the name of the Regulated Entity (RE)?	HOLMES FOODS
Does the RE site have a physical address?	Yes

Physical Address

Number and Street	101 S LIBERTY AVE
City	NIXON
State	TX
ZIP	78140
County	GONZALES
Latitude (N) (##.#####)	29.2675
Longitude (W) (-###.#####)	-97.769444
Facility NAICS Code	
What is the primary business of this entity?	RETAIL

Holmes -Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
What is the applicant's Customer Number (CN)?	CN600800023

Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	Holmes Foods, Inc.
Texas SOS Filing Number	18363300
Federal Tax ID	741404989
State Franchise Tax ID	17414049894
State Sales Tax ID	
Local Tax ID	
DUNS Number	8120883
Number of Employees	251-500
Independently Owned and Operated?	Yes
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
Responsible Authority Contact	
Organization Name	Holmes Foods, Inc.
Prefix	MR
First	Jimmy
Middle	
Last	Newman
Suffix	
Credentials	
Title	EHS Manager
Responsible Authority Mailing Address	
Enter new address or copy one from list:	RE Physical Address
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	101 S LIBERTY AVE
Routing (such as Mail Code, Dept., or Attn:)	
City	NIXON
State	TX
ZIP	78140
Phone (###-###-####)	8305821551
Extension	
Alternate Phone (###-###-####)	8308571325
Fax (###-###-####)	
E-mail	jnewman@holmesfoods.com

Billing Contact

Responsible contact for receiving billing statements:

Select the permittee that is responsible for payment of the annual fee.	CN600800023, Holmes Foods, Inc.
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Organization Name	HOLMES FOODS INC
Prefix	MR
First	Jimmy
Middle	
Last	Newman
Suffix	
Credentials	
Title	EHS Manager
Enter new address or copy one from list:	RE Physical Address
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	101 S LIBERTY AVE
Routing (such as Mail Code, Dept., or Attn:)	
City	NIXON
State	TX
ZIP	78140
Phone (###-###-####)	8305821551
Extension	
Alternate Phone (###-###-####)	8308571325
Fax (###-###-####)	
E-mail	jnewman@holmesfoods.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	Billing Contact
Organization Name	HOLMES FOODS INC
Prefix	MR
First	Jimmy
Middle	
Last	Newman
Suffix	
Credentials	
Title	EHS Manager
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	101 S LIBERTY AVE
Routing (such as Mail Code, Dept., or Attn:)	
City	NIXON

State	TX
ZIP	78140
Phone (###-###-####)	8305821551
Extension	
Alternate Phone (###-###-####)	8308571325
Fax (###-###-####)	
E-mail	jnewman@holmesfoods.com

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name	ROWENVIRONMENTAL
Prefix	MR
First	VERNON
Middle	
Last	ROWE
Suffix	
Credentials	PE
Title	ENVIRONMENTAL CONSULTANT

Enter new address or copy one from list:

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	273 COUNTY ROAD 4164
Routing (such as Mail Code, Dept., or Attn:)	
City	PITTSBURG
State	TX
ZIP	75686
Phone (###-###-####)	9037670945
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	ROWENVIRONMENTAL@HOTMAIL.COM

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	Billing Contact
Organization Name	HOLMES FOODS INC

Prefix	MR
First	Jimmy
Middle	
Last	Newman
Suffix	
Credentials	
Title	EHS Manager
Enter new address or copy one from list:	
Mailing Address:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	101 S LIBERTY AVE
Routing (such as Mail Code, Dept., or Attn:)	
City	NIXON
State	TX
ZIP	78140
Phone (###-###-####)	8305821551
Extension	
Alternate Phone (###-###-####)	8308571325
Fax (###-###-####)	
E-mail	jnewman@holmesfoods.com

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Billing Contact
2) Organization Name	HOLMES FOODS INC
3) Prefix	MR
4) First	Jimmy
5) Middle	
6) Last	Newman
7) Suffix	
8) Credentials	
9) Title	EHS Manager
Mailing Address	
10) Enter new address or copy one from list	Billing Contact
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	101 S LIBERTY AVE
11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	NIXON

11.4) State	TX
11.5) ZIP	78140
12) Phone (###-###-####)	8305821551
13) Extension	
14) Alternate Phone (###-###-####)	8308571325
15) Fax (###-###-####)	
16) E-mail	jnewman@holmesfoods.com

Owner Information

Owner of Treatment Facility

1) Prefix	
2) First and Last Name	
3) Organization Name	Holmes Foods Inc
4) Mailing Address	101 South Liberty Avenue
5) City	Nixon
6) State	TX
7) Zip Code	78140
8) Phone (###-###-####)	8305821551
9) Extension	
10) Email	jnewman@holmesfoods.com
11) What is ownership of the treatment facility?	Private

Owner of Land (where treatment facility is or will be)

12) Prefix	
13) First and Last Name	
14) Organization Name	Holmes Foods Inc
15) Mailing Address	101 South Liberty Avenue
16) City	Nixon
17) State	TX
18) Zip Code	78140
19) Phone (###-###-####)	8305821551
20) Extension	
21) Email	jnewman@holmesfoods.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

General Information Renewal-Amendment

1) Current authorization expiration date:	02/01/2025
2) Current Facility operational status:	Active
3) Is the facility located on or does the treated effluent cross American	No

Indian Land?

4) What is the application type that you are seeking?

4.1) Describe the proposed changes:

5) Current Authorization type:

5.1) What is your EPA facility classification?

5.1.1) Are the discharges at your facility subjected to federal effluent limitation guidelines (ELG) 40 CFR Part 400-471?

5.1.1.1) Select the applicable fee for the Minor facility that is not subjected to 40 CFR 400-471:

6) What is the classification for your authorization?

6.1) Is the location of the effluent disposal site in the existing permit accurate?

6.2) City nearest the disposal site:

6.3) County in which the disposal site is located:

6.4) Describe the routing of effluent from the treatment facility to the disposal site:

6.5) Identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

6.6) If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?

Owner of Effluent TLAP Disposal Site

6.7) Prefix

6.8) First and Last Name

6.9) Organization Name

6.10) Mailing Address

6.11) City

6.12) State

6.13) Zip Code

6.14) Phone (###-###-####)

6.15) Extension

Major Amendment with Renewal

Add 87.75 acres of additional land application area to increase the total land application area to 429.02 acres. Increase allowable hydraulic flow from processing plant from average of 700,000 gallons per day to 880,000 gallons per day.

Industrial Wastewater

Minor

No

Major Amendment - \$350

TLAP

Yes

Gonzales

GONZALES|WILSON

Pretreated wastewater is pumped from the processing plant through a force main to the wastewater treatment and storage lagoons located approximately 1.28 miles west of the processing plant. Wastewater is pumped from the treatment and storage lagoons through a force main to center pivot units to distribute the wastewater to the land application site.

Clear Fork Creek

Not Applicable

Holmes Foods Inc

101 South Liberty Avenue

Nixon

TX

75686

8305821551

6.16) Email	jnewman@holmesfoods.com
6.17) Is the landowner the same person as the facility owner or co-applicant?	Yes
7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	No

Public Notice Information

Individual Publishing the Notices

1) Prefix	MR
2) First and Last Name	Vernon Rowe
3) Credential	PE
4) Title	Environmental Consultant
5) Organization Name	rowenvironmental
6) Mailing Address	273 COUNTY ROAD 4164
7) Address Line 2	
8) City	PITTSBURG
9) State	TX
10) Zip Code	75686
11) Phone (###-###-####)	9037670945
12) Extension	
13) Fax (###-###-####)	
14) Email	rowenvironmental@hotmail.com

Contact person to be listed in the Notices

15) Prefix	MR
16) First and Last Name	Vernon Rowe
17) Credential	PE
18) Title	Environmental Consultant
19) Organization Name	
20) Phone (###-###-####)	9037670945
21) Fax (###-###-####)	
22) Email	rowenvironmental@hotmail.com

Bilingual Notice Requirements

23) 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
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
23.3) Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19	No

TAC 89.1205(g)?

23.4) Which language is required by the bilingual program?

Spanish

Section 1# Public Viewing Information

County#: 1

1) County	GONZALES
2) Public building name	Nixon Public Library
3) Location within the building	Reference shelf
4) Physical Address of Building	401 North Avenue
5) City	Gonzales
6) Contact Name	
7) Phone (###-###-####)	8305821913
8) Extension	
9) Is the location open to the public?	Yes

County#: 2

1) County	WILSON
2) Public building name	Stockdale Public Library
3) Location within the building	Reference Shelf
4) Physical Address of Building	602 West Main Street
5) City	Stockdale
6) Contact Name	
7) Phone (###-###-####)	8309963114
8) Extension	
9) Is the location open to the public?	Yes

Plain Language

1) Plain Language

[File Properties]

File Name

LANG_PLAIN LANGUAGE SUMMARY
HOLMES FOODS NIXON TX.pdf

Hash

52DD67153A030BFDF7385E7214D20E3E58A0901234261FC72CB3D6A457547E93

MIME-Type

application/pdf

Industrial Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.

[File Properties]

File Name	MAP_AERIAL SITE PLAN APR 2020 WITHOUT AERIAL WITH QUAD REDUCED WITH SMALLER LINES LS.pdf
Hash	F3EC17AC7766411E9232A75EF3C624C3D955D9FE7C074CE67C552AA466368196
MIME-Type	application/pdf

2) Public Involvement Plan (TCEQ Form 20960)

[File Properties]

File Name	PIP_pip-form-tceq-20960 Holmes Foods Nixon TX.pdf
Hash	76E1F5039DE56D4DAA47B7909D41EF7F7E79E8D8FF30AE344A7049D7517DD96F
MIME-Type	application/pdf

3) Administrative Report 1.1

[File Properties]

File Name	ARPT_10411 Ind Admin Rpt 1.1 - Holmes Foods Nixon TX - WQ0002013000.pdf
Hash	E33F21D8ABF9BAF75EA6DA1C798A8844CED88D526D0E495C38DE2DCAC72DC2F8
MIME-Type	application/pdf

4) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
--	-----

4.1) I confirm that Worksheet 3.0 (Land Application of Effluent) is complete and included in the Technical Attachment.	Yes
--	-----

4.2) I confirm that Worksheet 3.1 (Surface Land Application and Evaporation) is complete and included in the Technical Attachment.	Yes
--	-----

4.3) I confirm that Worksheet 3.2 (Subsurface Irrigation System (Non-Drip) is complete and included in the Technical Attachment.	Yes
--	-----

4.4) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment?	No
--	----

4.5) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment?	No
---	----

4.6) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment?	No
---	----

4.7) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment?	No
---	----

4.8) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment?	No
--	----

4.9) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment?	No
--	----

4.10) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment?	No
--	----

4.11) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment?	No
---	----

4.12) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment? No

4.13) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment? No

4.14) Technical Attachment

[File Properties]

File Name TECH_10055 Ind Tech Rpt - Holmes Foods
Nixon Tx.pdf

Hash 570054429CADD377A066B796F7B6EAF884379A14F575AFB999C699EB782D6E9

MIME-Type application/pdf

5) Affected Landowners Map

[File Properties]

File Name LANDMP_AERIAL SITE PLAN MAY 2024 ADJ
PROP OWNERS.pdf

Hash AF452E372D3F9AA4A018FEA8047CEC28552EFF316D7B7D14244098931E99E880

MIME-Type application/pdf

6) Landowners Cross Reference List

[File Properties]

File Name LANDCRL_Adjacent Prop Owners Addresses
Cross Ref List.pdf

Hash 47A7063E276E8ECA86C5A8C507A910E6B40C677FE6849D4421EC924DE1AED517

MIME-Type application/pdf

7) Landowner Avery Template

[File Properties]

File Name LANDAT_Avery Mail Label Template - Adj Prop
Owners - Holmes Foods.pdf

Hash 7F1C8B54A84D04C9FB7B714548C317270EAC1098010AF94662F740871E72AF08

MIME-Type application/pdf

8) Flow Diagram

[File Properties]

File Name FLDIA_T-2 WASTEWATER TREATMENT
SYSTEM FLOW DIAGRAM.pdf

Hash 27E4EADC4468DC606C818A87EE3EBD333EB955F1EA2271CBEF9E27AD82F23E4F

MIME-Type application/pdf

9) Site Drawing

[File Properties]

File Name SITEDR_ATTACHMENT T-1 PROCESSING
PLANT FACILITY MAP.pdf

Hash	EB4E2FCF99A46348F2DAC138577658ACA972653FE8C1F27E0FFEF48BD4053D1D
MIME-Type	application/pdf
[File Properties]	
File Name	SITEDR_T-1 AERIAL SITE PLAN JUN 3 2024.pdf
Hash	B785F3106AAD1AF5F22EDD2B8CFECC22780844120C150FA8E3FBD27968E19DBF
MIME-Type	application/pdf
10) Original Photographs	
[File Properties]	
File Name	ORIGPH_AERIAL SITE PLAN PHOTO REFERENCE.pdf
Hash	433F5ED6D2FAD0F68EA5BF134E809AF7F11B8DACA08553D000143F962EF80265
MIME-Type	application/pdf
[File Properties]	
File Name	ORIGPH_LAND AP PHOTOS.pdf
Hash	78BE0EB899823364CD566730874103342A9FEC922FCCA8E9644E8C695EAE49AB
MIME-Type	application/pdf
11) Design Calculations	
[File Properties]	
File Name	DES_CAL_Technical Report for Land Application of Poultry Wastewater.pdf
Hash	E1BBC715E23B3FCFC1DAED84A68A087F4762EB007DD318B1A55049BBB7DE2F56
MIME-Type	application/pdf

12) Solids Management Plan

13) Water Balance

[File Properties]

File Name	WB_Water Balance.pdf
Hash	3D1AE76BCA9D77A35AADEA669879280EAC38385AF94ACC5C6AA51FC6F75D80DE
MIME-Type	application/pdf

14) Other Attachments

Certification

I certify that I am authorized under 30 Texas Administrative Code 305.44 to sign this document and can provide documentation in proof of such authorization upon request.

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.

1. I am Jimmy Newman, the owner of the STEERS account ER063948.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0002013000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Jimmy Newman OWNER

Customer Number:	CN600800023
Legal Name:	Holmes Foods, Inc.
Account Number:	ER063948
Signature IP Address:	65.212.192.62
Signature Date:	2024-07-24
Signature Hash:	4567F26A923973DF0354EF3D99F599ABEA8493FAE53C278D2DACE22FDE50B0FF
Form Hash Code at time of Signature:	BB153766B90C7BD98CEEDCFA4EF1665255647A0E43D970F921A9BEE2CB3C5C25

Fee Payment

Transaction by:	The application fee payment transaction was made by ER063948/Jimmy Newman
Paid by:	The application fee was paid by FRED BARLOW
Fee Amount:	\$300.00
Paid Date:	The application fee was paid on 2024-07-24
Transaction/Voucher number:	The transaction number is 582EA000618735 and the voucher number is 714300

Submission

Reference Number:	The application reference number is 665766
Submitted by:	The application was submitted by ER063948/Jimmy Newman
Submitted Timestamp:	The application was submitted on 2024-07-24 at 13:26:44 CDT

Submitted From:	The application was submitted from IP address 65.212.192.62
Confirmation Number:	The confirmation number is 552888
Steers Version:	The STEERS version is 6.79
Permit Number:	The permit number is WQ0002013000

Additional Information

Application Creator: This account was created by Vernon D Rowe

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. Affected Landowner Information (Instructions, Page 35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ 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 (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☒ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of 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 (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: A-5

- b. Check the box next to the format of the landowners list:

☐ Readable/Writeable CD ☒ Four sets of labels

Attachment: A-6

- d. Provide the source of the landowners' names and mailing addresses: Gonzales County Appraisal District; Wilson 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): n/a

Item 2. Original Photographs (Instructions, Page 37)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

- ☐ 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.

Attachment: A-7

PLAIN LANGUAGE SUMMARY
TLAP PERMIT RENEWAL AND AMENDMENT APPLICATION
WQ0002013000
HOLMES FOODS, INC.
NIXON, TEXAS

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.

Holmes Foods, Inc. (CN600800023) operates the Holmes Foods Poultry Processing Plant (RN101526374), a poultry processing facility that utilizes a zero discharge land application system for the management of wastewater from the facility. The facility is located at 101 South Liberty Avenue, in Nixon, Gonzales County, Texas 78140. The water quality permit application is being submitted to renew existing TLAP Permit No. WQ0002013000 and to amend the existing permit to add an additional 87.75 acres of land application area to accommodate an increase in allowable average daily flow from 700,000 gallons per day to 880,000 gallons per day. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD, total suspended solids, oil and grease, and nitrogen compounds. Wastewater discharges including processing plant flows, plant sanitation wastewater, boiler blowdown water, and cooling tower blowdown water are treated by screening, dissolved air flotation, facultative lagoons, storage lagoons, and zero discharge land application.

RESUMEN EN LENGUAJE SENCILLO
SOLICITUD DE RENOVACIÓN Y ENMIENDA DEL PERMISO TLAP
WQ0002013000
HOLMES FOODS, INC.
NIXON, TEXAS

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 exige el Capítulo 39 del 30 TAC. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud de permiso.

Holmes Foods, Inc. (CN600800023) opera la Planta de Procesamiento de Aves de Corral (RN101526374) de Holmes Foods, una instalación de procesamiento de aves de corral que utiliza un sistema de aplicación de tierra de descarga cero para el manejo de las aguas residuales de la instalación. La instalación está ubicada en 101 South Liberty Avenue, en Nixon, Condado de Gonzales, Texas 78140. La solicitud de permiso de calidad del agua se está presentando para renovar el Permiso TLAP existente No. WQ0002013000 y enmendar el permiso existente para agregar 87.75 acres adicionales de área de aplicación terrestre para acomodar un aumento en el flujo diario promedio permitido de 700,000 galones por día a 880,000 galones por día. Este permiso no autorizará la descarga de contaminantes en el agua del estado.

Se espera que las descargas de la instalación contengan DBO, sólidos suspendidos totales, aceite y grasa, y compuestos de nitrógeno. Las descargas de aguas residuales, incluidos los flujos de la planta de procesamiento, las aguas residuales de saneamiento de la planta, el agua de purga de calderas y el agua de purga de torres de enfriamiento se tratan mediante cribado, flotación por aire disuelto, lagunas facultativas, lagunas de almacenamiento y aplicación terrestre de descarga cero.



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

New Permit or Registration Application

New Activity - modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

Requires public notice,

Considered to have significant public interest, and

Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

**If all the above boxes are not checked, a Public Involvement Plan is not necessary.
Stop after Section 2 and submit the form.**

Public Involvement Plan not applicable to this application. Provide **brief** explanation.

Section 3. Application Information

Type of Application (check all that apply):

Air Initial Federal Amendment Standard Permit Title V
Waste Municipal Solid Waste Industrial and Hazardous Waste Scrap Tire
Radioactive Material Licensing Underground Injection Control

Water Quality

Texas Pollutant Discharge Elimination System (TPDES)
Texas Land Application Permit (TLAP)
State Only Concentrated Animal Feeding Operation (CAFO)
Water Treatment Plant Residuals Disposal Permit
Class B Biosolids Land Application Permit
Domestic Septage Land Application Registration

Water Rights New Permit

New Appropriation of Water
New or existing reservoir

Amendment to an Existing Water Right

Add a New Appropriation of Water
Add a New or Existing Reservoir
Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

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

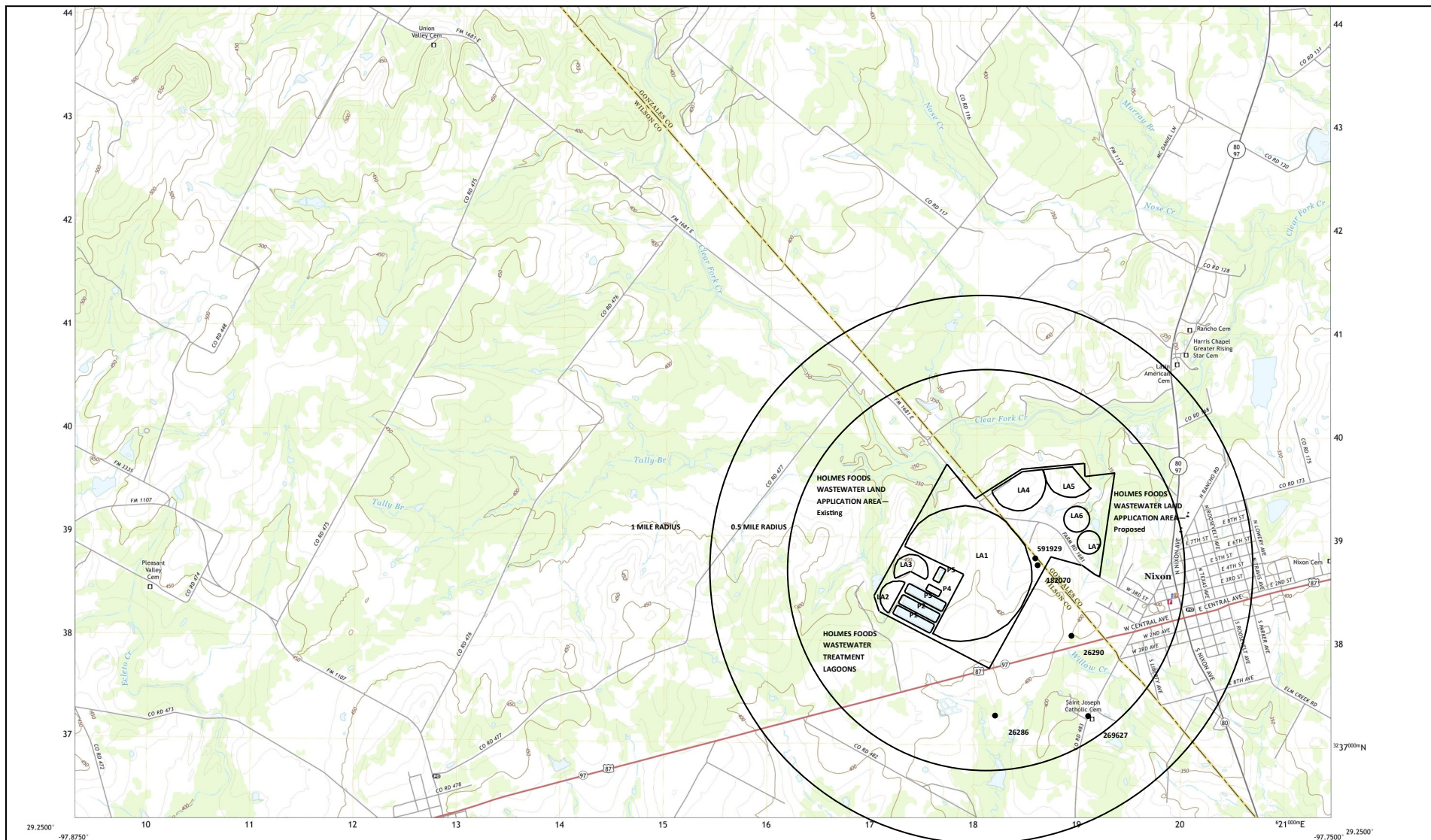
What types of notice will be provided?

Publish in alternative language newspaper

Posted on Commissioner's Integrated Database Website

Mailed by TCEQ's Office of the Chief Clerk

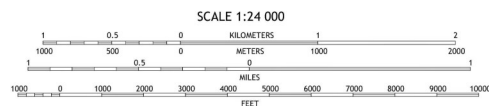
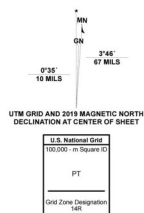
Other (specify)



Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1,800-meter grid/Universal Transverse Mercator, Zone 14R
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery.....NAIP, September 2016 - November 2016
Roads.....U.S. Census Bureau, 2015 - 2019
Names.....GNS, 1979 - 2022
Hydrography.....National Hydrography Dataset, 2003 - 2018
Contours.....National Elevation Dataset, 2021
Boundaries.....Multiple sources; see metadata file 2019 - 2021
Wetlands.....FWS National Wetlands Inventory Not Available



CONTOUR INTERVAL: 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geospatial Program US Topo Product Standard.



