

This file contains the following documents:

- 1. Summary of application (in plain language)
 - English
 - Alternative Language (Spanish)
- 2. First notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
 - English
 - Alternative Language (Spanish)
- 3. Second notice (NAPD-Notice of Preliminary Decision)
 - English
 - Alternative Language (Spanish)
- 4. Application materials
- 5. Draft permit
- 6. Technical summary or fact sheet



Este archivo contiene los siguientes documentos:

- 1. Resumen de la solicitud (en lenguaje sencillo)
 - Inglés
 - Idioma alternativo (español)
- 2. Primer aviso (NORI, Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
 - Inglés
 - Idioma alternativo (español)
- 3. Segundo aviso (NAPD, Aviso de Decisión Preliminar)
 - Inglés
 - Idioma alternativo (español)
- 4. Materiales de la solicitud
- 5. Proyecto de permiso
- 6. Resumen técnico u hoja de datos

ENGLISH LANGUAGE TEMPLATE FOR CAFO PERMIT APPLICATIONS

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by the TCEQ Public Participation Plan and Language Access Plan. 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.

- 1) Applicant's Name: Sherwyn Dallas and Angela Browning Wood
- 2) Enter Customer Number: CN601313950; CN605783968
- 3) Name of facility: Sherwyn Wood Dairy
- 4) Enter Regulated Entity Number: RN102586807
- 5) Provide your permit Number: WQ0004843000
- 6) Facility Business: The facility confines 990 head of cattle in which 990 are milking. The facility has sixteen (16) land management units (LMUs) with the following acreages: LMU #1 10, LMU #2 33, LMU #3 53, LMU #4 21, LMU #5 26, LMU #5A 25, LMU #6 59, LMU #7 104, LMU #8 42, LMU #9 61, LMU #10 21, LMU #11 9, LMU #12 12, LMU #13 16, LMU #14 15 and LMU #15 5 acres. One (1) retention control structures (RCSs), one concrete slurry pit and one earthen settling basin. The required capacities are: RCS #1 18.86 ac-ft. There are eight (8) onsite wells. The facility is located in the North Bosque River in Segment No. 1226 of the Brazos River Basin.
- 7) Facility Location: The facility is located on the South side of FM 913 approximately 2.5 miles south of intersection of FM 913 and US Hwy 67; said intersection is located approximately 7 miles south of the intersection of US Hwy 281 and US Hwy 67, in Erath County, Texas.
- 8) Application Type: Individual Permit Renewal
- 9) Description of your request: Sherwyn Wood is submitting a renewal application with the following changes, reconfigure the drainage area, remove proposed northeast slurry pit/turnaround, rename south slurry pit to "Concrete Slurry Pad," addition of a new shop building and addition of a manure storage/compost area.
- 10)Potential pollutant sources at the facility include (list the pollutant sources): Manure, manure stockpiles, wastewater, sludge, slurry, compost, feed & bedding, silage stockpiles, dead animals, dust, lubricants, parlor chemicals, pesticides and fuel storage tanks.
- 11)The following best management practices will be implemented at the site to manage pollutants from the listed pollutant sources (describe the best management practices that are used): stormwater is stored in the lagoon (RCS) until land applied through irrigation and manure and sludge are stockpiled in the drainage area of the RCS until land applied or hauled offsite for beneficial use. Manure and sludge generated by the CAFO will be retained and used in an appropriate and beneficial manner in accordance with a certified site-specific nutrient management plan. Wastewater will be contained in the RCS properly designed ((25-year frequency 10-day duration (25 year/10 day), constructed, operated and maintained according to the provision of the permit. Maintain 100-foot buffer for all irrigation wells or 150-

foot for all supply wells. Dust – control speed and regular pen maintenance. Fertilizers – store under roof and handle according to specified label directions. Fuel Tanks – provide secondary containment and prevent overfills/spills. Dead animals – dispose by a third-party rendering service, buried on-site or compost on-site. Collected within 24 hours of death and disposed within three days.

- 12) Unless otherwise limited, manure, sludge, or wastewater will not be discharged from a land management unit (LMU) or a retention control structure (RCS) into or adjacent to water in the state from a CAFO except resulting from any of the following conditions:
- 1) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;
- 2) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
- 3) a chronic/catastrophic rainfall discharge from a LMU that occurs because the permittee takes measures to de-water the RCS if the RCS is in danger of imminent overflow.

SPANISH

El siguiente resumen se proporciona para esta solicitud pendiente de permiso de calidad del agua que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Plan de Participación Pública y el Plan de Acceso Lingüístico de la TCEQ. La información provista en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud del permiso.

- 1) Nombre del solicitante: Sherwyn Dallas and Angela Browning Wood
- 2) Ingrese el número de cliente: CN601313950; CN605783968
- 3) Nombre de la instalación: Sherwyn Wood Dairy
- 4) Ingresar Número de Entidad Regulada: RN102586807
- 5) Proporcione su número de permiso: WQ0004843000
- 6) Instalación Comercial: La instalación encierra 990 cabezas de ganado vacuno de las cuales 990 están ordeñando. La instalación tiene dieciséis (16) unidades de administración de tierras (LMU) con las siguientes superficies: LMU #1 10, LMU #2 33, LMU #3 53, LMU #4 21, LMU #5 26, LMU #5A 25, LMU #6 59, LMU #7 104, LMU #8 42, LMU #9 61, LMU #10 21, LMU #11 9, LMU #12 12, LMU #13 16, LMU #14 15 y LMU #15 5 acres. Una (1) estructura de control de retención (RCS), un pozo de lodos de concreto y un estanque de sedimentación de tierra. Las capacidades requeridas son: RCS #1 18.86 ac-ft. Hay ocho (8) pozos en el sitio. La instalación está ubicada en el Río Bosque Norte en el Segmento No. 1226 de la Cuenca del Río Brazos.
- 7) Ubicación de la instalación: La instalación está ubicada en el lado sur de FM 913, aproximadamente a 2.5 millas al sur de la intersección de FM 913 y US Hwy 67; dicha intersección está ubicada aproximadamente a 7 millas al sur de la intersección de la US Hwy 281 y la US Hwy 67, en el condado de Erath, Texas..
- 8) Tipo de Solicitud: Renovación de Permiso Individual
- 9) Descripción de su solicitud: Sherwyn Wood Dairy está presentando una solicitud de renovación con los siguientes cambios: reconfigurar el área de drenaje, eliminar el pozo de lodo/reestructuración propuesto en el noreste, cambiar el nombre del pozo de lodo sur a "Concrete Slurry Pad", agregar un nuevo edificio de taller y agregar un área de almacenamiento de estiércol/compost.
- 10) Las posibles fuentes de contaminantes en la instalación incluyen (enumere las fuentes de contaminantes): Estiércol, reservas de estiércol, aguas residuales, lodos, purines, compost, piensos y camas, reservas de ensilaje, animales muertos, polvo, lubricantes, químicos de salón, pesticidas y tanques de almacenamiento de combustible.
- 11) Las siguientes mejores prácticas de manejo se implementarán en el sitio para manejar los contaminantes de las fuentes de contaminantes enumeradas (describa las

mejores prácticas de manejo que se utilizan): las aguas pluviales se almacenan en la laguna (RCS) hasta que se aplican a la tierra mediante riego y estiércol y lodo se almacenan en el área de drenaje del RCS hasta que se aplican a la tierra o se transportan fuera del sitio para un uso beneficioso. El estiércol y los lodos generados por CAFO se conservarán y utilizarán de manera apropiada y beneficiosa de acuerdo con un plan certificado de manejo de nutrientes específico del sitio. Las aguas residuales estarán contenidas en el RCS adecuadamente diseñado ((frecuencia de 25 años y duración de 10 días (25 años/10 días), construido, operado y mantenido de acuerdo con lo dispuesto en el permiso. Mantener una zona de amortiguamiento de 100 pies para todos los pozos de riego o 150 pies para todos los pozos de suministro. Polvo - velocidad de control y mantenimiento regular del corral. Fertilizantes almacénelos bajo techo y manipúlelos de acuerdo con las instrucciones especificadas en la etiqueta. Tanques de combustible - proporcionan contención secundaria y evitan sobrellenados/derrames. Animales muertos - elimínelos a través de un servicio de procesamiento de terceros o entierre en el sitio. Recolectado dentro de las 24 horas posteriores a la muerte y eliminado dentro de los tres días.

- 12) A menos que se limite de otro modo, el estiércol, los lodos o las aguas residuales no se descargarán desde una unidad de administración de tierra (LMU) o una estructura de control de retención (RCS) hacia el agua en el estado o junto a ella desde una CAFO, excepto que resulte de cualquiera de las siguientes condiciones:
- 1) una descarga de estiércol, lodo o aguas residuales que el tenedor del permiso no puede prevenir o controlar razonablemente como resultado de una condición catastrófica que no sea un evento de lluvia;
- 2) desbordamiento de estiércol, lodo o aguas residuales de un RCS como resultado de un evento de lluvia crónica/catastrófica; o
- 3) una descarga de lluvia crónica/catastrófica de una LMU que ocurre porque el tenedor del permiso toma medidas para vaciar el RCS si el RCS está en peligro de desbordamiento inminente.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT RENEWAL.

PERMIT NO. WQ0004843000

APPLICATION. Sherwyn Dallas Wood and Angela Browning Wood, 757 County Road 229, Stephenville, Texas 76401, have applied to the Texas Commission on Environmental Quality (TCEQ) to renew Wastewater Permit No. WQ0004843000 (EPA I.D. No. TX0129976) for a Concentrated Animal Feeding Operation (CAFO) to authorize the operation of a 990 head count dairy cattle facility. The facility is located on the south side of Farm-to-Market Road 913, approximately 2.5 miles south of the intersection of Farm-to-Market Road 913 and U.S. Highway 67, near the city of Stephenville, in Erath County, Texas 76401. TCEQ received this application on August 22, 2025. The permit application will be available for viewing and copying at Erath County Courthouse, Erath County Extension Office, 100 West Washington Street, Room 206, Stephenville, in Erath 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/cafo-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=-98.091388,32.147222&level=18

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-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 countywide 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. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

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

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. 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 Sherwyn Dallas Wood and Angela Browning Wood at the address stated above or by calling Mr. Sherwyn Wood at 254-965-5142.

Issuance Date: September 10, 2025

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0004843000

SOLICITUD. Sherwyn Dallas Wood y Angela Browning Wood, 757 County Road 229, Stephenville, Texas 76401, han solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) una renovación de Permiso No. WQ0004843000 (EPA I.D. No. TX0129976) para una Operación Concentrada de Alimentación Animal (CAFO) para autorizar la operación de una instalación de ganado lechero con 990 cabezas de ganado. La instalación está ubicada en el lado sur de Farm-to-Market Road 913, aproximadamente a 2.5 millas al sur de la intersección de Farm-to-Market Road 913 y U.S. Highway 67, cerca de la ciudad de Stephenville, en el Condado de Erath, Texas 76401. La TCEQ recibió esta solicitud el 22 de agosto de 2025. La solicitud de permiso estará disponible para ver y copiar en el Palacio de Justicia del Condado de Erath, Oficina de Extensión del Condado de Erath, 100 West Washington Street, Sala 206, Stephenville, en el Condado de Erath, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles electrónicamente en la siguiente página web:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-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=-98.091388,32.147222&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/cafo-applications.

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

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ

realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

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

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

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

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante

indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envia por correo su pedido a la Oficina del Secretario Principal de la TCEO.

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 DE LA TCEQ. 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 de Sherwyn Dallas Wood y Angela Browning Wood a la dirección indicada arriba o llamando al Sr. Sherwyn Wood al 254-965-5142.

Fecha de emisión: 10 de septiembre de 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR CAFO WATER QUALITY PERMIT

RENEWAL

PERMIT NO. WQ0004843000

APPLICATION AND PRELIMINARY DECISION. Sherwyn Dallas Wood and Angela Browning Wood, 757 County Road 229, Stephenville, Texas 76401 have applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal with changes of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQooo4843000, for a Concentrated Animal Feeding Operation (CAFO), to authorize the applicant to add a new shop, reconfigure the retention control structure (RCS) drainage area which will change the required capacity for RCS #1 from 18.86 to 18.65 acre-feet, remove the previously proposed northeast slurry pit/turnaround area, and add a compost and manure storage area. TCEQ received this application on August 22, 2025.

The facility is located on the south side of Farm-to-Market Road 913, approximately 2.5 miles south of the intersection of Farm-to-Market Road 913 and U.S. Highway 67; said intersection is located approximately 7 miles south of the intersection of U.S. Highway 281 and U.S. Highway 67 in Stephenville, Erath County, Texas. The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.091388,32.147222&level=18. For the exact location, refer to the application.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. This permit is consistent with the requirements of the antidegradation implementation procedures in 30 Texas Administrative Code §307.5 (c)(2)(G) of the Texas Surface Water Quality Standards and no lowering of water quality is anticipated. The TCEQ Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's Preliminary Decision, and draft permit are available for viewing and copying at the **Erath County Extension Office-Erath County Courthouse**, **100 Washington St. Room 206**, **Stephenville**, **Erath County Texas**. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications.

CHANGE IN LAW. The Texas Legislature enacted Senate Bill 709, effective September 1, 2015, amending the requirements for comments and contested case hearings. This application is subject to those changes in law.

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds 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 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 a contested case hearing or reconsideration of the Executive Director's decision. A contested case hearing is a legal proceeding similar to a civil trial in a 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 permit number, the location and distance of your property/activities relative to the facility, a specific description of how you would be adversely affected by the facility in a way not common to the general public, a list of all disputed issues of fact that you submit during the comment period and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence, identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity, provide the information discussed above regarding the affected member's location and distance from the facility or activity, explain how and why the member would be affected, and explain how the interests the group seeks to protect are germane to the group's purpose.

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

The Commission will only grant a contested case hearing on disputed issues of fact that are relevant and material to the Commission's decision on the application. Further, the Commission will only grant a hearing on issues that were raised in timely filed comments that were not subsequently withdrawn.

If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit without providing an opportunity for a contested case hearing if certain criteria are met.

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

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.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at https://www14.tceq.texas.gov/epic/eComment/ within 30 days from the date of newspaper publication of this notice.

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. 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. Any personal information you submit to the TCEQ will become part of the agency's record; this includes email addresses. 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 Mr. Sherwyn Wood at the address stated above or by calling Mr. Corey Mullin, Enviro-Ag Engineering, Inc. at (254) 965-3500.

Issuance Date: November 3, 2025

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



NOTIFICACIÓN DE LA DEMANDA Y DECISIÓN PRELIMINAR PARA RENOVACIÓN DEL PERMISO DE CALIDAD DEL AGUA CAFO

RENOVACIÓN

PERMISO Nº WQ0004843000

SOLICITUD Y DECISIÓN PRELIMINAR. Sherwyn Dallas Wood y Angela Browning Wood, 757 County Road 229, Stephenville, Texas 76401 han solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) una renovación con cambios en el Permiso No. WQ0004843000, para una Operación Concentrada de Alimentación Animal (CAFO), autorizar al solicitante a agregar una nueva tienda, reconfigurar el área de drenaje de la estructura de control de retención (RCS) que cambiará la capacidad requerida para RCS #1 de 18.86 a 18.65 acres-pies, eliminar el área de pozo de purines / área de rotación propuesta anteriormente y agregar un área de almacenamiento de abono y estiércol. La TCEQ recibió esta solicitud el 22 de agosto de 2025.

La instalación está ubicada en el lado sur de Farm-to-Market Road 913, aproximadamente a 2.5 millas al sur de la intersección de Farm-to-Market Road 913 y U.S. Highway 67; dicha intersección se encuentra aproximadamente a 7 millas al sur de la intersección de la autopista 281 y la autopista 67 en Stephenville, condado de Erath, Texas. La instalación está ubicada en el área de drenaje del río Bosque Norte en el Segmento No. 1226 de la Cuenca del Río Brazos. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no es parte de la solicitud o aviso. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-98.091388,32.147222&level=18. Para conocer la ubicación exacta, consulte la solicitud.

El Director Ejecutivo de la TCEQ ha concluido el examen técnico de la solicitud y ha preparado un bosquejo de permiso. El bosquejo de permiso, de ser aprobado, establecería las condiciones bajo las cuales la instalación debe operar. Este permiso es consistente con los requisitos de los procedimientos de implementación antidegradación en 30 Código Administrativo de Texas §307.5 (c) (2) (G) de los Estándares de Calidad de Aguas Superficiales de Texas y no se anticipa una disminución de la calidad del agua. El Director Ejecutivo de la TCEQ ha tomado una decisión preliminar de que este permiso, si se emite, cumple con todos los requisitos legales y reglamentarios. La solicitud de permiso, la Decisión Preliminar del Director Ejecutivo y el bosquejo del permiso están disponibles para su visualización y copia en la **Oficina de Extensión del Condado de Erath - Palacio de Justicia del Condado de Erath, 100 Washington St. Sala 206, Stephenville, Condado de Erath, Texas.** La solicitud, incluidas las actualizaciones, y los avisos asociados están disponibles electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-applications.

CAMBIO EN LA LEY. La Legislatura de Texas promulgó el Proyecto de Ley del Senado 709, efectivo el 1 de septiembre de 2015, que modifica los requisitos para comentarios y audiencias de casos impugnados. Esta solicitud está sujeta a esos cambios en la ley.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permitts/cafo-applications.

COMENTARIO PÚBLICO / REUNIÓN PÚBLICA. Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ celebra una reunión pública si el Director Ejecutivo determina que existe un grado significativo de interés público en la solicitud o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado.

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después de la fecha límite para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios oportunos y preparará una respuesta a todos los comentarios públicos relevantes y materiales o significativos. A menos que la solicitud sea remitida directamente para una audiencia de caso impugnado, la respuesta a los comentarios se enviará por correo a todos los que enviaron comentarios públicos y a aquellas personas que estén en la lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar una audiencia de caso impugnado o reconsiderar la decisión del Director Ejecutivo. Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

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

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

La Comisión sólo concederá una audiencia de caso impugando sobre cuestiones de hecho controvertidas que sean relevantes y materiales para la decisión de la Comisión sobre la solicitud. Además, la Comisión sólo concederá una audiencia sobre cuestiones que se plantearon en comentarios presentados oportunamente que no fueron retirados posteriormente. Si se concede una audiencia, el tema de una audiencia se limitará a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas con preocupaciones relevantes y materiales sobre la calidad del agua presentadas durante el periodo de comentarios.

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir la aprobación final de la solicitud a menos que se presente una solicitud de audiencia de caso impugnado oportunamente o una solicitud de reconsideración. Si se presenta una solicitud de audiencia oportuna o una solicitud de reconsideración, el Director Ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y la petición a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si envía comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo para que esta solicitud reciba avisos públicos futuros enviadas por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Para ser colocado en la lista de correo permanente y / o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

Todos los comentarios públicos escritos y las solicitudes de reunión pública deben enviarse a la Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 787113087 -o electrónicamente a https://www14.tceq.texas.gov/epic/eComment/ dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.

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

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a https://www14.tceq.texas.gov/epic/eComment/, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a al TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener más información de Sr. Sherwyn Wood en la dirección indicada anteriormente o llamando a Sr. Corey Mullin, Enviro-Ag Engineering, Inc. a (254) 965-3500.

Fecha de Emisión: 3 de noviembre de 2025



Corporate Office: 3404 Airway Blvd. Amarillo TX 79118 Central Texas: 9855 FM 847 Dublin TX 76446

New Mexico: 203 East Main Street Artesia NM 88210

August 20, 2025

TCEQ

Registration, Review and Reporting Division Permits Administration Review Section Water Quality Applications Team, MC-148 PO Box 13087 Austin, TX 78711-3087

Re: Sherwyn Wood Dairy – Permit No. WQ#4843

Erath County, Texas.

Dear Administrative Review Section,

Enclosed please find the Renewal application for the above-mentioned facility. The \$315 application fee was paid electronically, and the voucher is attached. Should you have any questions please do not hesitate to contact me.

Respectfully Submitted,

Jourdan Mullin

Enviro-Ag Engineering, Inc.

Cc: TCEQ Region 4, Stephenville

Shwewyn Wood Dairy

EAE file

30 TAC 321, SUBCHAPTER B APPLICATION, POLLUTION PREVENTION PLAN & CNMP

Sherwyn Wood Dairy Renewal

Prepared For:

Sherwyn and Angela Wood 757 County Road 229 Stephenville, TX 76401

August 7, 2025

Prepared By:





TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

ELECTRONIC WAIVER REQUEST FOR A CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)

A Large CAFO, as defined in the CAFO rules at 30 TAC 321.32(14)(A), must request a waiver from e-reporting requirements codified in 40 Code of Federal Regulations §127.15 OR be required to submit CAFO annual reports electronically.

Are you requesting a waiver from e-reporting requirements?

\boxtimes	Temporary	Waiver
-------------	-----------	--------

□ Permanent Waiver (available to facilities and entities owned or operated by members of religious communities that choose not to use certain modern technologies (e.g., computers, electricity))

□ No, you must submit your application electronically through TCEQ ePermits system (STEERS) at https://www3.tceq.texas.gov/steers/index.cfm. Check How to Apply through STEERS.

If an electronic waiver request is granted, the Applicant(s) seeking authorization, or an authorized permittee(s) may continue to submit CAFO annual reports to TCEQ in a paper format.

Note:

- An approved waiver is not transferrable.
- Each Owner or Operator must request his own waiver.
- Temporary waiver will not extend beyond five years. However, permittees may re-apply for a new temporary waiver, if needed.

State Only CAFOs are exempt from this requirement.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDIVIDUAL PERMIT APPLICATION FOR A CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)

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

SECTION 1. APPLICATION FEE

Minor Amendment - \$150.00
Renewal - \$315.00
New or Major Amendment - \$350.00

Mailed	Check/Money Order Number:	
	Check/Money Order Amount:	
	Name Printed on Check:	
EPAY	Voucher Number: <u>780199 & 780200</u>	
	Conv of Payment Voucher enclosed?	Vec [

SECTION 2. TYPE OF APPLICATION

A.	Coverage:	State Only 🗆		TPDES ⊠
В.	Media Type: V	Water Quality	\boxtimes	Air and Water Quality □
C.	Application Ty	pe: New 🗆		Major Amendment \square
		Renewal		Minor Amendment \square

- **D.** For amendments, describe the proposed changes: Reconfigure the drainage area, remove proposed northeast slurry pit/turnaround, rename south slurry pit to "Concrete Slurry Pad," addition of a new shop building and addition of a manure storage/compost area.
- **E.** For existing permits:

What is the permit number? <u>WQ0004843000</u>

What is the EPA I.D. Number? TX 0129976

SECTION 3. FACILITY OWNER (APPLICANT) INFORMATION

- A. What is the legal name of the facility owner?

 Sherwyn Dallas Wood and Angela Browning Wood
- B. If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to

8/20/25, 11:45 AM TCEQ ePay

Questions or Comments >>

Shopping Cart

Select Fee

Search Transactions

Sign Dut

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 780199

Trace Number: 582EA000681857

Date: 08/20/2025 11:44 AM

Payment Method: CC - Authorization 000003139G

Voucher Amount: \$300.00

Fee Type: CAFO PERMIT - RENEWAL
ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com

IP: 156.146.244.233

Payment Contact Information

Name: JOURDAN MULLIN

Company: ENVIRO-AG ENGINEERING

Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118

Phone: 806-679-5570

Site Information

Site Name: SHERWYN WOOD DAIRY

Site Location: 757 CR 229 STEPHENVILLE TX 76401

Customer Information

Customer Name: SHERWYN WOOD

Customer Address: 757CR 229, STEPHENVILLE, TX 76401

Other Information

Program Area ID: 4843

Close

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Questions or Comments >>

Shopping Cert Select Fee Search Transactions Sign Out

Print this voucher for your records. If you are sending the TCEQ hardcopy documents related to this payment, include a copy of this voucher.

Transaction Information

Voucher Number: 780200

Trace Number: 582EA000681857

Date: 08/20/2025 11:44 AM

Payment Method: CC - Authorization 000003139G

Voucher Amount: \$15.00

Fee Type: 30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE

ePay Actor: JOURDAN MULLIN
Actor Email: jmullin@enviroag.com
IP: 156.146.244.233

Payment Contact Information

Name: JOURDAN MULLIN

Company: ENVIRO-AG ENGINEERING

Address: 3404 AIRWAY BLVD, AMARILLO, TX 79118

Phone: 806-679-5570

Close

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	this entity? CN <u>601313950; CN605783968</u>
C.	What is the contact information for the owner?
	Mailing Address: <u>757 County Road 229</u>
	City, State and Zip Code: Stephenville, TX 76401
	Phone Number: <u>254/965-5142</u> Fax Number: <u>n/a</u>
	E-mail Address: sherwynwood@gmail.com
D.	Indicate the type of customer:
	Individual ☐ Federal Government Limited Partnership ☐ County Government General Partnership ☐ State Government Trust ☐ City Government Sole Proprietorship (D.B.A.) ☐ Other Government Corporation ☐ Other, specify: Click here to enter text. Estate
E.	If the customer type is individual, complete Attachment 1.
F.	Is this customer an independent entity?
	☑ Yes □ No government, subsidiary, or part of a larger corporation
G.	Number of employees: \boxtimes 0-20 \square 21-100 \square 101-250 \square 251-500 \square 501 or higher
H.	For Corporations and Limited Partnerships:
	What is the Tax Identification Number issued by the State Comptroller: Citck here to enter text. What is the Charter Filing Number issued by the Texas Secretary of State: Click here to enter text.
SE	CTION 4. CO-APPLICANT INFORMATION
Co	mplete this section only if another person or entity is required to apply as a co-permittee.
A.	What is the legal name of the co-applicant?
	Click here to enter text.
В.	If the applicant is an existing TCEQ customer, provide the Customer Number (CN) issued to this entity? CN Click here to enter text.
C.	What is the contact information for the co-applicant?
	Mailing Address: Click here to enter text
	City, State and Zip Code: Click here to enter text.

	Pho	ne Number:	Fax Number: Click	here to ente	rtex	t.	
	E-m	ail Address:	Click here to enter	text.			
D.	Ind	icate the typ	e of customer:				
		Individual Limited Par General Par Trust Sole Proprie Corporation Estate	etorship (D.B.A.)			Federal Government County Government State Government City Government Other Government Other, specify:	
E.	If th	ne customer	type is individual,	complete Att	achi	ment 1.	
F.	Is t	his customer	an independent ei	ntity?			
		Yes	□ No governme	nt, subsidiar	y, or	part of a larger cor	poration
G.	Nur □ 0	mber of emp	loyees: □ 21-100	□ 101-250		□ 251-500	□ 501 or higher
H.	For	Corporation	s and Limited Part	nerships:			
	Wha	at is the Tax	Identification Num	iber issued b	y the	e State Comptroller:	Click here to enter
	text	l .					
	Wha	at is the Cha	rter Filing Number	issued by th	e Te	xas Secretary of Stat	e: Click here to enter
	text					-	

SECTION 5. APPLICATION CONTACT INFORMATION

This is the person TCEQ will contact if additional information is needed about this application.

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

Application Contact First and Last Name: Corey Mullin

Title: Consultant Cre

Credentials: Click here to enter fext.

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: Dublin, TX 76446

Phone Number: <u>254/965-3500</u> Fax Number: <u>254/965-8000</u>

E-mail Address: cmullin@enviroag.com

SECTION 6. PERMIT CONTACT INFORMATION

Provide two names of individuals that TCEQ can contact during the term of the permit.

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

Permit Contact First and Last Name: Corey Mullin

Title: Consultant Credentials: Clickhere to enter rext.

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: Dublin, TX 76446

Phone Number: 254/965-3500 Fax Number: 254/965-8000 E-mail Address:

cmullin@enviroag.com

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

Permit Contact First and Last Name: Sherwyn Wood

Title: Owner Credentials: Click here to enter text

Company Name: <u>Sherwyn Wood Dairy</u> Mailing Address: 757 County Road 229

City, State and Zip Code: Stephenville, TX 76401

Phone Number: <u>254/965-5142</u> Fax Number: <u>n/a</u> E-mail Address: <u>sherwynwood@gmail.com</u>

SECTION 7. ANNUAL BILLING CONTACT INFORMATION

Please identify the individual for receiving the annual fee invoices.

Is the billing contact and contact information the same as the Owner or the Co-Applicant identified in Section 3) or Section 4) above?

Owner, Sherwyn and Angela Wood

☐ No, complete this section

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

First and Last Name: Click here to enter text.

Title: Click here to enter text. Credentials: Click here to enter text.

Company Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text, E-mail

Address: Click here to enter text.

SECTION 8. LANDOWNER INFORMATION

A. Landowner where the production area is or will be located

Landowner Name: Sherwyn and Angela Wood

B. Landowner of the land management units (LMUs)

Landowner Name: Sherwyn and Angela Wood, John and Margie Lewis, David Ralph Carey

SECTION 9. PUBLIC NOTICE INFORMATION

A. Individual responsible for publishing the notices in the newspaper

Prefix (Mr., Ms., Miss): Mrs. First and Last Name: Jourdan Mullin

Title: Consultant Credentials: Click here to enter text.