1	2	3
4	5	6
7	8	9

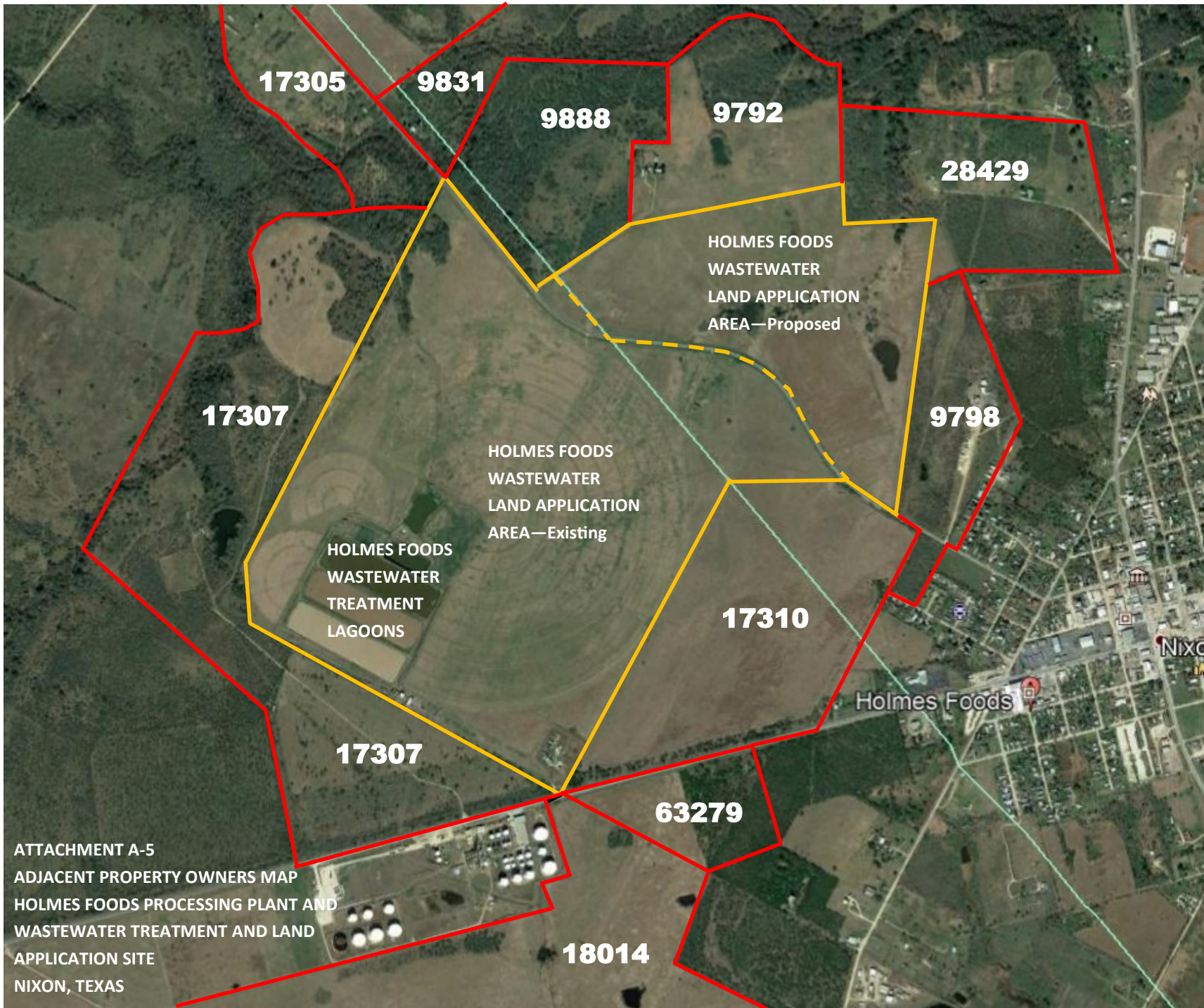
ADJOINING QUADRANGLES

1 Thomas Springs
2 Beeville
3 Leesville
4 Alum
5 Smiley
6 Stockdale
7 Gillett
8 Bald Mound



NIXON, TX
2022

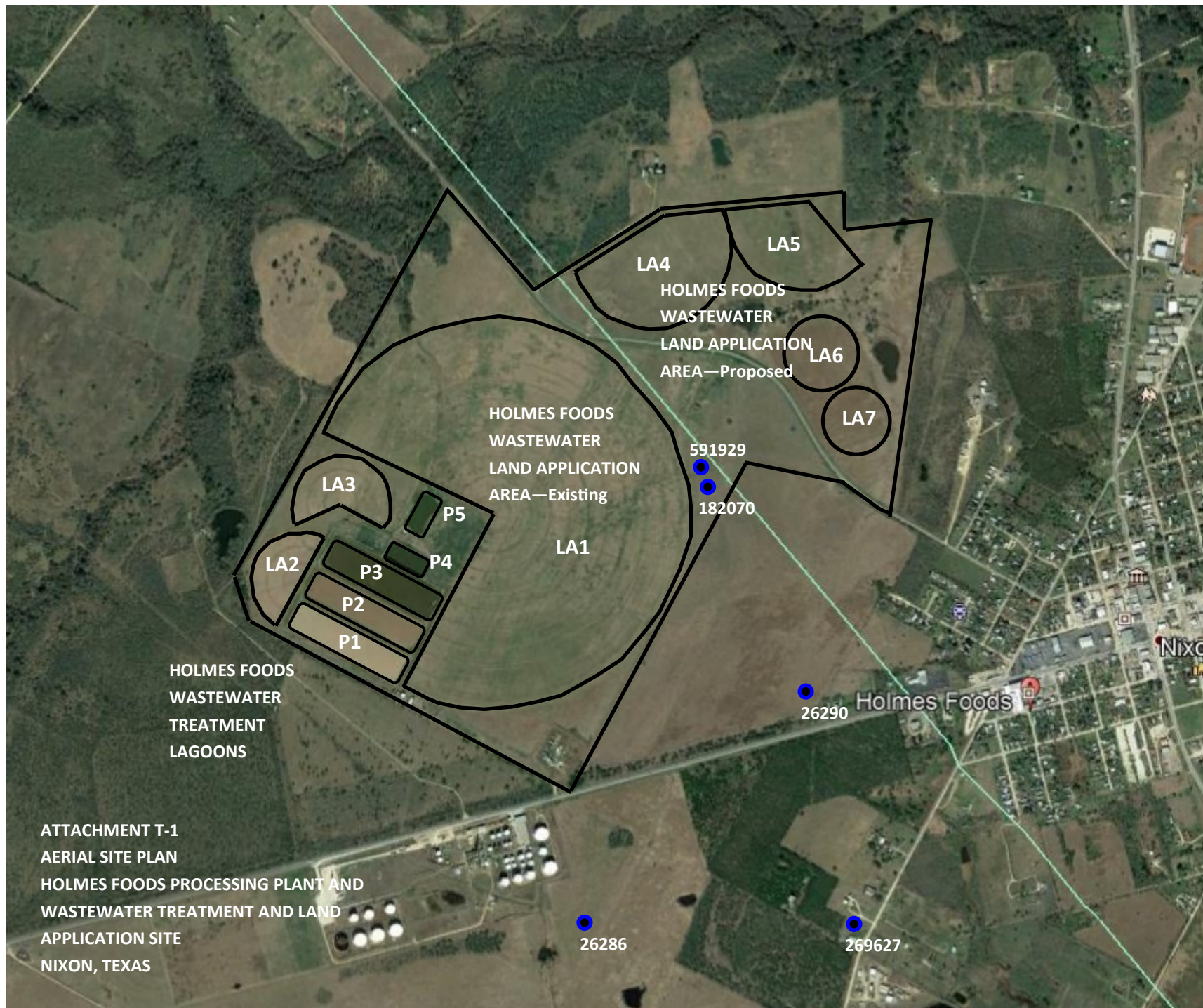




ATTACHMENT A-5
ADJACENT PROPERTY OWNERS MAP
HOLMES FOODS PROCESSING PLANT AND
WASTEWATER TREATMENT AND LAND
APPLICATION SITE
NIXON, TEXAS



ATTACHMENT A-7
PHOTOGRAPHS REFERENCE
HOLMES FOODS
LAND APPLICATION SITE
NIXON, TEXAS



ATTACHMENT T-1
AERIAL SITE PLAN
HOLMES FOODS PROCESSING PLANT AND
WASTEWATER TREATMENT AND LAND
APPLICATION SITE
NIXON, TEXAS

Harvey, Morris and Pamela
P.O. Box 670
Nixon TX 78140

Betty Littleton Slay & Ginger L Davis
216 Triple Crown Run
San Marcos TX 78666-1145

Theodore Janysek
8590 Real
San Antonio TX 78263

Manford L Price Family Trust
3623 Wickersham
Houston TX 77027

Michael Shane Byrd Life Estate
P.O. Box 517
Stockdale, TX 78160

John Bird Hewell, Jr.
12330 FM 1681
Nixon, TX 78140

Cluck Ranch, Inc.
11970 FM 1347
Stockdale, TX 78160

Toby B & Kristi W Talley
PO Box 13
Nixon TX 78140

D-Bar Land and Cattle Company, LLC
P.O. Box 573
Nixon, TX 78140

STAPLES

label size 1" x 2 5/8" compatible with Avery®5160/8160
Étiquette de format 25 mm x 67 mm compatible avec Avery®5160/8160

**LIST OF ADJACENT PROPERTY OWNERS
HOLMES FOODS, NIXON, TX
WASTEWATER LAGOONS AND LAND
APPLICATION SYSTEM**

9831
Harvey, Morris and Pamela
P.O. Box 670
Nixon TX 78140

9888
Betty Littleton Slay & Ginger L Davis
216 Triple Crown Run
San Marcos TX 78666-1145

9792
Theodore Janysek
8590 Real
San Antonio TX 78263

17310
Manford L Price Family Trust
3623 Wickersham
Houston TX 77027

9798
Michael Shane Byrd Life Estate
P.O. Box 517
Stockdale, TX 78160

17305
John Bird Hewell, Jr.
12330 FM 1681
Nixon, TX 78140

63279
Cluck Ranch, Inc.
11970 FM 1347
Stockdale, TX 78160

18014
Toby B & Kristi W Talley
PO Box 13
Nixon TX 78140

17307
D-Bar Land and Cattle Company, LLC
P.O. Box 573
Nixon, TX 78140

28429
Confidential Owner

**HOLMES FOODS
LAND APPLICATION SITE
PICTURE RECORD**



Picture 1 – Lagoon 1 with Surface Aeration



Picture 2 – Lagoon 2 with Surface Aeration

**HOLMES FOODS
LAND APPLICATION SITE
PICTURE RECORD**



Picture 3 – Lagoon 3 & 4 (in the distance)



Picture 4 – Effluent Application Area – Looking North from Center Pivot

**HOLMES FOODS
LAND APPLICATION SITE
PICTURE RECORD**



Picture 5 – Effluent Application Area – Looking East from Center Pivot



Picture 6 – Effluent Application Area – Looking South from Center Pivot

**HOLMES FOODS
LAND APPLICATION SITE
PICTURE RECORD**



Picture 7 – Effluent Application Area – Looking West from Center Pivot



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](#)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

Item 1. Facility/Site Information (Instructions, Page 39)

- a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

Poultry processing plant – SIC Code 2015; Wastewater managed using a zero discharge land application system

- b. Describe all wastewater-generating processes at the facility.

Wastewater is generated by the following poultry processing operations: a) scalding; b) defeathering; c) carcass washing; d) evisceration; e) eviscerated carcass washing; f) carcass chilling; g) carcass cutup and trimming; h) packaging; i) sanitation; j) boiler and cooling tower blowdown. Wastewater is handled using screens and dissolved air flotation prior to being pumped to facultative lagoons followed by a zero discharge land application system. The facility also has an agreement with the City of Nixon, TX to take up to 300,000 gallons of wastewater per day if needed.

¹

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

- c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Live broilers	Offal, feathers, and blood are generated and hauled offsite for rendering	Whole chickens; cut-up chicken portions and parts

Attachment: n/a

- d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: T-1

- e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: [Click to enter text.](#)

- f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: [Flood Insurance Rate Map – Wilson County](#)

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: [Click to enter text.](#)

Attachment: n/a

- g. For **new or major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☒ No ☐ N/A (renewal only)

- h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: n/a

If **no**, provide an approximate date of application submittal to the USACE: n/a

Item 2. Treatment System (Instructions, Page 40)

- a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Wastewater from the poultry processing plant is treated using the following steps: 1) Wastewater is screened to removal offal and feathers; 2) screened wastewater is treated in a dissolved air flotation unit to remove suspended solids and oil and grease; 3) wastewater is pumped from the dissolved air flotation unit to a series of facultative lagoons and storage lagoons for BOD, suspended solids, oil and grease, and nitrogen removal; 4) wastewater is pumped from the storage lagoons to a zero discharge land application system.

- b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: T-2

Item 3. Impoundments (Instructions, Page 40)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a – 3.e.

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

Use Designation: Indicate the use designation for each impoundment as Treatment (T), Disposal (D), Containment (C), or Evaporation (E).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (C), In-situ clay liner (I), Synthetic/plastic/rubber liner (S), or Alternate liner (A). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter Y for yes. Otherwise, enter N for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter Y for yes. Otherwise, enter N for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter Y for yes. Otherwise, enter N for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	Pond # 1	Pond # 2	Pond # 3	Pond #4	Pond #5
Use Designation: (T) (D) (C) or (E)	T/C	T/C	T/C	T/C	T/C
Associated Outfall Number	N/A	N/A	N/A	N/A	N/A
Liner Type (C) (I) (S) or (A)	I	I	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N	N
Groundwater Monitoring Data Attachment	N	N	N	N	N
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y	Y
Length (ft)	1300	1300	1300	380	350
Width (ft)	350	350	350	180	200
Max Depth From Water Surface (ft), Not Including Freeboard	5	5	5	4	8
Freeboard (ft)	2.5	2.5	2.5	2	2
Surface Area (acres)	10.4	10.4	10.4	1.57	1.8
Storage Capacity (gallons)	14,600,000	14,600,000	14,600,000	2,000,000	3,500,000
40 CFR Part 257, Subpart D, Y/N	N	N	N	N	N
Date of Construction					

Attachment: N/A

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

- b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

1. Liner data

☐ Yes ☐ No ☐ Not yet designed

2. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

3. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

For TLAP applications: Items 3.c – 3.e are not required, continue to Item 4.

- c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: N/A

- d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: N/A

- e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: N/A

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal

area in the space provided for **Outfall** number (e.g. E1 for evaporation pond 1, I2 for irrigation area No. 2, etc.).

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
I-1	29.271020 N	-97.786516 W
I-2	29.269190 N	-97.792886 W
I-3	29.271426 N	-97.791522 W
I-4	29.279564 N	-97.781054 W
I-5	29.279376 N	-97.775194 W
I-6	29.275383 N	-97.775380 W
I-7	29.273339 N	-97.774289 W

Outfall Location Description

Outfall No.	Location Description
I-1	318.44 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-2	10.74 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-3	12.09 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-4	46.84 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-5	15.7 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-6	13.96 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT
I-7	11.25 ACRE SPRAY LAND APPLICATION SITE - CENTER PIVOT

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
I-1 THRU I-7	PUMPED FLOW TO CENTER PIVOT UNIT FROM POND NO.5 LAND APPLICATION PUMPS

Outfall Flow Information - Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
I-1 THRU I-7	0.7	1.0	0.88	1.25	EXISTING

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
I-1 THRU I-7	Y	N	MAGNETIC FLOW METER WITH TOTALIZER

Outfall Discharge – Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
I-1 THRU I-7	N	Y	N	10	28 - 31	12

Outfall Wastestream ContributionsOutfall No. I-1 THRU I-7

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
COOLING TOWER BLOWDOWN	0.01383	1.572
BOILER BLOWDOWN	0.00025	0.028
PROCESS WASTEWATER	0.86592	98.400

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: N/A

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

- ☒ Yes ☐ No Use cooling towers that discharge blowdown or other wastestreams
☒ Yes ☐ No Use boilers that discharge blowdown or other wastestreams
☐ Yes ☒ No Discharge once-through cooling water

NOTE: If the facility uses or plans to use cooling towers or once-through cooling water, Item 12 **is required**.

b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life

- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: T-3

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers	5	13,830	15,000
Boilers	3	250	350

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls discharge stormwater associated with industrial activities, as defined at 40 CFR § 122.26(b)(14), commingled with any other wastestream?

☐ Yes ☒ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: N/A

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- ☒ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - ☐ Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - ☐ Facility is a POTW. Complete Worksheet 5.0.
 - ☐ Domestic sewage is not generated on-site.
 - ☐ Other (e.g., portable toilets), specify and Complete Item 7.b: Click to enter text.

- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
CITY OF NIXON, TX	WQ00110234001

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
☐ Yes ☒ No
- b. Has the permittee completed or planned for any improvements or construction projects?
☒ Yes ☐ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: WILL INSTALL NEW CENTER PIVOT SYSTEMS TO ALLOW LAND APPLICATION TO ADDITIONAL 87.75 ACRES SITE ADJACENT TO EXISTING LAND APPLICATION SITE.

Item 9. Toxicity Testing (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☐ Yes ☒ No

If **yes**, identify the tests and describe their purposes: N/A

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** N/A

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

- a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?
☐ Yes ☒ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

- b. Attach the following information to the application:
- List of wastes received (including volumes, characterization, and capability with on-site wastes).
 - Identify the sources of wastes received (including the legal name and addresses of the generators).

- Description of the relationship of waste source(s) with the facility's activities.

Attachment: N/A

- c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☒ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: N/A

- d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☒ No

If **yes**, **Worksheet 6.0** of this application **is required**.

Item 11. Radioactive Materials (Instructions, Page 46)

- a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

- b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

a. Does the facility use or propose to use water for cooling purposes?

☒ Yes ☐ No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

☐ Yes ☒ No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID				
Owner				
Operator				

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☒ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No.
TX0890002

3. Cooling water is/will be obtained from a reclaimed water source?

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here:

4. Cooling water is/will be obtained from an Independent Supplier

☐ Yes ☒ No

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed:
Click to enter text.

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

☐ Yes ☐ No

2. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility

exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☐ Yes ☐ No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: [Click to enter text.](#)

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

- e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☐ No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☐ No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I - New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I - AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

☐ Track I - AIF greater than 10 MGD

- Attach information required by *40 CFR § 125.86(b)*.

☐ Track II

- Attach information required by 40 CFR § 125.86(c).

Attachment: [Click to enter text.](#)

2. Phase II – Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes ☐ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

3. Phase III – New facility subject to 40 CFR Part 125, Subpart N

☐ Yes ☐ No

If **yes**, check the box next to the compliance track selection and provide the requested information.

☐ Track I – Fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I – Not a fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).

☐ Track II – Fixed facility

- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: [Click to enter text.](#)

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Facility is requesting permit be amended to allow the addition of 87.75 acres of new land application area. Facility is requesting that the allowable average flow to the wastewater treatment lagoons be increased to 880,000 gallons per day from 700,000 gallons per day and the peak daily flow to the lagoons be increased to 1,250,000 gallons per day from 1,000,000 gallons per day. Facility is not requesting that any changes be made to the permitted BOD (75 mg/l; 100 lbs per acre per day) or nitrogen (75 mg/l; 480 lbs per acre per year bermuda/60 lbs per acre per year rye) concentrations or loading rates. Facility is not requesting that any change be made to the hydraulic loading rate (3.28 acre feet per acre per year) to the land application system. The amendment is needed to accommodate anticipated production increases in the future as market conditions allow.

b. Is the facility requesting any **minor amendments** to the permit?

☒ Yes ☒ No

If **yes**, list and describe each change individually.

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and describe each change individually.

N/A

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or
 - performing work for another company with a unit located in the same site; or
 - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

Printed Name: [Click to enter text.](#)

Title: [Click to enter text.](#)

Signature: _____

Date: _____

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

This worksheet **is required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

Item 1. Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

- | | |
|--|---|
| <input type="checkbox"/> Irrigation | <input type="checkbox"/> Subsurface application |
| <input type="checkbox"/> Evaporation | <input type="checkbox"/> Subsurface soils absorption |
| <input type="checkbox"/> Evapotranspiration beds | <input checked="" type="checkbox"/> Surface application |
| <input type="checkbox"/> Drip irrigation system | <input type="checkbox"/> Other, specify: Click to enter text. |

Item 2. Land Application Area (Instructions, Page 69)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
1,250,000	429.02	BERMUDA AND RYE GRASSES	N

Item 3. Annual Cropping Plan (Instructions, Page 69)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

Item 4. Well and Map Information (Instructions, Page 70)

- a. Check each box to confirm the required information is shown and labeled on the attached USGS map:

- ☒ The exact boundaries of the land application area
- ☒ On-site buildings
- ☒ Waste-disposal or treatment facilities
- ☒ Effluent storage and tailwater control facilities
- ☒ Buffer zones
- ☒ All surface waters in the state onsite and within 500 feet of the property boundaries
- ☒ All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries
- ☒ All springs and seeps onsite and within 500 feet of the property boundaries

Attachment: T-5

- b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
182070	DOMESTIC	Y	CASED	WELL IS 0.7 MILES FROM LAGOONS
26290	DOMESTIC	Y	CASED	WELL IS UP GRADIENT FROM LAGOONS
591219	DOMESTIC	Y	CASED	WELL IS 0.7 MILES FROM LAGOONS
26286	DOMESTIC	Y	CASED	WELL IS UPGRADIENT FROM LAGOONS
269267	DOMESTIC	Y	CASED	WELL IS UP GRADIENT FROM LAGOONS

Attachment: N/A

- c. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

☐ Yes ☒ No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

Attachment: N/A

- d. Attach a short groundwater technical report using 30 TAC § 309.20(a)(4) as guidance.
Attachment: T-6

Item 5. Soil Map and Soil Information (Instructions, Page 71)

Check each box to confirm that the following information is attached:

- a. ☒ USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
- b. ☒ Breakdown of acreage and percent of total acreage for each soil type.
- c. ☒ Copies of laboratory soil analyses. Attachment: T-7

Item 6. Effluent Monitoring Data (Instructions, Page 72)

- a. Completion of Table 14 is required for all renewal and major amendment applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 1 for Outfall No.: I-1 thru I-7

Samples are (check one): ☐ Composite ☒ Grab

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
05/2022	440581	56		56.12		341.27	0.1228
06/2022	346867	48.8		39.82		341.27	0.0935
07/2022	285613	55.5		39.24		341.27	0.0796
08/2022	532419	43.6		26.6		341.27	0.1484
09/2022	482355	43.75		40.67		341.27	0.1344
10/2022	395806	34		41.29		341.27	0.1103
11/2022	438300	46.33		32.27		341.27	0.1182
12/2022	472484	56.75		50.82		341.27	0.1317
01/2023	692548	40.5		55.65		341.27	0.1930
02/2023	568857	41		63.15		341.27	0.1432
03/2023	533065	54.8		41.75		341.27	0.1485
04/2023	366400	27		57.8		341.27	0.988
05/2023	325065	30		52.19		341.27	0.906
06/2023	302400	46		28.45		341.27	0.0815
07/2023	331323	40		26.58		341.27	0.0923
08/2023	254871	38		29.36		341.27	0.0710
09/2023	231657	44.75		25.27		341.27	0.0625
10/2023	480742	29		21.15		341.27	0.1340
11/2023	422533	27.8		29.93		341.27	0.1139

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)
12/2023	350484	51.75		38.88		341.27	0.0977
01/2024	471839	58.67		51.62		341.27	0.1315
02/2024	377648	56.6		62.59		341.27	0.0991
03/2024	356806	38		64.12		341.27	0.0994
04/2024	499233	37.25		18.53		341.27	0.1346

- b. Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)	pH						
05/2022	7.53						
06/2022	7.42						
07/2022	8.10						
08/2022	7.60						
09/2022	7.69						
10/2022	7.93						
11/2022	8.03						
12/2022	7.93						
01/2023	8.05						
02/2023	7.90						
03/2023	7.82						
04/2023	7.75						
05/2023	7.37						
06/2023	7.08						
07/2023	6.85						
08/2023	7.70						
09/2023	8.35						
10/2023	8.20						
11/2023	8.14						
12/2023	8.28						
01/2024	8.37						
02/2024	8.22						
03/2024	8.13						
04/2024	8.23						

- c. Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken. **Attachment:** T-7

Item 7. Pollutant Analysis (Instructions, Page 72)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Tables 15 and 16.

Table 2 for Outfall No.: I-1 thru I-7

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	166	164	86	116
CBOD (5-day)	38	89	46	47.7
Chemical oxygen demand	230	254	202	251
Total organic carbon	33.8	36.6	39.9	25.4
Dissolved oxygen	3.5	8.4	8.1	6.5
Ammonia nitrogen	25.0	7.11	6.84	5.6
Total suspended solids	83	108	80	76
Nitrate nitrogen	<0.1	<0.25	<0.1	<0.1
Total organic nitrogen	16.0	17.8	13.86	14.3
Total phosphorus	14.1	12.9	12.5	12.6
Oil and grease	<5.0	<0.5	<4.9	<5.2
Total residual chlorine	ND	ND	ND	ND
Total dissolved solids	868	992	996	500
Sulfate	76.9	79.8	79.6	85.7
Chloride	229	235	229	229
Fluoride	<0.10	<0.10	<0.10	<0.10
Total alkalinity (mg/L as CaCO ₃)	311	254	264	251
Temperature (°F)	70.2	70.1	71.6	70.3
pH (standard units)	8.1	8.2	8.3	8.2

Table 3 for Outfall No.: I-1 thru I-7

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	237	371	183	654	2.5
Antimony, total	<0.625	<0.625	<0.625	<0.625	5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Arsenic, total	3.61	3.78	3.39	2.52	0.5
Barium, total	57.3	54.9	56.8	21.3	3
Beryllium, total	<0.50	<0.50	<0.50	<0.50	0.5
Cadmium, total	<0.625	<0.625	<0.625	<0.625	1
Chromium, total	1.23	1.26	1.78	1.66	3
Chromium, hexavalent	6.29	9.51	5.94	5.94	3
Chromium, trivalent	<3.62	<3.62	<3.62	<3.62	N/A
Copper, total	7.50	6.05	10.4	21.4	2
Cyanide, available	<0.005	<0.005	<0.005	<0.005	2/10
Lead, total	<0.50	<0.5	<0.5	0.756	0.5
Mercury, total	ND	ND	ND	ND	0.005/0.0005
Nickel, total	3.24	3.23	3.09	3.37	2
Selenium, total	<0.625	1.11	1.2	1.54	5
Silver, total	<0.000226	<0.000226	<0.000226	<0.001	0.5
Thallium, total	<0.5	<0.5	<0.5	<0.5	0.5
Zinc, total	4.26	5.53	20.8	111	5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

This worksheet **is required** for all applications for a permit to disposal of wastewater by surface land application or evaporation.

Item 1. Edwards Aquifer (Instructions, Page 73)

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

☐ Yes ☒ No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b and 1.c.

b. Check the box next to the subchapter applicable to the facility.

☐ 30 TAC Chapter 213, Subchapter A

☐ 30 TAC Chapter 213, Subchapter B

c. If *30 TAC Chapter 213, Subchapter A* applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with *30 TAC § 213.5*) **or** 2) a report that contains the following:

- A description of the surface geological units within the proposed land application site and wastewater pond area.
- The location and extent of any sensitive recharge features in the land application site and wastewater pond area
- A list of any proposed BMPs to protect the recharge features.

Attachment: [Click to enter text.](#)

Item 2. Surface Spray/Irrigation (Instructions, Page 73)

a. Provide the following information on the irrigation operations:

Area under irrigation (acres): 429.02

Design application rate (acre-ft/acre/yr): 3.28

Design application frequency (hours/day): 10

Design application frequency (days/week): 7

Design total nitrogen loading rate (lbs nitrogen/acre/year): 540

Average slope of the application area (percent): 3

Maximum slope of the application area (percent): 4

Irrigation efficiency (percent): 75

Effluent conductivity (mmhos/cm): 1.56

Soil conductivity (mmhos/cm): [Click to enter text.](#)

Curve number: [Click to enter text.](#)

Describe the application method and equipment: CENTER PIVOT

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** T-8

Item 3. Evaporation Ponds (Instructions, Page 74)

- a. Daily average effluent flow into ponds: Click to enter text. gallons per day
- b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** n/a

Item 4. Evapotranspiration Beds (Instructions, Page 74)

- a. Provide the following information on the evapotranspiration beds:
- Number of beds: Click to enter text.
- Area of bed(s) (acres): Click to enter text.
- Depth of bed(s) (feet): Click to enter text.
- Void ratio of soil in the beds: Click to enter text.
- Storage volume within the beds (include units): Click to enter text.
- Description of any lining to protect groundwater: Click to enter text.
- b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** n/a
- c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** n/a

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
- Area used for application (acres): Click to enter text.
- Slopes for application area (percent): Click to enter text.
- Design application rate (gpm/foot of slope width): Click to enter text.
- Slope length (feet): Click to enter text.
- Design BOD5 loading rate (lbs BOD5/acre/day): Click to enter text.
- Design application frequency (hours/day): Click to enter text.
- Design application frequency (days/week): Click to enter text.
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** n/a

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SUBSURFACE IRRIGATION (NON-DRIP)

This worksheet **is required** for all applications for a permit to disposal of wastewater by subsurface land application.

- ☐ Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

Item 1. Edwards Aquifer (Instructions, Page 75)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?
- ☐ Yes ☐ No
- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?
- ☐ Yes ☐ No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by *30 TAC § 213.8*. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

Item 2. Subsurface Application (Instructions, Page 75)

- a. Check the box next to the type of subsurface land disposal system requested:
- ☐ Conventional drainfield, beds, or trenches
- ☐ Low pressure dosing
- ☐ Other: [Click to enter text.](#)
- b. Provide the following information on the irrigation operations:
- Application area (acres): [Click to enter text.](#)
- Area of drainfield (square feet): [Click to enter text.](#)
- Application rate (gal/square ft/day): [Click to enter text.](#)
- Depth to groundwater (feet): [Click to enter text.](#)
- Area of trench (square feet): [Click to enter text.](#)
- Dosing duration per area (hours): [Click to enter text.](#)
- Number of beds: [Click to enter text.](#)
- Dosing amount per area (inches/day): [Click to enter text.](#)
- Soil infiltration rate (inches/hour): [Click to enter text.](#)
- Storage volume (gallons): [Click to enter text.](#)
- Area of bed(s) (square feet): [Click to enter text.](#)
- Soil classification: [Click to enter text.](#)
- c. Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation. **Attachment:** [Click to enter text.](#)

ATTACHMENT T-1

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

FACILITY MAP

LOCATION MAP

**HOLMES FOODS, INC
LAND APPLICATION
SITES**

HOLMES FOODS PROCESSING

Clear Fork

Tally Branch

FM 1687

US 87

US 80

Walnut

W 4th

W Holmes

Pecan

N Ranch Road

N Spring

S Mesquite

S Lie

W 3rd

E 10th

E 9th

E 8th

E 7th

E 6th

E 5th

E 4th

E 3rd


E 2nd

Nix

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HOLMES FOODS PROCESSING

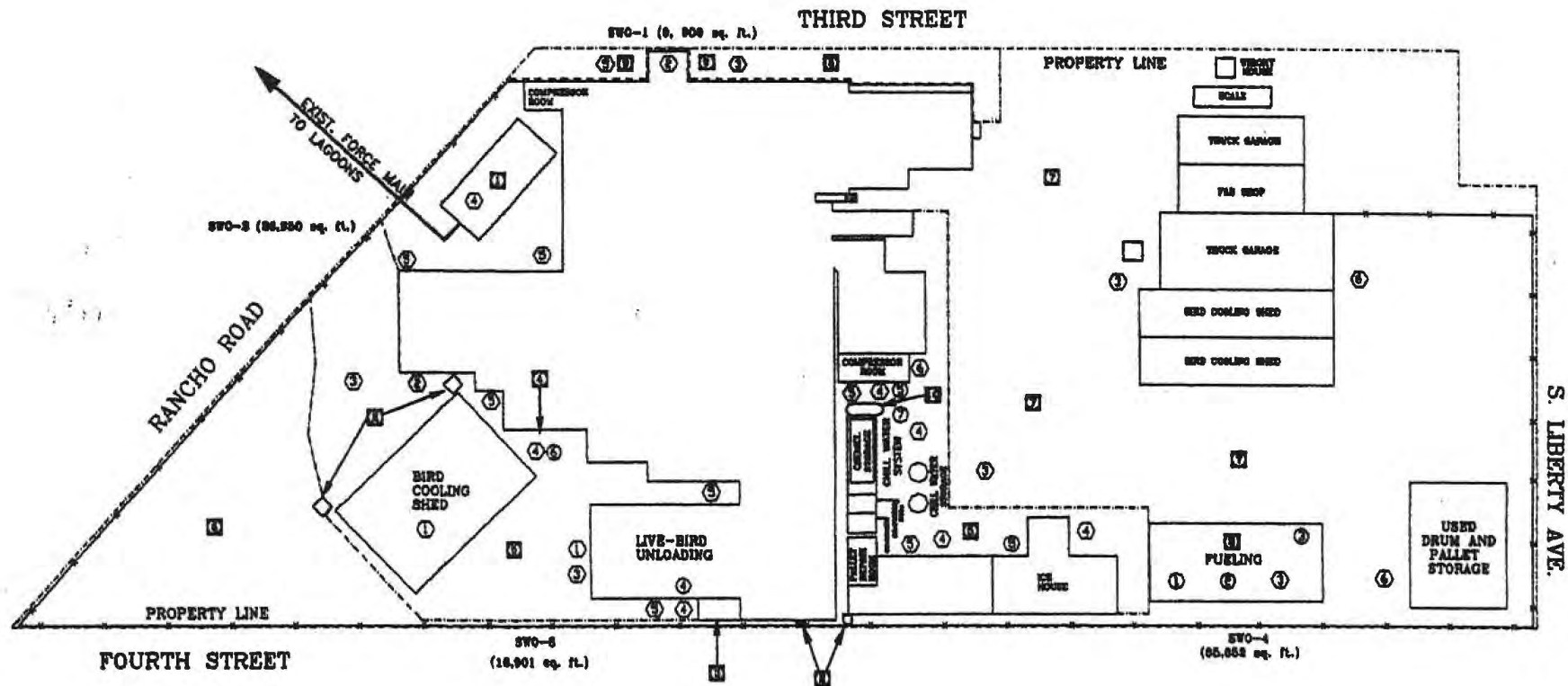
Mag 14.00
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Scale 1:18,750 (at center)



2000 Feet

500 Meters

- | | | | |
|---|---------------------|---|--------------------|
|  | Local Road |  | County Boundary |
|  | Major Connector |  | Water |
|  | Primary State Route |  | River/Canal |
|  | US Highway |  | Intermittent River |
|  | Utility/Pipe | | |
|  | Railroad | | |
|  | Small Town | | |
|  | Cemetery | | |



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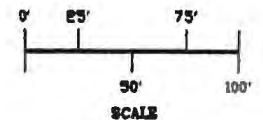
EXPOSED MATERIAL INVENTORY

- ① LIVE BIRDS
- ② FINISHED PRODUCT
- ③ FUEL, LUBRICANT, AND HYDRAULIC FLUIDS
- ④ PROCESS CHEMICALS
- ⑤ RODENTICIDES, PESTICIDES OR HERBICIDES
- ⑥ SOLIDS WASTE

STORAGE TANK INVENTORY

- ① DIESEL
- ② GASOLINE
- ③ WASTE OIL
- ④ HYDRAULIC OIL
- ⑤ COMPRESSOR OIL
- ⑥ CHLORINE
- ⑦ AMMONIA

- ① Wastewater Pre-treatment.
- ② Sumps for Collection of Non-Stormwater Drainage from Coolers, Freezers, Cooling Towers, Boiler, Condensate Drillage and Wash-down Waters.
- ③ Chemical Storage Shed for all Chemicals Except Chlorine.
- ④ Chlorine Gas Storage, 3-150# Cylinders.
- ⑤ Concrete Pavement; Guttered and Sloped to Direct Flows to Collection System for Pre-treatment.
- ⑥ Vegetated Area.
- ⑦ Compacted and Gravelled Drive.
- ⑧ Covered Fuel Storage; 8,000 gals. Diesel, 4,000 gals. Gas, and 500 gal. Used Oil Tank, all Equipped with Containment
- ⑨ Finished Product Loadout
- ⑩ 8,500 lb. Liquid Ammonia Receiver.



ATTACHMENT T-1

PROCESSING PLANT FACILITY MAP—PLOT PLAN

HOLMES FOODS, NIXON, TEXAS



ATTACHMENT T-1
AERIAL SITE PLAN
HOLMES FOODS PROCESSING PLANT AND
WASTEWATER TREATMENT AND LAND
APPLICATION SITE
NIXON, TEXAS

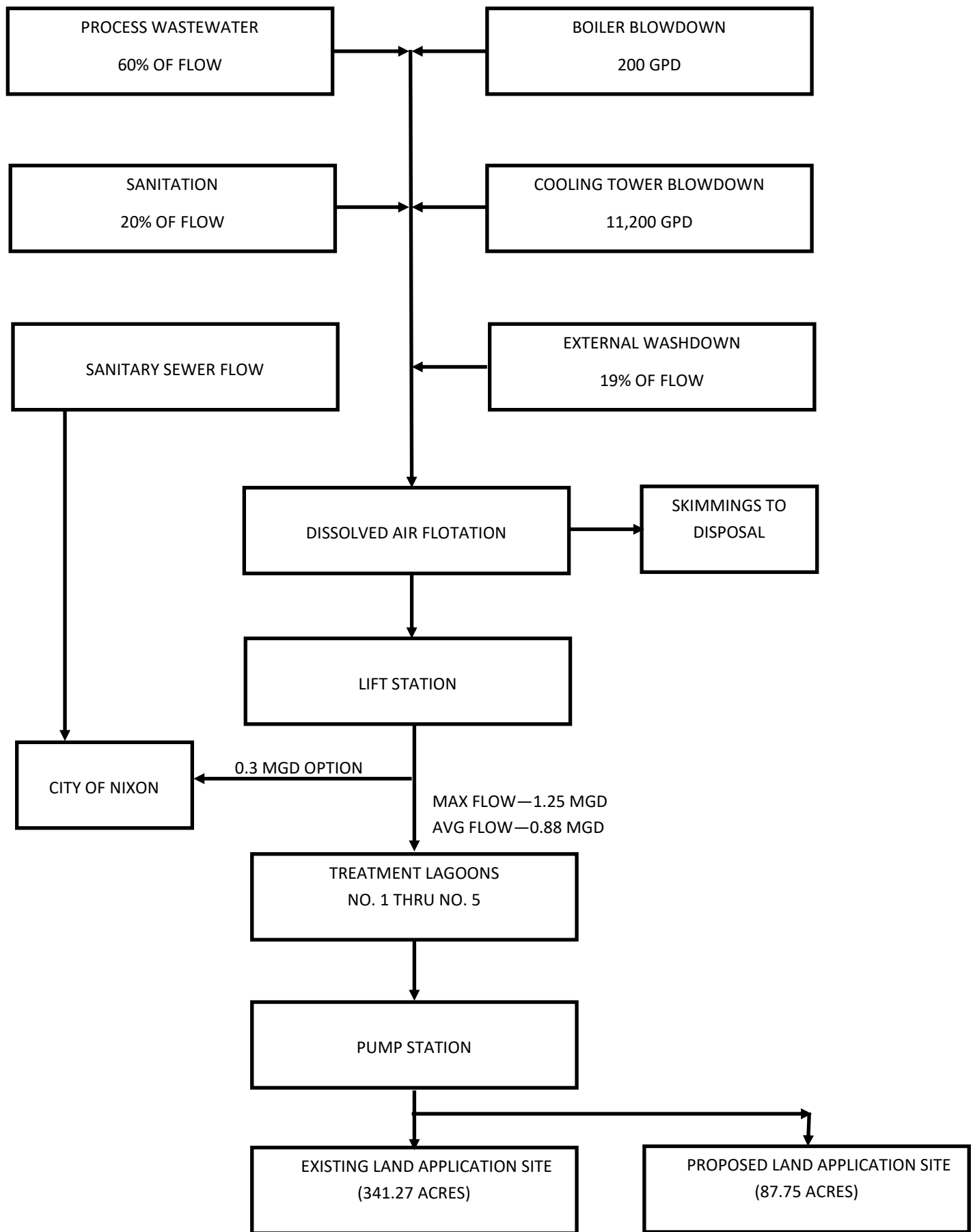
ATTACHMENT T-2

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

FLOW DIAGRAM AND WATER BALANCE



ATTACHMENT T-2

WASTEWATER TREATMENT SYSTEM FLOW DIAGRAM—HOLMES FOODS, NIXON, TEXAS

ATTACHMENT T-3

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

MSDS SHEETS



Safety Data Sheet

AFCO 9306

Safety Data Sheet

Revision Date: 2-5-2015

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AFCO 9306

Product Code: AFCO 9306

Intended Use of the Product:

Microbiocide. For professional use only.

Name, Address and Telephone of the Responsible Party

Alex C. Fergusson, LLC.

800 Development Avenue

Chambersburg, PA 17201

T 800-345-1329

Emergency Telephone Number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists) - Category 4

Skin corrosion/irritation - Category 1

Serious eye damage/eye irritation - Category 1

Acute aquatic toxicity - Category 2

Chronic aquatic toxicity - Category 2

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS- US)



Signal Word (GHS- US) - Danger

Hazard Statements

Harmful if inhaled

Causes severe skin burns and eye damage

Toxic to aquatic life with long lasting effects

Appearance - Liquid

Color - Yellow- Orange

Odor - Mild

2-5-2015

Page 1 of 9

AFCO 9306

Safety Data Sheet

SECTION 2: HAZARDS IDENTIFICATION (CONTINUED)

Prevention

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Avoid release to the environment

Response

Immediately call a POISON CENTER or doctor/physician

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell Immediately call a POISON CENTER or doctor/physician

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Collect spillage

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation 3.2. Mixtures.

Component	CAS-No	Weight %
Halogenated complex	Proprietary	18
Sodium hydroxide	1310-73-2	<10

Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret.



Safety Data Sheet

AFCO 9306

Safety Data Sheet

Revision Date: 2-5-2015

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AFCO 9306

Product Code: AFCO 9306

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Name, Address and Telephone of the Responsible Party

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800 Development Avenue

Chambersburg, PA 17201

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Skin corrosion/irritation - Category 1

Serious eye damage/eye irritation - Category 1

Acute aquatic toxicity - Category 2

Chronic aquatic toxicity - Category 2

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS- US)



Signal Word (GHS- US) - Danger

Hazard Statements

Harmful if inhaled

Causes severe skin burns and eye damage

Toxic to aquatic life with long lasting effects

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2-5-2015

Page 1 of 9

AFCO 9306

Safety Data Sheet

SECTION 2: HAZARDS IDENTIFICATION (CONTINUED)

Prevention

Use only outdoors or in a well-ventilated area

Do not breathe dust/fume/gas/mist/vapors/spray

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Response

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation 3.2. Mixtures.

Component	CAS-No	Weight %
Halogenated complex	Proprietary	18
Sodium hydroxide	1310-73-2	<10

Note: The exact concentrations of the above listed chemicals are being withheld as a trade secret.

AFCO 9306

Safety Data Sheet

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention

Eye Contact: If in eyes, hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation: Move to fresh air.

Ingestion: If swallowed, call a physician or Poison Control Center immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Probable mucosal damage may contraindicate the use of gastric lavage.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Probable mucosal damage may contraindicate the use of gastric lavage. If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media Not required.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical

Combustion/explosion hazards No information available.

Hazardous Combustion Bromine. Chlorine.

Products Explosion Data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Protective Equipment and Precautions for Firefighters

In the event of fire and/or explosion do not breathe fumes.

AFCO 9306

Safety Data Sheet

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions - Ensure adequate ventilation.

Environmental Precautions

Environmental precautions

Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams. Large spills should be collected mechanically (remove by pumping) for disposal. May require excavation of contaminated soil. Take up small spills by first diluting with water and then using a dehalogenating agent such as sodium thiosulfate solution.

Methods and material for containment and cleaning up

Methods for Containment - Prevent further leakage or spillage if safe to do so.

Methods for Cleaning up - Soak up with inert absorbent material (e.g. sand, silica gel, universal binder, sawdust)

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Handling - Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any incompatibilities

Storage - Avoid freezing, excessive heat or exposure to light, especially direct sunlight. If heating is necessary to prevent freezing, care must be taken to prevent overheating. Precautions should be taken to ensure that the average product temperature is maintained below 43 °C. Temperature monitoring is recommended. At elevated temperatures, self-heating can lead to vigorous gas generation and over-pressurization of storage containers if appropriate controls are not in place. Avoid exposure of this product to incompatible materials/chemicals (see Stability and Reactivity section). Use of incompatible materials can promote the exothermic decomposition of the product. In extreme cases, this could result in vigorous gas formation and over-pressurization of the storage container. **STORAGE CONTAINER:** Vented and opaque containers: As the product ages, activity is gradually lost and pressure can build-up in the headspace (nitrogen); therefore, the product should be stored in vented containers. Product should also be stored in opaque containers to prevent exposure to light. To maximize product shelf life, store the product in an opaque container, in a cool, dry, well-ventilated area.

Incompatible Materials - None known based on information supplied.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Component	ACGIH TLV (TWA)	OSHA PEL (TWA)	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	2MGM3	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³

Other information Wear suitable protective clothing.

Appropriate engineering controls

Engineering Controls Use only in well-ventilated areas.

Individual protection measures, such as personal protective equipment

Eye/face Protection Chemical goggles or face shield with safety glasses.

Skin Protection Wear protective gloves/clothing.

Respiratory protection None under normal conditions.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid	Water Solubility	Miscible.
Color	Yellow. Orange.	Solubility in other solvents	No information available
Odor	Mild.	Partition coefficient	No data available
Odor Threshold	No information available	Autoignition temperature	No information available
Molecular Weight	No information available	Decomposition temperature	No information available
pH	12.4	Viscosity, kinematic	2 cSt (25°C)
Melting point/freezing point	~ 0 °C / 32 °F	Dynamic viscosity	No information available
Boiling Point/Range	~ 106 °C / 223 °F	Explosive Properties	No information available
Flash Point	No data available.	Oxidizing Properties	Oxidizer
Evaporation Rate	No information available		
Flammability (solid, gas)	No information available		
Flammability Limit in Air	No information available		
Upper flammability limit:	No information available		
Lower flammability limit:	No information available		
Vapor Pressure	19 mm Hg (25°C)		
Vapor Density	No information available		
Relative density	1.29 - 1.37 (25°C)		
Solubility(ies)			

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SECTION 10: STABILITY AND REACTIVITY

Reactivity Hazard	No data available
Stability	No information available
Hazardous Reactions	No hazardous reaction expected under normal handling.
Hazardous Polymerization	None under normal processing.
Conditions to Avoid	Protect from light. Extremes of temperature and direct sunlight. Keep away from heat. Freezing.
Materials to avoid	This product is strongly basic and an oxidizing agent. Avoid contact with alcohols, aldehydes, strong reducing agents, strong oxidizers, acids, ammonia-containing products, and common metals such as steel, aluminum, iron and copper. Use of incompatible materials can promote the exothermic decomposition of the product.
Hazardous decomposition products	Bromine. Chlorine.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	Not an expected route of exposure.
Eye contact	Possible risk of irreversible effects.
Skin Contact	Causes burns.
Ingestion	Not expected to be acutely toxic.

Potential Health Effects

Acute Effects

Skin corrosion/irritation	Causes burns.
Serious eye damage/eye irritation	Corrosive to eyes. Risk of serious damage to eyes.
Respiratory irritation :	Not irritating.
Sensitization	Not sensitizing.

Chronic Effects

Mutagenic Effects	No information available.
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Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	CAS-No	ACGIH Carcinogens	IARC	NTP	OSHA Carcinogens
Halogenated complex	Proprietary	-	-	-	-
Sodium hydroxide	1310-73-2	-	-	-	-

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SECTION 11: TOXICOLOGICAL INFORMATION (CONTINUED)

Reproductive Effects	None known.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Effects	None known
Aspiration hazard	No information available.

Numerical measures of toxicity

<u>Product Information</u>	No information available
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	9667 mg/kg
ATEmix (dermal)	14362 mg/kg
ATEmix (inhalation-dust/mist)	4.5 mg/L
LD50 Oral:	Rat Oral LD50: 2491 mg/kg
LD50 Dermal:	Rat Dermal LD50: > 2000 mg/kg
Inhalation LC50:	LC50/inhalation/4h/rat : > 2.09 mg/L (aerosol)

<u>Component Information</u>	No information available		
<u>Component</u>	<u>Rat Oral LD50 :</u>	<u>Rabbit Dermal LD50 :</u>	<u>Rat Inhalation LC50:</u>
Sodium hydroxide 1310-73-2	-	= 1350 mg/kg (Rabbit)	-

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects

LC50/96h/fish: 3.8 mg whole material/L (Bluegill sunfish)
EC50/48h/Daphnia : 4.8 mg whole material/L (Waterflea Daphnia magna)
IC50/96-hour: 2.6 mg whole material/L (Unicellular Green Alga, Selenastrum capricornutum)

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

<u>Waste Disposal Method</u>	Dispose in a safe manner in accordance with local/national regulations.
Contaminated Packaging	Do not reuse container.

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SECTION 14: TRANSPORT INFORMATION

DOT

Proper Shipping Name Corrosive Liquids, Basic, Inorganic, N.O.S. (Halogenated Complex, Sodium Hydroxide)
Hazard Class 8
UN No. 3266
Packing Group III
Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

IMDG/IMO

IMO Class 8
Packing Group III
UN-No 3266
IMO Labelling and Marking 8
Proper Shipping Name Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide)
EmS F-A, S-B
Marpol - Annex II Not determined
Marpol - Annex III Unregulated
Transport Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

IATA/ICAO

IATA/ICAO Class 8
Packing Group III
UN-No 3266
IATA/ICAO Labelling/Marking 8
Passenger Aircraft Forbidden (Product is shipped in containers with vented caps)
Cargo aircraft only Forbidden (Product is shipped in containers with vented caps)
Proper shipping name Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide)
Transport Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

SECTION 15: REGULATORY INFORMATION

15. REGULATORY INFORMATION

International Inventories	TSCA	DSL	NDSL	AICS	EINECS	ELINCS	ENCS	KECL	PICCS	IECSC	NZIoC
AFCO 9306	-	-	-	X	-	-	-	X	X	-	X

TSCA Statement

THIS MATERIAL IS EXEMPT FROM THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601-2629)

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

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SECTION 15: REGULATORY INFORMATION (CONTINUED)

Reportable and Threshold Planning Quantities

The following components have RQs and/or TPQs under SARA and/or CERCLA

Component	CERCLA RQ, lbs	SARA 302 RQ, lbs	SARA 302 TPQ, lbs
Sodium hydroxide (CAS #: 1310-73-2)	1000	-	-

State Right-to-Know

This product contains the following chemicals regulated in the states listed below.

Component	California Prop. 65	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide (CAS #: 1310-73-2)	-	Listed.	Listed.	Listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazards

E Corrosive material

D2B Toxic materials

SECTION 16: OTHER INFORMATION INCLUDING DATE OF PREPARATION OR LAST REVISION

NFPA	Health 3	Flammability 0	Instability 0	Physical Hazards -
HMIS	Health 3	Flammability 0	Physical Hazards 0	

Revision Date: 2-5-2015

Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

Product Identifier

Product Form: Mixture

Product Name: AFCO 9005

Product Code: AFCO 9005

Intended Use of the Product

Use of the Substance/Mixture: Liquid scale and corrosion inhibitor. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T 800-345-1329

www.afcocare.com

Emergency Telephone Number

Emergency Number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Warning.

Hazard Statements (GHS-US)

: H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary Statements (GHS-US)

: P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P280 - Wear eye protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 - Specific treatment (see Section 4).

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P337+P313 - If eye irritation persists : Get medical advice/attention.

P362 - Take off contaminated clothing and wash before reuse.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes.

Unknown Acute Toxicity (GHS-US) Not available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	80-90	Not classified
1,2,4-Butanetricarboxylic acid, 2-phosphono-	(CAS No) 37971-36-1	1-5	Met. Corr. 1, H290

03/09/2020

EN (English US)

AFCO 9005

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			Skin Corr. 1A, H314 Eye Dam. 1, H318
Benzotriazole	(CAS No) 95-14-7	1-5	Skin Irrit. 2, H315 Eye Irrit. 2B, H320
Acrylic copolymer	Mixture	1-5	Not classified
Polymaleic Polymer	Mixture	1-5	Skin Corrr. 1B, H314 Eye Dam. 1, H318
Polymaleic acid, sodium salt	(CAS No) 26099-09-2	1-5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

Skin Contact: Remove contaminated clothing. Drench affected area with water for several minutes. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes skin irritation. Causes serious eye irritation.

Inhalation: Not classified.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: Thermal decomposition generates: Carbon oxides (CO, CO₂) Nitrogen oxides. Phosphorus oxides

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂) Nitrogen oxides. Phosphorus oxides.

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid all contact with skin, eyes, or clothing.

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For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: None.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material, then place in suitable container. Cautiously neutralize spilled liquid with soda ash or lime.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material, then place in suitable container. Cautiously neutralize spilled liquid with soda ash or lime.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: None.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely low temperatures, incompatible materials.

Incompatible Materials: Strong oxidizers.

Specific End Use(s): Liquid scale and corrosion inhibitor. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or any of its chemical components.

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment: Safety goggles. Gloves.



Materials for Protective Clothing: None usually needed.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Safety goggles.

Skin and Body Protection: None usually needed.

Respiratory Protection: None usually needed.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, amber to dark brown
Odor	: Mild

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor Threshold	: Not available
pH	: 3.5-4.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 103°C (217°F)
Flash Point	: None
Auto-ignition Temperature	: None
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Specific Gravity	: 1.08
Solubility	: Complete.
Log Pow	: Not available
Log Kow	: Not available
Viscosity, Kinematic	: Not available
Viscosity, Dynamic	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not available
Explosion Data – Sensitivity to Static Discharge	: Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates: Corrosive fumes.

Chemical Stability: Stable at standard temperature and pressure.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely low temperatures. Incompatible materials.

Incompatible Materials: Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Nitrogen oxides. Phosphorus oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified.

LD50 and LC50 Data: Not available.

Skin Corrosion/Irritation: Causes skin irritation. (pH: 3.5-4.5)

Serious Eye Damage/Irritation: Causes serious eye irritation. (pH: 3.5-4.5)

Respiratory or Skin Sensitization: Not classified.

Germ Cell Mutagenicity: Not classified.

Teratogenicity: Not available.

Carcinogenicity: Not classified.

Specific Target Organ Toxicity (Repeated Exposure): Not classified.

Reproductive Toxicity: Not classified.

Specific Target Organ Toxicity (Single Exposure): Not classified.

Aspiration Hazard: Not classified.

Symptoms/Injuries After Inhalation: Not classified.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Information on Toxicological Effects - Ingredient(s)

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LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	>90000 mg/kg
Benzotriazole (95-14-7)	
LD50 Oral Rat	600 mg/kg
1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
LD50 Oral Rat	>4000 mg/kg
LD50 Dermal Rat	>4000 mg/kg
LC50 Inhalation Rat	>1979 mg/m ³ (Exposure time: 4 h)
Polymaleic Polymer (Mixture)	
LD50 Oral Rat	>5000 mg/kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Not available.

Acrylic copolymer (Mixture)	
LC50 Fish 1	1079 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	>1529 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Polymaleic Polymer (Mixture)	
LC50 Fish 1	>100 mg/l (Exposure time: 96 h)
EC50 Daphnia 1	>100 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability

AFCO 9005	
Persistence and Degradability	Not established.

Bioaccumulative Potential

AFCO 9005	
Bioaccumulative Potential	Not established.
1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)	
BCF fish 1	(no bioaccumulation expected)

Mobility in Soil Not available.

Other Adverse Effects

Other Information: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT	:	Not regulated for transport.
14.2 In Accordance with IMDG	:	Not regulated for transport.
14.3 In Accordance with IATA	:	Not regulated for transport.
14.4 In Accordance with TDG	:	Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

AFCO 9005	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard.
Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	
Benzotriazole (95-14-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory.	

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1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Acrylic copolymer (Mixture)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Polymaleic Polymer (Mixture)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

Polymaleic acid, sodium salt (26099-09-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory.

US State Regulations

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

U.S. - Texas - Effects Screening Levels - Long Term.

U.S. - Texas - Effects Screening Levels - Short Term.