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State and Zip Code: <u>Dublin, TX 76446</u>

Phone Number: 254/965-3500 Fax Number: 254/965-8000 E-mail Address:

jmullin@enviroag.com

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

☐ Fax Number: Click here to enter text.

□ Regular Mail:

Mailing Address: 9855 FM 847

City, State and Zip Code: Dublin, TX 76446

C. Contact person to be listed in the notice

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

First and Last Name: Sherwyn Wood

Title: Owner Credentials: Click here to enter text.

Company Name: Sherwyn Wood Dairy

Phone Number: 254/965-5142

D. Public viewing location

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

Public Building Name: Erath County Extension Office-Erath County Courthouse

Physical Address of Building: 100 Washington St. Room 206

City: <u>Stephenville</u> County: <u>Erath</u> Phone Number: <u>254/965-1460</u>

E. Bilingual Notice Requirement

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

	Is a bilingual education program required by the Texas Education Code at the trest elementary or middle school to the facility or proposed facility? ■ No □
	No , alternative language notice publication is not required; skip to Section 10. Regulated ity (Site) Information.)
2.	Are the students who attend either the elementary school or the middle school

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

Yes ⊠ No □

3. Do the students at these schools attend a bilingual education program at another location?

Yes ⊠ No □

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

Yes ⊠ No □

- 5. If the answer is yes to 1, 2, 3, or 4, public notice in an alternative language is required. Which language is required by the bilingual program? Spanish
- **6.** Complete the <u>CAFO Plain Language Summary Template</u> (English) for CAFO Permit Applications for a new, renewal, major or minor amendment and submit with this application.

If a bilingual education program is required by the Texas Education Code at the nearest elementary or middle school to the facility or proposed facility, also complete the <u>CAFO Plain Language Summary Template</u> (Spanish) or provide a translated copy of the completed English plain language summary in the appropriate alternative language if different from Spanish.

F. Public Involvement Plan Form

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.

SECTION 10. REGULATED ENTITY (SITE) INFORMATION

- A. Site Name as known by the local community: Sherwyn Wood Dairy
- **B.** If this is an existing permitted site, provide the Regulated Entity Number (RN) issued to this site? RN 102586807
- C. Site Address/Location:

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete Item 1.

If the site does not have a physical address, provide a location description in Item 2. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

ENGLISH LANGUAGE TEMPLATE FOR CAFO PERMIT APPLICATIONS

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by the TCEQ Public Participation Plan and Language Access Plan. 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.

- 1) Applicant's Name: Sherwyn Dallas and Angela Browning Wood
- 2) Enter Customer Number: CN601313950; CN605783968
- 3) Name of facility: Sherwyn Wood Dairy
- 4) Enter Regulated Entity Number: RN102586807
- 5) Provide your permit Number: WQ0004843000
- 6) Facility Business: The facility confines 990 head of cattle in which 990 are milking. The facility has sixteen (16) land management units (LMUs) with the following acreages: LMU #1 10, LMU #2 33, LMU #3 53, LMU #4 21, LMU #5 26, LMU #5A 25, LMU #6 59, LMU #7 104, LMU #8 42, LMU #9 61, LMU #10 21, LMU #11 9, LMU #12 12, LMU #13 16, LMU #14 15 and LMU #15 5 acres. One (1) retention control structures (RCSs), one concrete slurry pit and one earthen settling basin. The required capacities are: RCS #1 18.86 ac-ft. There are eight (8) onsite wells. The facility is located in the North Bosque River in Segment No. 1226 of the Brazos River Basin.
- 7) Facility Location: The facility is located on the South side of FM 913 approximately 2.5 miles south of intersection of FM 913 and US Hwy 67; said intersection is located approximately 7 miles south of the intersection of US Hwy 281 and US Hwy 67, in Erath County, Texas.
- 8) Application Type: Individual Permit Renewal
- 9) Description of your request: Sherwyn Wood is submitting a renewal application with the following changes, reconfigure the drainage area, remove proposed northeast slurry pit/turnaround, rename south slurry pit to "Concrete Slurry Pad," addition of a new shop building and addition of a manure storage/compost area.
- 10)Potential pollutant sources at the facility include (list the pollutant sources): Manure, manure stockpiles, wastewater, sludge, slurry, compost, feed & bedding, silage stockpiles, dead animals, dust, lubricants, parlor chemicals, pesticides and fuel storage tanks.
- 11)The following best management practices will be implemented at the site to manage pollutants from the listed pollutant sources (describe the best management practices that are used): stormwater is stored in the lagoon (RCS) until land applied through irrigation and manure and sludge are stockpiled in the drainage area of the RCS until land applied or hauled offsite for beneficial use. Manure and sludge generated by the CAFO will be retained and used in an appropriate and beneficial manner in accordance with a certified site-specific nutrient management plan. Wastewater will be contained in the RCS properly designed ((25-year frequency 10-day duration (25 year/10 day), constructed, operated and maintained according to the provision of the permit. Maintain 100-foot buffer for all irrigation wells or 150-

foot for all supply wells. Dust - control speed and regular pen maintenance. Fertilizers - store under roof and handle according to specified label directions. Fuel Tanks - provide secondary containment and prevent overfills/spills. Dead animals - dispose by a third-party rendering service, buried on-site or compost on-site. Collected within 24 hours of death and disposed within three days.

- 12) Unless otherwise limited, manure, sludge, or wastewater will not be discharged from a land management unit (LMU) or a retention control structure (RCS) into or adjacent to water in the state from a CAFO except resulting from any of the following conditions:
- 1) a discharge of manure, sludge, or wastewater that the permittee cannot reasonably prevent or control resulting from a catastrophic condition other than a rainfall event;
- 2) overflow of manure, sludge, or wastewater from a RCS resulting from a chronic/catastrophic rainfall event; or
- 3) a chronic/catastrophic rainfall discharge from a LMU that occurs because the permittee takes measures to de-water the RCS if the RCS is in danger of imminent overflow.

Street Number and Name: 757 County Road 229 City, State and Zip Code: Stephenville, TX 76401 **Item 2: Site Location Description:** Location description: Click here to enter text. City where the site is located or, if not in a city, what is the nearest city: Click here to enter text. Zip Code where the site is located: Click here to enter text. **D.** County or counties if more than 1: Erath E. Latitude: 32 08' 50" Longitude: 98 05' 29" **F.** Animal Type: \boxtimes Dairy-0241 Sheep/Goats-0214 Beef Cattle- 0211 Auction-5154 Swine-0213 Other, specify: Click here to enter lest. Broiler-0251 Laying Hens-0252 **G.** Existing Maximum Number of Animals: 990 Proposed Maximum Number of Animals: 990 **H.** What is the total LMU acreage? 512 SECTION 11. MISCELLANEOUS INFORMATION A. Did any person who was formerly employed by the TCEQ represent your company and get paid for service regarding this application? Yes \square No 🛛 If yes, provide the name(s) of the former TCEQ employee(s): Click here to enter text. **B.** Is the facility located on Indian Country Lands? Yes 🗆 If yes, do not submit this application. You must obtain authorization through EPA Region 6. **C.** Is the production area located within the protection zone of a sole source drinking water supply? Yes No 🖾 **D.** Is any permanent school fund land affected by this application? Yes \square No 🛛 If yes, provide the location and foreseeable impacts and effects this application has on the land(s). Click here to enter text. **E.** Delinquent Fees and Penalties: Do you owe fees to the TCEQ? Yes 🗆 No 🗵 Do you owe any penalties to the TCEQ? Yes □ No 🛛

Item 1: Physical Address of Project or Site:

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

Click here to enter text.

SECTION 12. AFFECTED LANDOWNER INFORMATION

This section must be completed if the application type is new or major amendment. If the application type is renewal or minor amendment, skip to Section 13.

- A. Landowner map. Attach a landowner map or drawing, with scale, that includes the following. Each landowner should be designated by a letter or number on both the list and the map.
 - The applicant's property boundaries, including onsite and offsite LMUs; and
 - The property boundaries of all landowners within 500 feet of the applicant's property.
- **B.** Landowner list. Attach a separate list of the landowners' names and mailing addresses. The list must be cross-referenced to the landowners map.

C.	Lan	downer list media. Indicate the format of the landowners list.
		Read/Writeable CD
		4 sets of mailing labels
D.	Lan	downer data source. Provide the source of the landowners' names and mailing
	add	resses.
	Cir	k here to opier text.

SECTION 13. ATTACHMENTS

A. All applications

- Supplemental Permit Information Form, if required by instructions on that form
- Current copy of tax records or deed showing ownership of the land
- Lease agreement, if LMUs are not owned by the applicant or co-applicant

B. New, Major amendment, or Renewal

Completed Technical Information Packet (TCEQ-00760).

C. New and Major amendment

Public Involvement Plan Form (TCEQ-20960)

D. Minor Amendment

Attach the following items if applicable:

- Current vicinity map, site map, runoff control map, and LMU map
- RCS design calculations
- Nutrient Management Plan or Land application rate calculations
- Other technical documents affected by the proposed amendment

SIGNATURE PAGE

If co-applicants are required, each co-applicant must submit an original, separate signature page.

Permit Number: <u>WO0004843000</u> Applicant: <u>Sherwyn Dallas Wood</u>

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code

§305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory Name: Sherwyn Dallas Wood

Title: Owner

Signature: Lyn Nalles Wood Date: 8-20-2025

SUBSCRIBED AND SWORN to before me by the said Sheryn Dallas Wood on this 20th day of Asyst , 20 25

My commission expires on the 25th day of February , 20 28

Notary Public

Freth
County, Texas

- Nutrient Management Plan or Land application rate calculations
- Other technical documents affected by the proposed amendment

SIGNATURE PAGE

If co-applicants are required, each co-applicant must submit an original, separate signature page.

Permit Number: <u>WQ0004843000</u>

Applicant: <u>Angela Browning Wood</u>

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code

§305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory Name: <u>Angela Browning Wood</u>	
Title: <u>Owner</u>	
Signature: Angel Browning Wood	Date: 8-20-25
SUBSCRIBED AND SWORN to before me by this 20th day of August My commission expires on the 25th	, 20 25
DE OFTER OR THE STATE OF TEXTS	Notary Public E cath County, Texas

Attachment 1 Individual Information

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

copies of this attachment if both are mulviduals.
Prefix (Mr., Ms., Miss): Mr.
Full Legal Name, including middle name: Sherwyn Dallas Wood
Driver's License or State Identification Number:
State that Issued the License or Identification Number: <u>Texas</u>
Date of Birth:
Mailing Address: 757 County Road 229
City, State and Zip Code: <u>Stephenville, TX 76401</u>
Phone Number: <u>254/965-5142</u> Fax Number: <u>n/a</u>
E-mail Address: sherwynwood@gmail.com

For TCEQ Use Only		4	Table 1	, No.	
Customer Number Regulated Entity Number Permit Number					

Attachment 1 Individual Information

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

copies of this attachment if both are individuals.

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

Full Legal Name, including middle name: Angela Browning Wood

Driver's License or State Identification Number:

State that Issued the License or Identification Number: Texas

Date of Birth:

Mailing Address: 757 County Road 229

City, State and Zip Code: <u>Stephenville</u>, TX 76401 Phone Number: <u>254/965-5142</u> Fax Number: <u>n/a</u>

E-mail Address: sherwynwood@gmail.com

For TCEQ Use Only	TANK VALUE	
Customer Number Regulated Entity Number Permit Number		

CASH LEASE OF FARM LAND, BUILDINGS AND EQUIPMENT

THIS LEASE is entered into this 12 cay of august, 2025,
Between Terry Lewis , landlord, of 5593 FM 913 and Sherwyn Wood , tenant, of 757 (R229 (Address)
1. The landlord hereby leases to the tenant, to use for agricultural purposes, the following-described property, located in <u>Erath</u> County, State of <u>Texas</u> , and commonly known as <u>Lewis</u> Property
and consisting of 15440 acres, more or less, all rights thereto except as specified below: a. The landlord reserves the right to use the following land and buildings: House and Banns and 5 acres
2. The landlord reserves the right of himself, his agents, his employees, or his assigns to enter the farm at any reasonable time for purposes of (a) of consultation with the tenant; (b) of making repairs, improvements, and inspections; (c) of developing mineral resources; and (d) after notice of termination of the lease is given, none of which is to interfere with the tenant in carrying out regular farm operations.
3. The landlord does not convey to the tenant the right to lease or sublet any part of the land or buildings or to assign the lease to any person or persons whomsoever.
4. If the landlord should sell or otherwise transfer title to the land and buildings, he will do so subject to the provisions of this lease.
5. The terms of this lease shall be binding upon the heirs, executors, administrators, and successors of both the landlords and tenant in like manner as upon the original parties. However, in event the lease is for more than one year, the heirs or successors of the senant shall have the option to give written notice of termination effective at the end of the lease year in which the death occurs.
The landlord warrants that he has the right to lease the land and buildings, and will efend the tenant's possession against any and all persons who reserves

7. To improve the land, conserve its resources, and maintain it in a high state of cultivation, the two parties agree as follows:

a. The tenant will maintain the land during his tenancy in as good condition as at the beginning, normal wear and depreciation and damages from causes beyond tenant's

b. The tenant will operate the land in an efficient anc husbandlike way.

c. The tenant will not, without oral consent of the landlord, cut live trees for sale

d. The landlord reserves the right to prevent the production of any crop on any or all land where the production of such crop would clearly damage the land due to excessive erosion or other causes.

e. The tenant will use fertilization practices which will prevent depletion of the essential plant food elements in the soil.

8. The tenant will maintain the buildings and equipment during his tenancy in as good condition as at the beginning, normal wear and depreciation beyond tenant's control

9. The tenant agrees to pay to the landlord as each rent the amount of \$ per year and such payment will be made as follows: The first of May of every year with a 30 day Grace period	
10. The term of this lease shall be	
11. The tenant agrees that he or his agent will possess the land and facilities continuously during the term of the lease.	Y
10 mr.	

12. The tenant agrees to surrender possession of the land, buildings and equipment peaceably at the termination of the lease.

date for giving notice to terminate this lease. Amend rents and alterations to this lease shall be made in writing.
14. This lease shall not give rise to a partnership relationship, and neither party shall have the authority to obligate the other without written consent, except as specifically provided in this lease.
15. Each party agrees that the other party shall in no way be responsible for the debts of, or liabilities for accidents or damages caused by the other party.
16. Willful neglect, failure, or refusal by either party to carry out any substantial provision of this lease shall give the other party the benefits of any proceedings provided by law.
17. Any differences between the parties as to their several rights and obligations under this lease that are not settled by mutual agreement after thorough discussion, shall be submitted for arbitration to a committee of three disinterested persons, one selected by each party hereto and the third by the two thus selected, and the committee's decision shall be accepted by both parties.
Additional agreements: Tenant will have first option to buy if landlord decides to sale
of AU GUNESS WHEREOF, the parties have signed this lease on theday
(Landlord)
Shen (cood)

I Sher WYN WOOD HAUR DAVID CARFY PLACE LEASER 2025

X Jay Cood

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Property Details

Account

Property ID:

R000052854

Geographic ID: R.0644,00105.00,0

Type:

Real

Zoning: Condo:

Property Use:

Location

Situs Address: 1343 CR230

Map ID: 18-16-3

Mapsco;

Legal Description: Acres 191,000, A0644 REED JOHN N;

Abstract/Subdivision: /

Owner

Name;

CAREY DAVID RALPH

Agent:

7/10/25, 10:08 AM

Mailing Address: 1343 CR230

HICO, TX 76457

% Ownership: 100.00%

Exemptions: For privacy reasons not all exemptions are shown online.

■ Property Values

 Improvement Homesite Value:
 \$0 (+)

 Improvement Non-Homesite Value:
 \$0 (+)

 Land Homesite Value:
 \$0 (+)

 Land Non-Homesite Value:
 \$0 (+)

 Agricultural Market Valuation:
 \$1,528,000 (+)

Market Value: \$1,528,000 (=)

Agricultural Value Loss: \$1,506,760 (-)

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ΠP	roperty Land						
Туре	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAF		191.00	8 319 960 00	0.00	0.00	\$1,528,000	\$21 238

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 Assessed Value:
 \$21,240

 Ag Use Value:
 \$21,240

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

Owner: CAREY DAVID RALPH %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	\$1,528,000	\$21,240
903	STEPHENVILLE ISD	\$1,528,000	\$21,240
MTD	MIDDLE TRINITY WATER	\$1,528,000	\$21,240
RER	ERATH ROAD & BRIDGE	\$1,528,000	\$21,240

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Pro Pro	perty Roll Value	e History					
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed	
2025	\$0	\$1,528,000	\$21,240	\$1,528,000	\$0	\$21,240	
2024	\$0	\$1,489,800	\$22,000	\$1,489,800	\$0	\$22,000	
2023	\$0	\$1,719,000	\$17,700	\$1,719,000	\$0	\$17,700	
2022	\$0	\$1,337,000	\$20,610	\$1,337,000	\$0	\$20,610	
2021	\$0	\$897,700	\$23,670	\$897,700	\$0	\$23,670	
2020	\$0	\$840,400	\$24,340	\$840,400	\$0	\$24,340	
2019	\$0	\$764,000	\$24,600	\$764,000	\$0	\$24,600	
2018	\$0	\$676,880	\$24,550	\$676,880	\$0	\$24,550	

Prope	rty De	eed History					
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
6/3/2010			CAREY SUZANNE	CAREY DAVID RALPH			2010- 03152
1/1/1968			COOK GLEN	CAREY SUZANNE	773	423	

\$26,550

\$27,350

\$29,740

\$546,530

\$473,480

\$473,480

\$0

\$0

\$0

\$26,550

\$27,350

\$29,740

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2017

2016

2015

\$0

\$546,530

\$473,480

\$473,480

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■ Property Details

Account

Property ID:

R000052617

Geographic ID: R.0057.00294.00.0

Type: Property Use: Real

Zoning: Condo:

Location

Situs Address;

5593 FM913

Map ID: 18-16-3

Mapsco:

Legal Description: Acres 75,000, A0057 BABCOCK D W;

Abstract/Subdivision: /

Owner

Name:

LEWIS JOHN P & MARGIE ANN

Agent:

Mailing Address:

5593 FM913

STEPHENVILLE, TX 76401-7368

% Ownership:

100.00%

Exemptions: F

For privacy reasons not all exemptions are shown online,

■ Property Values

Improvement Homesite Value:	\$0 (+)
Improvement Non-Homesite Value:	\$0 (+)
Land Homesite Value:	\$0 (+)
Land Non-Homesite Value:	\$0 (+)
Agricultural Market Valuation:	\$600,000 (+)
Market Value:	\$600,000 (=)
Agricultural Value Loss:❷	\$593,100 (-)

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ĦΡ	roperty Land						
Туре	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		75,00	3,267,000.00	0.00	0.00	\$600,000	\$6,900

Appraised Value:❷	\$600,000 (=)
HS Cap Loss: 6	\$0 (-)
CB Cap Loss:	\$0 (-)
Assessed Value:	\$6,900
Ag Use Value:	\$6,900

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Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

7/10/25, 10:05 AM

Owner: LEWIS JOHN P & MARGIE ANN %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	\$600,000	\$6,900
903	STEPHENVILLE ISD	\$600,000	\$6,900
MTD	MIDDLE TRINITY WATER	\$600,000	\$6,900
RER	ERATH ROAD & BRIDGE	\$600,000	\$6,900

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■ Property Roll Value History									
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assesse			
2025	\$0	\$600,000	\$6,900	\$600,000	\$0	\$6,90			
2024	\$0	\$585,000	\$7,200	\$585,000	\$0	\$7,20			
2023	\$0	\$675,000	\$6,450	\$675,000	\$0	\$6,450			
2022	\$0	\$525,000	\$7,650	\$525,000	\$0	\$7,650			
2021	\$0	\$352,500	\$6,850	\$352,500	\$0	\$8,850			
2020	\$0	\$330,000	\$8,180	\$330,000	\$0	\$8,18			
2019	\$0	\$300,000	\$8,780	\$300,000	\$0	\$8,780			
2018	\$0	\$281,500	\$8,700	\$281,500	\$0	\$8,70			
2017	\$0	\$232,800	\$8,100	\$232,800	\$0	\$8,100			
2016	\$0	\$200,900	\$8,030	\$200,900	\$0	\$8,03			
2015	\$0	\$200,900	\$8,030	\$200,900	\$0	\$8,03			

■ Property Deed History

Deed Date	Type	Description	Grantor	Grantee	Volume	Page	Number
4/28/1989	KA		FEARS SUDIE BELL & KIRBY	LEWIS JOHN P & MARGIE ANN	770	113	

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Property Details

Account

Property ID:

R000015599 Geographic ID: R,0057,00192,00.0

Type: Real
Property Use:

Zoning: Condo:

Location

Situs Address: 5662 FM913

 Map ID:
 18-16-3
 Mapsco:

 Legal Description:
 Acres 181,660, A0057 BABCOCK D W; DAIRY

Abstract/Subdivision:

Owner

Name: WOOD SHERWYN D & ANGELA

Agent:

7/10/25, 10.06 AM

Туре

SHED

■ Property Improvement - Building
Type: DB State Code: D2 Value: \$25,062

Description

Mailing Address: 757 CR229

STEPHENVILLE, TX 76401-7350

% Ownership: 100.00%

Exemptions: For privacy reasons not all exemptions are shown online.

Property Values

 Improvement Homesite Value:
 \$3,750 (+)

 Improvement Non-Homesite Value:
 \$173,380 (+)

 Land Homesite Value:
 \$0 (+)

 Land Non-Homesite Value:
 \$0 (+)

 Agricultural Market Valuation:
 \$908,300 (+)

 Market Value:
 \$1,085,430 (=)

 Agricultural Value Loss:
 \$879,230 (-)

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Year Built

2021

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DB DAIRY BARN 968.00 BARN 912.00 SHED SHED 2008 468.00 SHED SHED 2008 2,925.00 CHP HOLD PEN COVERED 2015 1,728.00 ANIMALSHADE AS 2016 880:00 Type: CB State Code: D2 Value: \$44,745 Description Туре Year Built SQFT CB COMMODITY BARN 4,800,00 ANIMALSHADE 2001 2,800.00 AS ANIMALSHADE 2001 2.800.00 MILK TANK MT 1.00 FREE STALL BARN FSB 2021 14,580,00

Type: FSB State Code: D2 Value: \$76,900 Туре Description Year Built SQFT FSB FREE STALL BARN 2003 33,280.00 LOCKED FEED STANCHION FSL 2003 320.00 SHED 2009 SHED 468.00

Type: STG State Code: D2 Value: \$26,587

SHED

Type	Description	Year Built	SQFT
STG	STRG BUILDING	2015	192-00
AS	ANIMALSHADE	2015	432.00
AS	ANIMALSHADE	2015	120,00
AS	ANIMALSHADE	2015	60,00
BARN	BARN	2015	644.00

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Assessed Value: \$206,200
Ag Use Value: \$29,070

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

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SQFT

1,500.00

7/10/25 10:06 444

Owner: WOOD SHERWYN D & ANGELA %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
	Description	Market Value	laxable value
072	ERATH COUNTY	\$1,085,430	\$206,200
903	STEPHENVILLE ISD	\$1,085,430	\$206,200
MTD	MIDDLE TRINITY WATER	\$1,085,430	\$206,200
RER	ERATH ROAD & BRIDGE	\$1.085.430	\$206.200

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SC	SCALES	2015	1.00
SHOP	SHOP	2021	2,500.00
SHED	SHED	2021	1,000.00
Type: AS	Value: \$3,835		
Туре	Description	Year Built	SQFT
AS	ANIMALSHADE	2018	880,00
AS	ANIMALSHADE	2018	880,00
SHED	SHED	2018	468,00
AS	ANIMALSHADE	2018	1,280.00

■ Pi	operty Land						
Type	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		181,66	7,913,110,00	0.00	0.00	\$908,300	\$29,073

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Pro	perty Roll Value	e History				
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assesse
2025	\$177,130	\$908,300	\$29,070	\$1,085,430	\$0	\$206,20
2024	\$177,130	\$908,300	\$29,300	\$1,085,430	\$0	\$206,43
2023	\$163,350	\$908,300	\$24,810	\$1,071,650	\$0	\$188,16
2022	\$163,350	\$908,300	\$27,860	\$1,071,650	\$0	\$191,21
2021	\$112,000	\$726,640	\$30,600	\$838,640	\$0	\$142,60
2020	\$112,000	\$708,470	\$31,790	\$820,470	\$0	\$143,79
2019	\$90,380	\$708,470	\$31,730	\$798,850	\$0	\$122,11
2018	\$88,550	\$666,810	\$31,700	\$755,360	50	\$120,25
2017	\$77,810	\$545,850	\$34,240	\$623,660	30	\$112,05
2016	\$77,500	\$470,080	\$34,990	\$547,580	50	\$112,49
2015	\$73,220	\$470,080	\$37,510	\$543,300	\$0	\$110,73
■ Pro	perty Deed His	tory				
	ed Type∶Descrip ate	tion : Granter	G	rantee	Volume Pag	je Numbe

WOOD GARVIN & OLIVE

WOOD SHERWYN D & ANGELA

WOOD SHERWYN D & ANGELA 360 40

1049 577

1049 563

CARTER CLYDE & CLEO & GUY HUCKABEE

WOOD GARVIN D

WOOD GARVIN DET

11/8/1956

9/11/2001

9/11/2001

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Property Details

Account

Property ID: R000015595 Geographic ID: R,0057,00181,00,0

Condo:

Type: Real Zoning:

Property Use: Location

Situs Address: 757 CR229

Map ID: 18-16-3 Mapsco:

Legal Description: Acres 139.000, A0057 BABCOCK D W; HOUSE & SHEDS

Abstract/Subdivision:

Owner Name:

WOOD SHERWYN D & ANGELA

Agent:

Mailing Address: 757 CR229

STEPHENVILLE, TX 76401-7350

% Ownership: 100.00%

Type Description Acreage

SAE

SAE

Exemptions: For privacy reasons not all exemptions are shown online,

Property Values

 Improvement Homesite Value:
 \$143,960 (+)

 Improvement Non-Homesite Value:
 \$40,990 (+)

 Land Homesite Value:
 \$5,000 (+)

 Land Non-Homesite Value:
 \$0 (+)

 Agricultural Market Valuation:
 \$690,000 (+)

 Market Value:
 \$879,950 (=)

 Agricultural Value Loss:
 \$673,920 (-)

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Trippe so no str

Assessed Value: \$185,935

Ag Use Value: \$16,080

Information provided for research purposes only. Legal descriptions and acreege amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

Owner: WOOD SHERWYN D & ANGELA %Ownership; 100,00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	\$879,950	\$173,935
903	STEPHENVILLE ISD	\$879,950	\$75,935
MTD	MIDDLE TRINITY WATER	\$879,950	\$185,935
RER	ERATH ROAD & BRIDGE	\$879,950	\$173,935

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Prop	erty Improvement - Building		
Type: MA	State Code: E Value: \$143,957		
Type	Description	Year Built	SQFT
MA	MAIN AREA		1,969.00
Р	COVERPORCH		108.00
Р	COVERPORCH		30.00
Р	COVERPORCH		30.00
WH	WELLHOUSE		36.00
DG2F	2CAR FRAME GARAGE DET	2005	704.00
SHED	SHED	2005	792.00
UTIL1	UTILITIES 1		1.00
Type: WA	ARE State Code: D2 Value: \$34,391		
Туре	Description	Year Built	SQF1
WARE	WAREHOUSE		990,00
AS	ANIMALSHADE		800,00
ST	STALLS	2005	1,088.00
ASHE	SHED ATTACHED	2005	375,00
STG	STRG BUILDING	2005	187-00
Type: BA	RN State Code: D2 Value: \$6,598		
Type	Description	Year Built	sqF1
BARN	BARN	2009	960.00
AS	ANIMALSHADE	2009	400.00
AS	ANIMALSHADE	2012	880.00
AS	ANIMALSHADE	2021	1,800.00

Saft Eff Front Eff Depth

0.00

0.00

138.00 6,011,280.00

43,560.00

1.00

0.00

0,00

Market Value Prod. Value

\$690,000

\$5,000

\$16,076

\$0

Pro	perty Roll Value	History				
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed
2025	\$184,950	\$695,000	\$16,080	\$879,950	\$20,095	\$185,935
2024	\$184,950	\$695,000	\$16,630	\$879,950	\$31,810	\$169,480
2023	\$143,520	\$730,000	\$13,040	\$873,520	\$47,270	\$149,29
2022	\$120,750	\$715,000	\$15,120	\$835,750	\$19,180	\$141,69
2021	\$91,830:	\$568,000	\$17,320	\$659,830	\$0	\$125,15
2020	\$91,830 :	\$554,200	\$18,290	\$646,030	\$1,520	\$124,60
2019	\$76,170	\$554,200	\$18,230	\$630,370	\$0	\$110,40
2018	\$69,080	\$517,000	\$18,220	\$586,080	\$0	\$103,30
2017	\$66,540	\$424,000	\$20,360	\$490,540	\$0	\$102,900
2016	\$66,540	\$366,000	\$21,140	\$432,540	\$0	\$102,68
2015	\$65,540	\$366,000	\$23,350	\$432,540	\$0	\$104,89

R Prope	rty D	eed History					
Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
2/15/1995			WOOD RHONDA & ANGELA	OPEN SPACE DAIRY	882	878	
3/24/2005			WOOD SHERWYN D & ANGELA	WOOD SHERWYN D & ANGELA	1215	709	
5/1/1922			CAREY T M ET UX	CAREY FRED	169	326	
9/9/1982			CAREY KENNETH VAUGHAN & REX LYNN	OPEN SPACE DAIRY	608	497	
2/15/1995			OPEN SPACE DAIRY	WOOD SHERWYN D & ANGELA	882	880	
2/17/1995			OPEN SPACE DAIRY	WOOD SHERWYN D & ANGELA	882	1042	

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■ Property Details

Account

Property ID:

R000067915

Geographic ID: R.0057.00215.00.0

Type: Property Use: Real

Zoning: Condo:

Mapsco:

Location

Situs Address:

5662 FM913

 Map ID:
 18-16-3
 Mal

 Legal Description:
 Acres 80.160, A0057 BABCOCK D W;

Abstract/Subdivision:

Owner

Name:

WOOD SHERWYN D & ANGELA

Agent:

Mailing Address:

757 CR229 STEPHENVILLE, TX 76401-7350

% Ownership: 100.00%

Exemptions: For priv

For privacy reasons not all exemptions are shown online.