Canadian Regulations

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Benzotriazole (95-14-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

1,2,4-Butanetricarboxylic acid, 2-phosphono- (37971-36-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Acrylic copolymer (Mixture)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Polymaleic Polymer (Mixture)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Polymaleic acid, sodium salt (26099-09-2)

Listed on the Canadian DSL (Domestic Substances List) inventory.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION

Revision date : 03/09/2020

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Eye Dam 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Irrit. 2	Skin corrosion/irritation Category 2
H290	May be corrosive to metal
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage.
H319	Causes serious eye irritation
H320	Causes eye irritation

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NFPA Health Hazard

: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA Fire Hazard

: 0 - Materials that will not burn.

NFPA Reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur.

Flammability

: 0 - Minimal Hazard.

Physical

: 0 - Minimal Hazard.

Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T: 800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS SDS 2015 (U.S., Can., Mex.)



AFCO 9126

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 5/1/2017

Version: 1.1

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: AFCO 9126

Product Code: AFCO 9126

Synonyms: NA

Intended Use of the Product

Use of the Substance/Mixture: Liquid boiler treatment (oxygen scavenger). For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T 800-345-1329
www.afcocare.com

Emergency Telephone Number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Eye Dam. 1 H318
Carc. 1 H350
Repr. 1 H360
Aquatic Acute 3 H402

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H318 - Causes serious eye damage
H350- May cause cancer
H360- May damage fertility of the unborn child
H402 - Harmful to aquatic life

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, respiratory protection.
P281 - Use personal protective equipment as required.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a POISON CENTER or doctor/physician.
P405 - Store locked up.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

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Other Hazards

Other Hazards Not Contributing to the Classification:

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	70 - 90	Not classified
Sodium metabisulfite	(CAS No) 7681-57-4	20 - 30	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 3, H402
Cobalt sulfate	(CAS No) 10026-24-1	0.1 - 1	Acute Tox. 4 (Oral), H302 Resp. Sens. 1, H334 Carc. 1, H350 Repr. 1, H360

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention.

Skin Contact: Remove contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse. Wash contaminated clothing before reuse.

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek medical advice if irritation develops or persists.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage.

Inhalation: May cause respiratory irritation.

Skin Contact: May cause mild irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: Not available

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable.

Explosion Hazard: Product is not explosive.

Reactivity: When heated to decomposition, emits toxic fumes.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Toxic fumes are released. Sulfur oxides. Sodium oxides.

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Other information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment. Do NOT breathe (vapors, mist, spray). Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Contact competent authorities after a spill. Absorb and/or contain spill with inert material, then place in suitable container. Clear up spills immediately and dispose of waste safely. Do not take up in combustible material such as: saw dust or cellulosic material.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated to decomposition, emits toxic fumes.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely high or low temperatures, incompatible materials.

Incompatible Materials: Strong acids. Strong oxidizers.

Special Rules on Packaging: Keep only in original container.

Specific End Use(s)

Liquid boiler treatment (oxygen scavenger). For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Sodium metabisulfite (7681-57-4)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
Ontario	OEL TWA (mg/m ³)	5 mg/m ³
Québec	VEMP (mg/m ³)	5 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Alarm detectors should be used when toxic gases may be released.

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Personal Protective Equipment: Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection. Gloves. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, light pink liquid
Odor	: Slight odor of sulfur dioxide
Odor Threshold	: Not available
pH	: 3.1-4.5
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not available
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.25
Solubility	: Complete.
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	: Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: When heated to decomposition, emits toxic fumes. When mixed with acids, releases sulfur dioxide gas.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely high or low temperatures. Incompatible materials.

Incompatible Materials: Acids, strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Thermal decomposition generates : Toxic gases. Sodium oxides. Sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

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LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Not classified pH: 3.1-4.5

Serious Eye Damage/Irritation: Causes serious eye damage. pH: 3.1-4.5

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: May cause cancer.

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause mild irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause cancer.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg
Sodium metabisulfite (7681-57-4)	
LD50 Oral Rat	1131 mg/kg
Cobalt sulfate (10026-24-1)	
LD50 Oral Rat	582 mg/kg
Cobalt sulfate (10026-24-1)	
IARC Group	2B
Sodium metabisulfite (7681-57-4)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life.

Sodium metabisulfite (7681-57-4)	
LC50 Fish 1	32 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])

Persistence and Degradability Not available

Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
Sodium metabisulfite (7681-57-4)	
Log Pow	-3.7 (at 25 °C)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

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SECTION 14: TRANSPORT INFORMATION

- 14.1 In Accordance with DOT** Not regulated for transport
14.2 In Accordance with IMDG Not regulated for transport
14.3 In Accordance with IATA Not regulated for transport
14.4 In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

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SARA Section 311/312 Hazard Classes Immediate (acute) health hazard

SARA Section 313 - The following components are subject to reporting levels established by SARA Title III, Section 313

Component	CAS Number	% in Product
Cobalt sulfate	10026-24-1	0.2

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium metabisulfite (7681-57-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Cobalt sulfate (10026-24-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Sodium metabisulfite (7681-57-4)

RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Canadian Regulations

Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Sodium metabisulfite (7681-57-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Cobalt sulfate (10026-24-1)

Listed on the Canadian DSL (Domestic Substances List) inventory.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 5/1/2017

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 1	Carcinogenicity Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Resp. Sens. 1	Respiratory sensitisation Category 1
Repr. 1	Reproductive Toxicity Category 1
H302	Harmful if swallowed
H318	Causes serious eye damage
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled

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H350	May cause cancer
H360	May damage fertility or the unborn child.
H402	Harmful to aquatic life

NFPA Health Hazard

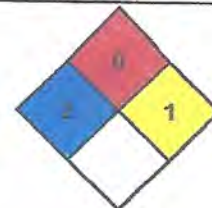
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA Fire Hazard

: 0 - Materials that will not burn.

NFPA Reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

Flammability

: 0 Minimal Hazard

Physical

: 1 Slight Hazard

Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.

800 Development Avenue

Chambersburg, PA 17201

800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

NA GHS SDS 2015 (US, Can, Mex)



BWT-500B (AFCO 8502)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision Date: 5/16/2016

Version: 1.1

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: BWT-500B (AFCO 8502)

Product Code: AFCO 8502

Intended Use of the Product

Use of the Substance/Mixture: Liquid boiler treatment. For professional use only.

Name, Address, and Telephone of the Responsible Party

Company

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
T 800-345-1329
www.afcocare.com

Emergency Telephone Number

Emergency number : 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Met. Corr. 1	H290
Acute Tox 4 (Oral)	H302
Skin Corr. 1C	H314
Eye Dam. 1	H318
Aquatic Acute 3	H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)



Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H290 - May be corrosive to metals
H302- Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage
H412- Harmful to aquatic life.

Precautionary Statements (GHS-US)

: P234 - Keep only in original container.
P260 - Do not breathe vapors, mist, spray.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P270 - Do not eat drink or smoke when using this product.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER or doctor/physician.
P321 - Specific treatment (see section 4).
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P406 - Store in corrosive resistant/... container with a resistant inner liner.
P501 - Dispose of contents/container according to local, regional, national, territorial, provincial, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: None.

Other Hazards: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. When heated to decomposition, emits toxic fumes. Contact with metals may evolve flammable hydrogen gas.

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Name	Product identifier	% (w/w)	Classification (GHS-US)
Water	(CAS No) 7732-18-5	70 - 80	Not classified
Potassium hydroxide	(CAS No) 1310-58-3	10-20	Met. Corr. 1, H290 Acute Tox. 3 (Oral), H301 Skin Corr. 1A, H314 Eye Dam. 1, H318
Sodium sulfite	(CAS No) 7757-83-7	10-20	Not classified
Tetrasodium EDTA	(CAS No) 64-02-8	1- 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Dam. 1, H318 Aquatic Acute 2, H401
Sodium polyacrylate	(CAS No) 9003-04-7	1-5	Eye Irrit. 2A, H319
1-Hydroxyethane-1,1-diphosphonic acid	(CAS No) 2809-21-4	1-5	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 60 minutes. Get immediate medical advice/attention. Wash contaminated clothing before reuse.

Eye Contact: Seek medical attention immediately. Rinse cautiously with water for at least 60 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects Both Acute and Delayed

General: Causes serious eye damage. Causes severe skin burns and eye damage.

Inhalation: None under normal and intended conditions of product use.

Skin Contact: Causes severe skin burns and eye damage. Harmful in contact with skin.

Eye Contact: Causes serious eye damage.

Ingestion: Ingestion is likely to be harmful or have adverse effects. Contact may cause immediate severe irritation progressing quickly to chemical burns.

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Chronic Symptoms: Not available

Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water spray, fog, carbon dioxide, foam, dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Not flammable

Explosion Hazard: Product is not explosive. Contact with soft metals may release flammable hydrogen gas.

Reactivity: Thermal decomposition generates : Corrosive vapors. When heated to decomposition, emits toxic fumes. Corrosive to soft metals.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Toxic fumes are released. Nitrogen oxides. sulfur oxides. Corrosive vapors. Potassium oxides. Sodium oxides.

Other information: Do not allow run-off from fire fighting to enter drains or water courses.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment. Do not get in eyes, on skin, or on clothing.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: None.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Cautiously neutralize spilled liquid.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Contact competent authorities after a spill.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: When heated to decomposition, emits toxic fumes. Corrosive vapors are released. Contact with soft metals may evolve flammable hydrogen gas.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. May be corrosive to soft metals.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from extremely low temperatures, incompatible materials.

Incompatible Materials: Acids. Strong oxidizers.

Special Rules on Packaging: Keep only in original container.

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Specific End Use(s)

Liquid boiler treatment. For professional use only.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Potassium hydroxide (1310-58-3)		
USA ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
USA NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³
Ontario	OEL Ceiling (mg/m ³)	2 mg/m ³
Québec	PLAFOND (mg/m ³)	2 mg/m ³

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed. If user operations generate fumes, vapor, spray, or mist use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal Protective Equipment: Protective goggles. Gloves. Face shield.



Materials for Protective Clothing: Chemically resistant materials and fabrics. Corrosionproof clothing.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical goggles or face shield.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: None needed under normal and intended conditions of product use.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Clear, Colorless
Odor	: Slight
Odor Threshold	: Not available
pH	: > 13
Relative Evaporation Rate (butylacetate=1)	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 104 °C (219.2°F)
Flash Point	: Not flammable
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not flammable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available
Vapor Pressure	: Not available
Relative Vapor Density at 20 °C	: Not available
Specific Gravity	: 1.25
Solubility	: Complete.
Partition coefficient: n-octanol/water	: Not available
Viscosity	: Not available
Explosion Data – Sensitivity to Mechanical Impact	: Not expected to present an explosion hazard due to mechanical impact.

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Explosion Data – Sensitivity to Static Discharge : Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Thermal decomposition generates : Corrosive vapors. When heated to decomposition, emits toxic fumes. Corrosive to soft metals.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Extremely low temperatures. Prolonged contact with soft metals. Incompatible materials.

Incompatible Materials: Acids, strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO₂). Thermal decomposition generates : Corrosive vapors. Nitrogen oxides. Potassium oxides. Sodium oxides. Sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified

LD50 and LC50 Data: Not available

Skin Corrosion/Irritation: Causes severe skin burns and eye damage. pH: > 13

Serious Eye Damage/Irritation: Causes serious eye damage. pH: > 13

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: None

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: None under normal and intended conditions of product use.

Symptoms/Injuries After Skin Contact: Causes severe skin burns and eye damage. Harmful in contact with skin.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects. Contact may cause immediate severe irritation progressing quickly to chemical burns.

Chronic Symptoms: None

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Water (7732-18-5)

LD50 Oral Rat	> 90000 mg/kg
---------------	---------------

Potassium hydroxide (1310-58-3)

LD50 Oral Rat	214 mg/kg
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Sodium sulfite (7757-83-7)

LD50 Oral Rat	3560 mg/kg
LC50 Inhalation Rat	> 22 mg/l (Exposure time: 1 h)

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)

LD50 Oral Rat	2400 mg/kg
LD50 Dermal Rabbit	> 7940 mg/kg
ATE US (oral)	500.00 mg/kg body weight

Tetrasodium EDTA (64-02-8)

LD50 Oral Rat	1780 mg/kg
ATE (oral)	1780.000 mg/kg body weight

Sodium sulfite (7757-83-7)

IARC Group	3
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SECTION 12: ECOLOGICAL INFORMATION

Toxicity Not classified

Tetrasodium EDTA (64-02-8)	
LC50 Fish 1	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Other Aquatic Organisms 1	1.01 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC 50 Fish 2	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)	
LC50 Fish 1	868 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	527 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	360 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
NOEC (acute)	1000 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

Persistence and Degradability Not available

Bioaccumulative Potential

BWT-500B (AFCO 8502)	
Bioaccumulative Potential	Not established.
Potassium hydroxide (1310-58-3)	
Log Pow	0.65
Sodium sulfite (7757-83-7)	
Log Pow	-4 (at 25 °C)
1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)	
BCF fish 1	< 50
Log Pow	3.49

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(Potassium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8
Packing Group : III
ERG Number : 154



14.2 In Accordance with IMDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(Potassium hydroxide)
Hazard Class : 8
Identification Number : UN3266
Packing Group : III
Label Codes : 8
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B



14.3 In Accordance with IATA

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide)
Packing Group : III
Identification Number : UN3266
Hazard Class : 8



BWT-500B (AFCO 8502)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Label Codes : 8
ERG Code (IATA) : 8L

14.4 In Accordance with TDG

Proper Shipping Name : CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.(Potassium hydroxide)
Packing Group : III
Hazard Class : 8
Identification Number : UN3266
Label Codes : 8



SECTION 15: REGULATORY INFORMATION

US Federal Regulations

BWT-500B (AFCO 8502)

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard
Delayed (chronic) health hazard

Water (7732-18-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Potassium hydroxide (1310-58-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium sulfite (7757-83-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium polyacrylate (9003-04-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Tetrasodium EDTA (64-02-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

Potassium hydroxide (1310-58-3)

U.S. - New Jersey - Discharge Prevention - List of Hazardous Substances
RTK - U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New Jersey - Special Health Hazards Substances List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
RTK - U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
RTK - U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Sodium sulfite (7757-83-7)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Sodium polyacrylate (9003-04-7)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

Tetrasodium EDTA (64-02-8)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)

U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

BWT-500B (AFCO 8502)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Canadian Regulations

BWT-500B (AFCO 8502)

WHMIS Classification

Class E - Corrosive Material

Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Class D Division 2 Subdivision B - Toxic material causing other toxic effects



Water (7732-18-5)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

Potassium hydroxide (1310-58-3)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Listed on the Canadian Ingredient Disclosure List

IDL Concentration 1 %

WHMIS Classification

Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects

Class E - Corrosive Material

Sodium sulfite (7757-83-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

Sodium polyacrylate (9003-04-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Tetrasodium EDTA (64-02-8)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

1-Hydroxyethane-1,1-diphosphonic acid (2809-21-4)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification

Class E - Corrosive Material

Class D Division 2 Subdivision B - Toxic material causing other toxic effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 5/16/2016

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A

BWT-500B (AFCO 8502)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Skin Corr. 1C	Skin corrosion/irritation Category 1C
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H332	Harmful if inhaled
H401	Toxic to aquatic life
H412	Harmful to aquatic life with long lasting effects

NFPA Health Hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA Fire Hazard

: 0 - Materials that will not burn.

NFPA Reactivity

: 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

: 0 Minimal Hazard

Physical

: 1 Slight Hazard

Party Responsible for the Preparation of This Document

Alex C. Fergusson, LLC.
800 Development Avenue
Chambersburg, PA 17201
800-345-1329

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

North America GHS US 2012 & WHMIS

ATTACHMENT T-4

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

CROP MANGEMENT PLAN

**Crop Management Plan
Wastewater Land Application System
Holmes Foods, Inc., Nixon, TX
WQ0002013000**

1. Crop Selection and Rotation

- Primary Crop (Spring/Summer): Bermuda Grass
- Secondary Crop (Fall/Winter): Winter Rye

2. Field Division and Crop Rotation Schedule

- Total Area: 429.02 acres
- Primary Crop Area: 429.02 acres of Bermuda grass (spring/summer)
- Secondary Crop Area: 429.02 acres of winter rye (fall/winter)

Nitrogen Application Plan

1. Permitted Nitrogen Loadings via Existing TLAP Permit

- Bermuda Grass: Approximately 480 lbs of nitrogen per acre per year
- Winter Rye: Approximately 60 lbs of nitrogen per acre per year

Total permitted nitrogen loading per acre:

- Bermuda Grass: 480 lbs/acre
- Winter Rye: 60 lbs/acre

Combined annual permitted nitrogen loading:
480 lbs per acre per yr + 60 lbs per acre per yr = 540 lbs per acre per yr

2. Total Nitrogen Application

- nitrogen application rate from wastewater: $75 \text{ mg/l} \times 0.88 \text{ mgd} \times 8.34 \times 365 = 200,910.6 \text{ lbs/year}$
- Area to be applied to: 429.02 acres

Total nitrogen loading: 468 lbs per acre per yr

Irrigation and Water Management

1. Water Application Schedule

- Wastewater will be applied year-a-round on all days allowed by the conditions of the TLAP permit. Bermuda grass requires regular irrigation during the growing season.

- Winter rye requires less frequent irrigation and will be monitored to avoid water stress.

2. Irrigation Techniques

- Wastewater will be land applied using center pivot units.
- Irrigation will be scheduled based on soil moisture levels, weather conditions, and crop requirements in order to meet all TLAP permit requirements.

Monitoring and Adjustment

1. Soil Testing

- Conduct soil tests at least once a year to monitor nutrient levels and adjust the fertilization plan accordingly.

2. Crop Monitoring

- Regularly monitor the health and growth of both crops.
- Adjust nitrogen application rates if there are signs of deficiency or excess.

Environmental Considerations

1. Buffer Zones

- Establish buffer zones around the s to prevent nutrient runoff into nearby water bodies.

ATTACHMENT T-5

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION


WELL DATA

Groundwater Data, Texas

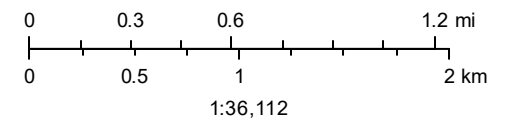


May 31, 2024

The data in Water Data Interactive represents the best available information provided by the TWDB and third-party cooperators of the TWDB. The TWDB provides information via this web site as a public service. Neither the State of Texas nor the TWDB assumes any legal liability or responsibility or makes any guarantees or warranties as to the accuracy, completeness or suitability of the information for any particular purpose. The TWDB systematically revises or removes data discovered to be incorrect. If you find inaccurate information or have questions, please contact WDI-Support@twdb.texas.gov.

 Well Reports

T-5
Well
Locations
within
1/2 mile



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

TEXAS WATER DEVELOPMENT BOARD

STATE OF TEXAS WELL REPORT for Tracking #26286

Owner: **William E. Cooper, Inc.**

Owner Well #: **#2**

Address: **4 Morning Downs
San Antonio, TX 78257**

Grid #: **67-42-9**

Well Location: **County Road 482
Nixon, TX 78140**

Latitude: **29° 15' 31" N**

Longitude: **097° 46' 59" W**

Well County: **Wilson**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **7/28/2003**

Drilling End Date: **7/29/2003**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.5	0	364

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	300	360	Gravel	

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	20	1 Cement

Seal Method: **Unknown**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **none**

Surface Completion: **Surface Sleeve Installed**

Water Level: **79 ft. below land surface on 2003-03-01**

Measurement Method: **Unknown**

Packers: **4 Sacks Hole Plug 290-300**

Type of Pump: **No Data**

Well Tests: **Bailer** **Yield: 80 GPM with 200 ft. drawdown after unspecified hours**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which
contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Deharde Water Well Service**
1075 Schuenemann Road
Seguin, TX 78155

Driller Name: **Larry Deharde** License Number: **2328**

Comments: **\$dfs**
Diameter of hole reamed 7.875 inches to 364 ft.

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

From (ft)	To (ft)	Description
0		Black Clay
4		White Clay
50		Blue Clay
85		Sand
155		Clay
260		Sand
275		Sandy clay and R
305		Sand
355		Clay

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Plastic	0 360 sch40
4	New	Screen Mfg.	.020 320 360 sch40

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #26290

Owner: **William E. Cooper, Inc.**

Owner Well #: **#1**

Address: **4 Morning Downs
San Antonio, TX 78257**

Grid #: **67-42-9**

Well Location: **Highway 87 and County Road 482
Nixon, TX 78140**

Latitude: **29° 15' 59" N**

Longitude: **097° 46' 30" W**

Well County: **Wilson**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **7/23/2003**

Drilling End Date: **7/24/2003**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.5	0	380

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	320	380	Gravel	

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	20	1 Cement

Seal Method: **Unknown**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **None**

Surface Completion: **Surface Sleeve Installed**

Water Level: **50 ft. below land surface on 2003-07-24** Measurement Method: **Unknown**

Packers: **4 Sacks Hole Plug 310-320'**

Type of Pump: **No Data**

Well Tests: **Jetted** Yield: **80 GPM with 250 ft. drawdown after unspecified hours**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which
contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Deharde Water Well Service**
1075 Schuenemann Road
Seguin, TX 78155

Driller Name: **Larry Deharde**

License Number: **2328**

Comments: **\$dfs**
Diameter of hole reamed 7.875 inches to 364 ft.

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

From (ft)	To (ft)	Description
0		Sandy Clay
5		Yellow Clay
52		Blue Clay
100		Sand and Sandy Clay
170		Clay and Rocks
280		Sand
305		Clay
325		Sand
364		Sandy Clay
367		Sand
378		Sandy Clay

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4	New	Plastic	0 360 sch40
4	New	Screen Mfg.	.020 320 360 sch40

STATE OF TEXAS WELL REPORT for Tracking #182070

Owner: **John Respondek**

Owner Well #: **No Data**

Address: **544 Sycamore
Lake Jackson, TX 77566**

Grid #: **67-42-9**

Well Location: **3 mi W of Nixon
Nixon, TX**

Latitude: **29° 16' 25" N**

Longitude: **097° 46' 46" W**

Well County: **Gonzales**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **9/18/2004**

Drilling End Date: **9/22/2004**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	7.875	0	420

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	200	420	Gravel	

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	10	4 sacks

Seal Method: **Hand Mixed**

Distance to Property Line (ft.): **No Data**

Sealed By: **Thomas Moy & Sons Water
Well Drilling**

Distance to Septic Field or other
concentrated contamination (ft.): **150+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **tape**

Surface Completion: **Surface Slab Installed**

Water Level: **15 ft. below land surface on 2004-09-22** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible**

Well Tests: **Jetted** Yield: **60 GPM**

Water Quality:

<i>Strata Depth (ft.)</i>	<i>Water Type</i>
No Data	Queen City

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which
contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Thomas Moy & Sons Water Well Drilling, Inc.**
12323 N State Hwy 123
Falls City, TX 78113

Driller Name: **Johnny W. Moy** License Number: **2570**

Comments: **Well location is near Gonzales Co-Wilson Co border. \$scd**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

<i>Top (ft.)</i>	<i>Bottom (ft.)</i>	<i>Description</i>
0	20	shale and topsoil
20	220	sand and shale
220	300	shale sand and rocks
300	420	sand and shale streaks and rocks

<i>Dia. (in.)</i>	<i>New/Used</i>	<i>Type</i>	<i>Setting From/To (ft.)</i>
5 slotted factory screen 360-420 .025			

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #269627

Owner: **City of Nixon**
Address: **100 W. 3rd St
Nixon, TX 78140**
Well Location: **N. Rancho St
Nixon, TX 78140**
Well County: **Wilson**

Owner Well #: **6**
Grid #: **67-42-9**
Latitude: **29° 15' 33" N**
Longitude: **097° 46' 29" W**
Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Public Supply**

Drilling Start Date: **9/22/2010**

Drilling End Date: **10/10/2010**

Plans Approved by TCEQ - **YES**

Borehole:

<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
30	1340	1830
22	0	1340

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed; Under-reamed**

Filter Pack Intervals:

<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
1240	1830	Gravel	16-30

Annular Seal Data:

<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
0	1320	1219 Cement

Seal Method: **Slurry Pumped**

Distance to Property Line (ft.): **No Data**

Sealed By: **Superior Energy**

Distance to Septic Field or other
concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Unknown**

Water Level: **64.87 ft. below land surface on 2010-11-01**

Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Turbine**

Pump Depth (ft.): **240**

Well Tests: **Jetted**

Yield: 1750 GPM with 74.558 ft. drawdown after 36 hours

Water Quality:

Strata Depth (ft.)	Water Type
420	Fresh

Chemical Analysis Made: **Yes**Did the driller knowingly penetrate any strata which
contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Friedel Drilling Company****P.O. Box 55
Hochheim, TX 77967**Driller Name: **Kenneth Friedel**License Number: **3173**Apprentice Name: **Dionicio Garza**Apprentice Number: **56731**Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

From (ft)	To (ft)	Description
50	Top	Soil
50	100	Clay
100	150	Clay
150	200	Red Sand
200	238	Sand
238	270	Clay
270	300	Clay
300	350	Clay
350	372	Sand
372	394	Clay
394	420	Sand
420	450	Sand
450	500	Clay
500	550	Clay
550	606	Sand
606	650	Clay
650	680	Sand

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
16	N	Surface Casing	1340 .500
10	N	Lap	1240 1340
10	N	Pipe Base Screen	1340 1536 .030
10	N	Blank	1536 1586 .375
10	N	Pipe Base Screen	1586 1810 .030
10	N	Blank	1810 1830 .375

680 700 Clay
700 750 Clay
750 800 Clay
800 850 Sand w/ Clay
850 900 Sand w/ Clay
900 950 Clay
950 1000 Clay
1000 1050 Clay
1050 1100 Clay
1100 1150 Clay w/ Sand
1150 1182 Clay
1182 1206 Sand
1206 1250 Clay w/ Sand
1250 1320 Sand
1320 1340 Clay
1340 1370 Sand
1370 1420 Sand
1420 1450 Sand
1450 1500 Sand
1500 1538 Sand
1538 1576 Clay w/ Sand
1576 1613 Sand
1613 1662 Sand w/ Clay
1662 1700 Sand
1700 1750 Sand
1750 1800 Sand
1800 1850 Sand
1850 1880 Sand
1880 1900 Sand w/ Clay
1900 1940 Sand
1940 1960 Clay
1960 1994 Sand
1994 2000 Clay

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**Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540**

STATE OF TEXAS WELL REPORT for Tracking #591929

Owner: **Holmes Food INC**

Owner Well #: **No Data**

Address: **603 US-87
Nixon, TX 78140**

Grid #: **67-42-9**

Well Location: **FM 1681
Nixon, TX**

Latitude: **29° 16' 26.13" N**

Longitude: **097° 46' 47.02" W**

Well County: **Gonzales**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **9/18/2021**

Drilling End Date: **9/19/2021**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	9.875	0	380

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	280	380	Gravel	#40

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	17	Concrete 17 Bags/Sacks
	17	280	Grout 23 Bags/Sacks

Seal Method: **Positive Displacement**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Surface Completion by Driller

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 80 GPM after 8 hours, no drawdown specified**

Water Quality:

Strata Depth (ft.)	Water Type
265 - 380	No Data

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which
contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Drillink, Inc.**
2974 CR 284
Harwood, TX 78632

Driller Name: **4446**

License Number: **4446**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	80	Black Clay
80	153	Fine Sand
153	200	Dark Gray Clay
200	297	Gray Clay Sand
297	370	Fine Sand, Shells
370	380	Gray Sandy Clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
4.5	Blank	New Plastic (PVC)	SDR17	0	320
4.5	Screen	New Plastic (PVC)	SDR17 0.020	320	380
4.5	Cap	New Plastic (PVC)	SCH40	380	380

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

ATTACHMENT T-6

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

GROUNDWATER TECHNICAL REPORT

Technical Report on Groundwater Compliance with 30 TAC 309.20 (a) (4)
Wastewater Treatment and Land Application System
Holmes Foods, Nixon, TX
WQ0002013000

1. Introduction

This technical report evaluates the potential impact of the Holmes Foods, Nixon, TX wastewater land application system on groundwater resources, in compliance with the Texas Administrative Code (TAC) 30 TAC 309.20 (a) (4). This section mandates the assessment of groundwater quality to ensure the protection of water resources from contamination due to wastewater discharge or land application of effluent.

2. Site Description

The wastewater treatment and land application system is located west of Nixon, Texas, 500 acres of land. The site is situated approximately 1 mile west of downtown Nixon, TX on the north side of U.S. Highway 87. The facility is designed to treat and land apply an average flow of 880,000 gallons per day (GPD) of poultry processing plant wastewater.

3. Hydrogeologic Setting

3.1 Geology and Soils

The site overlies the Cook Mountain Formation (Ecm), which is described as consisting of "clay and sandstone; clay gypsiferous, slightly silty and lignitic, minor glauconite, brown to brownish gray, weathers brownish gray to yellowish gray; sandstone very fine grained, calcareous, glauconitic, gray to yellowish brown; marine megafossils and microfossils abundant; thickness 200-230 feet."

3.2 Groundwater Aquifers

The facility is located over the Carrizo-Wilcox Aquifer. The Carrizo-Wilcox Aquifer is a major aquifer extending from the Louisiana border to the border of Mexico in a wide band adjacent to and northwest of the Gulf Coast Aquifer. It consists of the Wilcox Group and the overlying Carrizo Formation of the Claiborne Group. The aquifer is primarily composed of sand locally interbedded with gravel, silt, clay, and lignite. Although the Carrizo-Wilcox Aquifer reaches 3,000 feet in thickness, the freshwater saturated thickness of the sands averages 670 feet (the Texas Water Development Board Carrizo-Wilcox Aquifer Summary).

Groundwater in the aquifer exists under both water table artesian conditions. This site overlies the subcrop and is likely to be under confining conditions. Well reports

from the area identify layers of shale near the surface and in the shallow subsurface which may act as confining layers. The difference in water levels compared to the screened intervals in some wells in the area seem to suggest the presence of confining units within the aquifer in the area.

3.3 Existing Groundwater Quality

Groundwater in the Carrizo-Wilcox flows generally towards the southeast and the Gulf of Mexico. Shallow groundwater likely follows surface topography north towards Tally Branch Clear Creek.

Groundwater use is a mix of industrial, domestic, and monitoring wells. The existence of any perched groundwater is unknown.

Depth to groundwater measured recently in the area ranges from 15-90 feet below ground surface. Well data for wells within a half-mile radius of the site were reviewed.

4. Potential Sources of Contamination

4.1 Wastewater Treatment Processes

The facility uses oxidation ponds for treatment prior to land application. Effluent quality meets all requirements of the current TLAP permit.

Observation of the ponds reveals the presence of biological material built up over years of operation and the area around the ponds do not indicate any signs of leakage or seepage. These ponds were constructed using an in-situ soil consisting of Luling soil, according to the Gonzales County Soil Survey. The Luling soil is highly impermeable and well suited for wastewater lagoon construction. Representative permeability values are from county-wide soil surveys. Based on this information the effective permeability of these pond liners is equal or less than 1×10^{-7} cm/sec. The wastewater treatment ponds are not believed to have any significant impact on groundwater quality.

4.2 Effluent Disposal Methods

Treated effluent is land applied for beneficial reuse as a soil fertilizer and amendment. Nitrogen loading rates are maintained below the levels allowed by the existing TLAP permit to minimize the potential for any impacts on groundwater. Nitrogen levels are maintained below crop requirements.

5. Conclusion

Based on the hydrogeologic assessment, the wastewater treatment and land application system is not expected to have a significant adverse impact on groundwater quality. The strict management of hydraulic and nutrient loading rates will ensure compliance with 30 TAC 309.20 (a) (4) and protect groundwater resources.

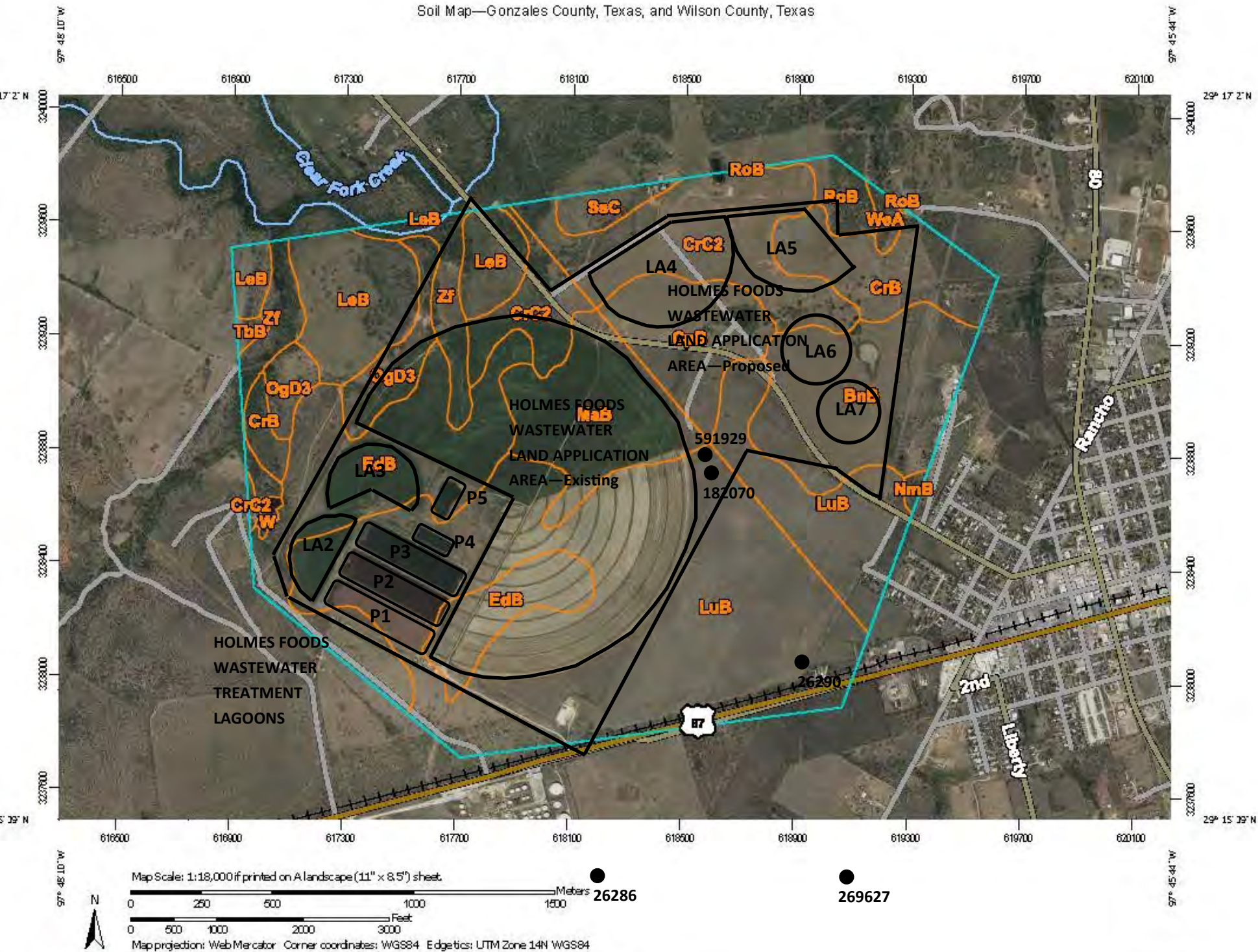
ATTACHMENT T-7

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

SOILS DATA



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Gonzales County, Texas

Survey Area Data: Version 21, Sep 5, 2023

Soil Survey Area: Wilson County, Texas

Survey Area Data: Version 23, Sep 5, 2023

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

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

Date(s) aerial images were photographed: Mar 13, 2022—Apr 6, 2022

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

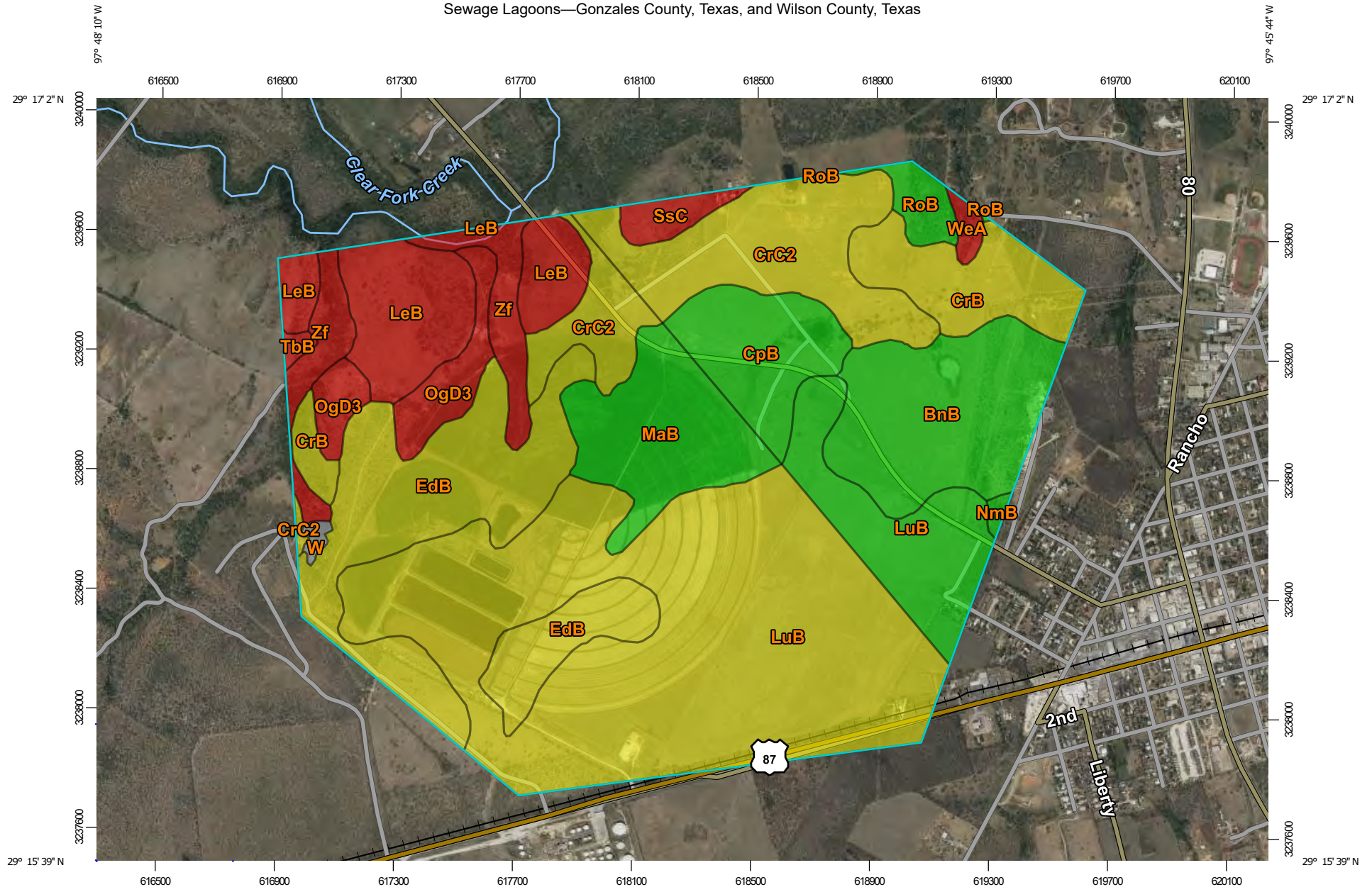
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BnB	Benchley clay loam, 1 to 3 percent slopes	91.0	8.5%
CpB	Coy clay loam, 1 to 3 percent slopes	48.7	4.5%
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	47.1	4.4%
CrC2	Crockett fine sandy loam, 2 to 5 percent slopes, eroded	82.8	7.7%
LuB	Luling clay, 1 to 3 percent slopes	59.3	5.5%
NmB	Normangee sandy clay loam, 1 to 3 percent slopes	1.8	0.2%
RoB	Rosanky fine sandy loam, 1 to 3 percent slopes	12.1	1.1%
SsC	Silstd loamy fine sand, 1 to 5 percent slopes	10.5	1.0%
WeA	Waelder loam, 0 to 1 percent slopes, frequently flooded	4.3	0.4%
Subtotals for Soil Survey Area		357.4	33.2%
Totals for Area of Interest		1,076.5	100.0%

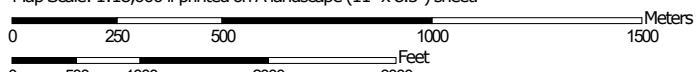
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	7.9	0.7%
CrC2	Crockett fine sandy loam, 2 to 5 percent slopes eroded	27.3	2.5%
EdB	Elmendorf-Denhawken complex, 1 to 4 percent slopes	141.7	13.2%
LeB	Leming loamy fine sand, 0 to 3 percent slopes	72.4	6.7%
LuB	Luling clay, 0 to 4 percent slopes	330.7	30.7%
MaB	Marcelinas clay loam, 0 to 3 percent slopes	66.1	6.1%
OgD3	Ustifluvents, broken, severely eroded	30.8	2.9%
TbB	Papalote loamy fine sand, 0 to 3 percent slopes	2.3	0.2%
W	Water	2.2	0.2%
Zf	Zavala fine sandy loam, frequently flooded	37.8	3.5%
Subtotals for Soil Survey Area		719.1	66.8%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Totals for Area of Interest		1,076.5	100.0%

Sewage Lagoons—Gonzales County, Texas, and Wilson County, Texas



Map Scale: 1:18,000 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84




**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

6/1/2024
Page 1 of 6

MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available






Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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 Survey Area Data: Version 21, Sep 5, 2023

Soil Survey Area: Wilson County, Texas
 Survey Area Data: Version 23, Sep 5, 2023

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

Date(s) aerial images were photographed: Mar 13, 2022—Apr 6, 2022

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

Sewage Lagoons

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BnB	Benchley clay loam, 1 to 3 percent slopes	Not limited	Benchley (85%)		91.0	8.5%
CpB	Coy clay loam, 1 to 3 percent slopes	Not limited	Coy (85%)		48.7	4.5%
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	Somewhat limited	Crockett (85%)	Depth to soft bedrock (0.18)	47.1	4.4%
CrC2	Crockett fine sandy loam, 2 to 5 percent slopes, eroded	Somewhat limited	Crockett, eroded (85%)	Slope (0.32) Depth to soft bedrock (0.18)	82.8	7.7%
LuB	Luling clay, 1 to 3 percent slopes	Not limited	Luling (100%)		59.3	5.5%
NmB	Normangee sandy clay loam, 1 to 3 percent slopes	Not limited	Normangee (85%)		1.8	0.2%
RoB	Rosanky fine sandy loam, 1 to 3 percent slopes	Not limited	Rosanky (85%)		12.1	1.1%
SsC	Silstdid loamy fine sand, 1 to 5 percent slopes	Very limited	Silstdid (85%)	Seepage (1.00) Slope (0.08)	10.5	1.0%
WeA	Waelder loam, 0 to 1 percent slopes, frequently flooded	Very limited	Waelder (85%)	Flooding (1.00) Seepage (1.00)	4.3	0.4%
Subtotals for Soil Survey Area					357.4	33.2%
Totals for Area of Interest					1,076.5	100.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	Somewhat limited	Crockett (95%)	Depth to soft bedrock (0.96)	7.9	0.7%
CrC2	Crockett fine sandy loam, 2	Somewhat limited	Crockett, eroded (95%)	Depth to soft bedrock (0.96)	27.3	2.5%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	to 5 percent slopes eroded			Slope (0.32)		
EdB	Elmendorf-Denhawken complex, 1 to 4 percent slopes	Somewhat limited	Elmendorf (77%)	Slope (0.08)	141.7	13.2%
			Denhawken (18%)	Slope (0.08)		
LeB	Leming loamy fine sand, 0 to 3 percent slopes	Very limited	Leming (95%)	Seepage (1.00)	72.4	6.7%
LuB	Luling clay, 0 to 4 percent slopes	Somewhat limited	Luling (95%)	Depth to soft bedrock (0.13)	330.7	30.7%
MaB	Marcelinas clay loam, 0 to 3 percent slopes	Not limited	Marcelinas (95%)		66.1	6.1%
OgD3	Ustifluvents, broken, severely eroded	Very limited	Ustifluvents, severely eroded (95%)	Seepage (1.00)	30.8	2.9%
				Slope (1.00)		
				Flooding (0.40)		
TbB	Papalote loamy fine sand, 0 to 3 percent slopes	Very limited	Papalote (90%)	Seepage (1.00)	2.3	0.2%
W	Water	Not rated	Water (100%)		2.2	0.2%
Zf	Zavala fine sandy loam, frequently flooded	Very limited	Zavala (95%)	Flooding (1.00)	37.8	3.5%
				Seepage (1.00)		
Subtotals for Soil Survey Area					719.1	66.8%
Totals for Area of Interest					1,076.5	100.0%

Rating	Acres in AOI	Percent of AOI
Somewhat limited	637.4	59.2%
Not limited	278.9	25.9%
Very limited	157.9	14.7%
Null or Not Rated	2.2	0.2%
Totals for Area of Interest	1,076.5	100.0%

Description

ENG - Engineering

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, saturated hydraulic conductivity (Ksat), depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Ksat is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a Ksat rate of more than 14 micrometers per second are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated

rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

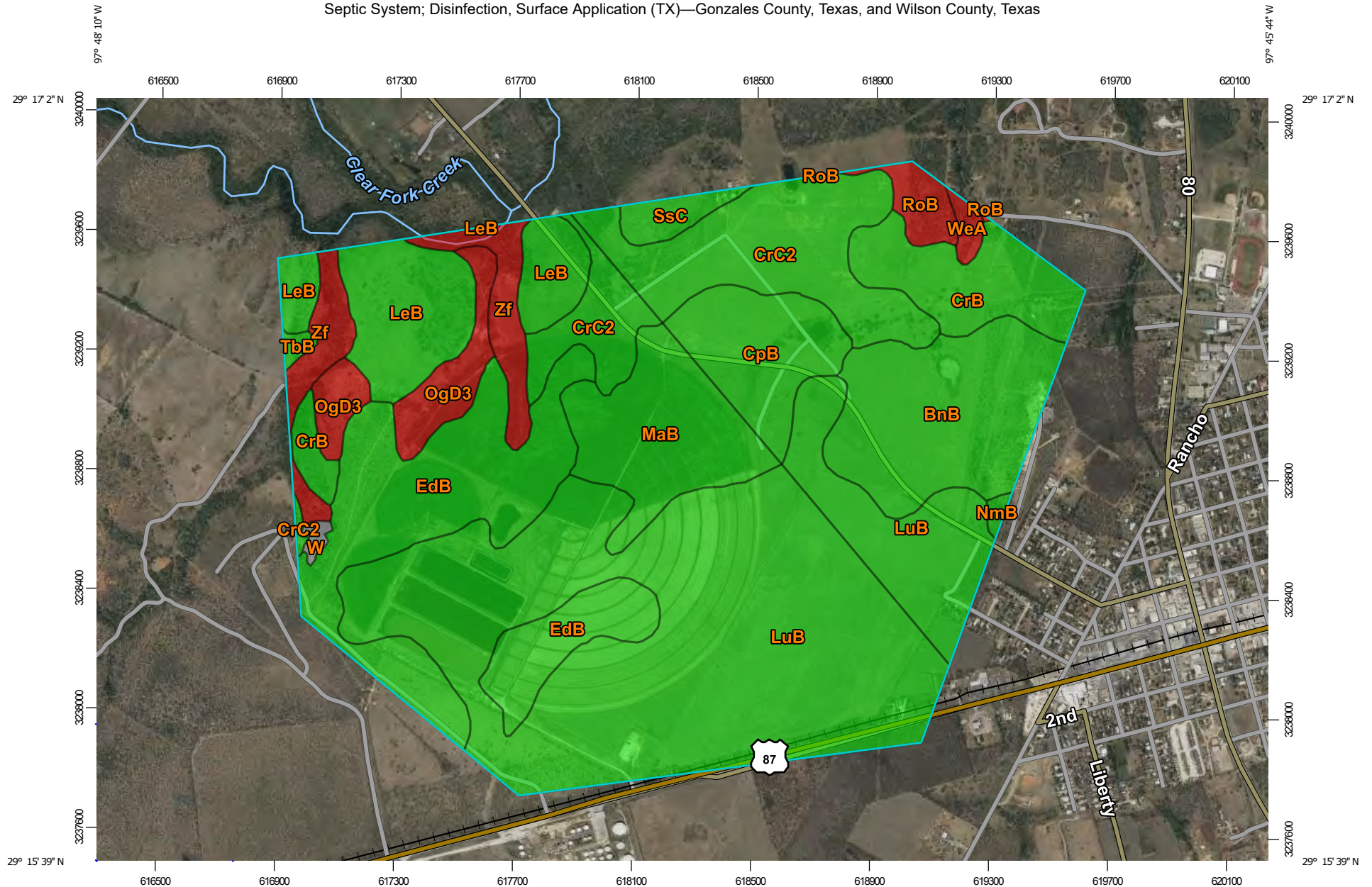
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Septic System; Disinfection, Surface Application (TX)—Gonzales County, Texas, and Wilson County, Texas



Map Scale: 1:18,000 if printed on A landscape (11" x 8.5") sheet.

0 250 500 1000 Meters

0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 14N WGS84




Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey


6/1/2024
Page 1 of 6

MAP LEGEND

Area of Interest (AOI)





 Area of Interest (AOI)

Background





 Aerial Photography

Soils





Soil Rating Polygons

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available


Soil Rating Lines

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available





Soil Rating Points

 Very limited
 Somewhat limited
 Not limited
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

MAP INFORMATION

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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Survey Area Data: Version 21, Sep 5, 2023

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Date(s) aerial images were photographed: Mar 13, 2022—Apr 6, 2022

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Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CrC2	Crockett fine sandy loam, 2 to 5 percent slopes eroded	Not limited	Crockett, eroded (95%)		27.3	2.5%
EdB	Elmendorf-Denhawken complex, 1 to 4 percent slopes	Not limited	Elmendorf (77%)		141.7	13.2%
			Denhawken (18%)			
LeB	Leming loamy fine sand, 0 to 3 percent slopes	Not limited	Leming (95%)		72.4	6.7%
LuB	Luling clay, 0 to 4 percent slopes	Not limited	Luling (95%)		330.7	30.7%
MaB	Marcelinas clay loam, 0 to 3 percent slopes	Not limited	Marcelinas (95%)		66.1	6.1%
OgD3	Ustifluvents, broken, severely eroded	Very limited	Ustifluvents, severely eroded (95%)	Flooding (1.00)	30.8	2.9%
TbB	Papalote loamy fine sand, 0 to 3 percent slopes	Not limited	Papalote (90%)		2.3	0.2%
W	Water	Not rated	Water (100%)		2.2	0.2%
Zf	Zavala fine sandy loam, frequently flooded	Very limited	Zavala (95%)	Flooding (1.00)	37.8	3.5%
Subtotals for Soil Survey Area					719.1	66.8%
Totals for Area of Interest					1,076.5	100.0%

Rating	Acres in AOI	Percent of AOI
Not limited	989.4	91.9%
Very limited	84.9	7.9%
Null or Not Rated	2.2	0.2%
Totals for Area of Interest	1,076.5	100.0%

Description

The Septic System; Disinfection, Surface Application (TX) interpretation is a tool for assessing soil limitations for surface septic systems designed to treat household effluent. Suburban dwellings and farm and ranch homesteads, outbuildings, and recreational facilities require a means to safely dispose of effluent. The ratings are not intended to substitute for or replace the need for an onsite soil investigation to determine a site's soil restrictions and suitability. The interpretation ratings simply identify limiting soil features that can be found in the soil mapping unit and that may exist on site.

The Texas Commission on Environmental Quality publishes criteria and rules governing the location and installation of Disinfection, Surface Application systems. These rules and criteria are contained in "Texas Commission on Environmental Quality - TCEQ; Chapter 285: On-Site Sewage Facilities". Onsite investigation, evaluation, and system design must be conducted by a qualified professional in compliance with TCEQ policy, rules, and design guidelines.

Septic System; Disinfection, Surface Applications are surface application systems consisting of small diameter pressurized lines containing pressure reducing emitters that distribute disinfected effluent on the soil surface. The system is a evapotranspiration system that utilizes vegetation and evaporation for treatment and utilization of effluent.

Soil properties and qualities that affect the treatment of the effluent are surface pH, depth to a seasonal high water table, depth to bedrock, depth to a cemented pan, and susceptibility to flooding or ponding. Shallow depth to bedrock, ice, or a cemented pan interferes with installation. Excessive slope may result in lateral seepage and surfacing of the effluent in down-slope areas. In addition, soil erosion is a hazard where absorption fields are installed in steep soils.

Ratings are both numerical and verbal. Numerical ratings or values indicate the relative severity or degree of limitation for individual soil restrictive (limiting) features. Ratings are shown for limiting soil features as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00), and the point at which the soil feature is not a limitation (0.00). Non-limiting soil features with a numerical rating of zero are not listed.

Rating class terms indicate the extent to which the soils are limited by the soil features that affect the soil interpretation. Verbal soil rating classes are based on the highest numerical rating for the most limiting soil feature(s) considered in the rating process. The "not limited" class (numerical value for the most restrictive feature = 0) indicates that the soil has no limiting features for the specified use. The "somewhat limited" class (numerical value for the most restrictive feature .01 to .99) indicates that the soil has limiting features for the specified use that can be overcome with proper planning, design, installation, and management. The effort required to overcome a soil limitation increases as the numerical rating increases. The "very limited" class (numerical value for the most restrictive feature = 1.00) indicates that the soil has one or more very limiting features that

can only be overcome with special planning, major soil modification, special design, or significant management practices.