■ Property Values

 Improvement Homesite Value:
 \$0 (+)

 Improvement Non-Homesite Value:
 \$0 (+)

 Land Homesite Value:
 \$0 (+)

 Land Non-Homesite Value:
 \$0 (+)

 Agricultural Market Valuation:
 \$400,800 (+)

 Market Value:
 \$400,800 (=)

 Agricultural Value Loss:●
 \$391,500 (-)

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■ Property Land						
Type Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE	80.16	3,491,770.00	0.00	0.00	\$400,800	\$9,299

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Appraised Value:

HS Cap Loss:

CB Cap Loss:

Assessed Value:

\$9,300

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents. Please contact the Appraisal District to verify all information for accuracy.

\$9,300

■ Property Taxing Jurisdiction

Ag Use Value:

Owner: WOOD SHERWYN D & ANGELA %Ownership: 100,00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	\$400,800	\$9,300
903	STEPHENVILLE ISD	\$400,800	\$9,300
MTD	MIDDLE TRINITY WATER	\$400,800	\$9,300
RER	ERATH ROAD & BRIDGE	\$400,800	\$9,300

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Property Roll Value History							
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assesse	
2025	\$0	\$400,800	\$9,300	\$400,800	\$0	\$9,30	
2024	\$0	\$400,800	\$9,620	\$400,800	\$0	\$9,62	
2023	\$0	\$400,800	\$7,560	\$400,800	\$0	\$7,56	
2022	\$0	\$400,600	\$8,770	\$400,800	\$0	\$8,77	
2021	\$0	\$320,640	\$10,050	\$320,640	\$0	\$10,05	
2020	\$0	\$312,620	\$10,590	\$312,620	\$0	\$10,59	
2019	\$0	\$312,620	\$10,560	\$312,620	\$0	\$10,56	
2018	\$0	\$284,160	\$10,560	\$284,160	\$0	\$10,56	
2017	\$0	\$228,770	\$11,780	\$228,770	\$0	\$11,78	
2016	\$0	\$196,350	\$12,220	\$195,350	\$0	\$12,22	
2015	\$0	\$196,350	\$11,560	\$196,350	\$0	\$11,56	

■ Property Deed History

Date	Type	Description	Grantor	Grantee	Volume	Page	Number
4/5/2001			NOLAND GLENDA	WOOD SHERWYN D & ANGELA	1032	1060	

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■ Property Details

Account

Property ID:

rty ID: R000075189

Geographic ID: R.0057.00216,00.0

Type: Property Use: Real

Zoning: Condo:

Location

Situs Address:

FM913 (OFF)

 Map ID:
 18-16-3
 Mapsco:

 Legal Description:
 Acres 54,070, A0057 BABCOCK D W;

Abstract/Subdivision:

Owner

Name: WOOD SHERWYN D & ANGELA

Agent: Mailing Address:

ress: 757 CR229

STEPHENVILLE, TX 76401-7350

% Ownership: 100.00%

Exemptions: For privacy reasons not all exemptions are shown online.

■ Property Values

 Improvement Homesite Value:
 \$0 (+)

 Improvement Non-Homesite Value:
 \$0 (+)

 Land Hornesite Value:
 \$0 (+)

 Land Non-Homesite Value:
 \$0 (+)

 Agricultural Market Valuation:
 \$270,350 (+)

 Narket Value:
 \$270,350 (=)

 Agricultural Value Loss:●
 \$263,970 (-)

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M E	roperty Land						
Туре	Description	Acreage	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
SAE		54.07	2,355,289.00	0.00	0.00	\$270.350	\$6.380

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 Appraised Value: ●
 \$270,350 (=)

 HS Cap Loss: ●
 \$0 (-)

 CB Cap Loss: ●
 \$0 (-)

 Assessed Value:
 \$6,380

 Ag Use Value:
 \$6,380

Information provided for research purposes only. Legal descriptions and acreage amounts are for Appraisal District use only and should be verified prior to using for legal purpose and or documents, Please contact the Appraisal District to verify all information for accuracy.

■ Property Taxing Jurisdiction

Owner: WOOD SHERWYN D & ANGELA %Ownership: 100.00%

Entity	Description	Market Value	Taxable Value
072	ERATH COUNTY	\$270,350	\$6,380
903	STEPHENVILLE ISD	\$270,350	\$6,380
MTD	MIDDLE TRINITY WATER	\$270,350	\$6,380
RER	ERATH ROAD & BRIDGE	\$270.350	\$6.380

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■ Property Roll Value History							
Year	Improvements	Land Market	Ag Valuation	Appraised	HS Cap Loss	Assessed	
2025	\$0	\$270,350	\$6,380	\$270,350	\$0	\$6,38	
2024	\$0	\$270,350	\$6,600	\$270,350	\$0	\$6,60	
2023	\$0	\$270,350	\$5,140	\$270,350	\$0	\$5,14	
2022	\$0	\$270,350	\$5,950	\$270,350	\$0	\$5,95	
2021	\$0	\$216,280	\$6,810	\$216,280	\$0	\$6,81	
2020	\$0	\$210,870	\$7,250	\$210,870	\$0	\$7,25	
2019	\$0	\$210,870	\$7,190	\$210,870	\$0	\$7,19	
2018	\$0	\$189,250	\$7,190	\$189,250	\$0	\$7,19	
2017	\$0	\$151,400	\$8,110	\$151,400	\$0	\$8,11	
2016	\$0	\$129,770	\$8,440	\$129,770	\$0	\$8,44	
2015	\$0	\$129,770	\$8,920	\$129,770	\$0	\$8,92	

■ Property Deed History

Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Number
1/23/2014			CARPENTER KATHIE	WOOD SHERWYN D & ANGELA			2014- 00448

TCEQ USE ONLY

Application type:	□ Renewal □ Major Amendment			□ New	
Application type: □ Renewal □ Major Amendment □ Minor Amendment □ New County: Admin Complete Date:					
Agency Receiving SPIF: 🗆 Texas Historical Commission 🗆 U.S. Fish and Wildlife					
☐ Texas Parks and Wildlife ☐ Army Corps of Engineers					

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form is required for all TPDES applications

- 1. Applicant: Sherwyn and Angela Wood
- 2. Permit Number: <u>WQ0004843000</u> EPA ID Number: <u>TX0129976</u>
- 3. Address of the project (location description that includes street/highway, city/vicinity, and county). The facility is located on the south side of FM 913 approximately 2.5 miles south of intersection of FM 913 and US HWY 67; said intersection is located approximately 7 miles south of the intersection of US HWY 281 and US Hwy 67 in Erath County, Texas.
- 4. Provide the name, address, telephone and fax number of an individual that can be contacted to answer specific questions about the property.

First and Last Name: Corey Mullin

Company Name: Enviro-Ag Engineering, Inc.

Mailing Address: 9855 FM 847

City, State, and Zip Code: Dublin, TX 76446

Phone Number: 254/965-3500 Fax Number: 254/965-8000

- 5. County where the facility is located: Erath
- 6. If the property is publicly owned and the owner is different than the permittee/applicant, please identify the owner. n/a
- 7. Identify the name of the water body (receiving waters) and TCEQ segment number that will receive the discharge. North Bosque River in Segment No. 1226 of the Brazos River Basin
- 8. Provide a 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. (This map is required in addition to the map in the administrative report.)
- 9. Provide photographs of any structures 50 years or older on the property.
- 10. Does your project involve any of the following? Select all that apply.
 - ☐ Proposed access roads, utility lines, and construction easements
 - ☐ Visual effects that could damage or detract from a historic property's integrity
 - □ Vibration effects during construction or as a result of project design
 □ Additional phases of development that are planned for the future
 - Sealing of caves, fractures, sinkholes, or other karst features
 - ☐ Disturbance of vegetation or wetlands
- 11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves or other karst features): No proposed construction

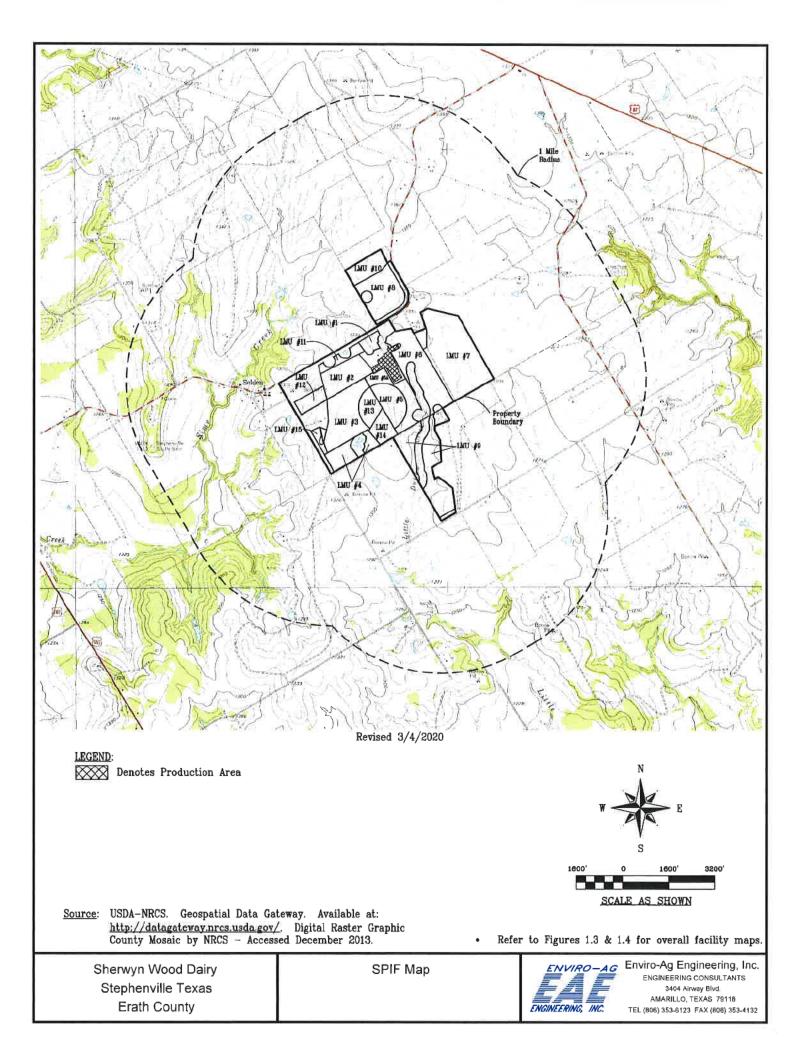
12. Describe existing disturbances, vegetation & land use (plowing, other ground disturbances): The LMUs at the facility are planted in coastal Bermuda grass, small grains and sorghum. Normal farming practices will be utilized to maintain these crops.

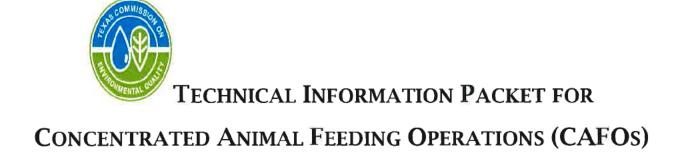
The following applies to New TPDES and Major Amendment to TPDES Permits:

- 13. List construction dates of any buildings or structures on the property: n/a
- 14. Provide a brief history of the property, and name of the architect/builder, if known: n/a

The following applies to New, Amended and Renewal TPDES applications:

- 15. List each Retention Control Structure and its required capacity (Acre Feet). RCS #1 18.65
- 16. Provide the location and number of acres where wastewater and manure are land applied: The applicant has 512 on-site acres for waste and wastewater application. See attached Figure 1.3 for exact locations of LMUs.
- 17. List the maximum number of head to be permitted. 990





Submit this Form with your Individual Permit Application (TCEQ - 000728)

Name of Site: Sherwyn Wood Dairy

TCEQ Permit Number, if assigned: WQ000 4843000

Date Prepared: August 2025

SECTION 1. POLLUTANT SOURCES MANAGEMENT

For each potential pollutant source listed in the table below, provide the management practices utilized or enter "Not Applicable". Management practices should address the collection, storage and final disposition of each potential pollutant source. You may attach your list.

Table 1: Potential Pollutant Sources and Best Management Practices

Potential Pollutant Source	Best Management Practices
Manure and Manure Stockpiles	See Attached BMPs
Wastewater	See Attached BMPs
Sludge	See Attached BMPs
Compost	See Attached BMPs
Feed and Bedding	See Attached BMPs
Silage stockpiles	See Attached BMPs
Dead animals	See Attached BMPs
Dust	See Attached BMPs
Lubricants	See Attached BMPs
Pesticides	See Attached BMPs
Bulk cleaning chemicals	N/A
Inorganic fertilizers	N/A
Fuel storage tanks	See Attached BMPs
Other, specify:	See Attached BMPs
Parlor Chemicals	

SECTION 2. RETENTION CONTROL STRUCTURE DESIGN

A. Design Summary

1) Design Standards, Characteristic, and Values Sources Use	Used	sec
---	------	-----

- ☐ Natural Resource Conservation Service

I. POLLUTANT SOURCES AND MANAGEMENT

B. For each potential pollutant source, provide the management practices utilized.

Note: A Best Management Practice, as defined in 30 TAC §321.32(7), is the schedule of activities, prohibitions of practices, maintenance procedures, and other management and conservation practices to prevent or reduce the pollution of water in the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge, land application, or drainage from raw material storage. The following practices should be updated in the on-site PPP as changes to facility operating procedures occur. Employee training should be provided upon development & implementation of any BMP.

Potential Pollutant Sources:

Potential Best Management Practices (BMPs)

Manure, Sludge, Stockpiles, Slurry,	Temporary (< 30 days) & Permanent Storage (>30 days)
Bedding, Feed Waste & Compost	Store in drainage area of the RCS - OR -
	If not located within drainage area, berm area to contain runoff.
	Annually sample manure/manure stockpiles/compost/slurry for nutrient
	concentrations.
	Manure, Sludge, Slurry and/or Compost -Land application on-site or to third-
	party fields.
	Regular pen maintenance (scraping & drainage)
Dust - Vehicle Traffic	Control speeds around the facility.
	Reduce travel on unpaved facility roads, or manage dust by sprinkling road
	with water and/or a suppressant on an as needed basis.
	Utilize paving products and/or gravel to manage dust on facility roads.
	Utilize dust abatement measures for feed handling equipment, Utilize choke
	feeding when handling feed ingredients & Utilize feed ingredients, such as
Dust - Feed Handling/Processing	moisture or other additives, to manage dust.
Feedstuff/Silage Stockpiles	Contain leachate in an earthen berm or in the RCS
	Minimize feed spoilage & utilize plastic covers or roofed areas for storage
	when applicable.
Lubricants/Pesticides/Herbicides/Parlor Chemicals	Store under roof
	Handle and dispose according to label directions
Fuel Tanks	Provide secondary containment
	Prevent overfills/spills
Wastewater	Store in RCS
	Land application according to NUP/NMP
	Land application will not occur during periods of saturation or frozen
	conditions (except in the event of imminent overflow)
	Annually sample for nutrient concentrations
	Maintain liner and capacity certifications
	Maintain adequate capacity as determined by the pond marker schematic
Dead Animals	Disposed by a third-party rendering service or composted on-site
	Collected within 24 hours of death and disposed within three days of death

2) Total Number of Animals:

In Open Lots: 990 In Buildings: 990

3) Animal Housing Location, hours/day:

Open Lots: 21 Buildings: 3

- 4) Average Liveweight, pounds per head: 1,400lbs
- 5) Volatile Solids Removed by Separator System: <u>50%</u>
- 6) Volatile Solids Loading Rate, lbs/day/1000 ft³: N/A

7) Spilled Drinking Water, gallons/day:

Included in cleanup

8) Water for Cleanup, gallons/day:

15,840 gal/day

9) Water for Manure Removal, gallons/day:

Included in cleanup

10) Recycled Wastewater, gallons/day:

o (vacuum)

B. Wastewater Runoff

- 1) Design Rainfall Amount, inches: 12.10
- 2) Design Rainfall Event:
 - □ 25-year, 24 hour
 - □ Soil Plant Air and Water (SPAW) Field and Pond Hydrology Model
 - ⊠ 25-year, 10 day
 - ☐ Other; specify: Click here to enter text.

C. Retention Control Structure(s) (RCS) Volume Allocations

Table 2. RCS Volume Allocations (Acre-Feet)

RCS	Design	Process	Minimum	Sludge	Water	Required	Actual
Name	Rainfall	Generated	Treatment	Accumulation	Balance	Capacity	Capacity
	Event	Wastewater	Volume				
	Runoff						
1	10.34	1.46	0.00	4.19	2.67	18.65*	28.47
						*Rounded	
						Figure	

Indicate which RCSs are in-series: none

D. RCS Liner or Lack of Hydrologic Connection Certification

Table 3: RCS Hydrologic Connection

RCS Name	Construction Date	Type of Hydrologic Connection Certification
RCS #1	2010	Liner Cert., Norman Mullin, P.E., 2010
Settling Basin	2007	Liner Cert., Norman Mullin, P.E., 2007

Ε.	Plava	Lakes
J. / .	I ILLY CL	Luico

Are any playa lakes used for RCSs?	Yes □	No ⊠

SECTION 3. MANURE, SLUDGE, AND WASTEWATER HANDLING

A.	Mar	nure:			
	1)	Use or Disposal Method:			
		□ Land Application to LMUs			
		□ Transfer to other persons			
		□ Third Party Fields			
		Other; specify: Click here to enter text.			
	2)	Land Application Location:			
		oxtimes Onsite $oxtimes$ Offsite $oxtimes$ Not Applicable			
	3)	Composting Location:			
		oxtimes Onsite $oxtimes$ Offsite $oxtimes$ Not Applicable			
В.	Slu	dge:			
	1)	Use or Disposal Method:			
		□ Land Application to LMUs			
		□ Third Party Fields			
		□ Other; specify: Click here to enter text.			
	2)	Land Application Location:			
		oxtimes Onsite $oxtimes$ Offsite $oxtimes$ Not Applicable			

C. Wastewater:

- 1) Use or Disposal Method:
 - □ Land Application to LMUs
 - □ Total Evaporation
 - ☐ Third Party Fields
 - □ Other; specify: Click here to enter text.
- 2) Land Application Location:
 - ☑ Onsite ☑ Offsite □ Not Applicable

D. Land Application Summary from the Nutrient Management Plan

For each Land Management Unit (LMU), provide the name, acre, crops/yield goals and application rates on Table 4 below. Add rows if needed or attach additional pages.

Table 4: Land Management Unit Summary from the Current NMP

			Application Rate (Ac-
LMU Name	Acre	Crop(s) and Yield Goal(s)	ft/Ac/Year OR
			Tons/Ac/Year)
1	10	Coastal Graze 1AU/1ac; SG Mod	25.4 tons/ac/yr
		Graze M	
2	33	Coastal Graze 1AU/1ac; SG Mod	23.4 tons/ac/yr
		Graze H	
3	53	Coastal Graze 1AU/1ac; SG Mod	25.4 tons/ac/yr
		Graze M	
4	21	Coastal Graze 1AU/1ac; SG Mod	23.4 tons/ac/yr
		Graze H	
5	26	Coastal Graze 1AU/1ac; SG Mod	0.558 ac-ft/ac/yr
		Graze M	
5A	25	Coastal Graze 1AU/1ac; SG Mod	8.1 tons/ac/yr
		Graze H	
6	59	Silage-Sorg 7-10T; SG Green Chop	18.7 tons/ac/yr
		6-7T	
7	104	Silage-Corn 16-20T; SG Silage 5-7T	18.7 tons/ac/yr
8	42	Silage-Corn 16-20T; SG Silage 5-7T	18.7 tons/ac/yr
9	61	Silage-Corn 16-20T; SG Silage 5-7T	24.3 tons/ac/yr

LMU Name	Acre	Crop(s) and Yield Goal(s)	Application Rate (Ac- ft/Ac/Year OR Tons/Ac/Year)
10	21	Coastal GC (30% DM) 9-11T; SG GC 6-7T M	24.3 tons/ac/yr
11	9	Coastal Graze 1AU/1ac; SG Mod Graze M	24.3 tons/ac/yr
12	12	Coastal Graze 1AU/1ac; SG Mod Graze H	7.7 tons/ac/yr
13	16	Coastal Graze 1AU/1ac; SG Mod Graze M	0.558 ac-ft/ac/yr
14	15	Coastal Graze 1AU/1ac; SG Mod Graze H	22.3 tons/ac/yr
15	5	Coastal Graze 1AU/1ac; SG Mod Graze M	24.3 tons/ac/yr

- 1) Wastewater production, ac-in/year: 440.52 ac-in/yr (Table 2.3, Col. 4)
- 2) Estimated Wastewater application, ac-in/year: 192.72 ac-in/yr (Table 2.3, Col. 10)
- 3) Manure production, tons/year: 3,614 tons/yr (Table 2.1)
- 4) Estimated manure application, tons/year: 3,614 tons/yr (NMP)
- 5) Estimated manure transferred to other persons, tons/year: \underline{o}

E. Floodplain Information

Is any part of the production area within a 100-year floodplain? Yes □ No ☒
 If YES, describe management practices to protect the sites. Click here to enter fext
 Is land application or temporary storage of manure in a 100-year floodplain or

near a water course? Yes \boxtimes No \square If YES, describe management practices. Vegetative buffers shall be maintained between

If YES, describe management practices. <u>Vegetative buffers shall be maintained between</u> all waters of the state and any waste/wastewater application.

F. Soil Limitations

Table 5: Soil Limiting Characteristics and Best Management Practices

Soil Types	Limiting Characteristics	Best Management Practices
BdC	Depth to Bedrock Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.
HoB, DeB	Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). No land application to inundated soils.
Ма	Depth to Bedrock Droughty	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.
PcB, PcC	Droughty Depth to Bedrock Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.
Pd	Droughty Depth to Bedrock Slow Water Movement Large Stones on the Surface	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.

G. Well Protection

Table 6: Water Well Status and Protective Measures

Well ID	Well Type	Producing or Non-	Open, Cased,	Protective
Number	wen Type	Producing	or Capped	Measures
1	Domestic	Producing	Cased	Maintain 150-ft
				Buffer
2	Domestic	Producing	Cased	Maintain 150-ft
				Buffer
3	Domestic	Producing	Cased	Maintain 150-ft
				Buffer
4	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
5	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
6	Domestic	Producing	Cased	Maintain 150-ft
				Buffer
7	Domestic	Producing	Cased	See Attached
				Approved Well
				Buffer Exception
8	Domestic	Producing	Cased	Maintain 150-ft
				Buffer

SECTION 4. AIR AUTHORIZATION SUMMARY

A. Type of Air Authorization

Air Standard Permit in 30 TAC § 321

☑ Permit By Rule in 30 TAC Chapter 106 Subchapter F

☐ Individual Air Quality Permit

If Air Standard Permit is selected, then complete Sections B and C below.

B. Indicate the AFO Status and Buffer Option.

Opera	ition started after August 19, 1998:
	½ mile buffer*
	¼ mile buffer* and an odor control plan
	tion started on or before August 19, 1998: ¼ mile buffer*
	odor control plan

*A written letter of consent from an affected landowner may be used in lieu of meeting the buffer distances specified.

C. Odor Receptors

Identify the number of occupied residences or business structures, schools (including associated recreational areas), places of worship, or public parks located within the following distances from permanent odor sources as defined in 30 TAC §321.32(43):

0 - 1/4 mile: Click here to enter text.

14 - 1/2 mile: Click here to enter text.

½ - 1 mile: Click here to enter text.

SECTION 5. ATTACHMENTS

A. Maps

- 1) Site Map
- 2) Land Management Unit Map
- 3) Vicinity Map
- 4) Original United States Geological Survey 7.5 Minute Quadrangle Map
- 5) 100 Year Floodplain Map (if applicable)
- 6) Runoff Control Map
- 7) Natural Resource Conservation Service (NRCS) Soil Survey Map

B. Professional Certifications

- 1) Recharge Feature Certification Statement and Supporting Documents
- 2) RCS Design Calculations (Water Nutr, Animal Waste Management (AWM), or equivalent)
- 3) RCS As-Built Capacity Certifications (if constructed)
- 4) RCS Hydrologic Connection Certifications (if constructed)

C. Land Application

- 1) Nutrient Management Plan
- 2) Nutrient Utilization Plan. If the NUP is already approved, include the approval letter.
- 3) Copy of Annual Soil Sampling Analyses (used for the NMP that was submitted with the application)

4) Copy of Annual Manure and Wastewater Analyses (used for the NMP that was submitted with the application

D. Air Standard Permit Documentation (if required)

- 1) Area Land Use Map,
- 2) Odor Control Plan, if applicable
- 3) Written Consent Letters, if applicable

E. Groundwater Monitoring (if required)

- 1) Groundwater Monitoring Plan
- 2) Groundwater Monitoring Analyses

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1.0 FACILITY MAPS

1.1 Vicinity Map

Figure 1.1, Vicinity Map, is a general highway map generated in AutoCAD using Secondary roads data from geospatial Data Gateway at http://datagateway.nrcs.usda.gov/ (retrieved 2020). The location of the facility is depicted on the map.

1.2 USGS Quadrangle Map

Figure 1.2, entitled 7.5-Minute USGS Map is a seamless, high-quality copy of the 7.5-minute USGS quadrangle map (Johnsville, TX, quadrangle) that shows the boundaries of land owned, operated, or controlled by Sherwyn Wood Dairy and used as part of the concentrated animal feeding operation; and all springs, lakes, or ponds located on-site and within 1 mile of the property boundary.