Lesser soil restrictive features have a lower numerical value than the maximum used to rate the soil. They are identified to provide the user with additional information about soil limitations for the specific use. Lesser soil restrictive features also need to be considered in planning, design, installation, and management.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen, which is displayed on the report. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

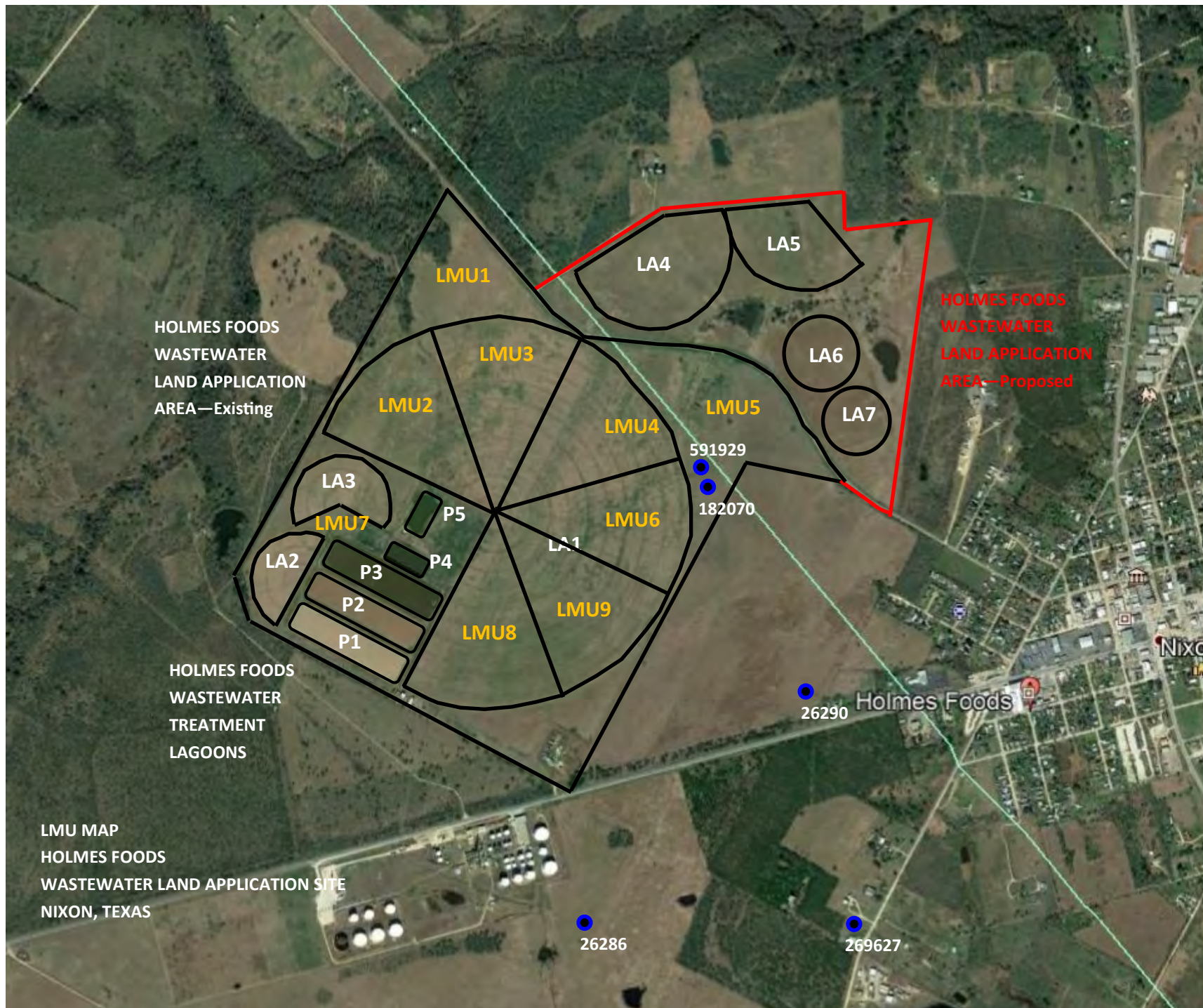
Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the Selected Soil Interpretations report with this interpretation included from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation is needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher





Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.3 acres

Wilson County

Laboratory Number: 645030

Customer Sample ID: LM4-1 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	5.8	(5.8)	-	Mod. Acid							
Conductivity	76	(-)	umho/cm	None					CL*		Fertilizer Recommended
Nitrate-N	11	(-)	ppm**	<div><div></div></div>							75 lbs N/acre
Phosphorus	65	(50)	ppm	<div><div></div></div>							0 lbs P2O5/acre
Potassium	161	(150)	ppm	<div><div></div></div>							0 lbs K20/acre
Calcium	733	(180)	ppm	<div><div></div></div>							0 lbs Ca/acre
Magnesium	88	(50)	ppm	<div><div></div></div>							0 lbs Mg/acre
Sulfur	18	(13)	ppm	<div><div></div></div>							0 lbs S/acre
Sodium	11	(-)	ppm	<div><div></div></div>							
Iron				<div><div></div></div>							
Zinc				<div><div></div></div>							
Manganese				<div><div></div></div>							
Copper				<div><div></div></div>							
Boron				<div><div></div></div>							
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH					6.5		
				Conductivity					0.72 mmhos/cm		
				Sodium					36 ppm		1.568 meq/L
				Potassium					33 ppm		0.856 meq/L
				Calcium					48 ppm		2.377 meq/L
				Magnesium					8 ppm		0.665 meq/L
TKN	830		ppm								
TN	1059		ppm						1.27		
Ammonium-N	12.2		ppm						28.68		

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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College Station, TX 77843-2478

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NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.3 acres

Wilson County

Laboratory Number: 645031

Customer Sample ID: LM4-1 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	5.8	(5.8)	-	Mod. Acid						
Conductivity	48	(-)	umho/cm	None						
Nitrate-N	7	(-)	ppm**							Fertilizer Recommended
Phosphorus	54	(50)	ppm							85 lbs N/acre
Potassium	133	(150)	ppm							0 lbs P2O5/acre
Calcium	716	(180)	ppm							25 lbs K2O/acre
Magnesium	94	(50)	ppm							0 lbs Ca/acre
Sulfur	15	(13)	ppm							0 lbs Mg/acre
Sodium	30	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
			pH	5.5						
			Conductivity	0.57 mmhos/cm						
			Sodium	54 ppm						
			Potassium	18 ppm						
			Calcium	28 ppm						
			Magnesium	5 ppm						
TKN	575	ppm								
TN	717	ppm								
Ammonium-N	5.6	ppm								
			SAR	2.45						
			SSP	50.54						

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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College Station, TX 77843-2478

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Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.3 acres

Wilson County

Laboratory Number: 645032

Customer Sample ID: LM4-1 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.2	(5.8)	-	Slightly Acid						
Conductivity	55	(-)	umho/cm	None						
Nitrate-N	4	(-)	ppm**	CL*						
Phosphorus	53	(50)	ppm	Fertilizer Recommended						
Potassium	135	(150)	ppm	90 lbs N/acre						
Calcium	912	(180)	ppm	0 lbs P2O5/acre						
Magnesium	111	(50)	ppm	20 lbs K2O/acre						
Sulfur	16	(13)	ppm	0 lbs Ca/acre						
Sodium	37	(-)	ppm	0 lbs Mg/acre						
Iron				0 lbs S/acre						
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		5.8				
				Conductivity		0.58 mmhos/cm				
				Sodium		54 ppm		2.371 meq/L		
				Potassium		13 ppm		0.338 meq/L		
				Calcium		26 ppm		1.316 meq/L		
				Magnesium		4 ppm		0.346 meq/L		
TKN	562		ppm							
TN	751		ppm	SAR						
Ammonium-N	4.6		ppm	2.60						
				SSP						
				54.25						

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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College Station, TX 77843-2478

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101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.3 acres

Wilson County

Laboratory Number: 645033
Customer Sample ID: LM4-2 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.1	(5.8)	-	Neutral						
Conductivity	139	(-)	umho/cm	None						
Nitrate-N	13	(-)	ppm**							
Phosphorus	254	(50)	ppm							
Potassium	494	(150)	ppm							
Calcium	2,190	(180)	ppm							
Magnesium	396	(50)	ppm							
Sulfur	45	(13)	ppm							
Sodium	331	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.2
Conductivity										1.65 mmhos/cm
Sodium										213 ppm 9.278 meq/L
Potassium										49 ppm 1.248 meq/L
Calcium										46 ppm 2.301 meq/L
Magnesium										13 ppm 1.081 meq/L
TKN	2314		ppm							
TN	2258		ppm							
Ammonium-N	15.3		ppm							
SAR										7.13
SSP										66.71

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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Soil Analysis Report

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Department of Soil and Crop Sciences
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College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 38.12 acres

Wilson County
Laboratory Number: 645034
Customer Sample ID: LM4-2 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.2	(5.8)	-	Slightly Alkaline							
Conductivity	159	(-)	umho/cm	None							Fertilizer Recommended
Nitrate-N	11	(-)	ppm**								75 lbs N/acre
Phosphorus	165	(50)	ppm								0 lbs P2O5/acre
Potassium	437	(150)	ppm								0 lbs K2O/acre
Calcium	2,199	(180)	ppm								0 lbs Ca/acre
Magnesium	412	(50)	ppm								0 lbs Mg/acre
Sulfur	66	(13)	ppm								0 lbs S/acre
Sodium	442	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
pH										6.7	
Conductivity										1.50 mmhos/cm	
Sodium										227 ppm	9.877 meq/L
Potassium										31 ppm	0.797 meq/L
Calcium										31 ppm	1.561 meq/L
Magnesium										8 ppm	0.622 meq/L
TKN	1432		ppm								
TN	1709		ppm								
Ammonium-N	5.4		ppm								
SAR										9.45	
SSP										76.82	

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

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College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 38.12 acres

Wilson County

Laboratory Number: 645035

Customer Sample ID: LM4-2 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.1	(5.8)	-	Slightly Alkaline						
Conductivity	269	(-)	umho/cm	None						
Nitrate-N	15	(-)	ppm**							
Phosphorus	178	(50)	ppm							
Potassium	295	(150)	ppm							
Calcium	1,750	(180)	ppm							
Magnesium	351	(50)	ppm							
Sulfur	49	(13)	ppm							
Sodium	367	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.4
Conductivity										1.47 mmhos/cm
Sodium										230 ppm
Potassium										24 ppm
Calcium										28 ppm
Magnesium										8 ppm
TKN	1189		ppm							
TN	1385		ppm							
Ammonium-N	3.5		ppm							
SAR										9.86
SSP										78.91

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

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Septic System; Disinfection, Surface Application (TX)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BnB	Benchley clay loam, 1 to 3 percent slopes	Not limited	Benchley (85%)		91.0	8.5%
CpB	Coy clay loam, 1 to 3 percent slopes	Not limited	Coy (85%)		48.7	4.5%
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	Not limited	Crockett (85%)		47.1	4.4%
CrC2	Crockett fine sandy loam, 2 to 5 percent slopes, eroded	Not limited	Crockett, eroded (85%)		82.8	7.7%
LuB	Luling clay, 1 to 3 percent slopes	Not limited	Luling (100%)		59.3	5.5%
NmB	Normangee sandy clay loam, 1 to 3 percent slopes	Not limited	Normangee (85%)		1.8	0.2%
RoB	Rosanky fine sandy loam, 1 to 3 percent slopes	Very limited	Rosanky (85%)	pH < 6.0 or > 9.0 (1.00)	12.1	1.1%
SsC	Silstid loamy fine sand, 1 to 5 percent slopes	Not limited	Silstid (85%)		10.5	1.0%
WeA	Waelder loam, 0 to 1 percent slopes, frequently flooded	Very limited	Waelder (85%)	Flooding (1.00)	4.3	0.4%
Subtotals for Soil Survey Area					357.4	33.2%
Totals for Area of Interest					1,076.5	100.0%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
CrB	Crockett fine sandy loam, 1 to 3 percent slopes	Not limited	Crockett (95%)		7.9	0.7%



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College Station, TX 77843-2478

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101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40 acres

Wilson County

Laboratory Number: 645036

Customer Sample ID: LM4-3 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.0	(5.8)	-	Neutral							
Conductivity	490	(-)	umho/cm	Slight				CL*		Fertilizer Recommended	
Nitrate-N	22	(-)	ppm**						55 lbs N/acre		
Phosphorus	324	(50)	ppm						0 lbs P2O5/acre		
Potassium	573	(150)	ppm						0 lbs K2O/acre		
Calcium	3,111	(180)	ppm						0 lbs Ca/acre		
Magnesium	462	(50)	ppm						0 lbs Mg/acre		
Sulfur	119	(13)	ppm						0 lbs S/acre		
Sodium	477	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH		6.3					
				Conductivity		2.44 mmhos/cm					
				Sodium		305 ppm			13.259 meq/L		
				Potassium		66 ppm			1.684 meq/L		
				Calcium		112 ppm			5.589 meq/L		
				Magnesium		26 ppm			2.155 meq/L		
TKN	2797		ppm	Magnesium		26 ppm			2.155 meq/L		
TN	2964		ppm	SAR		6.74					
Ammonium-N	6.1		ppm	SSP		58.45					

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

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101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40 acres

Wilson County

Laboratory Number: 645037
Customer Sample ID: LM4-3 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.1	(5.8)	-	Neutral						
Conductivity	863	(-)	umho/cm	Slight CL* Fertilizer Recommended						
Nitrate-N	11	(-)	ppm**	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div>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*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40 acres

Wilson County

Laboratory Number: 645038

Customer Sample ID: LM4-3 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	6.9	(5.8)	-	Slightly Acid							
Conductivity	1,680	(-)	umho/cm	High							Fertilizer Recommended
Nitrate-N	12	(-)	ppm**							75 lbs N/acre	
Phosphorus	108	(50)	ppm							0 lbs P2O5/acre	
Potassium	340	(150)	ppm							0 lbs K20/acre	
Calcium	7,038	(180)	ppm							0 lbs Ca/acre	
Magnesium	418	(50)	ppm							0 lbs Mg/acre	
Sulfur	3,016	(13)	ppm							0 lbs S/acre	
Sodium	591	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH					6.4		
				Conductivity					4.50 mmhos/cm		
				Sodium					410 ppm 17.821 meq/L		
				Potassium					48 ppm 1.221 meq/L		
				Calcium					433 ppm 21.586 meq/L		
				Magnesium					51 ppm 4.188 meq/L		
TKN	1114		ppm								
TN	1297		ppm								
Ammonium-N	4.1		ppm								
				SAR					4.96		
				SSP					39.77		

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 39.99 acres

Wilson County

Laboratory Number: 645039

Customer Sample ID: LM4-4 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	6.8	(5.8)	-	Slightly Acid							
Conductivity	929	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended	
Nitrate-N	42	(-)	ppm**						15 lbs N/acre		
Phosphorus	275	(50)	ppm						0 lbs P2O5/acre		
Potassium	649	(150)	ppm						0 lbs K2O/acre		
Calcium	3,520	(180)	ppm						0 lbs Ca/acre		
Magnesium	539	(50)	ppm						0 lbs Mg/acre		
Sulfur	120	(13)	ppm						0 lbs S/acre		
Sodium	571	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH		6.1					
				Conductivity		2.65 mmhos/cm					
				Sodium		297 ppm		12.943 meq/L			
				Potassium		64 ppm		1.636 meq/L			
				Calcium		113 ppm		5.629 meq/L			
				Magnesium		27 ppm		2.181 meq/L			
TKN	3772		ppm								
TN	5101		ppm								
Ammonium-N	7.1		ppm								
				SAR		6.55					
				SSP		57.81					

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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College Station, TX 77843-2478

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101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 39.99 acres

Wilson County

Laboratory Number: 645040

Customer Sample ID: LM4-4 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	6.6	(5.8)	-	Slightly Acid							
Conductivity	2,440	(-)	umho/cm	V. High					CL*		Fertilizer Recommended
Nitrate-N	18	(-)	ppm**								60 lbs N/acre
Phosphorus	80	(50)	ppm								0 lbs P2O5/acre
Potassium	345	(150)	ppm								0 lbs K2O/acre
Calcium	6,235	(180)	ppm								0 lbs Ca/acre
Magnesium	508	(50)	ppm								0 lbs Mg/acre
Sulfur	2,460	(13)	ppm								0 lbs S/acre
Sodium	708	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH					6.0		
				Conductivity					2.41 mmhos/cm		
				Sodium					320 ppm		13.921 meq/L
				Potassium					40 ppm		1.034 meq/L
				Calcium					405 ppm		20.209 meq/L
				Magnesium					50 ppm		4.090 meq/L
TKN	1534		ppm								
TN	1650		ppm								
Ammonium-N	5.9		ppm								
				SAR					3.99		
				SSP					35.46		

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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College Station, TX 77843-2478

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Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 34.1 acres

Wilson County

Laboratory Number: 645042

Customer Sample ID: LM4-5 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	5.7	(5.8)	-	Mod. Acid							
Conductivity	1,790	(-)	umho/cm	High							Fertilizer Recommended
Nitrate-N	20	(-)	ppm**								55 lbs N/acre
Phosphorus	102	(50)	ppm								0 lbs P2O5/acre
Potassium	422	(150)	ppm								0 lbs K2O/acre
Calcium	9,446	(180)	ppm								0 lbs Ca/acre
Magnesium	379	(50)	ppm								0 lbs Mg/acre
Sulfur	5,836	(13)	ppm								0 lbs S/acre
Sodium	179	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										1.00 tons 100ECCE/acre	
Detailed Salinity Test (Saturated Paste Extract)											
pH										5.2	
Conductivity										3.35 mmhos/cm	
Sodium										150 ppm	6.515 meq/L
Potassium										56 ppm	1.438 meq/L
Calcium										504 ppm	25.133 meq/L
Magnesium										57 ppm	4.662 meq/L
TKN	4107		ppm								
TN	3567		ppm								
Ammonium-N	22.8		ppm								
SAR										1.69	
SSP										17.26	

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Limestone recommendations are based on 100 ECCE liming products. Limestone applications >3 tons/acre should be made >4 months prior to crop establishment to lessen micro-nutrient availability issues.

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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Soil Analysis Report

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 34.1 acres

Wilson County

Laboratory Number: 645043

Customer Sample ID: LM4-5 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.8	(5.8)	-	Slightly Acid						
Conductivity	1,710	(-)	umho/cm	High						
Nitrate-N	13	(-)	ppm**	CL*						
Phosphorus	45	(50)	ppm	Fertilizer Recommended						
Potassium	432	(150)	ppm	70 lbs N/acre						
Calcium	9,426	(180)	ppm	10 lbs P2O5/acre						
Magnesium	346	(50)	ppm	0 lbs K20/acre						
Sulfur	3,968	(13)	ppm	0 lbs Ca/acre						
Sodium	228	(-)	ppm	0 lbs Mg/acre						
Iron				0 lbs S/acre						
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		6.2				
				Conductivity		3.06 mmhos/cm				
				Sodium		135 ppm		5.856 meq/L		
				Potassium		40 ppm		1.026 meq/L		
				Calcium		501 ppm		24.987 meq/L		
				Magnesium		33 ppm		2.711 meq/L		
TKN	1602		ppm							
TN	1936		ppm							
Ammonium-N	7.3		ppm							
				SAR		1.57				
				SSP		16.93				

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>



Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 34.1 acres

Wilson County

Laboratory Number: 645044

Customer Sample ID: LM4-5 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.8	(5.8)	-	Slightly Acid						
Conductivity	2,030	(-)	umho/cm	High						
Nitrate-N	11	(-)	ppm**							
Phosphorus	40	(50)	ppm							
Potassium	409	(150)	ppm							
Calcium	8,627	(180)	ppm							
Magnesium	487	(50)	ppm							
Sulfur	3,882	(13)	ppm							
Sodium	300	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.2
Conductivity										2.93 mmhos/cm
Sodium										173 ppm
Potassium										37 ppm
Calcium										397 ppm
Magnesium										44 ppm
TKN	1470		ppm							
TN	1560		ppm							
Ammonium-N	16.8		ppm							
SAR										2.20
SSP										23.62

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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Soil Analysis Report

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Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

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Wilson County
Laboratory Number: 645045
Customer Sample ID: LM4-6 0-6"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 41 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.9	(5.8)	-	Slightly Acid						
Conductivity	1,400	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended
Nitrate-N	30	(-)	ppm**						35 lbs N/acre	
Phosphorus	233	(50)	ppm						0 lbs P2O5/acre	
Potassium	649	(150)	ppm						0 lbs K20/acre	
Calcium	4,623	(180)	ppm						0 lbs Ca/acre	
Magnesium	718	(50)	ppm						0 lbs Mg/acre	
Sulfur	262	(13)	ppm						0 lbs S/acre	
Sodium	619	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		6.3				
				Conductivity		1.83 mmhos/cm				
				Sodium		206 ppm		8.953 meq/L		
				Potassium		37 ppm		0.953 meq/L		
				Calcium		82 ppm		4.102 meq/L		
				Magnesium		20 ppm		1.661 meq/L		
TKN	2991		ppm							
TN	3611		ppm							
Ammonium-N	1.3		ppm							

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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Soil Analysis Report

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101 S. Liberty Ave
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Wilson County
Laboratory Number: 645046
Customer Sample ID: LM4-6 6-18"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 41 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.8	(5.8)	-	Slightly Acid						
Conductivity	1,010	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended
Nitrate-N	23	(-)	ppm**							50 lbs N/acre
Phosphorus	144	(50)	ppm							0 lbs P2O5/acre
Potassium	471	(150)	ppm							0 lbs K2O/acre
Calcium	5,282	(180)	ppm							0 lbs Ca/acre
Magnesium	614	(50)	ppm							0 lbs Mg/acre
Sulfur	668	(13)	ppm							0 lbs S/acre
Sodium	648	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		6.1				
				Conductivity		2.87 mmhos/cm				
				Sodium		254 ppm		11.038 meq/L		
				Potassium		40 ppm		1.018 meq/L		
				Calcium		268 ppm		13.388 meq/L		
				Magnesium		37 ppm		3.016 meq/L		
TKN	2116		ppm	Magnesium		37 ppm		3.016 meq/L		
TN	2494		ppm	SAR		3.85				
Ammonium-N	5.8		ppm	SSP		38.78				

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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Wilson County
Laboratory Number: 645047
Customer Sample ID: LM4-6 18-30"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 41 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.1	(5.8)	-	Slightly Alkaline							
Conductivity	1,350	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended	
Nitrate-N	18	(-)	ppm**						60 lbs N/acre		
Phosphorus	120	(50)	ppm						0 lbs P2O5/acre		
Potassium	423	(150)	ppm						0 lbs K2O/acre		
Calcium	5,148	(180)	ppm						0 lbs Ca/acre		
Magnesium	823	(50)	ppm						0 lbs Mg/acre		
Sulfur	604	(13)	ppm						0 lbs S/acre		
Sodium	754	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH					6.6		
				Conductivity					2.42 mmhos/cm		
				Sodium					238 ppm	10.374 meq/L	
				Potassium					26 ppm	0.658 meq/L	
				Calcium					173 ppm	8.609 meq/L	
				Magnesium					33 ppm	2.689 meq/L	
TKN	1663		ppm								
TN	1845		ppm	SAR							4.36
Ammonium-N	5.1		ppm	SSP							46.46

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 33.16 acres

Wilson County

Laboratory Number: 645048

Customer Sample ID: LM4-7 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.7	(5.8)	-	Slightly Acid						
Conductivity	895	(-)	umho/cm	SlightCL*Fertilizer Recommended						
Nitrate-N	14	(-)	ppm**	70 lbs N/acre						
Phosphorus	136	(50)	ppm	0 lbs P2O5/acre						
Potassium	635	(150)	ppm	0 lbs K20/acre						
Calcium	4,054	(180)	ppm	0 lbs Ca/acre						
Magnesium	641	(50)	ppm	0 lbs Mg/acre						
Sulfur	363	(13)	ppm	0 lbs S/acre						
Sodium	578	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
				pH			6.1			
				Conductivity			1.89 mmhos/cm			
				Sodium			191 ppm		8.305 meq/L	
				Potassium			42 ppm		1.074 meq/L	
				Calcium			122 ppm		6.091 meq/L	
				Magnesium			25 ppm		2.089 meq/L	
TKN	2809		ppm							
TN	3221		ppm							
Ammonium-N	4.0		ppm							
				SAR			4.11			
				SSP			47.30			

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 33.16 acres

Wilson County
Laboratory Number: 645049
Customer Sample ID: LM4-7 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.8	(5.8)	-	Slightly Acid						
Conductivity	1,020	(-)	umho/cm	Moderate					CL* Fertilizer Recommended	
Nitrate-N	6	(-)	ppm**						85 lbs N/acre	
Phosphorus	41	(50)	ppm						20 lbs P2O5/acre	
Potassium	498	(150)	ppm						0 lbs K2O/acre	
Calcium	4,831	(180)	ppm						0 lbs Ca/acre	
Magnesium	509	(50)	ppm						0 lbs Mg/acre	
Sulfur	353	(13)	ppm						0 lbs S/acre	
Sodium	632	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH					5.9	
				Conductivity					2.01 mmhos/cm	
				Sodium					216 ppm 9.381 meq/L	
				Potassium					29 ppm 0.749 meq/L	
				Calcium					134 ppm 6.694 meq/L	
				Magnesium					19 ppm 1.591 meq/L	
TKN	1635		ppm							
TN	1910		ppm							
Ammonium-N	6.9		ppm							
				SAR					4.61	
				SSP					50.95	

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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Soil Analysis Report

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College Station, TX 77843-2478

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Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 33.16 acres

Wilson County

Laboratory Number: 645051

Customer Sample ID: LM4-7 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.1	(5.8)	-	Neutral						
Conductivity	735	(-)	umho/cm	Slight						
Nitrate-N	8	(-)	ppm**							
Phosphorus	72	(50)	ppm							
Potassium	359	(150)	ppm							
Calcium	7,576	(180)	ppm							
Magnesium	635	(50)	ppm							
Sulfur	2,484	(13)	ppm							
Sodium	531	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.5
Conductivity										3.29 mmhos/cm
Sodium										267 ppm 11.619 meq/L
Potassium										26 ppm 0.660 meq/L
Calcium										362 ppm 18.064 meq/L
Magnesium										53 ppm 4.357 meq/L
TKN	1654		ppm							
TN	1945		ppm							
Ammonium-N	6.4		ppm							
SAR										3.47
SSP										33.48

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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Soil Analysis Report

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101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 28.69 acres

Wilson County

Laboratory Number: 645052

Customer Sample ID: LM4-8 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.7	(5.8)	-	Mod. Alkaline						
Conductivity	139	(-)	umho/cm	None						
Nitrate-N	11	(-)	ppm**	CL*						
Phosphorus	112	(50)	ppm	Fertilizer Recommended						
Potassium	445	(150)	ppm	75 lbs N/acre						
Calcium	5,452	(180)	ppm	0 lbs P2O5/acre						
Magnesium	654	(50)	ppm	0 lbs K2O/acre						
Sulfur	134	(13)	ppm	0 lbs Ca/acre						
Sodium	587	(-)	ppm	0 lbs Mg/acre						
Iron				0 lbs S/acre						
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		6.8				
				Conductivity		1.61 mmhos/cm				
				Sodium		175 ppm				
				Potassium		7.615 meq/L				
				Calcium		0.340 meq/L				
				Magnesium		2.360 meq/L				
TKN	1860		ppm	SAR		6				
TN	2084		ppm	SSP		6.42				
Ammonium-N	4.4		ppm			70.70				

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 39.99 acres

Wilson County

Laboratory Number: 645041

Customer Sample ID: LM4-4 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.6	(5.8)	-	Slightly Acid						
Conductivity	1,510	(-)	umho/cm	Moderate				CL*		Fertilizer Recommended
Nitrate-N	19	(-)	ppm**							60 lbs N/acre
Phosphorus	107	(50)	ppm							0 lbs P2O5/acre
Potassium	370	(150)	ppm							0 lbs K2O/acre
Calcium	5,197	(180)	ppm							0 lbs Ca/acre
Magnesium	541	(50)	ppm							0 lbs Mg/acre
Sulfur	1,303	(13)	ppm							0 lbs S/acre
Sodium	695	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH		6.0				
				Conductivity		2.51 mmhos/cm				
				Sodium		229 ppm		9.948 meq/L		
				Potassium		29 ppm		0.740 meq/L		
				Calcium		223 ppm		11.135 meq/L		
				Magnesium		32 ppm		2.645 meq/L		
TKN	1325		ppm							
TN	1649		ppm							
Ammonium-N	5.6		ppm							
				SAR		3.79				
				SSP		40.66				

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water.