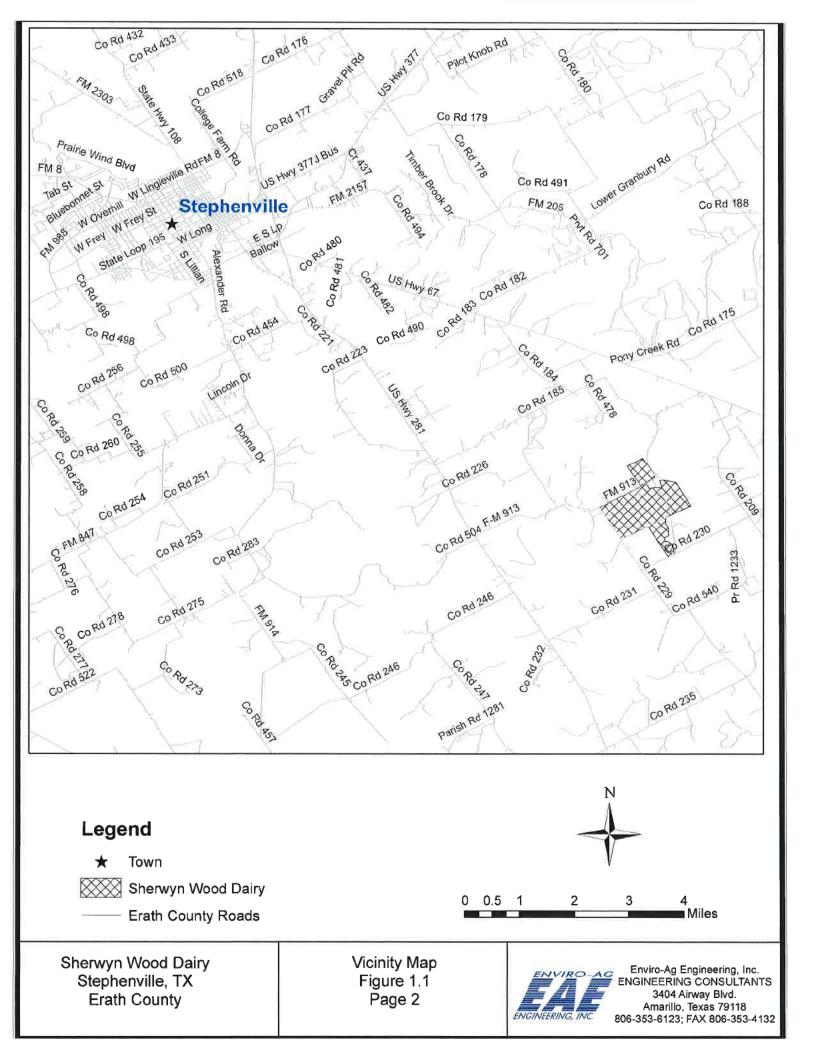
1.3 Site Map

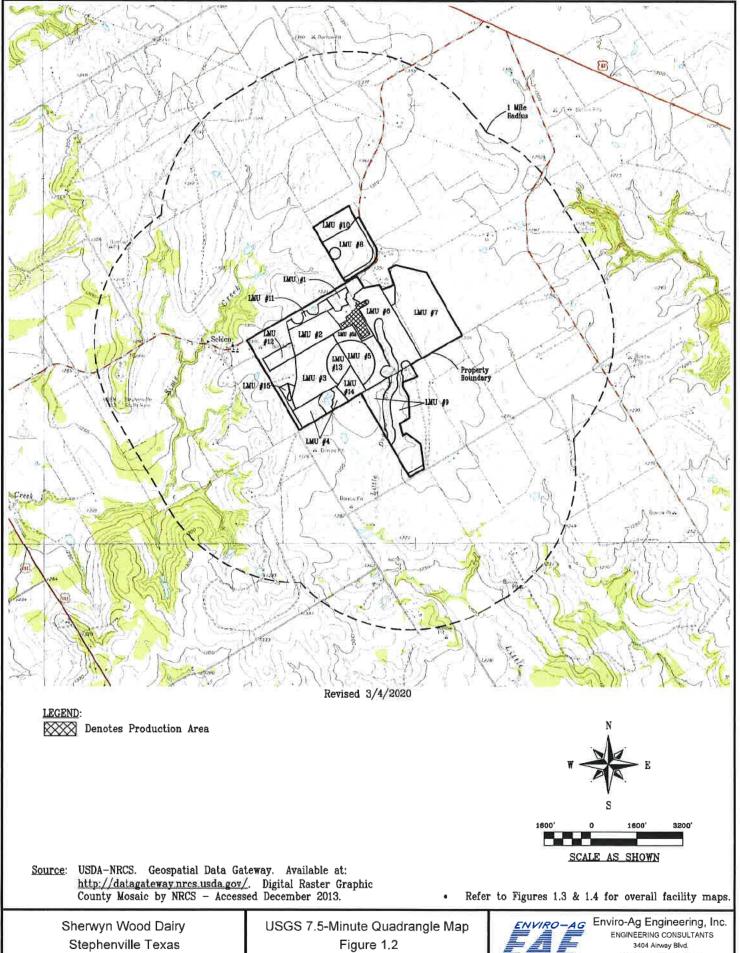
Figure 1.3, Site Map, is a scaled drawing of the entire property to be permitted showing the locations of the following information:

- Pens/Open Lots
- Barns
- Retention Control Structures
- Land Management Units
- Buffer zones
- Wells
- Freshwater Ponds
- Caliche Pit
- Berms/Diversions
- Milking Parlor
- Manure/Compost Storage Areas
- Silage Storage

1.4 Runoff Control Map

Figure 1.4 is a scaled drawing of the production area showing the pens, barns, wells, RCSs, calf hutch area, silage storage area, permanent manure storage and compost areas, drainage area boundaries and flow directions.



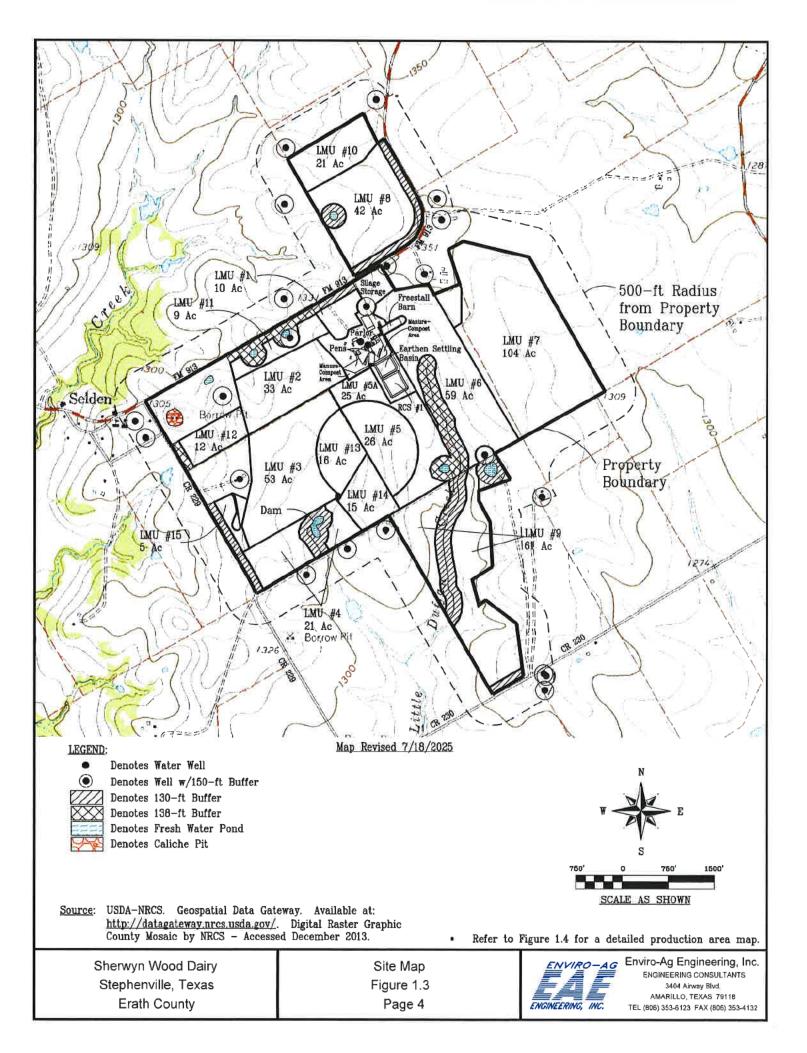


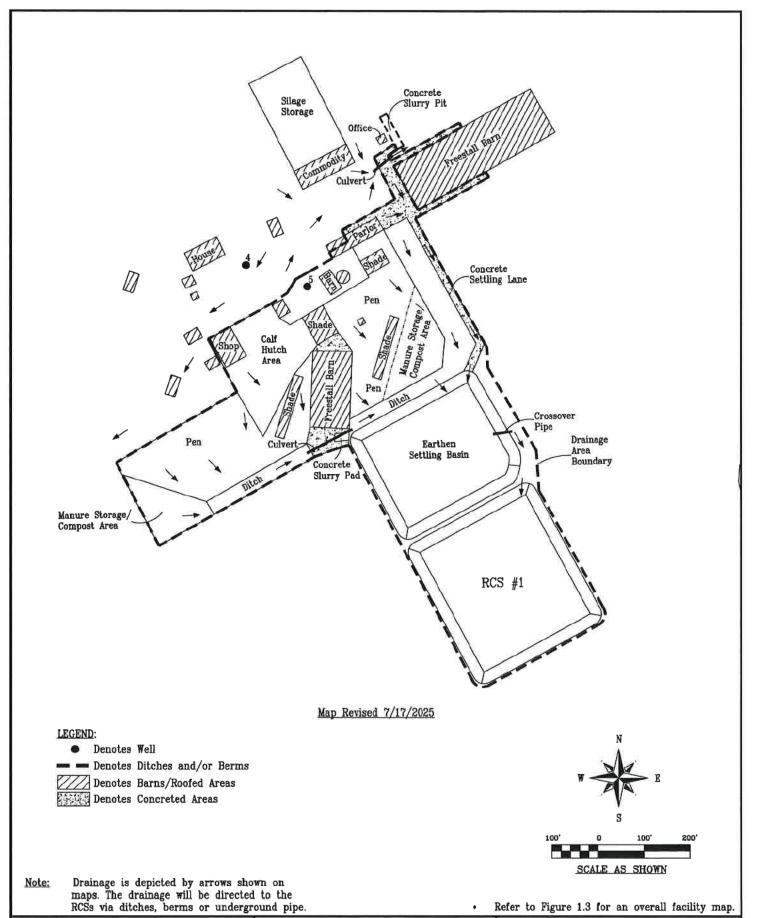
Erath County

Page 3



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Sherwyn Wood Dairy Stephenville, Texas Erath County Runoff Control Map Figure 1.4 Page 5



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2.0 CALCULATIONS & SPECIFICATIONS

2.1 Facility Overview

The existing facility consists of pens, freestall barns, a milking parlor, one earthen settling basin, one concrete slurry pit and one retention control structures to confine 990 head, of which 990 head are milking.

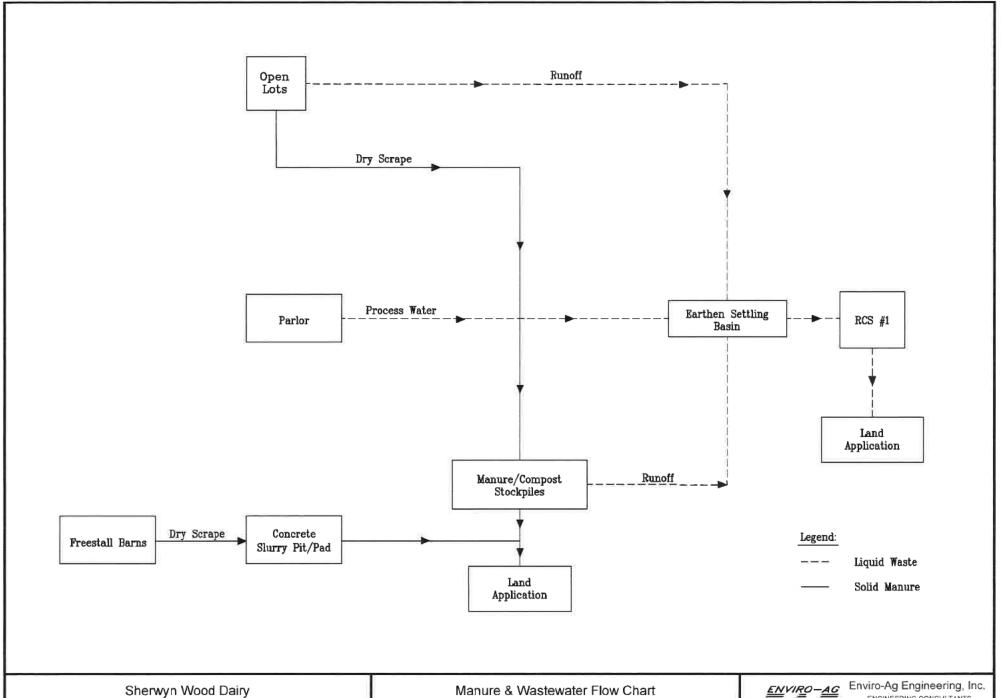
This amended application is to reconfigure the drainage area, remove proposed northeast slurry pit/turnaround, rename south slurry pit to "Concrete Slurry Pad," added new shop building and addition of a manure storage/compost area. The existing manure and/or wastewater storage structures have been certified as meeting TCEQ requirements for soil liner. Figure 2.1, Manure & Wastewater Flow Chart, shows the waste handling procedures and storage practices at the facility.

2.2 Manure Production

Table 2.1, As-Excreted Manure Characteristics Existing Dairy Facility, is included as a summary of the annual manure and nutrient production for the facility. The totals in Table 2.1 represent as-excreted manure and nutrient values for the maximum head count shown in the application.

Note: This data is intended for planning and design purposes and is not to be used for whole-farm nutrient mass balance calculations.

6



Sherwyn Wood Dairy Stephenville, Texas Erath County Manure & Wastewater Flow Chart Figure 2.1 Page 7



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ESTIMATED MANURE PRODUCTION for a DAIRY FACILITY

Table 2.1 ENVIRO-AG ENGINEERING, INC.

NAME OF CAFO: Sherwyn Wood Dairy

LOCATION: Erath County DATE: August-25

MANURE PRODUCTION CRITERIA (a)			
FACILITY TOTAL	Milkers	Milkers in	Total
	in Parlor	Dry Lots/Freestall*	
1. Maximum Number of Animals Confined (head):	990	990	990
2. Confinement period, hrs/hd/day	3.0	21.0	24
3. Percent of time in Confinement	13%	88%	100%
4. Total Manure Production, lbs/day	18,563	129,938	148,500
5. Total Solids Production, lbs/day	2,475	17,325	19,800
6. Manure Production, tons/year	452	3,162	3,614
7. Volatile Solids Production, lbs/day	2,104	14,726	16,830
8. Total Nitrogen Production, lbs/day	123	858	980
9. Total Phosphorus, P2O5 lbs/day (b)	48	337	385
10. Total Potassium, K2O lbs/day (b)	34	239	273

NOTES:

- * Freestall Barns are vacuumed/scraped for manure removal.
- (a) Manure and nutrient production values are taken from American Society of Agricultural and Biological Engineers Data: (ASABE D384.2 MAR05_R2010) Manure Production and Characteristics, Table 1.b Section 3. Production values given in terms of lb/day-animal (wet-basis).
- (b) The ASAE Manure Production and Characteristics Tables give P and K in the elemental forms. Convert to P2O5 by multiplying by 2.29 and to K2O by multiplying by 1.2.

2.3 Process-Generated Wastewater Volume

The primary source of process-generated wastewater is wash water from the milking parlor operations, which is directed into a concrete settling lane then into the earthen settling basin and then into RCS #1. The freestall barns are vacuumed for manure removal. All open lot pens are dry scraped for manure removal. The volume of process wastewater (including wet manure from the milking parlor) generated daily is estimated to be 16 gallons per head (based on data from Sherwyn Wood Dairy). The design storage volume in RCS #1 for process-generated wastewater is 30 days and is calculated in Table 2.2.

2.4 25-Year, 10-Day Rainfall Storage Volume

In accordance with 30 TAC §321.42(c)(1), RCS #1 is designed to maintain a margin of safety to contain the runoff and direct precipitation from the 25-year, 10-day storm event for this location, which is 12.10 inches of rainfall. Drainage area runoff volumes are calculated using the SCS method with curve numbers (CN) selected based on soil type and land use. The pen area runoff and compost area were calculated using a CN of 90, the pond area was calculated using a CN of 100, and the adjacent areas were calculated a CN of 85. Roofed/concrete areas were calculated using a CN of 100. Runon from areas outside the control facility is directed away from the RCS. Table 2.2 shows the calculated storage volume required for the rainfall runoff from a 25-year, 10-day storm.

2.5 Sludge Accumulation Volume

Sludge accumulation from the milking parlor wash water was calculated using a rate of 0.073 cubic feet of sludge per pound total solids (from USDA-NRCS Agricultural Waste Management Handbook) and a sludge storage period of 5 years. Parlor waste/wastewater is directed to an earthen settling basin, with an estimated collection/removal efficiency of 50% (Midwest Plan Services) to reduce the amount of solids entering the RCSs, thereby reducing the demand for sludge storage. The required sludge accumulation volume calculations are shown in Table 2.2

2.6 Water Balance Model

Table 2.3, Water Balance Model, estimates the inflows and withdrawals from RCS #1 including runoff, direct rainfall, process-generated wastewater, evaporation, and irrigation withdrawal based on crop demand in accordance with 30 TAC §321.38(e)(7)(C). Actual pond withdrawal amounts will vary with changing weather conditions. An additional volume is included in the RCS to provide flexibility in managing RCS levels.

2.7 RCS Management Plan

A RCS Management Plan was developed by a licensed Texas professional engineer and has been implemented to incorporate the margin of safety, as specified in 30 TAC

§321.42(g). The plan includes the elements specified in §321.42(g)(1)-(6), and a copy is maintained in the onsite PPP.

REQUIRED STORAGE VOLUMES FOR RUNOFF RETENTION CONTROL STRUCTURE

Table 2.2 ENVIRO-AG ENGINEERING, INC.

NAME OF CAFO. LOCATION DATE

Sherwyn Wood Dairy Erath County August-25

RUNOFF and STORAGE REQUIREMEN PROCESS GENERATED WASTEAWASTE		
Parlor Wash Water (a)	(gal/head/day)	16
No. of Head in Parlor		990
Volume of Process Water	(gal/day)	15,840
Design Storage Period	(days)	30
Process Water Volume:	(ne-fi)	1.46
RAINFALL VOLUME		
Drainage Area Characteristics:	CN	(acres)
Pen Area;	90	3:14
Adjacent Areas;	85	1.32
Roof/Concrete Aren	100	1.39
RCS/SB Surface Areas	100	4.93
Total Drainage Area		10.78
25-year, 10-day rainfall:	(inches)	12.10
Runoff Volume Determination (b)	(inches)	(ac-ft)
Pen Area	10.86	2.84
Adjacent Areas:	10 21	1.12
Roof Area	12.10	1.40
RCS/SB Surface Areas:	12 10	4.97
Rainfall Volume:	(ac-ft)	10,34
SLUDGE VOLUME		
Manure Produced in Parlor.	(lb/day)	2,475
Settling Basin Efficiency (%) (c):	,,,	50%
Adjusted Dry Manure Production	(lb/day)	1,238
Sludge Accumulation Rate (d)	(cufi/lb)	0 073
Sludge Accumulation Period	(years)	5
Sludge Volume from Parlor:	(nc-ft)	3.78
Percent Solids Content of Runoff-	(percent)	J.50%n
Mean Annual Runoff:	(inches)	14.63
Contibuting Drainage Area:	(acres)	4.46
Sediment Storage Period	(years)	5
Runoff Sludge Volume (e):	(ac-ft)	0.41
TOTAL RCS VOLUME REQUIRED		
Process Water Volume:	(ac-fl)	1.46
Total Studge Volume:	(ac-ft)	4.19
Rainfall Volume;	(ac-ft)	10.34
Additional from Water Balance:	(ac-II)	2,67

Total Required RCS #1 Volumer NOTES

(a) Based on site-specific data from Sherwyn Wood Dairy

(b) Using SCS method Where:

S = (1000/CN) - 10 $Q = ((1 - 0.2S)^2)/(1 + 0.8S)$ S = Potential maximum retention after runoff begins(in)

Q = Runoff (in)

I = 25-year, 10-Day rainfall (in)
CN = Curve Number from SCS 210-VI-TR-55,

- (c) Midwest Plan Service, 1983, Revised 1987 (Waste Management, page 702.11)
- (d) Sludge accumulation rate taken from Table 1, ASABE Standards (ASABE EP 403 4 Feb 2011).
- (e) USDA Agricultural Field Waste Handbook, Kansas, Part 651_1082, Suggested procedures for sediment volume estimation

NOTE: Calculations were performed in Microsoft Excel using floating point arithmetre in order to maintain the accuracy of the data. Any inconsistencies in rounding of the displayed values are not to be construed as errors in the calculation. For more information, please refer to http://support.microsoft.com/kb/42980

WATER BALANCE MODEL IRRIGATION AND EVAPORATION for RCS #1

ENVIRO-AG ENGINEERING, INC. Table 2.3

NAME	Sherwyn Wood Dairy	úry		HYDROLOGIC CHARACTERISTICS	HARACTERIST	S			_	RRIGATION CE	IRRIGATION CELL VOLUME SUMMARY DATA	WMARY DATA		
LOCATION	Erath County			Pen Area (acres):			3.14		•	25-Year, 10-Day R	25-Year, 10-Day Rainfall Volume (ac-ft):	-#h:		10.3+
DATE:	August-25			Adjacent Areas (acres):	res):		1.32			Process Generated	Process Generated Wastewater Volume (ac-ft):	ne (ac-ft):		1.46
				Paved/Roof Area (acres):	acres):		1.39		,	Sludge Accumulat	Sludge Accumulation Volume (ac-ft):			4.19
				Total RCS/SB Surface Area (acres):	face Area (acres):		4.93		7	Additional Volume (ac-ft):	e (ac-ft):			2.67
				Total Imigated Area	a (acres)(12):		84	84		Total Required Capacity (ac-ft):	pacity (ac-ft):			18.65
				Cropping scheme:			Coastal	Winter Wheat						
				Effective Evaporation Surface Area (acres):	ion Surface Area	(acres):	4.19							
		RCS IN	RCS INFLOW CALCULATIONS	ATIONS			HYDRAULICC	HYDRAULIC CROP DEMAND CALCULATIONS	ALCULATIONS			RCS STORAC	RCS STORAGE SUMMARY	
	6	(2)	(2)	(3)	(4)	(5)	(9)	(9)	(2)	(7)	(8)	(6)	(10)	(11)
MONTH	(inches)	(inches)	(inches)	(ac-ft)	(ac-ft)	(inches)	(inches)	(inches)	(ac-ft)	(ac-ft)	(inches)	(ac-ft)	(ac-ft)	(ac-ft)
													start value>	61.4
NYT	1.55	0.23	90.0	131	2.39	1.55	2.10	2,74	3.86	8.34	2.37	0.83	1.56	4.19
FEB	1.89	0.39	0.14	1.36	2.48	1.86	2.46	3.11	4.17	8.72	2.70	0.94	1.53	4.19
MAR	2,16	0.54	0.23	1.51	2.81	2.10	4,06	4.97	13,75	20.12	4.27	6+'1	1.32	61.4
APR	2.89	1.00	0.53	1,46	3.30	2.65	4.98	5,74	16.32	21.64	5.19	1.8.1	61.19	4.19
MAY	4.35	2:10	1.37	151	4.50	3.52	5.73	5.33	15,49	12.69	5.24	1.83	7.67	61.4
CN	3,23	1.24	0.71	951	3.56	2.88	6.82	3.22	27.61	2.41	7.03	2,45	₹	4.19
70,	2.12	0,52	0.21	151	2.78	2,06	7.66	00'0	39,18	0.00	8.23	2.78	00'0	4.19
AUG	2.24	0.59	0.36	1.51	2.87	2.16	7.56	0.00	37,79	0.00	7.73	2,70	0,17	4.19
SEP	3.05	1.1	19'0	1.46	3.42	2:76	5.78	0.00	21.15	000	5.97	3.08	1.34	61-7
	3.20	1.22	69.0	151	3.59	2.86	4.29	2.15	10.03	00'0	1.91	1.71	1.87	617
NOV	1.90	0.40	0:15	1.46	2.58	1.87	18.0	1,70	6.56	00'0	3.32	1.16	1.42	4.19
DEC	1.62	0.26	0.07	1.51	2,44	1.62	2,24	2,33	4.37	5.00	2.47	0.86	1.57	4.19
TOTALS	30.30	0 50	100	10.00	100.00	40.00								
2000	24-00	11-11	3,04	17.74	30.71	27.58	20.49	31.29	200.29	18.92	11.65	20.66	16.06	

- (1) AVERAGE PRECIPITATION Average precipitation taken from the Texas Water Development Board, Ertah County, Quad #509, retrieved August 5, 2025.
- (2) RUNOFF PENS AND ADJACENT AREA Runoff from pens, adjacent areas calculated using SCS Curve Number Method adjusted from 1 to 30-day Curve Number (Pen CM-77, Adj CN-67), (Ref. NRCS Animal Watte Management Software Help Fills-
 - Program Documentation for Runoff).
 - (3) INFLOW Inflow is calculated from process generated wastewater. Table 2,2.
- (4) TOTAL INFLOW Total Inflow is calculated as that volume of rainfall that falls on the RCS and process water that enters the RCS.
- (5) RAINFALL ON IRRIGATED AREA Effective monthly rainfall on the imigated area calculated using SCS Curve Number Method adjusted from 1 to 30-day Curve Number (Irr. CN-58). (Ref. NRCS Animal Waste Management Software Help File-Program Documentation for Runoff).
 - (6) CONSUMPTIVE USE values from Bornelli, et al., 1998. Mean Crop Consumptive Use and Free-Water Evaporation for Texas, Dept. of Civil Engineering, Texas Tech University, Lubbock, Texas. Tables 16 and 25. (7) NET CROP DEMAND - Net Crop Demand = ((Cousumptive Use(6) - Effective Rainfall(5))/12) x Irrigated Area.
 - (8) MONTHLY LAKE SURFACE EVAPORATION Average monthly Take surface evaporation taken from the Texas Water Development Board, Erath County, Quad #509, retrieved August 5, 2025.
 - (9) NET POND EVAPORATION Net Evaporation from the water surface is taken as (Monthly Lake Surface Evap/12) x (RCS Surface Area).
- (10) ACTUAL WITHDRAWAL Actual Withdrawal from the irrigution cell not to exceed Net Crop Demand. (No consideration given for nutrient demand of erop)
- (11) STORAGE AT END OF MONTH Storage volume in the irrigation cell at the end of the month. The storage calculated in this column should not encroach in the volume reserved for the 25-year, 10-day rainfall event.

NOTE: Calcutations were performed in Microsoft Excel using floating point arithmetic in order to maintain the accuracy of the data. Any inconsistencies in rounding of the displayed values are not to be construed as errors in the calculation. For more information, please refer to http://support.nicrosoft.com/kb/42980



Firm No. F-2507 Page 12

3.0 FACILITY INFORMATION

3.1 Required Certifications

RCS #1 and the earthen settling basin have been certified by a licensed Texas professional engineer as meeting the liner requirements of the TCEQ. Existing liner and capacity certifications are attached.

3.2 100-Year Flood Plain Evaluation

The location for this facility is overlain on a FEMA 100-year flood plain map (Figure 3.1). The production area and LMUs are not located within a 100-year flood plain.



Sherwyn Wood Dairy Erath County, Texas RCS #1 Capacity Certification

The survey capacity performed on May 18, 2010 by Enviro-Ag Engineering, Inc. for retention control structure (RCS) #1 with two vertical feet of dry freeboard is calculated as:

RCS #1 Capacity:

28.47 ac-ft

RCS #1 Surface Area: 4.93 surface acres @ High Water Level

Prepared by:

Norman Mullin, P.E. # 66107

Enviro-Ag Engineering, Inc. TBPE Firm # 2507

(Supporting Documentation Attached)



Sherwyn Wood Dairy Erath County, Texas RCS #1 Liner Certification

Seven 3-inch Shelby tube core samples were collected from RCS #1 to document the clay liner meets the requirements of the TCEQ for soil liner. The sample locations were backfilled with bentonite clay chips for sealing. The liner thickness was documented to be a minimum of 18 inches.

The hydraulic conductivity of the clay liner is documented as follows:

•	RCS #1-1 (Lab #1701)	1.3 x 10 ⁻⁸ cm/sec
•	RCS #1-2 (Lab #1702)	1.2×10^{-8} cm/sec
•	RCS #1-3 (Lab #1703)	1.2 x 10 ⁻⁸ cm/sec
•	RCS #1-4 (Lab #1704)	$1.4 \times 10^{-8} \text{ cm/sec}$
•	RCS #1-5 (Lab #1705)	$7.7 \times 10^{-8} \text{ cm/sec}$
٠	RCS #1-6 (Lab #1706)	$2.3 \times 10^{-8} \text{ cm/sec}$
•	RCS #1-7 (Lab #1707)	3.0×10^{-8} cm/sec

The clay liner present in RCS #1 is determined to be in accordance with TCEQ specific discharge requirements of 1.1 x 10⁻⁶ cm/sec. The observed hydraulic conductivity from RCS #1 is considered protective of ground and surface water resources.

Supporting moisture and density laboratory results indicate the embankment and liners were installed at 95% maximum dry density and within the moisture range of minus 1% to plus 3% of optimum moisture content (see attached moisture/density test results). The liner present in RCS #1 is determined to be constructed in accordance with TCEQ requirements for soil liners

I certify that RCS #1 at Sherwyn Wood Dairy meets the construction requirements of NRCS Practice Codes 313 (Waste Storage Ponds), 378 (Pond Embankment) and 521D (Pond Sealing or Lining, Compacted Clay Treatment). Erosion protection and emergency spillway are in place and the staff gauge is installed and calibrated.

NOR: IN

S/S IE

Norman Mullin, Ph. 66107

Enviro-Ag Engineering, Inc. TBPE Firm # 2507 10/18/2010

(Supporting Documentation Attached)

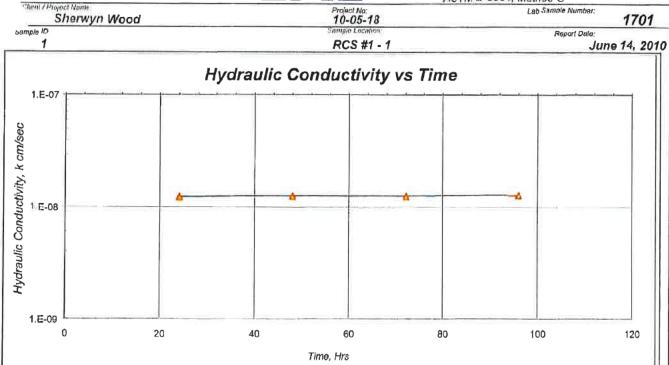
TRIAXIAL PERMEABILITY CHAIN of CUSTODY	STRUCTURE	PERM REPORT I.D.	LOG
16th 5B Thet	Rest - 1 11 - 2 11 - 3 11 - 4 11 - 5 11 - 6 11 - 7	1 2 3 4/5 4/7	1702 1702 1703 1704 1705 1706 1707
acility Name: Sternyn Wood RCS 1 roject Engineer: Wrm ampled by: Carcus ate Sampled: 5/13/10 ate to Lab: 5/25/10 Received: Nill Bahm	Bldg Stephenvi (254) 9	an Mill Road	

VIA UPS

LABORATORY SERVICES



REPORT ASTM D-5084, Method C



SPECIMEN DATA

SAMPLE ID:	1		
DESCRIPTION:	RCS #1 - 1		
	INITIAL	EINAL	
HEIGHT, in.	4.6	4.7	
DIAMETER, in.	2.8	2.9	
WATER CONTENT, %	13.8	17.9	
DRY DENSITY, pcf	115	113	
SATURATION, %	81	98	
(Specific Gravity assumed as 2.7)			
SAMPLE COLOR	Yellow		
SAMPLE CONSISTENCY	Clay		

COMMENTS:

Tap water used as permeant.

TEST DATA

5 psi 2 - 2 1.00
2 - 2
1.00
HYDRAULIC
CONDUCTIVITY
<u>cm/sec</u>
1,2E-08
1.3E-08
1.3E-08
1.3E-08

AVERAGE LAST 4:

1.3E-08

These results apply only to the above fisted samples. The data and information are proprietary and can not be referred without authorization of Enviro-Ag Engineering Inc. By accepting the data and results represented on this page, client agrees to limit the flebility of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented have, and Client agrees to Indemnify and hold harmless Enviro-Ag from and against all habity in excess of the aforementlened limit abbreviated limit abbreviated by:

| abbreviate | Print Data: | Reviewed By: | 2 | LSN: |

Z . Soils I ab\Perms \1910 \ 10-05-18 \ 1701

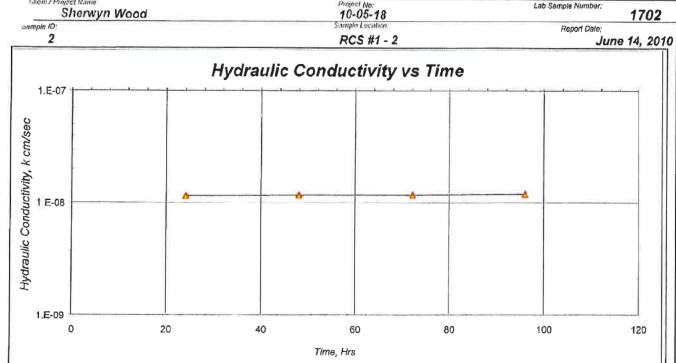
06/15/10

Micah Mullin

LABORATORY SERVICES

REPORT

ASTM D-5084, Method C



SPECIMEN DATA

	SAMPLE ID:	2	
	DESCRIPTION:	RCS #1 - 2	
		INITIAL	EINAL
	HEIGHT, in.	3.9	4.0
	DIAMETER, in.	2.8	2.9
	WATER CONTENT, %	13.7	17.4
	DRY DENSITY, pcf	118	114
I	SATURATION, %	86	99
ı	(Specific Gravity assumed as 2.7)		
	SAMPLE COLOR	Yellow	
	SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

	72072	7777			
ASTM D-5084, Method C					
EFFEC7	TIVE STRESS.	5 psi			
GRADIE	NT RANGE:	2 - 2			
IN/OUT	RATIO:	1.00			
		HYDRAULIC			
TRIAL	TIME	CONDUCTIVITY			
nos.	h <u>rs.</u>	<u>cm/sec</u>			
1	24.1	1.2E-08			
2	48.1	1.2E-08			
3	72.2	1.2E-08			
4	96.0	1.2E-08			
	00.0				

AVERAGE LAST 4:

1.2E-08

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Z : Soils Lab\Perms \1910 \ 10-05-18 \ 1702

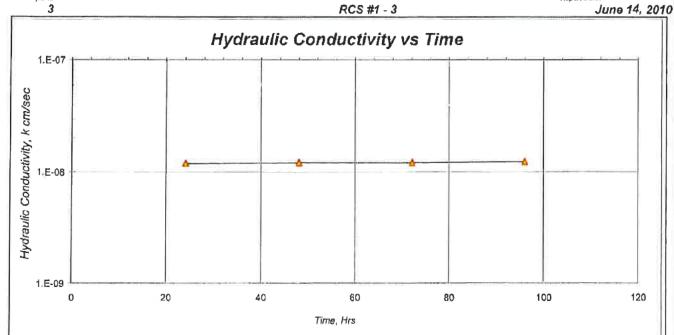
06/15/10

Micah Mullin

LABORATORY SERVICES

REPORT ASTM D-5084, Method C

Lob Sample Monther Sherwyn Wood 1703 10-05-18 cample ID: Report Date:



SPECIMEN DATA

SAMPLE ID:	3	
DESCRIPTION:	RCS #1 - 3	
	INITIAL	EINAL
HEIGHT, în.	4,2	4.2
DIAMETER, In.	2.8	2.8
WATER CONTENT, %	11.8	16.8
DRY DENSITY, pcf	119	115
SATURATION, %	77	97
(Specific Gravity assumed as 2.7)	
SAMPLE COLOR	Yellow	
SAMPLE CONSISTENCY	Clay	

Tap water used as permeant.

TEST DATA

	ASTM D-5084.	Method C
EFFECT	TIVE STRESS:	5 psl
GRADIE	NT RANGE:	2 - 2
IN / OU	RATIO:	1.00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	brs.	cm/sec
1	24.1	1.2E-08
2 48.1		1.2E-08
3	72.2	1.2E-08
4	96.0	1,2E-08

AVERAGE LAST 4:

1.2E-08

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LabiPerms \(1910 \) \(10-05-18 \) \(1703 \) \(Print Date: \) \(\text{Reviewed By:} \) \(\text{LSN:} \)

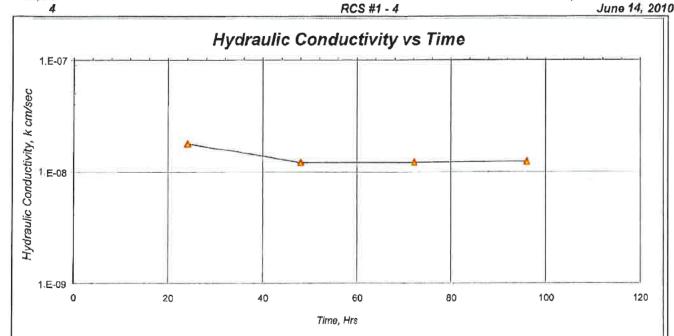
Z: Salis Lab\Perms \1910 \ 10-05-18 \ 1703 DCN: EAE-QC-GRAPH (rev. 11/10/04)

06/15/10

3404 Airway Blvd., Amarillo, TX 79118 (806) 353-6123 LABORATORY SERVICES

REPORT ASTM D-5084, Method C





SPECIMEN DATA

SAMPLE ID:	4	
DESCRIPTION:	RCS #1 - 4	
	INITIAL	EINAL
HEIGHT, in.	4.4	4.5
DIAMETER, in.	2.8	2.9
WATER CONTENT, %	12.7	16.0
DRY DENSITY, pcf	121	117
SATURATION, %	86	98
(Specific Gravity assumed as 2.7)	
SAMPLE COLOR	Yellow	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

		ASTM D-5084,	Method C
	EFFEC	TIVE STRESS:	5 psi
	GRADI	ENT RANGE:	2 - 2
	IN/OU	T RATIO:	0.87
			HYDRAULIC
	TRIAL	TIME	CONDUCTIVITY
	nos.	hrs.	<u>cm / sec</u>
	1	24.1	1.8E-08
	2	48.1	1.2E-08
	3	72.2	1.2E-08
	4	96.0	1.2E-08
1			

1.4E-08 AVERAGE LAST 4:

These results apply only to the above listed samples. The data and information are proprietary and can not be released without outhorization of Enviro-Ag Engineering Inc By accepting the data and results represented on this page, client agrees to limit the liability of Enviro-Ag Engineering, Inc. from Client and all other parties claims arising out of the use of this data to the cost for the respective test(s) represented here, and Client agrees to Indemnify and hold harmless Enviro-Ag from and against all liability in excess of the aforementioned limit.

Z. Soils Lab/Perms 1/910 1 to 05-18 1 1704

Print Data:

Reviewed By:

LSN:

DCN: EAE-QC-GRAPH (rev. 11/10/04)

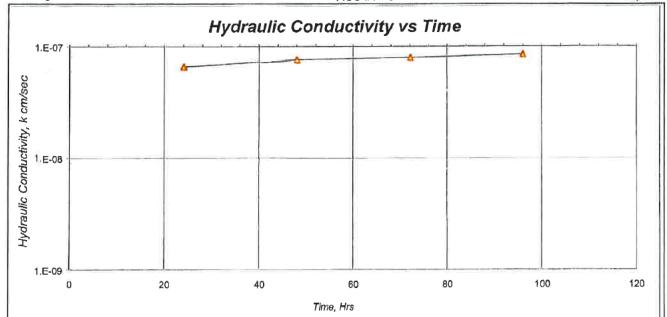
06/15/10

Micah Mullin

LABORATORY SERVICES

REPORT





SPECIMEN DATA

SAMPLE ID:	5	
DESCRIPTION:	RCS #1 - 5	
100	INITIAL	EINAL
HEIGHT, in.	4.4	4.4
DIAMETER, in.	2.9	2.9
WATER CONTENT, %	18.4	22.1
DRY DENSITY, pcf	106	105
SATURATION, %	85	99
(Specific Gravity assumed as 2.	7)	
SAMPLE COLOR	Yellow	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

	ASTM D-5084.	Method C
EFFECT	IVE STRESS:	5 psi
GRADIE	NT RANGE:	2 - 2
IN/OUT	RATIO:	1.05
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	hrs.	cm / sec
1	24.1	6.6E-08
2	48.1	7.6E-08
3	72.2	8,0E-08
4	96.0	8.5E-08

AVERAGE LAST 4:

7.7E-08

These results apply only to the above listed samples. The date and information are proprietary and cannot be released without numerization of Enviro-Ag Engineering Inc.

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2. Soils LabPerms \(\frac{1910}{190}\)\(\frac{10.05.18}{10.05.18}\)\(\frac{1705}{1705}\)\(\frac{1705}{180}\)\(\fra

06/15/10

Micah Mullin

1705

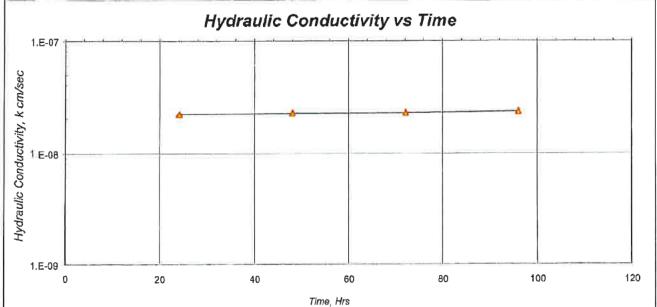
DCN: EAE-QC-GRAPH (rev. 11/10/04)

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LABORATORY SERVICES

REPORT ASTM D-5084, Method C

Chem / Project Name: Lob Sample Number. 1706 10-05-18 Sherwyn Wood Report Date oample ID: June 14, 2010 RCS #1 - 6 6



SPECIMEN DATA

CS #1 - 6 FINA	AL.
TIAL FINA	AL.
.0 4.0)
.8 2.8	3
5.3 21.	1
09 106	6
75 98	
llow	
ау	
	.8 2.8 5.3 21.

COMMENTS:

Tap water used as permeant.

TEST DATA

	ASTM D-5084,	Method C
EFFECT	TIVE STRESS:	5 psi
GRADIE	NT RANGE:	2 - 3
IN/OUT	TRATIO:	1,00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	brs.	cm/sec
1	24.1	2.2E-08
2	48.1	2,3E-08
3	72.2	2.3E-08
4	96.0	2.3E-08

AVERAGE LAST 4:

2.3E-08

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Z . Soils Lab\Perms \1910 \ 10-05-18 \ 1706

Print Date:

Micah Mullin

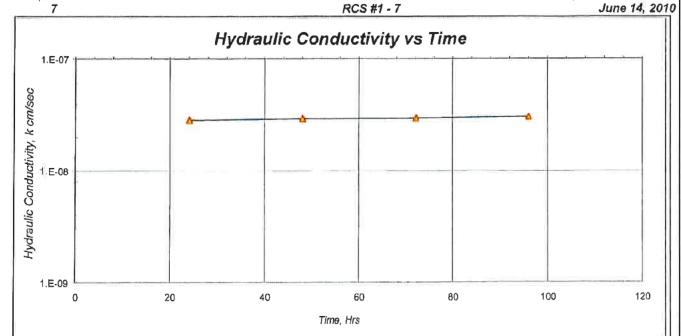
Enviro-Ag Engineering, Inc.

HYDRAULIC CONDUCTIVITY

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REPORT ASTM D-5084, Method C

"hent / Project Raine Lab Sample Number: 1707 10-05-18 Sherwyn Wood Report Date Sample ID:



SPECIMEN DATA

7	
RCS #1 - 7	
INITIAL	EINAL
5.1	5.1
2.9	2.9
25.1	30.1
95	93
87	100
Dark Brown	
Clay	
	5.1 2.9 25.1 95 87 Dark Brown

COMMENTS:

Tap water used as permeant.

	TEST	DATA
-	ASTM D-5084,	Method C
EFFEC1	IVE STRESS:	5 psi
GRADIE	NT RANGE:	2 - 2
IN / OUT RATIO:		1.00
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	hrs.	cm/sec
1	24.1	2.9E-08
2	48.1	2.9E-08
	72.2	3,0E-08
3		

AVERAGE LAST 4:

3.0E-08

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Print Date:

Reviewed By:

I.SN:

Z: Soils Lab\Perms \1910 \ 10-05-18 \ 1707

Micah Mullin

Settling Basin



RCS #1 LINER CERTIFICATION Sherwin Wood Dairy Erath County, Texas

In June 2007, two liner core samples were collected from runoff control structure (RCS) #1 at Sherwin Wood Dairy by Corey Mullin representing Enviro-Ag Engineering, Inc. The samples were collected to verify a minimum liner thickness of 12 inches and then submitted for permeability determination (ASTM D5084). Results of the permeability tests are as follows:

- RCS #1 Sample 1- 1.2 x 10E-08 cm/sec
- RCS #1 Sample 2 1.0 x 10E-08 cm/sec

Based on the above permeability test results, the liner in RCS # meets the requirements of the TCEQ allowable seepage rates for runoff control structures (18 inches of liner material having 1.0 x 10E-07 cm/sec hydraulic conductivity or its equivalent). The sampling locations were backfilled with bentonite chips for closure.

Prepared by:

Norman H. Mullin, P.E. Registration #66107

Registration #00107

(Supporting Documentation Attached)

Enviro-Ag Engineering, Inc.

HYDRAULIC CONDUCTIVITY

REPORT ASTM D-5084, Method C

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Mont / Project Namo: Sherwyn Wood / Pond Liner Certification

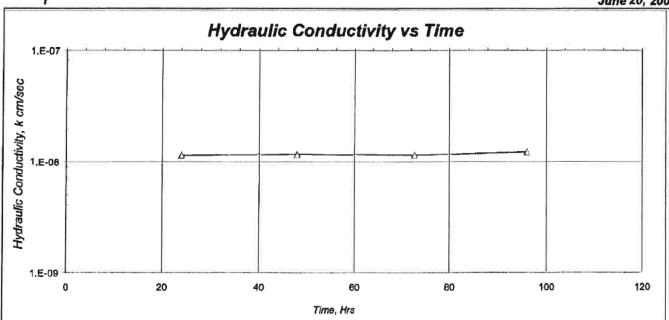
07-04-30

Lab Samula Number:

Report Date:

14-001

June 20, 2007



SPECIMEN DATA

SAMPLE ID:	1	
DESCRIPTION:	Unknown	
	INITIAL	<u>FINAL</u>
HEIGHT, in.	3.2	3,2
DIAMETER, In.	2.8	2.8
WATER CONTENT, %	17.1	20.5
DRY DENSITY, pcf	110	109
SATURATION, %	85	100
(Specific Gravity assumed as 2.72,)	
SAMPLE COLOR	Dark Brown	
SAMPLE CONSISTENCY	Clay	

Tap water used as permeant.

TEST DATA

	IEST D	HIM.
9	ASTM D-5084, N	Method C
EFFECT	TIVE STRESS:	5 psi
GRADIE	NT RANGE:	2 - 2
IN / OUT	TRATIO:	1.00
"B" PAR	AMETER:	0.95
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	hrs.	cm / sec
1	24.1	1.2E-08
2	47.9	1.2E-08
3	72.7	1.2E-08
4	96.0	1.2E-08
AVEF	RAGE LAST 4 :	1.2 E- 08

Triose results apply only to the above listed samples. The data and information are proprietary and can not be released without authorization of Enviro-Ag Engineering Inc.

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Z : Solls Lab/Perms \2007 \ 07-04-30 \ 14-001

Print Date: 09/06/07

Michael Mears, EIT

Reviewed By:

14-001

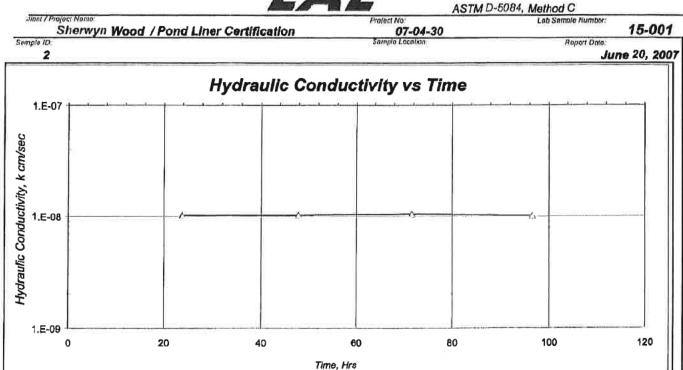
Enviro-Ag Engineering, Inc.

HYDRAULIC CONDUCTIVITY

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REPORT



SPECIMEN DATA

SAMPLE ID:	2	
DESCRIPTION:	Unknown	
	INITIAL	FINAL
HEIGHT, In.	2.6	2,6
DIAMETER, in.	2.8	2.8
WATER CONTENT, %	14.8	24.9
DRY DENSITY, pcf	102	101
SATURATION, %	61	99
(Specific Gravity assumed as 2.7)		
SAMPLE COLOR	Dark Brown	
SAMPLE CONSISTENCY	Clay	

COMMENTS:

Tap water used as permeant.

TEST DATA

		MIN
3	ASTM D-5084,	Method C
EFFEC	TIVE STRESS:	5 psl
GRADIE	NT RANGE:	3 - 3
IN/OU	T RATIO:	1.00
"B" PAF	RAMETER:	0.96
		HYDRAULIC
TRIAL	TIME	CONDUCTIVITY
nos.	<u>hrs.</u>	cm / sec
1	23.8	1.0E-08
2	47.9	1.0E-08
3	71.7	1.0E-08
4	96.5	1.0E-08

AVERAGE LAST 4:

1.0E-08

Those results apply only to the above listed samples. The data and information are proprietery and can not be released without authorization of Enviro-Ag Engineering Inc.

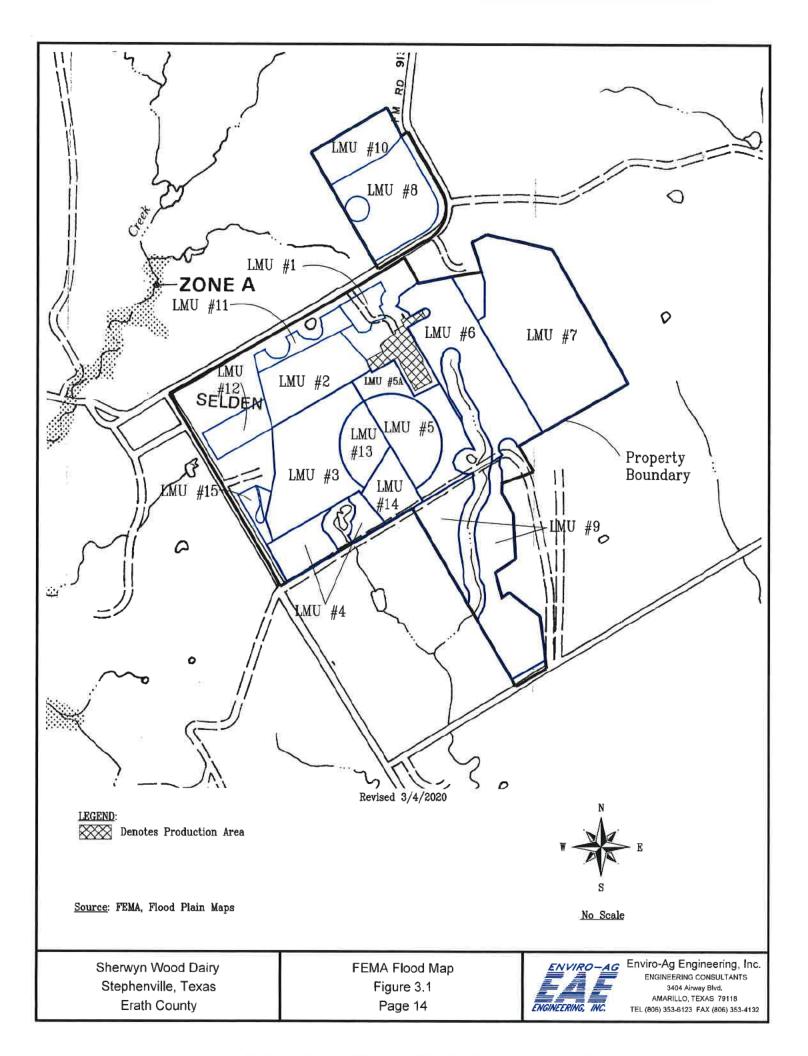
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Z : Solls Lab\Porms \2007 \ 07-04-30 \ 15-001

Print Date: 09/06/07 Michael Mears, EIT

Reviewed By:

LSN 15-001



4.0 WASTE UTILIZATION & NUTRIENT MANAGEMENT PLAN

4.1 Nutrient Utilization

Agronomic application of dairy wastewater enhances soil productivity and provides the crop and forage growth with needed nutrients for optimum growth and vigor. Land application of wastewater will take place according to a Nutrient Utilization/Nutrient Management Plan (NUP/NMP) in accordance with NRCS Codes 590 and 633. The NUP/NMP for crop year 2025 is attached.

Per 30 TAC §321.42(j), existing dairy facilities located in a major sole-source impairment zone may request the TCEQ to allow the operator to provide manure, litter and wastewater to owners of third-party fields (areas not owned, operated, controlled, rented, or leased by the permittee) that have been identified in the PPP. Sherwyn Wood Dairy requests access to third-party fields to be operated in accordance with 30 TAC §321.42(j)(1)-(4). Third-party written contracts between the permittee and the third-party recipient will be maintained in the PPP. These contracts will confirm that the third party will allow manure, wastewater and slurry from the facility to be beneficially applied at agronomic rates based on the soil test phosphorus in accordance with applicable requirements of 30 TAC §321.36 and §321.40.

A Texas State Soil and Water Conservation Board (TSSWCB) certified Comprehensive Nutrient Management Plan (CNMP) has been developed.

.2 Waste Handling Procedures

The dairy shall operate under the provisions of 30 TAC §321.42, which describes certain waste management and disposal requirements for individual water quality permits for dairy concentrated animal feeding operations (CAFOs) when an operation is located in a major sole-source impairment zone. Waste disposal options include:

- Beneficial use outside the watershed
- Disposed in permitted landfills outside the watershed
- Delivered to a composting facility approved by the Executive Director
- Other beneficial use approved by the Executive Director
- Applied on-site in accordance with a certified NRCS Code 590/633 NMP or NUP, as dictated by annual soil test results
- Provided to third parties as discussed above in Section 4.1

Sherwyn Wood Dairy

757 CR 229 Stephenville, TX 76401 (254) 965-2372

TCEQ Permit Number:

WQ0004843000

Owner

Sherwyn & Angela Wood 757 CR 229 Stephenville, TX 76401

Operator

Same as Above

Type of Organic Nutrient Management Plan: Other AFO-CAFO Waste Plan

located in Erath County

Prepared By:

(Signature)

Stephen Colby

Certified Nutrient Management Specialist Certificate Number = TX2025004

Expiration Date = December 31, 2025

Enviro-Ag Engineering 9855 FM 847

Dublin, TX 76446

(254)965-3500

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

8/7/25 3:26 PM

2025 Executive Summary Sherwyn Wood Dairy WQ0004843000

LMU Summary:

LMUs 1-5A & 10-12 are established in coastal bermudagrass overseeded with small grains for perennial coverage. LMUs 7, 8 & 9 are planted in corn and small grains. LMUs 6 is planted in sorghum and small grains.

Nutrient Summary:

LMU#	Max N	Max P205	Planned N	Planned P	Crop	Crop
	Lb/ac	Lb/ac	Lb/ac	Lb/ac	Removal	Removal
	Application	Application	Application	Application	Rate N	Rate P205
	Rates	Rates	Rates	Rates	Lbs/ac.	Lbs/ac.
1	400	285	88	63	300	90
2	368	263	81	58	300	90
3	400	285	88	63	300	90
4	368	263	81	58	300	90
5	330	350	66	70	300	90
5A	127	90	28	20	300	90
6	294	210	65	46	277	94
7	294	210	65	46	246	108
8	294	210	65	46	246	108
9	400	285	84	60	387	148
10	400	285	84	60	330	104
11	400	285	84	60	300	90
12	127	90	27	19	300	90
13	330	350	66	70	300	90
14	368	263	77	55	300	90
15	400	285	84	60	300	90

Although this plan illustrates the certain LMUs being utilized for wastewater application, it is not the intent of this plan to limit application of wastewater and manure to specific LMUs. Solids or effluent may be applied to any LMU as long as the max. rates in the plan are not exceeded for the plan year.

Supplemental nutrients will be necessary to achieve the desired yields. Commercial fertilizer applications should be split such that individual application events do not exceed 100 lb/Ac. All remaining manure is to be hauled off by a contract hauler for beneficial use. Offsite manure transfer activities will be in accordance with NRCS and TCEQ requirements for sampling, recordkeeping, and land application.

Some fields have not been sampled by TCEQ for the current crop year. For those fields, this plan will utilize the most recent soil analysis.

Pl Index by Field

00	Soil Test Date:	10/7/24	10/7/24	9/9/23	10/8/24	10/8/24	10/8/24	9/6/23	10/8/24	9/5/23	10/8/24	9/5/23	10/7/24	9/5/23	9/6/23	9/6/23	10/7/24
WQ0004843000 8772025 Erath >25.0 inches	P Runoff Potential	Medium	High	Medium	High	Medium	High	High	High	High	High	Medium	Medium	High	Medium	High	Medium
Permit #: Date: Location: Rainfall:	etnio9 xəbnl latoT	21.25	23.25	21.25	23.25	19	25	31	56	24.75	28.5	22	20	23.25	17.75	23.25	20
	Soil Erosion	0	0	0	0	0	0	0	1.5	1.5	1.5	0	0	0	0	0	0
V 5.0	Runoff Class	2	4	7	4	7	7	œ	4	4	4	4	7	4	7	4	7
. Plan	Proximity of Appl to Mamed Stream	1.25	1.25	1.25	1.25	2.5	5	2	2.5	1.25	2	0	0	1.25	1.25	1.25	0
gement	S bodteM cinsgrO Timing	4	4	4	4	0.5	4	4	4	4	4	4	4	4	0.5	4	4
lutrient Management Plan V 5.0	Inorganic Method & Timing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ıtrient	Organic P ₂ O ₅ Appl Rate	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	Inorganic P ₂ O ₅ Appl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ased o	Soil Test P Level	80	00	œ	ω	œ	œ	œ	œ	œ	∞	ω	œ	œ	œ	œ	00
n is bă	Runoff Curve	80	80	80	80	80	80	89	88	88	88	78	80	80	80	80	80
This plan is based on: -	edolS	3.8%	5.1%	3.4%	4.5%	3.8%	3.8%	4.7%	2.4%	3.2%	2.5%	4.7%	2.5%	5.1%	3.8%	4.7%	3.4%
Printed on: 8/7/25 3:26 PM Client Name: Sherwyn Wood Dairy Planner: Stephen Colby	LMU or Fields Crop	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Silage - Sorg7-10T;SG mod graze	Silage - Corn16-20T;SG Silage-5-7T	Silage - Com16-20T;SG Silage-5-7T	Silage - Corn16-20T;SG mod graze	Coastal 3-Cut Hay; SG Silage 5-7T	Coastal graze 1AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze	Coastal graze 1 AU/1 ac, SG mod graze
Printe Client Pl	LMU or	-	2	က	4	2	5A	9	7	80	6	10	7	12	13	4	15

Permit #:

WQ0004843000

This Nutrient Management Plan has fields that meet NMP and/or NUP requirements. See Attached Executive Summary

LOCATION AND PURPOSE OF THE PLAN

EXECUTIVE SUMMARY:

This animal operation is located in **Erath** County (see attached topo map and plan map for location.) The purpose of this plan is to outline the details of the land application of the effluent and solids produced by this operation. When the plan is fully implemented, it should minimize the effects of the land application of animal wastes on the soil, water, air, plant, and animal resources in and around the application area. This plan, when applied, will meet the requirements of the Natural Resources Conservation Service Waste Utilization Standard and Nutrient Management Standard.