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 28.69 acres

Wilson County
Laboratory Number: 645053
Customer Sample ID: LM4-8 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.6	(5.8)	-	Slightly Alkaline						
Conductivity	257	(-)	umho/cm	None						
Nitrate-N	11	(-)	ppm**	CL*						
Phosphorus	86	(50)	ppm	Fertilizer Recommended						
Potassium	363	(150)	ppm	75 lbs N/acre						
Calcium	5,728	(180)	ppm	0 lbs P2O5/acre						
Magnesium	634	(50)	ppm	0 lbs K2O/acre						
Sulfur	312	(13)	ppm	0 lbs Ca/acre						
Sodium	565	(-)	ppm	0 lbs Mg/acre						
Iron				0 lbs S/acre						
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
				pH						
				7.1						
				Conductivity						
				2.83 mmhos/cm						
				Sodium						
				283 ppm						
				12.315 meq/L						
				Potassium						
				19 ppm						
				0.483 meq/L						
				Calcium						
				263 ppm						
				13.124 meq/L						
TKN	1547		ppm	Magnesium						
TN	1750		ppm	36 ppm						
Ammonium-N	3.4		ppm	2.943 meq/L						
				SAR						
				4.34						
				SSP						
				42.66						

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

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101 S. Liberty Ave
NIXON, TX 78140

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Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 28.69 acres

Wilson County

Laboratory Number: 645054

Customer Sample ID: LM4-8 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.5	(5.8)	-	Slightly Alkaline						
Conductivity	356	(-)	umho/cm	None						
Nitrate-N	10	(-)	ppm**							
Phosphorus	91	(50)	ppm							
Potassium	323	(150)	ppm							
Calcium	6,447	(180)	ppm							
Magnesium	634	(50)	ppm							
Sulfur	733	(13)	ppm							
Sodium	602	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.9
Conductivity										3.41 mmhos/cm
Sodium										326 ppm 14.186 meq/L
Potassium										19 ppm 0.483 meq/L
Calcium										351 ppm 17.515 meq/L
Magnesium										47 ppm 3.880 meq/L
TKN	1927		ppm							
TN	2086		ppm							
Ammonium-N	4.2		ppm							
SAR										4.34
SSP										39.34

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Wilson County
Laboratory Number: 645055
Customer Sample ID: LM4-9 0-6"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40.55 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.9	(5.8)	-	Mod. Alkaline						
Conductivity	567	(-)	umho/cm	Slight				CL*		Fertilizer Recommended
Nitrate-N	18	(-)	ppm**							60 lbs N/acre
Phosphorus	183	(50)	ppm							0 lbs P2O5/acre
Potassium	489	(150)	ppm							0 lbs K20/acre
Calcium	5,407	(180)	ppm							0 lbs Ca/acre
Magnesium	650	(50)	ppm							0 lbs Mg/acre
Sulfur	115	(13)	ppm							0 lbs S/acre
Sodium	581	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
				Detailed Salinity Test (Saturated Paste Extract)						
				pH					6.8	
				Conductivity					1.49 mmhos/cm	
				Sodium					219 ppm 9.530 meq/L	
				Potassium					18 ppm 0.458 meq/L	
				Calcium					59 ppm 2.954 meq/L	
				Magnesium					8 ppm 0.692 meq/L	
TKN	2896		ppm	SAR					7.06	
TN	3179		ppm	SSP					69.90	
Ammonium-N	2.2		ppm							

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
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NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Wilson County
Laboratory Number: 645056
Customer Sample ID: LM4-9 6-18"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40.55 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	7.6	(5.8)	-	Mod. Alkaline						
Conductivity	385	(-)	umho/cm	None						
Nitrate-N	12	(-)	ppm**							
Phosphorus	85	(50)	ppm							
Potassium	358	(150)	ppm							
Calcium	5,298	(180)	ppm							
Magnesium	717	(50)	ppm							
Sulfur	66	(13)	ppm							
Sodium	624	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										6.9
Conductivity										1.17 mmhos/cm
Sodium										192 ppm
Potassium										9 ppm
Calcium										27 ppm
Magnesium										3 ppm
TKN	1951		ppm							
TN	2365		ppm							
Ammonium-N	2.7		ppm							
SAR										9.30
SSP										81.89

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>



Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Wilson County
Laboratory Number: 645057
Customer Sample ID: LM4-9 18-30"

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 40.55 acres
SWFTL recommends <40 acres/sample

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	7.7	(5.8)	-	Mod. Alkaline							
Conductivity	364	(-)	umho/cm	None					CL*		Fertilizer Recommended
Nitrate-N	11	(-)	ppm**							75 lbs N/acre	
Phosphorus	67	(50)	ppm							0 lbs P2O5/acre	
Potassium	319	(150)	ppm							0 lbs K2O/acre	
Calcium	5,736	(180)	ppm							0 lbs Ca/acre	
Magnesium	694	(50)	ppm							0 lbs Mg/acre	
Sulfur	69	(13)	ppm							0 lbs S/acre	
Sodium	638	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement										0.00 tons 100ECCE/acre	
				Detailed Salinity Test (Saturated Paste Extract)							
				pH					6.9		
				Conductivity					1.03 mmhos/cm		
				Sodium					175 ppm 7.615 meq/L		
				Potassium					7 ppm 0.188 meq/L		
				Calcium					26 ppm 1.292 meq/L		
				Magnesium					3 ppm 0.214 meq/L		
TKN	1615	ppm									
TN	1906	ppm						SAR 8.78			
Ammonium-N	4.0	ppm						SSP 81.80			

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>



Soil Analysis Report

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College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.33 acres

Wilson County

Laboratory Number: 645058

Customer Sample ID: LM4-10 0-6"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	5.8	(5.8)	-	Mod. Acid						
Conductivity	474	(-)	umho/cm	Slight					CL*	
Nitrate-N	6	(-)	ppm**							85 lbs N/acre
Phosphorus	14	(50)	ppm							90 lbs P2O5/acre
Potassium	204	(150)	ppm							0 lbs K2O/acre
Calcium	3,194	(180)	ppm							0 lbs Ca/acre
Magnesium	625	(50)	ppm							0 lbs Mg/acre
Sulfur	210	(13)	ppm							0 lbs S/acre
Sodium	50	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
			pH	5.3						
			Conductivity	2.98 mmhos/cm						
			Sodium	50 ppm						
			Potassium	15 ppm						
			Calcium	380 ppm						
			Magnesium	89 ppm						
TKN	1688	ppm								
TN	2062	ppm								
Ammonium-N	12.4	ppm								
			SAR	0.60						
			SSP	7.54						

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>



Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.33 acres

Wilson County

Laboratory Number: 645059

Customer Sample ID: LM4-10 6-18"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.0	(5.8)	-	Mod. Acid						
Conductivity	358	(-)	umho/cm	None						
Nitrate-N	6	(-)	ppm**							Fertilizer Recommended
Phosphorus	8	(50)	ppm							85 lbs N/acre
Potassium	221	(150)	ppm							105 lbs P2O5/acre
Calcium	3,736	(180)	ppm							0 lbs K2O/acre
Magnesium	700	(50)	ppm							0 lbs Ca/acre
Sulfur	299	(13)	ppm							0 lbs Mg/acre
Sodium	54	(-)	ppm							0 lbs S/acre
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
			pH	5.3						
			Conductivity	2.27 mmhos/cm						
			Sodium	59 ppm						
			Potassium	15 ppm						
			Calcium	335 ppm						
			Magnesium	75 ppm						
TKN	1700	ppm								
TN	1877	ppm								
Ammonium-N	14.3	ppm								
			SAR	0.76						
			SSP	9.96						

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>



Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478

Report generated for:
Holmes Foods Inc
101 S. Liberty Ave
NIXON, TX 78140

Visit our website: <http://soiltesting.tamu.edu>

Sample received on: 12/6/2023
Printed on: 12/20/2023
Area Represented: 23.33 acres

Wilson County

Laboratory Number: 645060

Customer Sample ID: LM4-10 18-30"

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (3 HAY CUTTINGS-2 TONS/A AVG.)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.
pH	6.5	(5.8)	-	Slightly Acid						
Conductivity	267	(-)	umho/cm	None						
Nitrate-N	3	(-)	ppm**							
Phosphorus	4	(50)	ppm							
Potassium	189	(150)	ppm							
Calcium	4,079	(180)	ppm							
Magnesium	668	(50)	ppm							
Sulfur	45	(13)	ppm							
Sodium	46	(-)	ppm							
Iron										
Zinc										
Manganese										
Copper										
Boron										
Limestone Requirement										0.00 tons 100ECCE/acre
Detailed Salinity Test (Saturated Paste Extract)										
pH										5.9
Conductivity										0.94 mmhos/cm
Sodium										42 ppm 1.832 meq/L
Potassium										7 ppm 0.183 meq/L
Calcium										93 ppm 4.621 meq/L
Magnesium										18 ppm 1.504 meq/L
TKN	1476		ppm							
TN	1767		ppm							
Ammonium-N	10.6		ppm							
SAR										1.05
SSP										22.51

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Nitrogen: Apply an additional 100 lbs/A of nitrogen for each subsequent hay cuttings.

Online fertilizer calculators to determine appropriate fertilizers and application rates.
<http://soiltesting.tamu.edu>

ATTACHMENT T-8

HOLMES FOODS PROCESSING PLANT, NIXON, TEXAS

PERMIT NO. WQ0002013000

PERMIT RENEWAL AND AMENDMENT APPLICATION

LAND AP REPORT

Technical Report for Land Application System

Holmes Foods, Nixon, TX

WQ0002013000

1. Introduction

This report outlines the design and operational plan for a 427-acre land application site intended to handle 880,000 gallons per day (GPD) of poultry wastewater. The wastewater is treated in lagoons and contains 75 parts per million (ppm) total nitrogen. This report ensures compliance with 30 TAC 309.20 requirements.

2. Site Description

- Location: Approximately 1 mile west of downtown Nixon, TX
- Total Area: 429.02 acres
- Topography: Relatively flat pasture land with slopes of less than 5 percent
- Soil Type: Clay loam
- Current Land Use: Agricultural

3. Wastewater Characteristics

- Source: Poultry processing facility
- Flow Rate: 880,000 GPD average; 1,250,000 GPD peak daily
- Treatment Method: Lagoon system
- Effluent Quality: BOD – 75 mg/l
TN – 75 mg/l
pH – 6 to 9

4. Regulatory Requirements

This section addresses the requirements of 30 TAC 309.20, including effluent limitations, land application rates, and monitoring protocols.

4.1 Effluent Limitations (Wastewater quality to land application)

- Total Nitrogen: 75 ppm; 540 lbs per acre per year (480 lbs per acre per year to Bermuda; 60 lbs per acre per year to rye)
- BOD: 75 ppm; 100 lbs per acre per day

4.2 Application Rates

- Hydraulic Loading Rate: 3.36 acre feet per acre per year
- Nitrogen Loading Rate: 540 lbs per acre per year (480 lbs per acre per year to Bermuda; 60 lbs per acre per year to rye)

5. Design and Operation

5.1 Hydraulic Loading Rate

The hydraulic loading rate is calculated to ensure proper distribution of wastewater across the 429.02 acre site. The actual average application rate of 2.296 acre feet per acre per year as compared to the permitted rate of 3.36 acre feet per acre per year will minimize the potential for hydraulic overloading.

5.2 Nitrogen Loading Rate

The permit allows for the application of up to 480 lbs of nitrogen per acre per year to Bermuda grass and 60 lbs of nitrogen per acre per year to rye grass, or a total of 540 lbs of nitrogen per acre per year. The actual nitrogen loading rate of 468 lbs per acre per year will assure that the system is not overloaded and there are no negative ground water impacts.

5.3 Nutrient Management Plan

A nutrient management plan (NMP) will be used to manage the application of nitrogen, phosphorus, and other nutrients to prevent runoff and groundwater contamination.

5.4 Irrigation System

A detailed irrigation plan will be implemented to ensure even distribution of wastewater. The irrigation system design includes:

- Sprinkler Type: Center pivot units
- Irrigation Schedule: Wastewater will be land applied on all days that meet the permit limits and restrictions
- Monitoring and Maintenance: Land application systems will not be operated unmanned. Regular visual checks around the land application site will be performed to minimize the potential for any over application and associated runoff.

6. Environmental Impact and Mitigation

6.1 Groundwater Protection

Measures to protect groundwater include:

- Buffer Zones: Establishment of buffer zones around water bodies and wells.

- Soil Monitoring: Regular soil sampling to monitor nutrient levels TLAP permit requirements.

6.2 Surface Water Protection

To prevent surface water contamination:

- Runoff Control: Implementation of runoff control measures such as vegetative buffers and berms.

7. Monitoring and Reporting

7.1 Effluent Monitoring

Regular monitoring of the effluent quality as required by the TLAP permit to ensure compliance with discharge limits.

7.2 Soil and Crop Monitoring

- Soil Testing: Annual soil tests to monitor nutrient levels.
- Crop Monitoring: Regular assessment of crop uptake and health.

7.3 Reporting

- Annual Reports: Submission of annual reports to the regulatory authority, detailing effluent quality, application rates, and environmental monitoring results.

8. Conclusion

This land application plan for a 429.02 acre site is designed to handle 880,000 GPD of poultry wastewater, meeting the requirements of 30 TAC 309.20. The plan includes detailed calculations for hydraulic and nitrogen loading rates, a nutrient management plan, and monitoring protocols to ensure environmental protection and regulatory compliance.

Table 1**Monthly Water Balance (1)****Holmes Foods Processing Plant, Nixon, TX**

Avg Flow -

880000 gal/day

Runoff Curve -

84

Land Area -

429.02 acres

S -

1.905

Eff Cond -

1.5 mmhos/cm

Cover Crop -

Coastal Bermuda/Rye

Max Soil Co

10 mmhos/cm

Pond Area -

32.000 Acres

Irrigation Ef

85 percent

Max Rainfall -

50.440 in/yr

Available Ef

2.30 in/month

Min Evap -

39.720 in/yr

1	2	3	4	5	6	7	8	9	10	11
	I	Q	R	E	L					
Month	Avg Rainfall, inches	Avg Runoff, inches	Avg Rainfall Infiltration, inches	Evapotran- spiration, inches	Required Leaching, inches	Total Water Need, inches	Effluent Needed in Root Zone, inches	Evapotran- spiration from Reservoir, inches	Effluent to be Land Applied, Inches	Consump- tion from Reservoir, Inches
Jan	2.22	0.90	1.32	2.25	0.16	2.41	1.10	0.17	1.29	1.46
Feb	2.25	0.93	1.32	2.52	0.21	2.73	1.41	0.19	1.65	1.84
Mar	2.09	0.81	1.28	3.73	0.43	4.16	2.88	0.28	3.39	3.67
Apr	2.98	1.50	1.48	4.40	0.52	4.92	3.44	0.33	4.04	4.37
May	4.06	2.42	1.64	4.86	0.57	5.43	3.79	0.36	4.46	4.82
Jun	3.71	2.12	1.59	6.18	0.81	6.99	5.40	0.46	6.35	6.81
Jul	2.25	0.93	1.32	7.02	1.01	8.03	6.70	0.52	7.88	8.41
Aug	2.44	1.07	1.37	6.72	0.94	7.66	6.29	0.50	7.40	7.91
Sep	3.87	2.26	1.61	5.31	0.65	5.96	4.35	0.40	5.12	5.51
Oct	3.63	2.05	1.58	4.45	0.51	4.96	3.37	0.33	3.97	4.30
Nov	2.68	1.26	1.42	3.07	0.29	3.36	1.94	0.23	2.28	2.51
Dec	2.19	0.88	1.31	2.31	0.18	2.49	1.18	0.17	1.39	1.56
Total	34.37	17.12	17.25	52.82	6.28	59.10	41.84	3.94	49.23	53.17

(1) Completed in accordance with Table 1 of 30 TAC 309.20.

Table 2
Monthly Water Balance (1)
Holmes Foods Processing Plant, Nixon, TX

12	13	14	15	16	17	18	19	20
Month	Effluent Received for Application or Storage	Maximum Rainfall, inches	Maximum Runoff, inches	Maximum Rainfall Infiltration, inches	Total Water Available, inches	Minimum Net Evaporation Reservoir Surface, inches	Storage, Inches	Accumulated Storage, inches
Jan	2.30	3.26	1.73	1.53	3.83	0.09	1.16	2.20
Feb	2.30	9.19	7.24	1.95	4.24	0.12	1.25	3.45
Mar	2.30	2.18	0.87	1.31	3.60	0.19	-1.26	
Apr	2.30	7.03	5.17	1.86	4.16	0.23	-1.53	
May	2.30	13.46	11.42	2.04	4.34	0.25	-1.93	
Jun	2.30	3.83	2.22	1.61	3.91	0.31	-4.34	
Jul	2.30	2.79	1.35	1.44	3.74	0.29	-5.74	
Aug	2.30	3.88	2.27	1.61	3.91	0.37	-5.19	
Sep	2.30	0.83	0.09	0.74	3.04	0.29	-4.13	
Oct	2.30	1.07	0.18	0.89	3.18	0.23	-2.72	
Nov	2.30	6.34	4.52	1.82	4.12	0.12	0.37	0.37
Dec	2.30	1.79	0.60	1.19	3.49	0.11	0.66	1.03
Total	27.57	55.65	37.65	18.00	45.57	2.61	-23.38	

(1) Completed in accordance with Table 1 of 30 TAC 309.20.

Technical Report for Land Application System

Holmes Foods, Nixon, TX

WQ0002013000

1. Introduction

This report outlines the design and operational plan for a 427-acre land application site intended to handle 880,000 gallons per day (GPD) of poultry wastewater. The wastewater is treated in lagoons and contains 75 parts per million (ppm) total nitrogen. This report ensures compliance with 30 TAC 309.20 requirements.

2. Site Description

- Location: Approximately 1 mile west of downtown Nixon, TX
- Total Area: 429.02 acres
- Topography: Relatively flat pasture land with slopes of less than 5 percent
- Soil Type: Clay loam
- Current Land Use: Agricultural

3. Wastewater Characteristics

- Source: Poultry processing facility
- Flow Rate: 880,000 GPD average; 1,250,000 GPD peak daily
- Treatment Method: Lagoon system
- Effluent Quality: BOD – 75 mg/l
TN – 75 mg/l
pH – 6 to 9

4. Regulatory Requirements

This section addresses the requirements of 30 TAC 309.20, including effluent limitations, land application rates, and monitoring protocols.

4.1 Effluent Limitations (Wastewater quality to land application)

- Total Nitrogen: 75 ppm; 540 lbs per acre per year (480 lbs per acre per year to Bermuda; 60 lbs per acre per year to rye)
- BOD: 75 ppm; 100 lbs per acre per day

4.2 Application Rates

- Hydraulic Loading Rate: 3.36 acre feet per acre per year
- Nitrogen Loading Rate: 540 lbs per acre per year (480 lbs per acre per year to Bermuda; 60 lbs per acre per year to rye)

5. Design and Operation

5.1 Hydraulic Loading Rate

The hydraulic loading rate is calculated to ensure proper distribution of wastewater across the 429.02 acre site. The actual average application rate of 2.296 acre feet per acre per year as compared to the permitted rate of 3.36 acre feet per acre per year will minimize the potential for hydraulic overloading.

5.2 Nitrogen Loading Rate

The permit allows for the application of up to 480 lbs of nitrogen per acre per year to Bermuda grass and 60 lbs of nitrogen per acre per year to rye grass, or a total of 540 lbs of nitrogen per acre per year. The actual nitrogen loading rate of 468 lbs per acre per year will assure that the system is not overloaded and there are no negative ground water impacts.

5.3 Nutrient Management Plan

A nutrient management plan (NMP) will be used to manage the application of nitrogen, phosphorus, and other nutrients to prevent runoff and groundwater contamination.

5.4 Irrigation System

A detailed irrigation plan will be implemented to ensure even distribution of wastewater. The irrigation system design includes:

- Sprinkler Type: Center pivot units
- Irrigation Schedule: Wastewater will be land applied on all days that meet the permit limits and restrictions
- Monitoring and Maintenance: Land application systems will not be operated unmanned. Regular visual checks around the land application site will be performed to minimize the potential for any over application and associated runoff.

6. Environmental Impact and Mitigation

6.1 Groundwater Protection

Measures to protect groundwater include:

- Buffer Zones: Establishment of buffer zones around water bodies and wells.

- Soil Monitoring: Regular soil sampling to monitor nutrient levels TLAP permit requirements.

6.2 Surface Water Protection

To prevent surface water contamination:

- Runoff Control: Implementation of runoff control measures such as vegetative buffers and berms.

7. Monitoring and Reporting

7.1 Effluent Monitoring

Regular monitoring of the effluent quality as required by the TLAP permit to ensure compliance with discharge limits.

7.2 Soil and Crop Monitoring

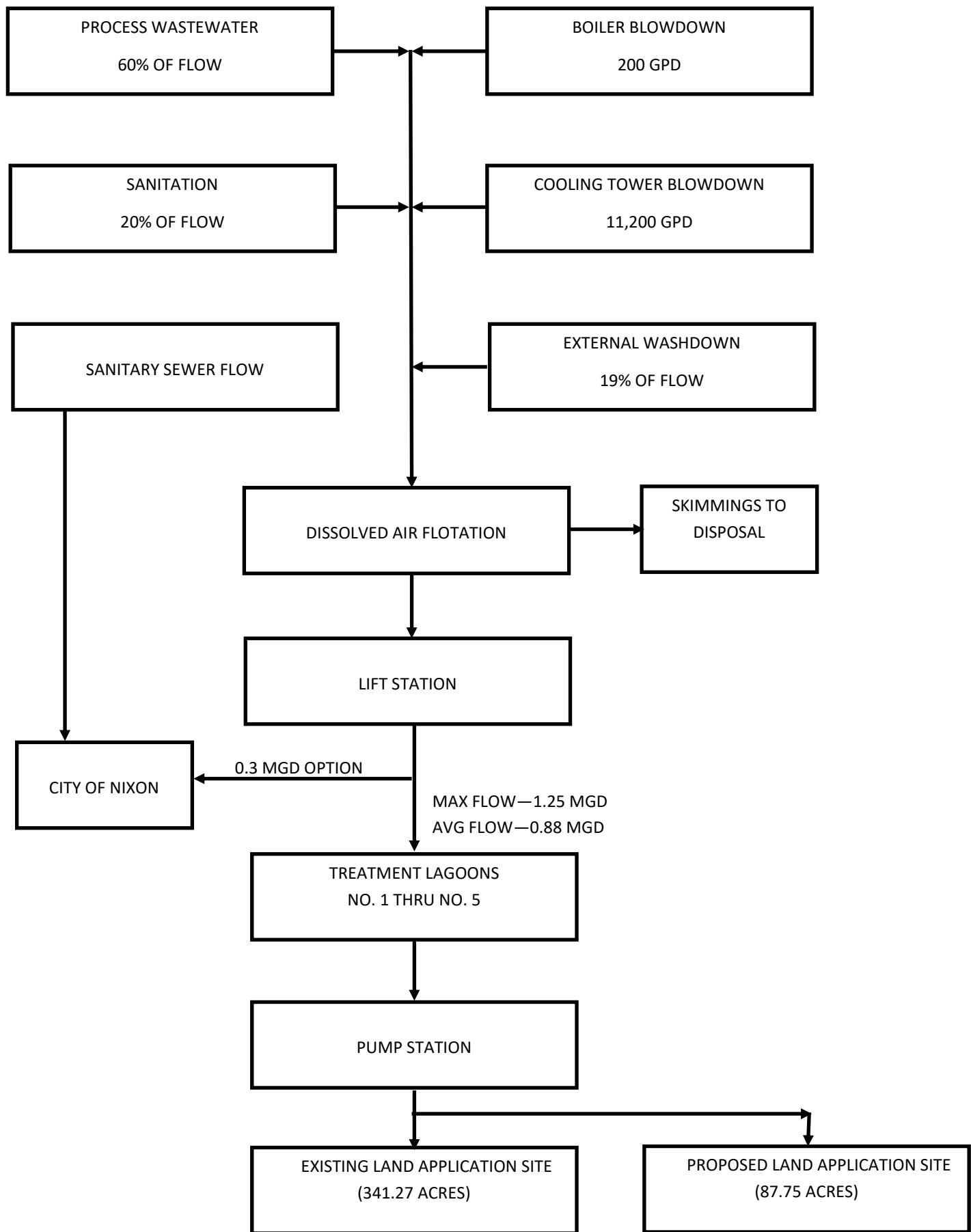
- Soil Testing: Annual soil tests to monitor nutrient levels.
- Crop Monitoring: Regular assessment of crop uptake and health.

7.3 Reporting

- Annual Reports: Submission of annual reports to the regulatory authority, detailing effluent quality, application rates, and environmental monitoring results.