The plan is for the year of 2025 and will remain in effect until revision based on new soil or manure analysis or crop change (yield or crop) result in a new P-Index rating or plan classification (NMP-NUP). The waste has been stored in a Dairy Lagoon . Approximately 990 head will be confined with the average weight of 1325 pounds. The animals will be confined 24 hours per day for 365 days per year.

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TABLES 1, 2 and 2a Permit #: WO0004843000

Values in Table 1 may be based on actual analysis or "book" values during the initial planning to determine land application rates for the initial plan. When "book" values are used, they will be from NRCS, Texas Cooperative Extension or averages from other TX testing lab sources. Site specific data will be used as soon as feasible after production begins. Manure and/or effluent will be tested at least annually or in the year of application if it is stored for more than one year. If the actual values are more than 10% higher or lower than the estimated values, this plan will need to be revised accordingly.

Application of waste products may be made up to the Maximum Rate given in Table 2 or 2a as applicable. Table 2 applies to those that are subject to Nutrient Management Plan (NMP) requirements while Table 2a applies when subject to Nutrient Utilization Plan (NUP) requirements. Current requirements for both the NMP and NUP are given in the headers of the tables. Table 2a has a criteria involving the distance to a named stream when the Soil Test P Level is above 200 ppm in arid areas as well as special requirements when the site is in a TMDL watershed designated by TCEQ. For various P Index Ratings, the maximum rates in Table 2 are based on crop requirements, whereas the maximum rates in Table 2a are based on crop removal rates. County avg. rainfall information can be found in the TX Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas, located in the eFOTG at the address given in the section entitled "Collecting Soil Samples for Analyses".

CROP REMOVAL RATES:

Crop Removal Rates of nitrogen (N), phosphorus (P), and potassium (K) in pounds per acre are given in Table 3 for the crop and yield planned for each field. This Table is included for information only, and should be used during the planning process to compare planned or maximum application rates to crop removal. Crop removal rates may be based on actual analysis of harvested material or default values in the database. P build-up will occur at higher rates when crop removal rates are exceeded..

SOLIDS APPLICATION:

The maximum solids application rates are given in Table 4 along with the current soil test P level, maximum P_2O_5 application rate, maximum tons per acre of solids and the total tons of solids per field that can be applied to each field. The maximum tons of solids that can be utilized on the fields planned is indicated in the box near the lower left corner of Table 4. When the total application acres of the fields are adequate to allow all of the solids to be applied, "Adequate" will be indicated below the tonnage in this box. If "Not Adequate" is indicated, then the lower box will indicate the tons of solids that must be utilized off-site unless more fields/acres are added. This plan is valid only if the application of waste to the crops listed does not exceed the per acre rates by more than 10%. If the yield of a crop does not meet the expected goal, the application rate should be adjusted the following year.

The estimated amounts of N, P_2O_5 , and K_2O contained in the solids are provided in Table 5 for the maximum application rate. Supplemental N and K_2O will be applied to achieve the yield goals in Table 4 when recommended by the soil test and the maximum rate of the solids does not meet the crop needs. When the maximum application rate is applied and Table 5 indicates additional commercial nutrients, they <u>must</u> be applied to fields as indicated. **NOTE:** If additional nitrogen is recommended, the producer should consider collecting soil samples from the 6 - 36 inch layer to see if there is any additional deep nitrogen available. Additional deep nitrogen within the root zone of the crop can be substituted for supplemental commercial nitrogen, and should be included in the soil test N ppm entry.

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SOLIDS APPLICATION: (cont) Permit #: WO0004843000

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

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

Actual application will be based on the quantities produced, as well as, current manure analyses. Application at the MAXIMUM rates shown in Table 4 will result in a more rapid build-up of phosphorus than if applied at lower rates. A different percentage may be used as long as the rate does not exceed the maximum shown in Table 4 for the field and the proper amount of supplemental nutrients are applied. Applying a lower rate to the fields with higher soil test P levels will slow down the P buildup and extend their land application life. Phosphorus will also build up more rapidly on pastureland than on hayland or cropland, since very few nutrients are actually removed by grazing animals.

The solids may be applied to the same acreage every year according to Table 2 or 2a. The annual rates in both Table 4 and 6 may be doubled not to exceed the 2X the annual nitrogen requirement or nitrogen removal rate, as applicable. When the full biennial rate has been used, no additional phosphorus fertilizer or animal wastes may be applied in the alternate year. A column in both tables indicates whether the rates given are Annual Rates (A) or Biennial Rates (B). Rates given are based on Table 2 or 2a as applicable. Annual application rate for fields in a TMDL area with a Soil Test P level equal to or greater than 500 ppm or any field in a TMDL area with P Index Rating of Very High is 0.5 annual crop removal rate.

EFFLUENT APPLICATION:

The maximum effluent application rates are given in Table 8 for each field. This table provides the current soil test P level, maximum P_2O_5 application rate, effluent either in gallons per acre or acre inches per acre and the amount of effluent that can be applied per field. The maximum amount of effluent that can be utilized on the fields planned is indicated in a box near the lower left corner of Table 8. When the total application acres are adequate to allow all of the effluent to be applied, "Adequate" will be indicated below this box. If "Not Adequate" is indicated, then the lower box will indicate the amount of effluent that must be utilized off-site unless more field acres are added.

The estimated amounts of N, P, and K contained in the effluent are provided in Table 9 for the maximum application rate indicated in Table 8. Supplemental N and K_2O will be applied to achieve the yield goals when recommended by the soil test and the maximum rates of the effluent do not meet the crop requirements. **NOTE:** If additional nitrogen is recommended, the producer should consider collecting soil samples from the 6 - 36 inch layer to see if there is any additional deep nitrogen available. Additional deep nitrogen within the root zone of the crop can be substituted for supplemental commercial nitrogen.

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EFFLUENT APPLICATION: (cont)

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In situations where more land is available than is needed to utilize the maximum application rate on each field, the application rates in Table 10 have been reduced to the level that does not exceed the amount of effluent produced. Table 11 indicates the amount of nutrients provided and, if needed, the supplemental nutrients which **must** be applied when application is made based on the rates in Table 10. These amounts of supplemental nutrients in Table 11 are based on the planned amount of effluent available rather than the **maximum** rate that "could" be applied.

The bottom line on the right of Table 10 has a box that will be "YES" or "NO". When the reduced rates uses all effluent to be produced in a year, this box will be "Yes". If the percentages are too low, it will be "No". If "No" is indicated, either more acreage is needed on which to apply the effluent or the effluent will need to be transported offsite.

Actual application will be based on the quantities produced, as well as, current manure analyses. Application at the MAXIMUM rates shown in Table 8 will result in a more rapid build-up of phosphorus than if applied at lower rates. A different percentage may be used as long as the rate does not exceed the maximum shown in Table 8 for the field and the proper amount of supplemental nutrients are applied. Applying a lower rate to fields with higher soil test P levels will slow down the P buildup and extend their land application life. Phosphorus will also build up more rapidly on pastureland than on hayland or cropland, since very few nutrients are actually removed by grazing animals.

The effluent may be applied to the same acreage every year according to Table 2 or 2a. The annual rates in both Table 8 and 10 may be doubled not to exceed the 2X the annual nitrogen requirement or nitrogen removal rate, as applicable, when the full biennial rate has been used, no additional phosphorus fertilizer or animal wastes may be applied in the alternate year. A column in both tables indicates whether the rates given are Annual Rates (A) or Biennial Rates (B). Rates given are based on Table 2 or 2a as applicable. Annual application rate for fields in a TMDL area with a Soil Test P level equal to or greater than 500 ppm or any field in a TMDL area with P Index Rating of Very High is 0.5 annual crop removal rate.

Maximum Hourly Application Rate - The maximum hourly application rate is determined by the texture of the soil layer with the lowest permeability within the upper 24 inches of the of the predominant soil in each field. The hourly application rate must be low enough to avoid runoff and/or ponding. For effluent with 0.5% solids or less, DO NOT exceed the rates shown in Table 1 of the attached Job Sheet titled, "Waste Utilization, Determining Effluent Application Rates". If the effluent contains more than 0.5% solids, those values must be reduced by the appropriate amount shown in Table 2 of the attached "Waste Utilization, Determining Effluent Application Rates" Job Sheet.

Maximum One-Time Application Rate - The maximum amount of effluent that can be applied to a given field at any one-time is the amount that will bring the top 24 inches of the soil to 100% field capacity. This amount is determined by subtracting the amount of water stored in the soil (estimated by feel and appearance method) from the available water holding capacity (AWC) of the soil. The available water holding capacity of the top 24 inches of the predominant soil of each field receiving effluent and the texture of the most restrictive layer in the upper 24 inches are given in Table 12.

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EFFLUENT APPLICATION: (cont)

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To determine any one-time application amount, the current percent of field capacity (FC) of the upper 24 inches of the predominant soil in the field should be estimated using the guidance in Table 3 of the attached Job Sheet, "Waste Utilization, Determining Effluent Application Rates, rev 4/06". Additional information on estimating soil moisture can be found in the NRCS Program Aid 1619, "Estimating Soil Moisture by Feel and Appearance", or from the University of Nebraska Extension publication No. G84-690-A by the same name. Both of these publications have pictures of various soils at different percentages of field capacity to be used as a guide to estimating soil moisture. Once the current percent of FC is estimated, it is subtracted from the AWC amount in Table 12 for the given field and the difference is the maximum application for those soil conditions on that day. Remember, the maximum hourly application and the maximum one time application rates are only estimates to be used as a guide.

Solids/Effluent Land Application: - Land application of solids and/or effluent should be made at appropriate times to meet crop needs, but can be made at any time as long as the total annual (or biennial) rate, maximum hourly rate, and the maximum one time application rates are not exceeded. Effluent should be surface applied uniformly. No runoff or ponding should occur during application thus frequent observations should be made. Neither effluent or solids will be applied to slopes >8% with a runoff curve >80, or steeper than 16% slope with a runoff curve of 70 or greater, unless the application is part of an erosion control plan. Waste will not be spread at night, during rainfall events, or on frozen or saturated soils if a potential risk for runoff exists. Waste will not be applied to frequently flooded soils during months when the soils typically flood. If frequently flooded soil occur on any potential application field see attached, "Water Features Table", for months when flooding is expected. Solids should be applied with a manure spreader as uniformly as feasible. Surface applications with trucks should only be made when soil conditions are favorable in order to minimize soil compaction.

Managing Runoff -

A minimum 100 ft. setback or vegetated buffer (Filter Strip, Field Border, Riparian Forested Buffer, etc.) will be established and maintained between the application area and all surface water bodies, sink holes, and watercourses as designated on Soil Survey sheets or USGS topographic maps. A minimum application distance from private and public will be 150 ft. and 500 ft. respectively. A minimum application distance from water wells used exclusively for agricultural irrigation will be 100 ft. Table 9 provides a summary of the setbacks and out areas of each field.

Managing Leaching -

When soils with sandy, loamy sand, or gravelly surface textures have a Nitrogen Leaching Index score of >2 appropriate measures will be used to minimize the potential of leaching. These measures will include, split applications of waste, and may include double cropping, or cover crops, and irrigation water management (on fields that receive supplemental or full irrigation).

MORTALITY MANAGEMENT:

All mortality will be disposed of properly within 3 days according to the Texas Commission on Environmental Quality (TCEQ) rules. The preferred method for disposal of routine mortality is by a rendering plant. Before planning this method, contact the facility or its representative to be informed of special handling procedures, equipment needs, scheduling requirements, etc. Maintain a list of contact phone numbers so information will be readily available following a catastrophic die-off. Verify that local companies which have previously picked up and/or rendered dead animals are still doing so. A number of rendering companies across the state have stopped dead animal pick up service, and others have raised their fees significantly. Periodically review the availability and cost of rendering so that the plan can be modified if necessary. This can be an excellent option if mortality can be loaded and transported while still fresh or the mortality can be refrigerated until loaded and transported.

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MORTALITY MANAGEMENT: (cont) Permit #: WQ0004843000

Disposal in a landfill may be an option in some locations. Before planning this option, the closest commercial, regional, county, or municipal landfill should be contacted to determine if the landfill has a permit which would allow acceptance of dead animals (swine, sheep, cattle, etc.). Also ask if there are any restrictions on type and volume of animal mortality that will be accepted at the facility. Landfill fees and transport, offloading, and handling procedures should be discussed with landfill managers and documented for reference when needed. The landfill is not a viable option if the producer does not own or have access to a vehicle capable of transporting mortality quickly in an emergency situation. After a catastrophic die-off is not a good time to find out that a driver and truck to transport mortality will not be available for several weeks (MAKE ARRANGEMENTS NOW, NOT AFTER THE ANIMALS ARE DEAD).

On-farm disposal of catastrophic mortality may be considered if site conditions permit. On-farm methods include burial, composting, and incineration. Incinerators and composters are excellent options for routine mortality but usually do not have the capacity to handle mortality volumes associated with catastrophic events. Composting and incineration should not be relied on for catastrophic mortality handling without a documented evaluation of worst anticipated mortality condition (number, type, and weight of animals), and the anticipated capacity of the system (i.e., lb./hr. incineration rate, hrs/day of operation). NRCS Mortality Facility Standard 316 will be used for all mortality management.

See the attached soil interpretation, ENG - Animal Mortality Disposal (Catastrophic) Trench, to make a preliminary assessment of the limitations of the soils on this farm for burial of catastrophic mortality. The attached TX NRCS Technical Guidance, Catastrophic Animal Mortality Management (Burial Method) should be used as a guide to overcome minor limitations and as design criteria for the construction of burial pits for catastrophic mortality. Mortality burial sites shall be located outside the 100 -year floodplain. Mortality burial will not be less than 200 feet from a well, spring, or water course. A FIELD INVESTIGATION BY A QUALIFIED PROFESSIONAL SHOULD BE MADE BEFORE AN AREA IS USED FOR A BURIAL SITE FOR CATASTROPHIC MORTALITY EVENTS. The TCEQ Industrial and Hazardous Waste Permits Section, MC-130, must be contacted before burial of catastrophic mortality.

TCEQ Industrial and Hazardous Waste Permits Section, MC-130 PO Box 13087 Austin, TX 78711-3087 Phone: 512-239-2334 Fax: 512-239-6383

Air Quality:

The following steps should be taken when spreading effluent or solids to reduce problems associated with odor.

- 1. Avoid spreading effluent or solids when wind will blow odors toward populated areas.
- Avoid spreading effluent or solids immediately before weekends or holidays, if people are likely to be engaged in nearby outdoor activities.
- 3. Avoid spreading effluent or solids near heavily traveled highways.
- 4. Make applications in the morning when the air is warming, rather than in the late afternoon.
- 5. All materials will be handled in a manner to minimize the generation of particulate matter, odors, and greenhouse gas emissions.

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EFFLUENT AND SOLIDS STORAGE & TESTING:

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Effluent and solids will be stored in facilities designed, constructed, and maintained according to USDA NRCS Standards and specifications.

Effluent and solids sampling is needed to get a better idea of the nutrients actually being applied. Effluent and/or solids samples will be collected at least annually, or in the year of its use if waste is typically stored for more than 1 year. The samples will be submitted immediately to a lab for testing. If sent to Texas A&M soil lab or SFASU Soil Testing Lab for analysis, use the "plant and forage analysis" form and note the type of operation. Request that the manure be analyzed for percent dry matter, solids, total nitrogen, total phosphorus, and total potassium. Further information on collecting effluent and manure samples for analysis can be found in the TCE publication No. L-5175, "Managing Crop Nutrients Through Soil, Manure and Effluent Testing". TCEQ sampling rules and testing requirements will be followed on permitted sites.

COLLECTING SOIL SAMPLES FOR ANALYSIS:

Collect a composite sample for each field (or area of similar soils and management not more than 40 acres in size) comprised of 10 - 15 randomly selected cores. Each core should represent 0 - 6 inches below the surface except for when injection has been done over 6" in depth, then the core should represent the 3-9" layer. Thoroughly mix each set of core samples, and select about a pint of the mixture as the sample for analysis. Label each sample for the field that it represents. Request that the samples be analyzed for nitrate nitrogen, plant-available phosphorus, potassium, sodium, magnesium, calcium, sulfur, boron, conductivity; and pH. Also note on the samples that they are from an effluent or solids application area. TCEQ sampling rules and testing requirements will be followed on permitted sites. A weighted average of 0-2 and 2-6 inch layers will be used for calculations on permitted sites.

Further information on collecting soil samples can be found on the TCE Form D-494, p 2, TCE Publication No. L-1793, and TCEQ RG-408. Additional NRCS guidance and requirements can be found in the Nutrient Management (590) standard located in the Texas electronic Field Office Technical Guide (eFOTG) at:

http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=TX

Click the county desired.
Click Section IV in the left column under eFOTG
Type: 590 in the Search Menu above eFOTG and click: GO
Click on the desired item under Nutrient Management in the left column

SOIL ANALYSIS:

A soil analysis will be completed for all areas to be used for all effluent or solids application areas. The soil test analysis method will be **Mehlich III with inductively coupled plasma (ICP)**. The area will be tested and analyzed at least annually to monitor P build up.

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RECORD KEEPING: Permit #: WQ0004843000

Detailed records should be maintained by the producer for all application of animal waste to land owned and operated by the producer. Records should include date, time, location, amount of application, weather conditions, estimated wind speed and direction, etc. A rain gauge should be in place at the application site and accurate records of rainfall should be maintained at the site. All records must be kept for at least 5 years. TCEQ requirements will be followed on permitted sites.

Records should also be kept showing amounts of litter given or sold to others. A copy of the effluent analysis and/or solids analysis and a Waste Utilization Guidelines Sheet should be given to anyone who will use either the effluent or solids off-site. If they routinely use animal wastes for fertilizer, they should be directed to the local Soil and Water Conservation District or NRCS office to develop a Waste Utilization and Nutrient Management Plan for their land.

This portion may be completed by producer, if desired or recorded elsewhere.

Excess Remaining

Record of waste leaving the farm or used as feed.	Estimated Annual Excess	
5		

Date	Amount	Hauler or Recipient

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May be continued on additional sheets

OPERATION AND MAINTENANCE:

Permit #:

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Application equipment should be maintained in good working order and it should be calibrated annually so that the desired rate and amount of effluent and solids will be applied.

Information on calibrating manure spreaders can be found in the TCE publication No. L-5175, "Managing Crop Nutrients Through Soil, Manure and Effluent Testing". Information on calibrating big gun sprinklers can be found in the Arkansas Extension publication, "Calibrating Stationary Big Gun Sprinklers for Manure Application". For information on calibrating tank spreaders, traveling guns, and additional information on other manure spreading equipment, see Nebraska Extension publication No. G95-1267-A, "Manure Applicator Calibration". Observe and follow manufacturer's recommended maintenance schedules for all equipment and facilities involved in the waste management system. For information on lagoon functions, refer to TCE publication E9, "Proper Lagoon Management".

Any changes in this system should be discussed with the local Soil and Water Conservation District, USDA Natural Resources Conservation Service, or other qualified professional prior to their implementation.

Plan Prepared by:	Stephen Colby	Date:	8/7/2025	
Plan Approved by:	(SKI)	Date: 8	12/25	
Producer Signature:	Viscossed vita Producer	Date: 8/	2/25	

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

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

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Table 1 - Estimated Effluent and Solids Quantities Produced

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Avg. Number of Animals

990

Type of Waste

Dairy Lagoon

Dairy Solids

Contact the local Soil and Water Conservation District or USDA Natural Resources Conservation Service office if the total number of animals change by more than 10% so your plan can be revised.

Estimated Acre Inches of Effluent to be Available Annually* 193

Estimated Tons Solids to be Land Applied Annually (on or off site)* 9,663.1

*From engineering design.

Estimated	Nutrient Availab	oilty			Estimated I	Nutrient Ava	ailabilty	
Effluent					Solids		·	
	pounds/yr	Pounds / 1000 gal	Pounds / Acre Inch			pounds / yr	pounds / ton	
N	1,887	0.36	9.8	**	N	33,422	3.5	**
P2O5	2,000	0.38	10.4		P2O5	23,835	2.5	
K2O	12,055	2.30	62.6		K2O	39,552	4.1	
*	* Effluent Values	Based on An	alysis		** Solids V	alues Based	on Analysis	
date	ed:	June 4, 2024			dated:		4, 2024	

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

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

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

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

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

- equal to or greater than 200 ppm in non-arid areas ^{2/} or
- equal to or greater than 350 ppm in arid areas ^{2l} with a named stream greater than one mile or
- equal to or greater than 200 ppm in arid areas ^{2l} with a named stream less than one mile.

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

Footnotes Applicable to both Tables

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

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Waste Utilization and Nutrient Management Plan								
Table 3 -	Crop R	emoval Rates (For Information Only)				Permit #:	WQ	0004843000
LMU or	Agree	Crop and P Index Level	TCEQ Plan	Actual Crop Analysis or Default	Total Est. N Removal Ibs/Ac/Yr	Total Est. P ₂ O ₅ Removal	Total Est. K ₂ O Removal	
Field No.	10.0	Coastal graze 1 AU/1 ac, SG mod graze M	Type NMP		300	lbs/Ac/Yr 90	lbs/Ac/Yr 267	
2	33.0	Coastal graze 1 AU/1 ac, SG mod graze H	NMP	Default	300	90	267	
3	53.0	Coastal graze 1 AU/1 ac, SG mod graze M	NMP	Default	300	90	267	
4	21.0	Coastal graze 1 AU/1 ac, SG mod graze H	NMP	Default	300	90	267	
5	26.0	Coastal graze 1 AU/1 ac, SG mod graze M	NMP	Default	300	90	267	
5A	25.0	Coastal graze 1 AU/1 ac, SG mod graze H	NUP	Default	300	90	267	
6	59.0	Silage - Sorg7-10T;SG GreenChop-6-7T H	NMP	Default	277	94	129	
7		Silage - Corn16-20T;SG Silage-5-7T H	NMP	Default	246	108	231	
8	42.0	Silage - Corn16-20T;SG Silage-5-7T H	NMP	Default	246	108	231	
9	61.0	Silage - Corn16-20T;SG GreenChop-8-9T H	NMP	Default	387	148	226	
10	21.0	Coastal GC (30%DM) 9-11T; SG GC 6-7T M	NMP	Default	330	104	190	
11	9.0	Coastal graze 1 AU/1 ac, SG mod graze M	NMP	Default	300	90	267	
12	12.0	Coastal graze 1 AU/1 ac, SG mod graze H	NUP	Default	300	90	267	
13	16.0	Coastal graze 1 AU/1 ac, SG mod graze M	NMP	Default	300	90	267	
14	15.0	Coastal graze 1 AU/1 ac, SG mod graze H	NMP	Default	300	90	267	
15	5.0	Coastal graze 1 AU/1 ac, SG mod graze M	NMP	Default	300	90	267	

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

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Table 4 - Maximum Solids Application per Field

Est. Solids				Current	Max	Annual/Biennial	Maximum	Maximum Allowable
Produced	LMU or			Soil Test	Annual	l/Bie	Solids	Application
Annually	Field	Aaras	Com Management and DI man off notantial	P Level	P2O5	nun	Allowable Tons/Acre	Per field
(wet tons) 9,663	No.	Acres 10.0	Crop Management and PI runoff potential Coastal graze 1 AU/1 ac, SG mod graze M	(ppm) 190	lbs/acre 285	A	115.6	(Tons) 1156
7,005	2	33.0	Coastal graze 1 AU/1 ac, SG mod graze H	125	263	A	106.4	3512
	3	53.0	Coastal graze 1 AU/1 ac, SG mod graze M	96	285	A	115.6	6129
	4	21.0	Coastal graze 1 AU/1 ac, SG mod graze H	163	263	A	106.4	2235
	5	21.0	Coastal glaze 1 AO/1 ac, SO mod glaze 11	103	203	A	100.4	2233
	5A	25.0	Coastal graze 1 AU/1 ac, SG mod graze H	223	90	Α	36.7	917
	6	59.0	Silage - Sorg7-10T;SG GreenChop-6-7T H	64	210	A	85.1	5023
	7	104.0	Silage - Corn16-20T;SG Silage-5-7T H	43	210	A	85.1	8854
	8	42.0	Silage - Corn16-20T;SG Silage-5-7T H	23	210	A	85.1	3576
	9	61.0	Silage - Corn16-20T;SG GreenChop-8-9T H	21	285	A	115.5	7048
	10	21.0	Coastal GC (30%DM) 9-11T; SG GC 6-7T M	29	285	A	115.6	2429
	11	9.0	Coastal graze 1 AU/1 ac, SG mod graze M	101	285	Α	115.6	1041
	12	12.0	Coastal graze 1 AU/1 ac, SG mod graze H	203	90	Α	36.7	440
	13							
1	14	15.0	Coastal graze 1 AU/1 ac, SG mod graze H	120	263	Α	106.4	1596
	15	5.0	Coastal graze 1 AU/1 ac, SG mod graze M	129	285	Α	115.6	578
					1			
Total Solids								
Application								
Acres								
470								
Application								
Allowable								
on-site								
(tons)								
44534.8								
Adamata								
Adequate								
Solids to be								
used off-								
site (tons)								
0.0								

End of Table 4

Table 5 - Nutrients Applied/Needs at Maximum Solids Rates

Permit #:

WQ0004843000

	Nutrients App	plied When Ap Maximum Rate	plication is at		Supplementa	al Nutrients Nee	eded When Ap m Rates	plication is at
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac		N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac
1	400	285	473		0	0	0	0
2	368	263	436	П	5	0	0	0
3	400	285	473		0	0	0	0
4	368	263	436	П	0	0	0	0
5								
5A	127	90	150		205	0	0	0
6	294	210	348		0	0	0	0
7	294	210	348		0	0	0	0
8	294	210	348		0	0	0	0
9	400	285	473		70	0	0	0
10	400	285	473		0	0	0	0
11	400	285	473		0	0	0	0
12	127	90	150	Ш	185	0	0	0
13	2.0	0.60	10.5					
14	368	263	436		0	0	0	0
15	400	285	473		0	0	0	0
			li l					
					<i>'</i>			
			0					
		L		ļ		·		

Table 6 - Planned Solids Application Rates

Table 0 - I	12	inned s	Solids Application Rates				Permit #:	WQ0004	
	dc								Planned
	e CL			Current	al/ iial	Max	% of	Planned	Solids per
LMU or Field	gn	Acres		Soil Test	Annual/ Biennial	Rate	Maximum	Solids	field
No.	ă		Crop Management and PI runoff potential	7		tons/ac	to apply	tons/ac	(tons)
1		10.0	Coastal graze 1 AU/1 ac, SG mod graze M	190	Α	115.6	22	25.4	254.4
2		33.0	Coastal graze 1 AU/1 ac, SG mod graze H	125	Α	106.4	22	23.4	772.6
3		53.0	Coastal graze 1 AU/1 ac, SG mod graze M	96	A	115.6	22	25.4	1348.5
4		21.0	Coastal graze 1 AU/1 ac, SG mod graze H	163	Α	106.4	22	23.4	491.7
5	М								
5A		25.0	Coastal graze 1 AU/1 ac, SG mod graze H	223	Α	36.7	22	8.1	201.7
6			Silage - Sorg7-10T;SG GreenChop-6-7T H	64	A	85.1	22	18.7	1105.1
7			Silage - Corn16-20T;SG Silage-5-7T H	43	A	85.1	22	18.7	1947.9
8			Silage - Corn16-20T;SG Silage-5-7T H	23	A	85.1	22	18.7	786.7
9			Silage - Corn16-20T;SG GreenChop-8-9T H	21	A	115.5	21	24.3	1480.1
		1	Coastal GC (30%DM) 9-11T; SG GC 6-7T M	29	1 1	115.6	1 1	24.3	510.0
10		21.0			A		21		
11		9.0	Coastal graze 1 AU/1 ac, SG mod graze M	101	A	115.6	21	24.3	218.6
12		12.0	Coastal graze 1 AU/1 ac, SG mod graze H	203	A	36.7	21	7.7	92.4
13									
14		15.0	Coastal graze 1 AU/1 ac, SG mod graze H	120	A	106.4	21	22.3	335.2
15		5.0	Coastal graze 1 AU/1 ac, SG mod graze M	129	Α	115.6	21	24.3	121.4
A		450.0				L			9666.3
Acres	1	470.0	Town of wat called a continued Amounting	will the			acre applic the Solids1	cation rates	
966	_		Tons of wet solids produced Annually	-					YES
0			Tons to be used off-site at Max. rates	Tons to	o be u	ised off-	-site at pla	nned rates	0

Permit #:

WQ0004843000

Permit #:

WQ0004843000

Table 7 - Nutrients Applied/Needed at Planned Solids Rates

Red cells? Proceed to adjustment page and fix.

		Applied at Plant		Sunnlemen	tal Nutrients Ne	aded at Planne	d Rates
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac
1	88	63	104	250	0	0	0
2	81	58	96	295	0	0	0
3	88	63	104	260	0	0	0
4	81	58	96	260	0	0	0
5	01	50		200	Ů		"
5A	28	20	33	305	0	0	0
6	65	46	77	170	0	0	0
7	65	46	77	205	0	0	0
8	65	46	77	205	ő	0	0
9	84	60	99	385	85	0	0
10	84	60	99	260	95	0	0
11	84	60	99	280	0	0	0
12	27	19	32	285	0	0	0
13							
14	77	55	91	240	0	0	0
15	84	60	99	265	0	0	0

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Permit #:

WQ0004843000

Table 8 - Maximum Effluent Application Per Field

				1					
Est. Available Effluent	LMU or Field No.		le crop		Current Soil Test		Annual/Biennial	Maximum Effluent	Maximum Effluent Allowable
(ac inches)	Eield No	Acres	qno	Cran Management and DI wanoff natantial	P Level	P ₂ O ₅	ยนเน	Allowable	/ Field
193	1	Acres	10	Crop Management and PI runoff potential	(ppm)	(lbs/acre)	Ā	(ac in/ac)	(ac in)
Source:	2								
	3					l l			
	4								
Dairy Lagoon	5	26.0		Coastal graze 1 AU/1 ac, SG mod graze M	184	350	Α	33.7	876
	5A								
	6						Ш		
	7								
	8								
	9								
	10								
	11								
	12	ľ					П		
	13	16.0		Coastal graze 1 AU/1 ac, SG mod graze M	137	250	ا؞ا	22.7	520
	14	10.0		Coastal graze 1 AU/1 ac, SG mod graze M	13/	350	A	33.7	539
	15		Н						
Total									
Effluent							П		
Application									
Acres									
42									
							П		
Maximum									
Effluent									
Application									
Allowable									
On-Site									
(ac in)									
1415									
Adequate									
Effluent to be									
used Off-Site									
(ac in)									
0									
U									

Table 9 - Nutrients Applied/Needed at Maximum Effluent Rates

Permit #:

WQ0004843000

	[plied When Ap Maximum Rate	plication is at s		Supplementa	al Nutrients Ne Maximu	eded When Ap m Rates	plication is at
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Ħ	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac
1								
2				Н				
3								
4								
5	330	350	2108		20	0	0	0
5A								
6	1							
7								
8								
9				М				
10								
11 12								
13	330	350	2108		0	0	0	
14	330	330	2106		U	0	0	0
15								
15	1			1				
1 1								
	,							
	'		į.	-				

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Table	10 P	I	waste offization and Nutri	ent ivia	mag				o e veteran	
Table			ned Effluent Application Rates	· · · · · ·		Permit #:		WQ0004843000 Planned		
LMU or Field No.		Double crop	Crop Management and PI runoff potential	Current Soil Test P ppm	Annual / Biennial	Maximum Effluent (ac in/ac)	% of Maximum to apply	Planned Effluent (ac in/ac)	Effluent / field (Ac. In)	
1 2 3 4 5 5A 6 7 8	26.0		Coastal graze 1 AU/1 ac, SG mod graze M	184	A	33.7	20.0	6.7	175	
9 10 11 12 13 14 15	16.0		Coastal graze 1 AU/1 ac, SG mod graze M	137	A	33.7	20.0	6.7	108	
	1									

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283

YES

Will the planned application rates use all of the Effluent?

Acres

42.0

Table 11 - Nutrients Applied/Needed at the Planned Effluent Rates

Permit #:

WQ0004843000

Red cells? Proceed to adjustment page and fix.

	Nutrients	Applied at Plar								
LMU / Field #	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	N Lb/ac	P ₂ O ₅ Lb/ac	K ₂ O Lb/ac	Lime T/Ac			
1										
2										
3										
4										
5	66	70	422	285	0	0	0			
5A					ľ					
6										
7										
8										
9										
10										
11										
12										
13	66	70	422	250	0	0	0			
14										
15										
	1									
							1			
1										
				1		l				
		1								
		- 1		1						

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Table 12 - Available Water Capacity to 24 inches(or less) of predominant Permit #: soil in fields receiving effluent and Texture of the most restrictive soil layer in the upper 24 inches

WQ0004843000

Г	LMU / Field #	AWC (inches)	Restrictive Texture	1	LMU / Field #	AWC (inches)	Restrictive Texture
-	1	()	- I CANALO		Divio / Hold #	1111 C (menes)	Restrictive resture
	2						
	3		l.				
	4						<u>'</u>
	5	3.96	НоВ				
	5A	3.70	Hob				
	6						
	7						
1	8						
	9						
	10						
	11						
	12					1	
	13	1.61	РсВ				
	14						
	15						
		1					
						l l	

Table 13 - Non Application Areas by Field

WQ0004843000 FS = 393-Filter Strip; FB = 386-Field Border, RFB = 391-Riparian Forest Buffer; OLEA = Other Land Excluded Ar-

Permit #:

	FS	FB				ī	>1 tapan					Excluded Ar
LMU /	l		RFB	OLEA		Н	LMU /	FS	FB	RFB	OLEA	
Field#	Acres	Acres	Acres	Acres	Excluded		Field#	Acres	Acres	Acres	Acres	Excluded
1	0.0	0.0				П						
2	0.0	0.0										
3	0.0	0.0										
4	0.0	0.0				Ы						
5	0.0	0.0										
5A	0.0	0.0										
6	0.0	0.0				Н						
7	0.0	0.0										
8	0.0	0.0										
9	0.0	0.0										
10	0.0	0.0										
11	0.0	0.0										
12	0.0	0.0										
13	0.0	0.0										
14	0.0	0.0										
15	0.0	0.0				Н						
						L						
See App	lication l	Map for l	ocation of	buffers		Т	otals	0.0	0.0	0.0	0.0	0.0

See Application Map for location of buffers Total 590-633 application acres: 512.0

0.00.00.00.0Total 590-633 Field Acres: 512.0

Waste Utilization and Nutrient Management Data Entries

General Data

Date: 8/7/2025

Farmer Name: Sherwyn Wood Dairy

County in which the Land is located : Erath

Type of Waste Plan: Other AFO-CAFO Waste Plan

Is this plan in a TMDL watershed for nutrients?

Yes or No: Yes

Is any field PERMITTED by TCEQ?

Yes or No: Yes

Permit #: WQ0004843000

All other entries on General Page appear on the Cover Page

Animal Information

Plan Year: 2025

Are you receiving waste from another producer? No

Number of animals: 990 Approximate Weight: 1325

Days per year in confinement : 365
Hours per day confined : 24

ACRE FEET of effluent to be irrigated*: 16.06

Estimated annual gallons of effluent to be

irrigated/applied annually: 5233118.88

For effluent, do you want application rates shown

in gallons or acre inches?: acre inches

Estimated Tons Solids to be Land Applied

Annually (on or off site)*: 3614

Is this the first Year of the AFO-CAFO Operation?

No

Analysis Information

Effluent Information

Date of Analysis: 6/4/2024
Manure Source: Dairy Lagoon
Nitrogen % From Analysis: 0.0054
Phosphorus % From Analysis: 0.002
Potassium % From Analysis: 0.023
Moisture % From Analysis: 99.8

Manure / Solids Information

Date of Analysis: 6/4/2024
Manure Source: Dairy Solids

Nitrogen % From Analysis: 0.578 Slurry

Phosphorus % From Analysis: 0.144
Potassium % From Analysis: 0.456
Moisture % From Analysis: 62.6

What will be Applied to Fields on this Farm? Both Effluent and Solids

Is this Farm part of an AFO-CAFO?

This plan is based on: rganic Nutrient Management Plan
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Field and Buffer Entries

Permit #: WQ0004843000

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FS = 393-Filter Strip, FB = 386-Field Border, RFB = 391-Riparian Forest Buffer, OLEA = Other Land Exclusion Areas or

non-application areas (i.e. headquarters, freq. flooded areas, wooded areas, water bodies, etc)
NOTE: Field Border (FB) is expressed in ACRES on this spreadsheet, but as LINEAR FEET on the CPO.

	NOTE: Field	Border (F	B) is expres	sed in ACI	RES on thi	s spreadsh	eet, but as LIN	EAR FEET on the CPO.
Field No.	Total LMU or Field Acres	FS	FB	RFB	OLEA	Total Buffer Acres	Actual Application Acres	This Column Intentionally Left Blank
1	10	- 10	10	At b	OBBA	0.0	10.0	This column mentionally con blank
2	33					0.0	33.0	
3	53					0.0	53.0	
4	21					0.0	21.0	
5	26					0.0	26.0	
5A	25					0.0	25.0	
6	59					0.0	59.0	
7	104					0.0	104.0	
8	42					0.0	42.0	
9	61					0.0	61.0	
10	21					0.0	21.0	
11	9					0.0	9.0	
12	12					0.0	12.0	
13	16					0.0	16.0	
14	15					0.0	15.0	
15	5					0.0	5.0	
15	3					0.0	5.0	
						-		
					-			
	-							
	-							

Soil Test, Crop Information and Plant Analysis Data Entries

	Printed on:	8/7/25 3:2	6 PM	Plan is	based on:	590 Organ	nic Nutrient Management Plan V 5.0			Permit #:	W	Q000484	13000
													tional) Use
	Soil Test	Analysis							<u>.0</u>	Only W	hen Crop F	Removal i	s Required
				This				l±	Plant Analysis (Y / N)				
			Lime	column				Effluent Solids	na				Yield
l	_		(enter amt	,		Appl.	Crop/Land-Use and	ᄩᇙ	1 € €				Air Dry
N .	Ρ,	K	or leave	Dry	LMU or	Area	P Index Runoff Potential	11 11	Plant A (Y / N)	0/ 14		N 16	Production
(ppm)	(ppm)	(ppm)	blank)	Poultry	Field #	Acres	VL - L; M; H; or VH			% N	% P	% K	(lbs/ac/yr)
29.8	190	341			1	10.0	Coastal graze 1 AU/1 ac, SG mod graze M	S	N				
12.68	125	750			2	33.0	Coastal graze 1 AU/1 ac, SG mod graze H	S	N				
26.159	96	447			3	53.0	Coastal graze 1 AU/1 ac, SG mod graze M	S	N				
28.438	163	471			4	21.0	Coastal graze 1 AU/1 ac, SG mod graze H	S	N				
25.665	184	1001			5	26.0	Coastal graze 1 AU/1 ac, SG mod graze M	E	N				
34.495	223	707			5A	25.0	Coastal graze 1 AU/1 ac, SG mod graze H	S	N				
45.476	63.5	298			6	59.0	Silage - Sorg7-10T;SG GreenChop-6-7T H	S	N				
20.366	42.9	293			7	104.0	Silage - Com16-20T;SG Silage-5-7T H	S	N				
18.859	23.3	289			8	42.0	Silage - Com16-20T;SG Silage-5-7T H	S	N				
14.604	21	255			9	61.0	Silage - Corn16-20T;SG GreenChop-8-9T H	S	N				
26.757	29	198			10	21.0	Coastal GC (30%DM) 9-11T; SG GC 6-7T M	S	N				
18.896	101	343			11	9.0	Coastal graze I AU/I ac, SG mod graze M	S	N				
42.953	203	568			12	12.0	Coastal graze 1 AU/1 ac, SG mod graze H	S	N				
41.194	137	773			13	16.0	Coastal graze 1 AU/1 ac, SG mod graze M	Е	N				
42.278	120	538			14	15.0	Coastal graze 1 AU/1 ac, SG mod graze H	S	N				
24.383	129	542			15	5.0	Coastal graze 1 AU/1 ac, SG mod graze M	S	N				
								1					
								1					
								+					-
			1					+	_				
	-							+					
								+					
								-					
		2											

Solids Application Rate Entries

9663	Set the Planned Application Rates "Wet tons" of solids produced Annually		V	/ill the plann	ed rates us	se all of th
					used off-s	
LMU or Field No. Acres	Crop Management and PI runoff potential	Current Soil Test P ppm	Crop P ₂ O ₅ Req.	Annual or Biennial Application Cycle	Maximum Solids Allowable Tons/Ac	Enter % of Maximum Planned to Apply
1 10.0	Coastal graze 1 AU/1 ac, SG mod graze M	190	175	Annual	115.6	22.0
2 33.0		125	175	Annual	106.4	22.0
3 53.0	Coastal graze 1 AU/1 ac, SG mod graze M	96	175	Annual	115.6	22.0
4 21.0	Coastal graze 1 AU/1 ac, SG mod graze H	163	175	Annual	106.4	22.0
5						
5A 25.0	Coastal graze 1 AU/1 ac, SG mod graze H	223	175	Annual	36.7	22.0
6 59.0	Silage - Sorg7-10T;SG GreenChop-6-7T H	64	140	Annual	85.1	22.0
7 104.0	Silage - Corn16-20T;SG Silage-5-7T H	43	140	Annual	85.1	22.0
8 42.0	Silage - Corn16-20T;SG Silage-5-7T H	23	140	Annual	85.1	22.0
9 61.0	Silage - Corn16-20T;SG GreenChop-8-9T H	21	190	Annual	115,5	21.0
10 21.0	1	29	205	Annual	115.6	21.0
11 9.0	Coastal graze 1 AU/1 ac, SG mod graze M	101	175	Annual	115.6	21.0
12 12.0	Coastal graze 1 AU/1 ac, SG mod graze H	203	175	Annual	36.7	21.0
13						
14 15.0	INC. VINC.	120	175	Annual	106.4	21.0
15 5.0	Coastal graze 1 AU/1 ac, SG mod graze M	129	175	Annual	115.6	21.0

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Effluent Application Rate Entries

Efflu	ient ·	 Set the Planned Application Rat 	es			Permit #:		WQ00048430	000
	5233119				Will the pl	Yes			
	193	Acre inches of Effluent to be used annually							
LMU or Field No.	Acres	Crop Management and PI runoff potential	Current Soil Test P (ppm)	Crop P2O5 Req.	Annual or Biennial Application Cycle	Max Effluent Allowable (ac in/ac)	Enter % of Maximum Planned to Apply	Planned Effluent (ac in/ac)	Planned Effluent per field (acre inches)
	26.0	Coastal graze 1 AU/1 ac, SG mod graze M Coastal graze 1 AU/1 ac, SG mod graze M							

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Total Effluent This Page

Available Water Capacity Entries

	Printed on:	8/7/25	3:26	PM				ed on:				Manager	nent Pla	Pe	rmit #:	W	/Q0004	1843000
	1 111100	0.7720	0.20			, ,,,,,,	10 500	EX	AMPLE	ENTR	RIES						4000	
	Texture of the soil layer within the upper 24	0	3	0.12	0.2	3	14 E n	0.16	0.21 ta for	14	18	0.08	0.12	18	24	0	0	Available Water Holding Capacity (AWC) of
LMU or Fields receiving Effluent	inches of the soil profile that has the lowest permeability (Don't Abbreviate)	Fi La	th of rst yer hes)	Fi La	C of rst yer /in)	Sec La	th of ond yer hes)	AW Sec La	C of ond yer /in)	Dep Th La	th of ird yer hes)	AW Th Lay	C of ird yer /in)	For La	th of urth yer hes)	For La	C of urth yer /in)	the upper 24 inches of the soil profile (Inches)
5	НоВ	0	30	0.15	0.18	30				0				0				3.96
13	PcB	0	14	0.08	0.15	14	24	0	0	24				0				1.61

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OTHER PROPERTIES Moisture

Total Solids

Ash

Organic Matter

Phone: 806.677.0093 800.557.7509

Fax: 806.677.0329

Lab No: 3482	LABOR	ATORY A	ANALYSI	S REPORT	Report Date: 07/	08/2024 01:04 pm
Send To: 6224	ENVIRO-AG ENG 3404 AIRWAY BL AMARILLO, TX 7	VD	NC			Johnson al Director
Client Name: Sample ID:	SHERWYN WOO RCS 1	D DAIRY		Received: Sampled: Invoice No: P.O. #:	06/11/2024 06/04/2024 425750	
Churpina		Analysis	results	lbs/ac	re-in	meq/L
NUTRIENTS						
Ammoni Nitrate+l	Nitrogen um Nitrogen Nitrite Nitrogen	54 25 28.9 <0.20	ppm ppm ppm ppm	91	12 6 7 0	3.9 1.8 2.1 0
	econdary Nutrients	20	nnm			
Phospho Potassiu	Phosphorus Phosphorus as P2O5 Potassium		ppm ppm ppm		11	5.9
Potassiu	ım as K2O	280	ppm		63	

C:N Ratio ratio Amended Report - Any information on this report supersedes the previous report on 06/26/2024

453

227

99.8

0.2

0.1

< 0.10

10.7

%

%

%

%

Enviro-Ag Engineering, Inc.

3404 Airway Blvd,, Amarillo, TX 79118 Tel. 806-353-6123 Fax 806-353-4132

WASTEWATER CHAIN OF CUSTODY RECORD

Producer/Facility:

Sherwyn Wood Dairy

County:

Erath

Date Sampled:

6/4/2024

Date Shipped:

6/10/2024

Pro,	ject i	Manager:	Corey	Mullin

Sample Type	Sample (D	Number of Containers	Test Package	Proper Preservation	Matrix
Wastewater Shurrup	Sturving	2 3482	EAE TX CO KS LAGOON EAE TX COKS SLLL	Y	0T

Relinquished By: Ref. I	nternal COC	Relinquished By: Lisa Postmus	Relinquished By:	
Company:	EAE	Company: EAE	Company:	ServiTech Lab
		Date/Time:	1.011.es	
		Received By:		

6921 S. Bell • Amarillo, TX 79109 www.servitech.com **Phone:** 806.677.0093 800.557.7509

Fax: 806.677.0329

ab No.: 3531	LABC	RATORY A	NALYSIS	REPORT	Report	t Date: 06	/27/2024 (9:10 pm	
Send To: 6224	ENVIRO-AG 3404 AIRWA AMARILLO,		INC		0	MM	Meier	ier	
					[Data Revie		ator	
Results For: Sample ID:	SHERWYN \ PEN MANUF	WOOD DAIRY RE	Sampled Invoice No	Received: 06/12/2024 Sampled: 06/04/2024 Invoice No: 425756 P.O. #: COREY MULLIN					
					Total	content I	Estimated first y		
			Analysis (dry basis)	Analysis (as rec'd)	lbs per Acre-In	lbs per 1000 gal	•	lbs per	
NUTRIENTS									
Nitrogen									
Total Nitrog		%	1.545	0.578	3503.5	52.0			
Organic Nit		%	1.524	0.570	3455.1	51.3			
Ammonium	•	%	0.021	0.008	48.5	0.7		-	
Nitrate+Nitr	ite Nitrogen	%	0.0032	0.0012	19.4	0.1	2.	7 0	
Major and Sec	ondary Nutrient								
Phosphorus		%	0.398	0.144					
Phosphorus	s as P2O5	%	0.911	0.330	5522.0	29.7	673.	3 26	
Potassium Potassium	as K2O	% %	1.26 1.51	0.456 0.547	9152.9	49.2	1240.	0 49	
OTHER PROPERT	IES								
Moisture		%		62.6					
Total Solids	3	%		37.4	226700	3366			
Organ	ic Matter	%	41.2	15.4	93347	1386			
Ash		%		22.0		1980			

* Assumes 37% of organic nitrogen available during first crop year after application. Assumes 100% of ammonium and

nitrate nitrogen available, but should be adjusted for potential field losses at application site.

ENVIRO-AG ENGINEERING, INC.

Enviro-Ag Engineering, Inc. 3404 Airway Blvd, Amarillo, TX 79118 Tel. 806-353-6123 Fax 806-353-4132

MANURE CHAIN OF CUSTODY RECORD

Producer/Facility: Sherwyn Wood Dairy

County: Erath

Date Sampled: 6/4/2024

Date Shipped: 6/10/2024

Project Manager: Corey Mullin

Sample Type	Sample ID	Number of Containers	Test Package	Proper Preservation	
Manure	Pen Manure 35.	31 1	EAE TX CO KS MANURE	Y	Matrix
Manure	Compost 353	2 1	EAE TX CO KS MANURE	Y	or

Relinquished By: Ref. Internal COC	Relinquished By: Lisa Postmus	Relinquished By:	
Company: EAE	Company: EAE	_Company:	ServiTech Lab
	Date/Time: UNIV	_	
	Received By:		

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 31, 2023

CERTIFIED MAIL 7022 2410 0000 5131 7339 RETURN RECEIPT REQUESTED

Mr. Sherwyn Dallas Wood Sherwyn Wood Dairy 757 CR 229 Stephenville, Texas 76401

Re: Annual Soil Sample Analysis Results at Sherwyn Wood Dairy

CAFO Permit No.: WQ0004843000

Dear Mr. Wood

Attached are the analytical results for the soil samples that were collected at your facility on September 5, 2023 and September 6, 2023. A copy of the sampling map is attached. Please utilize these results to update your nutrient management plan.

In addition, if any of the results are greater than 200 parts per million for phosphorus, please develop a new nutrient utilization plan (NUP) or revise your existing NUP, in accordance with your permit. All new or revised NUPs that are required to be submitted for TCEQ review and approval shall be mailed to the following address:

Water Quality Assessment Section Manager Water Quality Division, MC 150 Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087

If you collected a duplicate sample following RG-408 protocol during the TCEQ sampling event that indicates a significant difference in the TCEQ analysis results (greater than 20% difference), you may choose to dispute the TCEQ sample results within 20 calendar days from the date of this letter. You must provide copies of all supporting documentation, including but not limited to your sample results, chain of custody documentation and laboratory quality assurance documentation. Please submit this information in writing to the TCEQ at the following address:

ATTN: Annual CAFO Soil Sample Analysis Disputes Water Section Manager Dallas/Fort Worth Regional Office Texas Commission on Environmental Quality 2309 Gravel Drive Fort Worth, TX 76118-6951 An analysis dispute received after the time allocated above will not be eligible for re-analysis. If you have any questions, please feel free to contact Mr. Michael Martin in the Stephenville Office at 254-552-1900.

Sincerely,

Michael Martin, Team Leader, Water Section

DFW Region Office

Texas Commission on Environmental Quality

MM/dm

Enclosures: Laboratory Analysis Reports

TEXAS COMMISS ENVIRON QUALITY	IMENTAL			Ch	ain	of	Cust	tod	y F	Rec	ord		55673
Location:	nezu	(Do no	ot fill	in this shade	od area	f the fac	ility inform	nation	must l	oe confid	lential)		mit #: WG 4843
Region:	Organization	#:		PCA Code			Progran				Sampler telephone number:		
E-Mail ID:	ail ID: Sampler: (signature) Sampler: (please p								Sampler: (please print clearly)				
Lab ID Number	Sample ID	Date		Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	CL2	рН	Cond.	Analyses Requested		REMARKS
13105	-01	9.5	-73	9:45							See RFA	Lm	W1 (0-2)
13106	-02			9:45								CM	14/ (2-Le)
13107	-03			9:45								L	nui (le-24)
13108	-04			10:30								Ln	nu 2 (0-6)
13109	-05			10:30								Lm	IU 2 (6-24)
13110	-06			11:06								LM	N13 (02)
13111	-07			11:06								lm	nu3 (2-6)
13112	-08	1		11:06								lly	MU3 (6-24)
13113	-09	911	d23	1230							No.	ILM	nu 4 (0-3)
13114	-10	9/4	13	1230	A	2	P					ILM	MU 4 (2-6)
Relinquished by	vi vesen	Date //20/	72	Time		ed 6 y:	h ?	1-2	1-2	3	For Laboratory Use;		
Relinquished by	y:	Date		Time	Recei	ed by:					Received on ice: Y	N	deg. C
Relinquished by	y:	Date		Time	Receive	ed by:					Preservatives: Y	N	
Relinquished by	/ :	Date		Time	Receive	ed by:					COC Seal: Y	N	
Shipper name:		Shippi 77	er Ni.	7405	043	b					Seals Intact: Y	N	

TCEQ-10065 (11/02)

White (Original) -Lab

Yellow-Lab

Pink-Contract Lab Manager

Goldenrod-Collector Copy

Report for Samples analyzed Under Contract Number: 582-10-99518 Report ID: 055673a-45224
Print Date: 25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name: Sherwyn Wood Client address: not provided

Standard Sample Report TCEQ COC# 055673

Laboratory ID:	TCEQ/dient	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
Leberatory ID.	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
13105	55673-01	0-2	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13106	55673-02	2-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13107	55673-03	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13108	55673-04	0-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13109	55673-05	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13110	55673-06	0-2	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13111	55673-07	2-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13112	55673-08	6-24	9/5/2023	Cody Christian	4	9/21/2023	şoii	9/21/2023	10/5/2023	TLP
13113	55673-09	0-2	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13114	55673-10	2-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 Dl water:soil SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

 Report ID: 055673a-45224
 Print Date: 25-Oct-23

 Standard Sample Report
 TCEQ COC# 055673

Staridard Carr	PIC LICPOIL		<u> </u>	000010									
Laboratory ID:	TCEQ/dient	Mehlich III											
	Sample 1D:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
13105	55673-01	183	ppm	340	ppm	7028	ppm	464	ppm	72.4	ppm	64.6	ppm
13106	55673-02	92.3	ppm	217	ppm	10687	ppm	385	ppm	79.0	ppm	77.1	ppm
13107	55673-03	14.8	ppm	192	ppm	15372	ppm	304	ppm	105	ppm	72.8	ppm
13108	55673-04	150	ppm	815	ppm	9449	ppm	452	ppm	79.9	ppm	38.6	ppm
13109	55673-05	19.4	ppm	415	ppm	15247	ppm	296	ppm	112	ppm	148	ppm
13110	55673-06	96.0	ppm	447	ppm	9442	ppm	359	ppm	75.7	ppm	87.9	ppm
13111	55673-07	43.5	ppm	232	ppm	10050	ppm	316	ppm	73.6	ppm	89.1	ppm
13112	55673-08	11.7	ppm	221	ppm	11562	ppm	263	ppm	86.7	ppm	94.6	ppm
13113	55673-09	132	ppm	530	ppm	12554	ppm	397	ppm	120	ppm	41.6	ppm
13114	55673-10	66.6	ppm	379	ppm	10832	ppm	337	ppm	85.9	ppm	49.3	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
13105	55673-01	10/10/2023	FMR	10/11/2023	JLP
13106	55673-02	10/10/2023	FMR	10/11/2023	JLP
13107	55673-03	10/10/2023	FMR	10/11/2023	JLP
13108	55673-04	10/10/2023	FMR	10/11/2023	JLP
13109	55673-05	10/10/2023	FMR	10/11/2023	JLP
13110	55673-06	10/10/2023	FMR	10/11/2023	JLP
13111	55673-07	10/10/2023	FMR	10/11/2023	JLP
13112	55673-08	10/10/2023	FMR	10/11/2023	JLÞ
13113	55673-09	10/10/2023	FMR	10/11/2023	JLP
13114	55673-10	10/10/2023	FMR	10/11/2023	JLP

 Report ID: 055673a-45224
 Print Date: 25-Oct-23

 Standard Sample Report
 TCEQ COC# 055673

Laboratory ID:	TCEQ/client Sample ID:	рН	pH units	Conductivity	Conductivity units	Nitrate-N	Nitrate-N units
13105	55673-01	7.19	NA	0.479	dS/M	80.932	ppm
13106	55673-02	7.77	NA	0.328	dS/M	24.571	ppm
13107	55673-03	7.87	NA	0.297	dS/M	11.712	ppm
13108	55673-04	7.62	NA	0.328	dS/M	42.474	ppm
13109	55673-05	8	NA	0.169	dS/M	12.571	ppm
13110	55673-06	7.71	NA	0.306	dS/M	26.159	ppm
13111	55673-07	7.79	NA	0.293	dS/M	17.097	ppm
13112	55673-08	7.82	NA	0.447	dS/M	16.123	ppm
13113	55673-09	7.38	NA	0.421	dS/M	42.217	ppm
13114	55673-10	7.71	NA	0.418	dS/M	18.412	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	па	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/dient	pH/Conduct	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N	extract	Nîtrate-N A	nalysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13105	55673-01	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13106	55673-02	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13107	55673-03	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13108	55673-04	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13109	55673-05	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13110	55673-06	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13111	55673-07	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13112	55673-08	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13113	55673-09	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13114	55673-10	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Report ID: 055673a-45224 Quality Control Report

Print Date: 25-Oct-23

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13119	1C953	49.5	ppm	319	ppm	2251	ppm	358	ppm	38.8	ppm	49.3	ppm
13120	IC954	49.5	ppm	315	ppm	2275	ppm	361	ppm	37.5	ppm	50.5	ppm
	Mean IC	0	ppm										
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	<0.0132	ppm	<0.201	ppm	<0.223	ppm	< 0.0706	ppm	< 0.003939	ppm	<0.0460	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	_1_	ppm	1	ppm	1	ppm	1	ppm	1	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC953	10/10/2023	FMR	10/11/2023	JLP
IC954	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055673a-45224

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
13119	IC953	5.8	na	0.249	dS/M	6.267	ppm	
13120	IC954	5.8	na	0.25	dS/M	5.636	ppm	
	Mean IC	5.83	na	0.2495	dS/M	5.9515	ppm	
13120spike	Spiked sample	9	-	42	727	4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205	<u> </u>	na	0	dS/M	-1.088	ppm	

Laboratory ID:	рН	pH units	Conducitity conc.	Conducitity units	Nitrate-N conc.	Nitrate-N units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	11	ppm