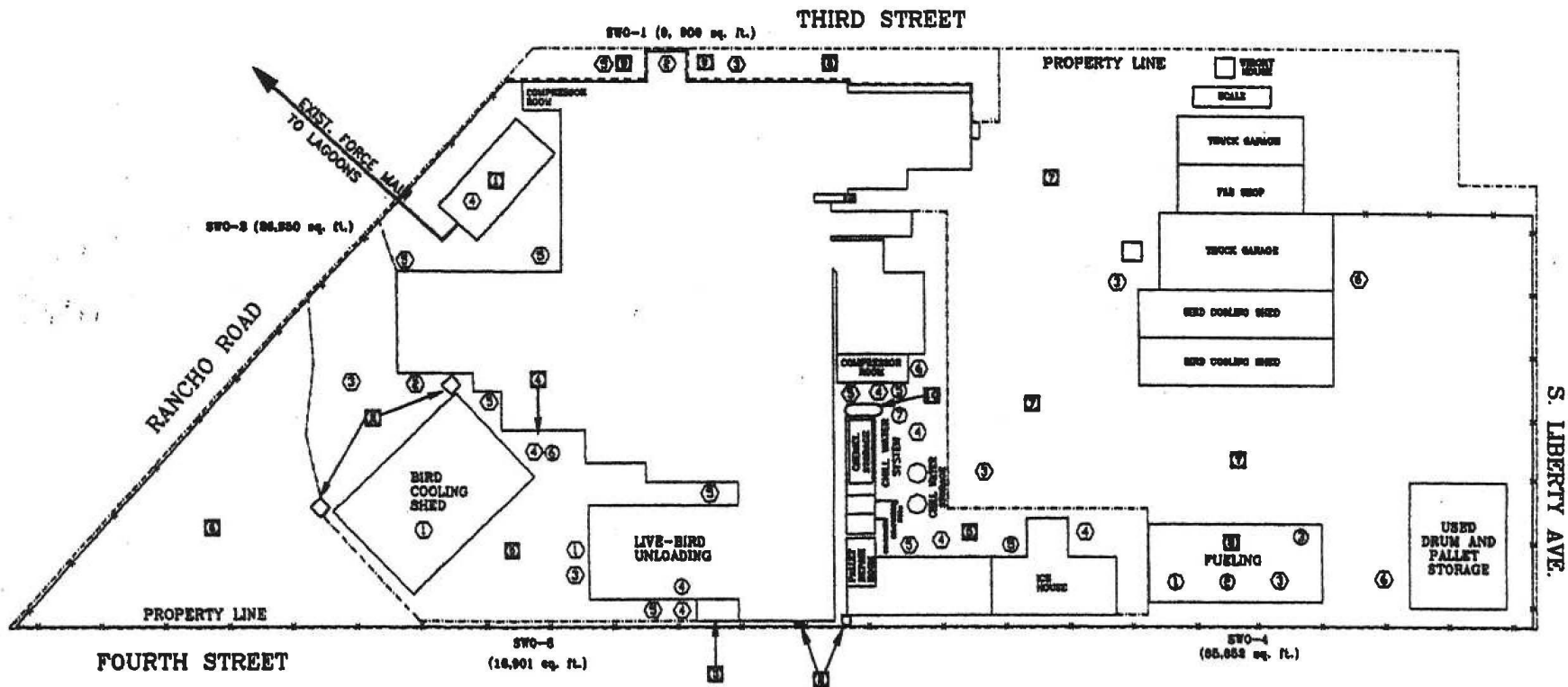
8. Conclusion

This land application plan for a 429.02 acre site is designed to handle 880,000 GPD of poultry wastewater, meeting the requirements of 30 TAC 309.20. The plan includes detailed calculations for hydraulic and nitrogen loading rates, a nutrient management plan, and monitoring protocols to ensure environmental protection and regulatory compliance.



ATTACHMENT T-2

WASTEWATER TREATMENT SYSTEM FLOW DIAGRAM—HOLMES FOODS, NIXON, TEXAS



KEY:

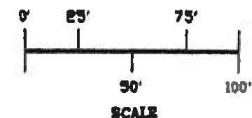
EXPOSED MATERIAL INVENTORY

- ① LIVE BIRDS
- ② FINISHED PRODUCT
- ③ FUEL, LUBRICANT, AND HYDRAULIC FLUIDS
- ④ PROCESS CHEMICALS
- ⑤ RODENTICIDES, PESTICIDES OR HERBICIDES
- ⑥ SOLIDS WASTE

STORAGE TANK INVENTORY

- ① DIESEL
- ② GASOLINE
- ③ WASTE OIL
- ④ HYDRAULIC OIL
- ⑤ COMPRESSOR OIL
- ⑥ CHLORINE
- ⑦ AMMONIA

- ⑧ Wastewater Pre-treatment.
- ⑨ Sumps for Collection of Non-Stormwater Drainage from Coolers, Freezers, Cooling Towers, Boiler, Condensate Drillage and Wash-down Waters.
- ⑩ Chemical Storage Shed for all Chemicals Except Chlorine.
- ⑪ Chlorine Gas Storage, 3-150# Cylinders.
- ⑫ Concrete Pavement; Guttered and Sloped to Direct Flows to Collection System for Pre-treatment.
- ⑬ Vegetated Area.
- ⑭ Compacted and Gravelled Drive.
- ⑮ Covered Fuel Storage; 8,000 gals. Diesel, 4,000 gals. Gas, and 500 gal. Used Oil Tank, all Equipped with Containment
- ⑯ Finished Product Loadout
- ⑰ 8,500 lb. Liquid Ammonia Receiver.



ATTACHMENT T-1

PROCESSING PLANT FACILITY MAP—PLOT PLAN

HOLMES FOODS, NIXON, TEXAS

Table 1**Monthly Water Balance (1)****Holmes Foods Processing Plant, Nixon, TX**

Avg Flow -

880000 gal/day

Runoff Curve -

84

Land Area -

429.02 acres

S -

1.905

Eff Cond -

1.5 mmhos/cm

Cover Crop -

Coastal Bermuda/Rye

Max Soil Co

10 mmhos/cm

Pond Area -

32.000 Acres

Irrigation Ef

85 percent

Max Rainfall -

50.440 in/yr

Available Ef

2.30 in/month

Min Evap -

39.720 in/yr

1	2	3	4	5	6	7	8	9	10	11
	I	Q	R	E	L					
Month	Avg Rainfall, inches	Avg Runoff, inches	Avg Rainfall Infiltration, inches	Evapotran- spiration, inches	Required Leaching, inches	Total Water Need, inches	Effluent Needed in Root Zone, inches	Evapotran- spiration from Reservoir, inches	Effluent to be Land Applied, Inches	Consump- tion from Reservoir, Inches
Jan	2.22	0.90	1.32	2.25	0.16	2.41	1.10	0.17	1.29	1.46
Feb	2.25	0.93	1.32	2.52	0.21	2.73	1.41	0.19	1.65	1.84
Mar	2.09	0.81	1.28	3.73	0.43	4.16	2.88	0.28	3.39	3.67
Apr	2.98	1.50	1.48	4.40	0.52	4.92	3.44	0.33	4.04	4.37
May	4.06	2.42	1.64	4.86	0.57	5.43	3.79	0.36	4.46	4.82
Jun	3.71	2.12	1.59	6.18	0.81	6.99	5.40	0.46	6.35	6.81
Jul	2.25	0.93	1.32	7.02	1.01	8.03	6.70	0.52	7.88	8.41
Aug	2.44	1.07	1.37	6.72	0.94	7.66	6.29	0.50	7.40	7.91
Sep	3.87	2.26	1.61	5.31	0.65	5.96	4.35	0.40	5.12	5.51
Oct	3.63	2.05	1.58	4.45	0.51	4.96	3.37	0.33	3.97	4.30
Nov	2.68	1.26	1.42	3.07	0.29	3.36	1.94	0.23	2.28	2.51
Dec	2.19	0.88	1.31	2.31	0.18	2.49	1.18	0.17	1.39	1.56
Total	34.37	17.12	17.25	52.82	6.28	59.10	41.84	3.94	49.23	53.17

(1) Completed in accordance with Table 1 of 30 TAC 309.20.

Table 2
Monthly Water Balance (1)
Holmes Foods Processing Plant, Nixon, TX

12	13	14	15	16	17	18	19	20
Month	Effluent Received for Application or Storage	Maximum Rainfall, inches	Maximum Runoff, inches	Maximum Rainfall Infiltration, inches	Total Water Available, inches	Minimum Net Evaporation Reservoir Surface, inches	Storage, Inches	Accumulated Storage, inches
Jan	2.30	3.26	1.73	1.53	3.83	0.09	1.16	2.20
Feb	2.30	9.19	7.24	1.95	4.24	0.12	1.25	3.45
Mar	2.30	2.18	0.87	1.31	3.60	0.19	-1.26	
Apr	2.30	7.03	5.17	1.86	4.16	0.23	-1.53	
May	2.30	13.46	11.42	2.04	4.34	0.25	-1.93	
Jun	2.30	3.83	2.22	1.61	3.91	0.31	-4.34	
Jul	2.30	2.79	1.35	1.44	3.74	0.29	-5.74	
Aug	2.30	3.88	2.27	1.61	3.91	0.37	-5.19	
Sep	2.30	0.83	0.09	0.74	3.04	0.29	-4.13	
Oct	2.30	1.07	0.18	0.89	3.18	0.23	-2.72	
Nov	2.30	6.34	4.52	1.82	4.12	0.12	0.37	0.37
Dec	2.30	1.79	0.60	1.19	3.49	0.11	0.66	1.03
Total	27.57	55.65	37.65	18.00	45.57	2.61	-23.38	

(1) Completed in accordance with Table 1 of 30 TAC 309.20.

Leah Whallon

From: Vernon Rowe <rowenvironmental@hotmail.com>
Sent: Monday, August 19, 2024 4:26 PM
To: Leah Whallon; jnewman@holmesfoods.com
Subject: Re: RESPONSE TO NOD - Application to Amend Permit No. WQ0002013000; Holmes Foods, Inc.; Holmes Foods Nixon Processing Plant
Attachments: HOLMES FOOD PROCESSING PLANT - ADJ PROP OWNERS MAP CROSS REF LIST.pdf; Avery5160EasyPeelAddressLabels - HOLMES FOODS NIXON TX - PROCESSING PLANT.doc; Avery5160EasyPeelAddressLabels - HOLMES FOODS NIXON TX 2 - PROCESSING PLANT.doc; HOLMES FOODS PROCESSING FACILITY ADJ PROP OWNERS MAP.pdf; HOLMES FOODS - WQ0002013000 - USGS MAP - R2 - AUG 19 2024.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Leah,

Attached please find revised USGS Quad Map, Adjacent Property Owners Map, Property Owners Cross Reference List, Mailing Label Templates per your request for the processing facility.

Please advise if any thing else is needed at this time.

Vernon D. Rowe, P.E.
rowenvironmental
273 CR 4164
Pittsburg, TX 75686
(903) 767-0945

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Friday, August 16, 2024 4:36 PM
To: Vernon Rowe <rowenvironmental@hotmail.com>; jnewman@holmesfoods.com <jnewman@holmesfoods.com>
Subject: RE: RESPONSE TO NOD - Application to Amend Permit No. WQ0002013000; Holmes Foods, Inc.; Holmes Foods Nixon Processing Plant

Hi Vernon,

I've reviewed the response and the following items need to be addressed.

1. The USGS maps provided in the initial application and in the response do not show the facility boundaries. Only the disposal site boundaries are shown. Both the facility and the disposal site boundaries must be shown. Please provide a USGS map that also includes the facility boundaries.
2. The landowner maps provided in the initial application and in the response do not show the facility boundaries or the landowners adjacent to the facility. Only the disposal site boundaries and landowners adjacent to the disposal site are shown. Landowners adjacent to both the disposal site and the facility must be shown. Please provide an updated landowner map that also includes the facility boundaries and landowners adjacent to the facility boundaries.

3. Please provide an updated cross referenced list that also includes the landowners adjacent to the facility boundaries.
4. Please provide updated mailing labels that also include the landowners adjacent to the facility boundaries.

No hard copies are required. Please provide the requested items by email. I will send a 30 day extension letter to allow additional time to complete the response. 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

From: Vernon Rowe <rowenvironmental@hotmail.com>

Sent: Monday, August 5, 2024 10:36 AM

To: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>; jnewman@holmesfoods.com

Subject: RESPONSE TO NOD - Application to Amend Permit No. WQ0002013000; Holmes Foods, Inc.; Holmes Foods Nixon Processing Plant

Ms. Whallon:

In response to the referenced NOD dated August 2, 2024 please find the attached documents:

1. USGS Map. This map was uploaded with the original STEERS submittal. I have renamed it to clarify it is the USGS Map.
2. Landowner Map. The map that was originally uploaded has been updated to change the property ID numbers as requested.
3. Landowner Cross Reference List. List has been updated to change property ID numbers as requested.
4. Land Owner Address Avery Template. A Microsoft Word file version is attached.

We have reviewed the draft NORI language and concur as written.

Please advise if you need for me to send a hard copy of the documents in addition to the digital copies attached herein.

Please let me know if there are questions or if you need additional information at this time.

Vernon D. Rowe, P.E.
rowenvironmental

273 CR 4164
Pittsburg, TX 75686
(903) 767-0945

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>

Sent: Friday, August 2, 2024 4:12 PM

To: jnewman@holmesfoods.com <jnewman@holmesfoods.com>; rowenvironmental@hotmail.com <rowenvironmental@hotmail.com>

Subject: Application to Amend Permit No. WQ0002013000; Holmes Foods, Inc.; Holmes Foods Nixon Processing Plant

Good Afternoon,

Please see the attached Notice of Deficiency letter dated August 2, 2024 requesting additional information needed to declare the application administratively complete. Please send the complete response by August 16, 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

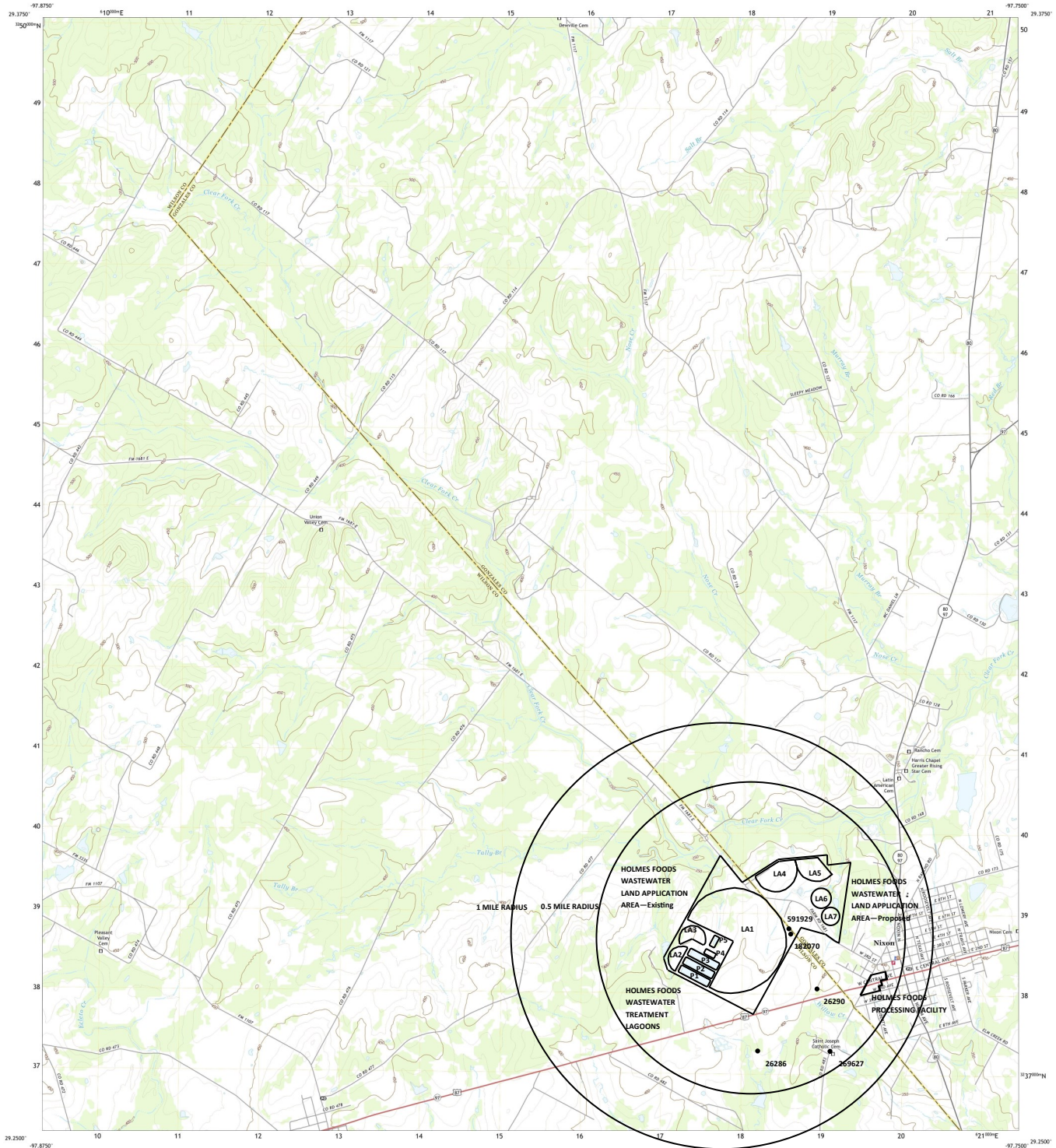
How is our customer service? Fill out our online customer satisfaction survey at
www.tceq.texas.gov/customersurvey



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

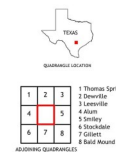
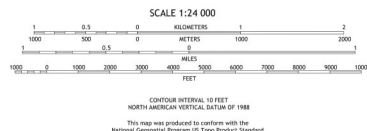
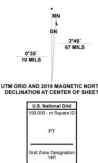


NIXON QUADRANGLE
TEXAS
7.5-MINUTE SERIES



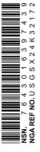
Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84) Projection and
1 000-meter grid Universal Transverse Mercator, Zone 14R
This map is not a legal document. Boundaries may be
generalized for this map scale. Private lands within government
reservation may not be shown. Obtain permission before
entering private lands.

Imagery: NADP, September 2016 - November 2016
Roads: U.S. Census Bureau, 2013 - 2019
Hydrography: National Hydrography Dataset, 2003 - 2016
Contour: National Elevation Dataset, 2011
Boundary: National Wetlands Inventory, 2019 - 2021
Wetlands: FWS National Wetlands Inventory Not Available

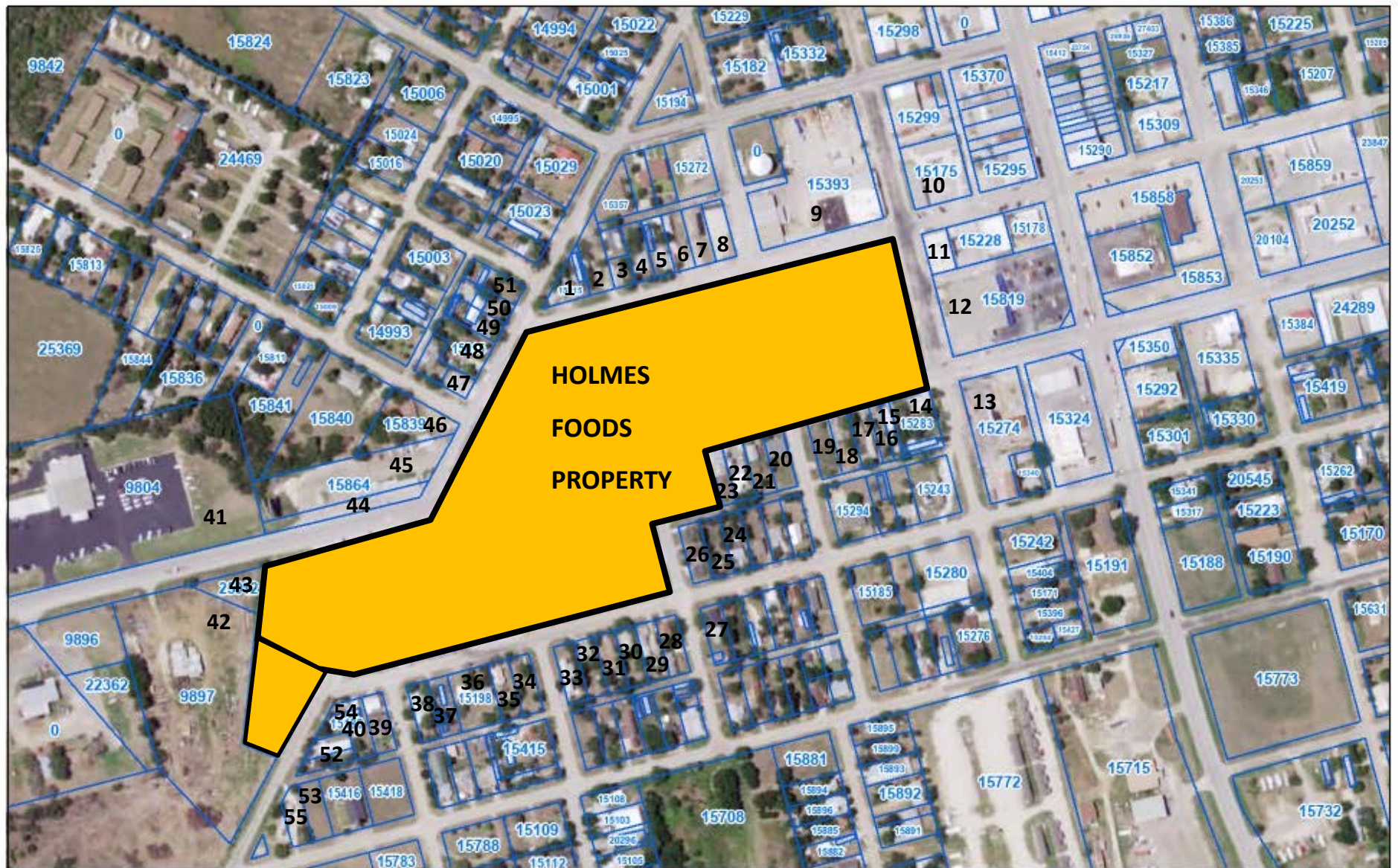


ROAD CLASSIFICATION	
Expressway	Local Connector
Secondary Hwy	Local Road
Interstate Route	US Route
	State Route

NIXON, TX
2022



Gonzales CAD



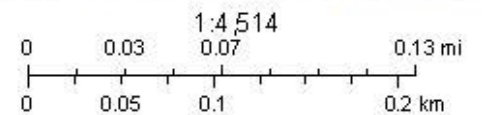
8/19/2024, 9:42:18 AM

 Parcels

ATTACHMENT A-5B

ADJ PROPERTY OWNERS MAP

HOLMES FOODS PROCESSING PLANT



HOLMES FOODS, NIXON TX PROCESSING PLANT**PERMIT NO. WQ0002013000****ADJACENT PROPERTY OWNER MAP CROSS REFERENCE LIST**

PROPERTY NUMBER	PROPERTY OWNER
1	JOSIE MENDIOLA 400 WEST 2 ND ST NIXON, TX 78140
2	MARCOS PENA 203 MESQUITE NIXON, TX 78140
3	DONALD & SHARON PENA 11493 WATERVIEW CLUSTER RESTON, VA 20190
4	DELIA FREEMAN 15272 N HWY 80 LEESVILLE, TX 78122
5, 6	RODRIGO REYES 807 PATTON DRIVE SEGUIN, TX 78155
7, 8	LAZARUS REFINING 300 WEST SECOND ST. NIXON, TX 78140
9	DR PROPERTIES LTD 8755 HWY 87 EAST SAN ANTONIO, TX 78263
10, 11	353 NIXON LTD 12106 VALLIANT ST. SAN ANTONIO, TX 78216
12	PAVE & SAVE, INC. 1804 HALL AVENUE LITTLEFIELD, TX 79339
13	GORDON & CORINE SWENSON 11407 FM 1625 AUSTIN, TX 78747
14, 16	RUBEN & MARIA VELASQUEZ 106 S CONGRESS AVE. NIXON, TX 78140
15	TONI MEDINA 9114 ROARING SPRINGS UNIVERSAL, TX 78148
17	PETRA GOMEZ MARTINEZ 207 W CENTRAL AVE. NIXON, TX 78140

HOLMES FOODS, NIXON TX PROCESSING PLANT**PERMIT NO. WQ0002013000****ADJACENT PROPERTY OWNER MAP CROSS REFERENCE LIST (continued)**

18	E.C. PANTOJA EST 109 S SPRING NIXON, TX 78140
19	JUAN JESUS GARZA JR. P.O. BOX 275 NIXON, TX 78140
20, 21	LEONOR GAYTAN 301 W CENTRAL AVE. NIXON, TX 78140
22	LUCY. M. & CASSDIE J. MENDIOLA 305 W CENTRAL AVE. NIXON, TX 78140
23	ROSA HERNANDEZ 712 ROOSEVELT DR. SEGUIN, TX 78155
24	ANTONIA VELIZ 504 E 9 TH STREET NIXON, TX 78140
25	ELDORA T MENDEZ 8705 COASTAL AVE. AUSTIN, TX 78749
26, 39	SAM RUIZ 665 STONEWALL SAN ANTONIO, TX 78214
27	ANAVEL ESCAMILLA 201 S MESQUITE AVE. NIXON, TX 78140
28	REYNA FAUSTINA MACARENO 206 S MESQUITE AVE NIXON, TX 78140
29	SALVADOR & JUANA DE VASQUEZ 403 W 2 ND AVE NIXON, TX 78140
30, 34	TORIBO SANTOS ESTATE 5201 THOMASON DR. MIDLAND, TX 79703
31	FELIX FONSECA 407 W 2 ND ST NIXON, TX 78140

HOLMES FOODS, NIXON TX PROCESSING PLANT**PERMIT NO. WQ0002013000****ADJACENT PROPERTY OWNER MAP CROSS REFERENCE LIST (continued)**

PROPERTY NUMBER	PROPERTY OWNER
32, 35	DANIEL BARRIENTOS & YOLANDA VASQUEZ 306 PECAN AVE NIXON, TX 78140
33	ASMANDA SUAZO 201 S LIBERTY AVE. NIXON, TX 78140
36	JAVIER & ROSALBA VALERIO 608 S ROOSEVELT NIXON, TX 78140
37	DOROTHY ALEXANDER 509 W 2 ND AVE NIXON, TX 78140
38	FSHS, LLC 1305 W 11 TH ST #4020 HOUSTON, TX 77008
40	JOHN M BROWN ESTATE (UNKNOWN ADDRESS)
41	KEVIN CARAWAY 100 WY 87 N NIXON, TX 78140
42. 43	BRITTANY ANN WAGENER SCARFF 2369 CR 127 NIXON, TX 78140
44, 45	MARY HELEN MALDONADO 611 E 2 ND STREET NIXON, TX 78140
46	JOE RIOJAS 507 HOLMES ST. NIXON, TX 78140
47	SANTIAGO & LONGINO ESTRADA 109 PECAN STREET NIXON, TX 78140
48	EMILIO & ELIZABETH RODRIGUEZ 104 N RANCHO RD NIXON, TX 78140

HOLMES FOODS, NIXON TX PROCESSING PLANT**PERMIT NO. WQ0002013000****ADJACENT PROPERTY OWNER MAP CROSS REFERENCE LIST (continued)**

PROPERTY NUMBER	PROPERTY OWNER
49, 51	FREDERICO TORRES 200 N RANCHO RD NIXON, TX 78140
50	FREDERICO & ELIA TORRES 106 RANCHO RD NIXON, TX 78140
52	MAXIMINA PEREZ 605 S RANCHO NIXON, TX 781
53	GREATER RISING STAR CHURCH 1032 SAN ANTONIO AVE. SEGUIN, TX 78155
54	EDUARDO PEREZ 603 W 2 ND ST NIXON, TX 78140
55	YOLANDA VASQUEZ JUAREZ 306 PECAN AVE. NIXON, TX 78140