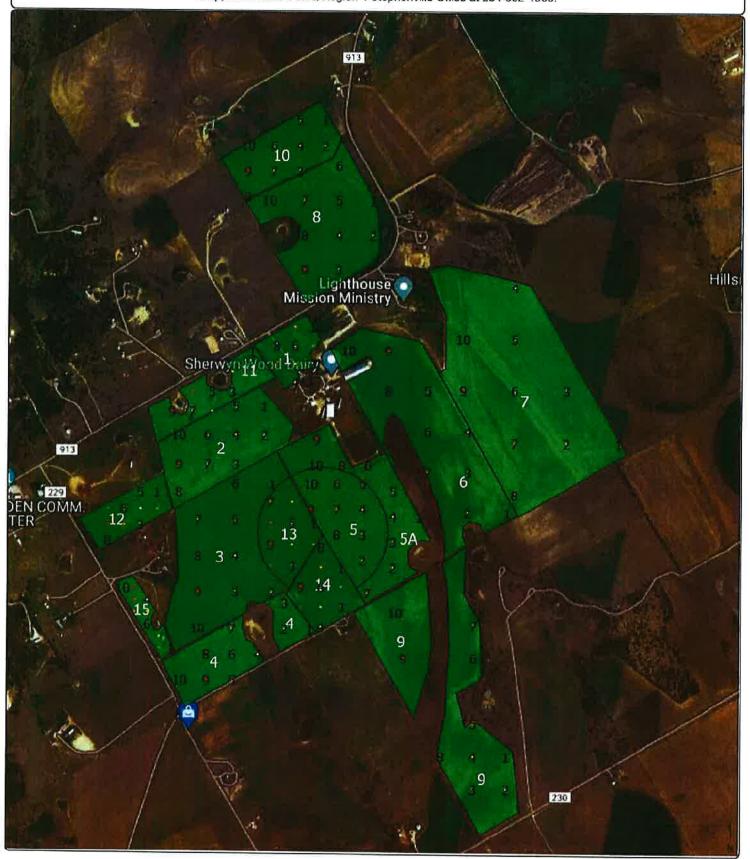
Laboratory ID:	pH/Conduct	ivity prep	рН Ала	tysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N	Analysis
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC953	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC954	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	WL
blk205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 55673								
Sample ID: 6 ~ 1 (Sample ID: 0 - 10							
Standard Request for Analysis								
NO3-N	Mg							
P Mehlich III by ICP	Conductivity							
K Na_	pН							
Na								
Additi	ional Tests							
NA	·							

Sherwyn Wood Dairy**757 CR 229, Stephenville, TX 76401**Mar 4, 2021 Permit

This map was generated by the Region 4 Stephenville Office of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the TCEQ Region 4 Stephenville Office at 254-552-1900.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY	Chain of Custody Record	5 5

ENVIRO QUALIT	SSION ON DNMENTAL Y		Cr	nain	of	Cus	toc	y	Rec	ord		5 5 674	1
Location: <	heew	(Do not fill	in this shade	ed area	if the fac	cility inform	nation	must	be confid	(ential)	Pe	ermit #:	4843
Region:	Organization	#:	PCA Code			Program				Sampler telephone number:	-		
E-Mail ID:		Sampler	(signature)						Sampler: (please print clearly)			
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,1	CL2	рН	Cond.	Analyses Requested		REMARKS	
1307 \$	SQ1	9/4/3	1230							See RIPA		MU 4 16.	3 4
130734	1-02 D	9/4/13	1150							9		MU 5 (f	He)
130745	5-03/TY	7/0/23	1150								Π	MU 5 (6	24
13075	6-04	9/10/23	1135								lix	MUSA (c	-le)
13074	7,05	9/6/8	1135								lu	MU 5A (là	-au)
1307	2 66	9/4/23	1015								()	MU 6 6	(10)
13081	-07	4/6/23	IDIS								Ū	mu le lle	24)
13082	-08	9/4/23	CALIS									mu 7 (0	(قا-
13083	-09	4/6/23	0945								iv	MU 7 (10-	-24)
13084	-10	9-5-23	8:47		۸ ۵	1						mu 8 (0	-10)
Relinquished I		Pete 1/30/23	Time	Receiv	by:	5	7-2	4-2	23	For Laboratory Use:			
Relinquished t	by:	Date	Time	Receiv	ed by:	,				Received on ice: Y	M	deg	ı. C
Relinquished b	by:	Date	Time	Receiv	ed by:				ã	Preservatives: Y	/N		
Relinquished b	py:	Date	Time	Receiv	ed by:					COC Seal: Y	N		
Shipper name:		Shipper N	7405	043	6					Seals Intact: Y	()		
CEQ-10065 (11/0	2)	White (Orig	inal) -Lab			ellow-Lab			Pink	-Contract Lab Manager	Cold	enrod-Collector, Conv	

Pink-Contract Lab Manager

Goldenrod-Collector Copy

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055674a-45224

Print Date:

25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478

979-862-4955

Client Name: Client address: Sherwyn Wood not provided

Standard Sample Report

TCEQ COC# 055674

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region#	Received	Type:	Date	Date	Tech.
13073	55674-01	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13074	55674-02	0-6	9/6/2023	Cody Christian	4	9/21/2023	lioa	9/21/2023	10/5/2023	TLP
13075	55674-03	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13076	55674-04	0-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13077	55674-05	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13078	55674-06	0-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055674a-45224

Print Date: 25-Oct-23

Standard Sample Report

Laboratory ID:	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
13073	55674-01	3.36	ppm	169	ppm	14415	ppm	204	ppm	97.8	ppm	81.5	ppm
13074	55674-02	103	ppm	783	ppm	9012	ppm	582	ppm	80.4	ppm	181	ppm
13075	55674-03	8.03	ppm	256	ppm	12522	ppm	362	ppm	89.1	ppm	283	ppm
13076	55674-04	93.1	ppm	550	ppm	9396	ppm	379	ppm	80.0	ppm	81.0	mgq
13077	55674-05	6.32	ppm	170	ppm	16483	ppm	246	ppm	106	ppm	123	ppm
13078	55674-06	63.5	ppm	298	ppm	11712	ppm	369	ppm	76.3	ppm	62.8	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/dient	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
13073	55674-01	10/10/2023	FMR	10/11/2023	JLP
13074	55674-02	10/10/2023	FMR	10/11/2023	JLP
13075	55674-03	10/10/2023	FMR	10/11/2023	JLP
13076	55674-04	10/10/2023	FMR	10/11/2023	JLP
13077	55674-05	10/10/2023	FMR	10/11/2023	JLP
13078	55674-06	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055674a-45224

Print Date: 25-Oct-23

Standard Sample Report

Laboratory ID:	TCEQ/client	pН	pΗ	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	Sample ID:		units		units		units
13073	55674-01	7.79	NA	0.293	dS/M	9.279	ppm
13074	55674-02	7.76	NA	0.358	dS/M	50.588	ppm
13075	55674-03	7.96	NA	0.523	dS/M	14.38	ppm
13076	55674-04	7.63	NA	0.449	dS/M	62.045	ppm
13077	55674-05	7.88	NA	0.399	dS/M	11.619	ppm
13078	55674-06	7.63	NA	0.461	dS/M	45.476	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	mag

Laboratory ID:	TCEQ/client	pH/Conduct	ivity prep	pH Anai	ysis	Conduc	tivity	Nitate-N E	xtract	Nitrate-N A	nalysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13073	55674-01	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13074	55674-02	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13075	55674-03	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13076	55674-04	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13077	55674-05	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13078	55674-06	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Report ID: 055674a-45224 Quality Control Report

Print Date: 25-Oct-23

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13079	IC949	44.5	ppm	311	ppm	2272	ppm	357	ppm	34.6	ppm	48.4	ppm
13080	IC950	45.6	ppm	312	ppm	2268	ppm	358	ppm	34.6	ppm	48.1	ppm
	Mean IC	0	ppm										
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	< 0.0132	ppm	< 0.201	ppm	<0.223	ppm	< 0.0706	ppm	< 0.003939	ppm	< 0.0460	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	11	ppm	1	ppm	1	ppm

Laboratory ID:	Mehfich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC949	10/10/2023	FMR	10/11/2023	JLP
IC950	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055674a-45224

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		ρH	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
13079	IC949	5.8	na	0.251	dS/M	6.556	ppm	
13080	IC950	5.8	na	0.249	dS/M	5.665	ppm	
	Mean IC	5.83	na	0.25	dS/M	6.1105	ppm	
13080spike	Spiked sample	*	12	4	3	4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205		na	0	dS/M	-1.088	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	па	0.001	dS/M	1	ppm

Laboratory iD:	pH/Conductivity prep		pH Analysis		Conductivity		Nitate-N Extract		Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC949	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC950	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
blk205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055674b-45224

Print Date:

25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478 979-862-4955

Client Name: Client address: Sherwyn Wood not provided

Standard Sample Report

TCEQ COC# 055674

Laboratory ID:	TCEQ/client Sample ID:	Sample Depth (inches)	Sample Coll. Date:	Collector Name:	TCEQ Region#	Date Received	Sample Type:	Sample opened Date	Sample Ground Date	Process Tech.
13081	55674-07	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13082	55674-08	0-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13083	55674-09	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13084	55674-10	0-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.), Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055674b-45224 Standard Sample Report Print Date: 25-Oct-23 TCEQ COC# 055674

Jeminam a sam	1010												
Laboratory ID:	TCEQ/client Sample ID:	Mehlich III P conc.	Mehlich III P units	Mehlich III K conc.	Mehlich III K units	Mehlich III Ca conc.	Mehlich III Ca units	Mehlich III Ma conc.	Mehlich III				
	Sample ID.		i uiita	IV CONC.	Kuins	Ga CONG.	Ca units	wg conc.	Mg units	S conc.	S units	Na conc.	Na units
13081	55674-07	7.31	ppm	216	ppm	17555	ppm	236	ppm	455	ppm	235	ppm
13082	55674-08	63.9	ppm	298	ppm	12330	ppm	344	ppm	89.6	ppm	53.0	ppm
13083	55674-09	5.78	ppm	218	ppm	16624	ppm	187	ppm	102	ppm	45.3	ppm
13084	55674-10	23.3	ppm	289	ppm	12393	mag	328	ppm	80.4	DDM	54.7	nom

Laboratory ID:	Mehlich III	Mehlich III	Mehlich (1)	Mehlich III								
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	11	ppm	1	ppm	1	ppm

TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
55674-07	10/10/2023	FMR	10/11/2023	JLP
55674-08	10/10/2023	FMR	10/11/2023	JLP
55674-09	10/10/2023	FMR	10/11/2023	JLP
55674-10	10/10/2023	FMR	10/11/2023	JLP
	Sample ID: 55674-07 55674-08 55674-09	Sample ID: Extract Date 55674-07 10/10/2023 55674-08 10/10/2023 55674-09 10/10/2023	Sample ID: Extract Date Extract Tech 55674-07 10/10/2023 FMR 55674-08 10/10/2023 FMR 55674-09 10/10/2023 FMR	Sample ID: Extract Date Extract Tech Anal.Date 55674-07 10/10/2023 FMR 10/11/2023 55674-08 10/10/2023 FMR 10/11/2023 55674-09 10/10/2023 FMR 10/11/2023

Report ID: 055674b-45224

Print Date:

25-Oct-23

Standard Sample Report

TCEQ COC#_055674

Laboratory ID:	TCEQ/client	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N	
	Sample ID:	units			units		units	
13081	55674-07	7.7	NA	1.49	dS/M	19.273	ppm	
13082	55674-08	7.7	NA	0.297	dS/M	30.277	ppm	
13083	55674-09	7.81	NA	0.323	dS/M	26.69	ppm	
13084	55674-10	7.75	NA	0.206	dS/M	18.859	ppm	

Laboratory ID: рΗ рΗ Conductivity Conductivity Nitrate-N Nitrate-N units units units Detection Limit 0.01 0.001 0.01 na dS/M ppm Reporting Limit 0.1 na 0.001 dS/M 1 ppm

Laboratory ID:	TCEQ/dient	pH/Conduct	ivity prep	pH Ana	pH Analysis		tivity	Nitate-N Extract		Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13081	55674-07	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13082	55674-08	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13083	55674-09	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13084	55674-10	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Report ID: 055674b-45224 Quality Control Report

Print Date: 25-Oct-23

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13099	IC951	47.5	ppm	308	ppm	2252	ppm	351	ppm	35.6	ppm	47.5	ppm
13100	IC952	48.1	ppm	318	ppm	2317	ppm	361	ppm	37.1	ppm	49.0	ppm
	Mean IC	0	ppm										
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	< 0.0132	ppm	<0.201	ppm	<0.223	ppm	< 0.0706	ppm	< 0.003939	ppm	<0.0460	mag

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	11	ppm	1	ppm	1	ppm	11	ppm	11	ppm	1	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC951	10/10/2023	FMR	10/11/2023	JLP
IC952	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055674b-45224

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nîtrate-N
			units	conc.	units	conc.	units	% recovery
13099	IC951	5.8	na	0.248	dS/M	6.633	ppm	
13100	IC952	5.8	na	0.25	dS/M	5.633	ppm	
	Mean IC	5.835	na	0.249	dS/M	6.133	ppm	
13100spike	Spiked sample	-	-	20	-	4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205	-	na	0	dS/M	-1.088	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	11	ppm

Laboratory ID:	poratory ID: pH/Conductivity prep		pH Analysis		Conductivity		Nitate-N Extract		Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC951	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC952	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	WL
blk205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Attachment F

TCEQ STAFF CONTACT INFORMATION

TCEQ - BOSQUE 1255-1226 SOIL SAMPLES

	I COMMY	• X
3 4 - 4	9:6-23	cock 55474
Date:	to the second of	his sample, please contact the following staff as
	Should you need to contact 1024 1-82-1415	

appropriate:	- Investigator	Phone #	Email Address
rimary Contact		254-552-1903	Variessa.Gardner@tceq.texas.gov
*	Vanessa Gardner	254-552-1901	Michael Martin@tceq.texas.gov
	Michael Martin	W. A. A. A.	The state of the sand Sandras WAN
	Cody Christian	254-552-1912	the state of the s
	Chris Pearson	254-552-1905	Chris.Pearson@tceq.tetas.gov

if the primary investigator cannot be reached within one business day, the following persons

may be contacted:	254-552-1901	Michael Martin@tceg.teras.gov
Michael Martin, Team Leader, Stephenville Off.	254-552-1900	Rebecca Stephens@tceq.texas.gov
Michael Mariney Rebecca Stephens, Administrative Assistant Jeff Tate, Water Section Manager, Dallas/Ft.	817-588-5875	Jeff.Tate@tceq.texas.gov
Worth Regional Office Cassandra Derrick, Project Manager, Field	512-239-5304	Cassandra Derrick@tceq.texas.gov
Operations Support Div., Austin Central Office		

Mailing Addresses:

Stephenville Special Project Office

580-D W. Lingleville Rd.

Stephenville , Texas 76401

Main: 254-552-1900 or 1-800-687-7078

Fax: 254-552-1922

Dallas/Pt. Worth Regional Office

2309 Gravel Drive

Fort Worth, Texas 76118

Main: 817-588-5800

Fax: 817-588-5701

TEXAS COMMISS ENVIRON QUALITY	SION ON IMENTAL		Ch	nain	of	Cus	tod	y l	Rec	ord	5 5 675
Location: 5	nerw	(De not	ill in this shade	ed area	if the fac	cility infor	mation	must l	be confid	ential)	Permit #: WAUSU3
Region:	Organization	#:	PCA Code			Progra				Sampler telephone number:	
E-Mail ID:		Sample	r: (signature)			ody Christian				
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,	CL2	pН	Cond.	Analyses Requested	REMARKS
13085	-01	9-5-2	3 8:47						-	SER REFA	(mu 8 (bau)
13086	-02	9/4/23	1110								Lmu 9 (0-6)
1308.7	-03	9/4/23	IIID								(mu 9 (6-24)
13088	-04	9-5-2	9:15								LMU 10 (0-6)
13089	-05	9-5-Z	9:15								LMU 10 (6-24)
13090	-06		10:10								(MU 11 (0-2)
13891	-07		10:10								mu 11 (2-6)
13092	-08		10:10								LMU 11 (6-24)
13093	-09		10:40								LMU 12 (0-6)
13099	-10	+	10:40			1					LMU 12 (16-24)
Relinquished by	len	Date (20/23	Time	Receive	ed by:	the	9-	21.	23	For Laboratory Use:	^
Relinquished by		Date	Time	Receive	ed by:					Received on ice: Y	N deg. C
Relinquished by		Date	Time	Receive						Preservatives: Y	N
Relinquished by		Date	Time	Receive	ed by:					COC Seal: Y	N /
Shipper name:		Shipper 773	Number: 7405	0431	6					Seals Intact: Y	N/

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055675a-45224

Print Date:

25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name: Client address: Sherwyn Wood not provided

Standard Sample Report

TCEQ COC# 055675

Laboratory ID:	TCEQ/dient Sample ID:	Sample Depth (inches)	Sample Coll. Date:	Collector Name:	TCEQ Region#	Date Received	Sample Type:	Sample opened Date	Sample Ground Date	Process Tech.
13085	55675-01	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13086	55675-02	0-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13087	55675-03	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13088	55675-04	0-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13089	55675-05	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13090	55675-06	0-2	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13091	55675-07	2-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13092	55675-08	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13093	55675-09	0-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13094	55675-10	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Staridald Sain	DIO I TOPOIC			000070									
Laboratory ID:	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
13085	55675-01	1.34	ppm	178	ppm	16214	ppm	267	ppm	110	ppm	72.7	ppm
13086	55675-02	19.2	ppm	229	ppm	12963	ppm	275	ppm	94.1	ppm	42.1	ppm
13087	55675-03	5.04	ppm	226	ppm	15808	ppm	229	ppm	115	ppm	69.0	ppm
13088	55675-04	29.0	ppm	198	ppm	11203	ppm	248	ppm	79.6	ppm	39.5	ppm
13089	55675-05	3.67	ppm	151	ppm	16342	ppm	143	ppm	106	ppm	39.2	ppm
13090	55675-06	216	ppm	679	ppm	10488	ppm	491	ppm	96.9	ppm	71.1	ppm
13091	55675-07	127	ppm	408	ppm	11002	ppm	384	ppm	92.1	ppm	56.4	ppm
13092	55675-08	16.1	ppm	189	ppm	15565	ppm	201	ppm	129	ppm	109	
13093	55675-09	203	ppm	568	ppm	9915	ppm	358		81.2	• • •	66.2	ppm
13094	55675-10	15.1	ppm	179	ppm	14154	ppm	191	ppm	93.3	ppm ppm	60.0	ppm

Laboratory ID:	Mehlich III	Mehlich (()										
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
13085	55675-01	10/10/2023	FMR	10/11/2023	JLP
13086	55675-02	10/10/2023	FMR	10/11/2023	JLP
13087	55675-03	10/10/2023	FMR	10/11/2023	JLP
13088	55675-04	10/10/2023	FMR	10/11/2023	JLP
13089	55675-05	10/10/2023	FMR	10/11/2023	JLP
13090	55675-06	10/10/2023	FMR	10/11/2023	JLP
13091	55675-07	10/10/2023	FMR	10/11/2023	JLP
13092	55675-08	10/10/2023	FMR	10/11/2023	JLP
13093	55675-09	10/10/2023	FMR	10/11/2023	JLP
13094	55675-10	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055675a-45224 Standard Sample Report

Print Date:

25-Oct-23

Laboratory ID:	TCEQ/client	pН	рH	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	Sample ID:		units		units		units
13085	55675-01	7.85	NA	0.283	dS/M	10.156	ppm
13086	55675-02	7.75	NA	0.371	dS/M	26.78	ppm
13087	55675-03	7.72	NA	0.641	dS/M	24.192	ppm
13088	55675-04	7.74	NA	0.333	dS/M	26.757	ppm
13089	55675-05	7.78	NA	0.198	dS/M	20.006	ppm
13090	55675-06	7.22	NA	0.496	dS/M	75.203	ppm
13091	55675-07	7.7	NA	0.319	dS/M	29.782	ppm
13092	55675-08	7.9	NA	0.39	dS/M	12.725	ppm
13093	55675-09	7.73	NA	0.387	dS/M	42.953	ppm
13094	55675-10	7.78	NA	0.582	dS/M	35.321	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M		ppm

Laboratory ID:	TCEQ/client	pH/Conduct	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N A	nalysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13085	55675-01	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13086	55675-02	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13087	55675-03	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13088	55675-04	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13089	55675-05	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	WL
13090	55675-06	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13091	55675-07	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	WL
13092	55675-08	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13093	55675-09	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13094	55675-10	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13099	IC951	47.5	ppm	308	ppm	2252	ppm	351	ppm	35.6	ppm	47.5	ppm
13100	IC952	48.1	ppm	318	ppm	2317	ppm	361	ppm	37.1	ppm	49.0	ppm
	Mean IC	0	ppm	0	ppm	0	ppm	0	ppm	ο .	ppm	0	ppm
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	<0.0132	ppm	<0.201	ppm	< 0.223	ppm	< 0.0706	ppm	< 0.003939	ppm	< 0.0460	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	11	ppm	1	ppm	1	ppm	1	ppm	1	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC951	10/10/2023	FMR	10/11/2023	JLP
IC952	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		pН	рΗ	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	сопс.	units	% recover
13099	IC951	5.8	na	0.248	dS/M	6.633	ppm	
13100	IC952	5.8	na	0.25	dS/M	5.633	ppm	
	Mean IC	5.835	na	0.249	dS/M	6.133	ppm	
13100spike	Spiked sample	(2)	-	8	8.5	4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205	42	na	0	dS/M	-1.088	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	pH/Conduct	ivity prep	pH Analysis		Conductivity		Nitate-N Extract		Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC951	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC952	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
Ык205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 556	75
Sample ID: 01-10	
Standard Req	uest for Analysis
NO3-N	Mg
P Mehlich III by ICP	Conductivity
K	pH
Na	
Additio	onal Tests
W 2 24	
\mathcal{H}	7

TEXAS COMMIS ENVIROR QUALITY	SION ON NMENTAL		Ch	ain	of	Cus	tod	y l	Rec	ord	5 5 67 6
Location:	nezw	(Do Vnot fill	ott fill in this shaded area if the facility information must be confidential)								Permit #: 6 4843
Region:	Organization		PCA Code			Progran				Sampler telephone number:	
E-Mail ID:		Sampler:	(signature)						Sampler: (please print clearly)	
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,	CL2	рН	Cond.	Adalyses Requested	REMARKS
13095	-01	9-5-23	11:26							SEO REA	LMU 13 (02)
13096	-02		11:26								(mu 13 (246)
13097	-03		11:26								LMU 13 (1024)
13098	-04	9/4/23	1212								LMU 14 (0-6)
13101	-05	9/423	1717								(mu 14 (12-24)
13102	-06	9/4/13	1750								LMU 15 (b-2)
13103	-07	9/423	1250								LMU 15 (3-6)
13104	-08	9/6/13	1250								LMU 15 (624)
	-09										
	10					,					

|-10 Relinquished by: 90/23 Received by. Time For Laboratory Use: Relinquished by: Received by: Date Time Received on ice: Υ Ν deg. C Relinquished by: Received by: Date Time Preservatives: Υ Ν Relinquished by: Received by: Date Time COC Seal: Υ Ν Shipper name: Shipper Number: 0436 Seals Intact: Y

TCEQ-10065 (11/02)

White (Original) -Lab

Yellow-Lab

Pink-Contract Lab Manager

Goldenrod-Collector Copy

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055676a-45224

Print Date:

25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Sherwyn Wood not provided

Client Name: Client address:

Standard Sample Report To

TCEQ COC# 055676

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
~	Sample ID:	Depth (inches)	Date:	Name:	Region#	Received	Type:	Date	Date	Tech.
13095	55676-01	0-2	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13096	55676-02	2-6	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13097	55676-03	6-24	9/5/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13098	55676-04	0-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil p.H. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Print Date: 25-Oct-23

Standard Sample Report

Laboratory ID:	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	К сопс.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
13095	55676-01	137	ppm	773	ppm	9375	ppm	528	ppm	77.2	ppm	205	ppm
13096	55676-02	109	ppm	512	ppm	8856	ppm	441	ppm	75.6	ppm	184	ppm
13097	55676-03	6.51	ppm	207	ppm	15717	ppm	298	ppm	118	ppm	145	ppm
13098	55676-04	120	ppm	538	ppm	12017	ppm	323	ppm	96.2	ppm	69.3	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/client	Mehtich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
13095	55676-01	10/10/2023	FMR	10/11/2023	JLP
13096	55676-02	10/10/2023	FMR	10/11/2023	JLP
13097	55676-03	10/10/2023	FMR	10/11/2023	JLP
13098	55676-04	10/10/2023	FMR	10/11/2023	JLP

Print Date: 25-Oct-23

Standard Sample Report TC

Laboratory ID:	TCEQ/client	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
Laboratory 10.	Sample ID:	CHASE	units	conductivity	units	THID dic-14	units
13095	55676-01	7.84	NA	0.609	dS/M	41.194	ppm
13096	55676-02	7.86	NA	0.494	dS/M	25.561	ppm
13097	55676-03	7.88	NA	0.593	dS/M	10.722	ppm
13098	55676-04	7.58	NA	0.324	dS/M	42.278	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conduct	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N Extract		Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13095	55676-01	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13096	55676-02	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13097	55676-03	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13098	55676-04	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13099	IC951	47.5	ppm	308	ppm	2252	ppm	351	ppm	35.6	ppm	47.5	ppm
13100	1C952	48.1	ppm	318	ppm	2317	ppm	361	ppm	37.1	ppm	49.0	ppm
	Mean IC	0	ppm										
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	< 0.0132	ppm	<0.201	ppm	<0.223	ppm	< 0.0706	ppm	< 0.003939	ppm	< 0.0460	ppm

Laboratory ID:	Mehlich III	Mehlich (II	Mehlich III									
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	11	ppm	11	ppm	11	ppm	1	ppm	1	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC951	10/10/2023	FMR	10/11/2023	JLP
IC952	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recover
13099	IC951	5.8	na	0.248	dS/M	6.633	ppm	
13100	IC952	5.8	na	0.25	dS/M	5.633	ppm	
	Mean IC	5.835	na	0.249	dS/M	6.133	ppm	
13100spike	Spiked sample	₽.	-	2	-	4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205	*	na	0	dS/M	-1.088	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	pH/Conduc	tivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC951	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC952	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
blk205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055676b-45224

Print Date:

25-Oct-23

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory

108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Sherwyn Wood

Client Name: Client address:

not provided

Standard Sample Report

TCEQ COC# 055676

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region#	Received	Type:	Date	Date	Tech.
13101	55676-05	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13102	55676-06	0-2	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	πp
13103	55676-07	2-6	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP
13104	55676-08	6-24	9/6/2023	Cody Christian	4	9/21/2023	soil	9/21/2023	10/5/2023	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFIL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WL

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Print Date: 25-Oct-23

Standard Sample Report

Laboratory ID:	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
13101	55676-05	14.5	ppm	172	ppm	16036	ppm	209	ppm	101	ppm	37.2	ppm
13102	55676-06	126	ppm	744	ppm	20116	ppm	420	ppm	160	ppm	53.7	ppm
13103	55676-07	135	ppm	784	ppm	10918	ppm	356	ppm	103	ppm	54.0	ppm
13104	55676-08	4.37	ppm	156	ppm	17496	ppm	162	ppm	116	ppm	43.7	ppm

Laboratory ID:	Mehlich III P conc.	Mehlich III P units	Mehlich III K conc.	Mehlich III K units	Mehlich III							
		r unto		r units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
13101	55676-05	10/10/2023	FMR	10/11/2023	JLP
13102	55676-06	10/10/2023	FMR	10/11/2023	JLP
13103	55676-07	10/10/2023	FMR	10/11/2023	JLP
13104	55676-08	10/10/2023	FMR	10/11/2023	JLP

Report ID: 055676b-45224 Standard Sample Report

Print Date:

25-Oct-23

Laboratory ID:	TCEQ/client	pН	рH	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	Sample ID:		units		units		units
13101	55676-05	7.89	NA	0.232	dS/M	13.593	ppm
13102	55676-06	7.52	NA	0.35	dS/M	32.598	ppm
13103	55676-07	7.58	NA	0.289	dS/M	28.011	ppm
13104	55676-08	7.78	NA	0.211	dS/M	15.104	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/dient	pH/Conduct	ivity prep	pH Anal	lysis	Conduc	tivity	Nîtate-N E	Extract	Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
13101	55676-05	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	W
13102	55676-06	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	w
13103	55676-07	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
13104	55676-08	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
13119	IC953	49.5	ppm	319	ppm	2251	ppm	358	ppm	38.8	ppm	49.3	ppm
13120	IC954	49.5	ppm	315	ppm	2275	ppm	361	ppm	37.5	ppm	50.5	ppm
	Mean IC	0	ppm										
	IC Lower	45.0	ppm	274.0	ppm	1864.0	ppm	300.0	ppm	28.0	ppm	29.0	ppm
	IC Upper	54.4	ppm	321.0	ppm	2329.0	ppm	365.0	ppm	47.2	ppm	51.0	ppm
	blk205	< 0.0132	ppm	<0.201	ppm	< 0.223	ppm	<0.0706	mqq	< 0.003939	ppm	< 0.0460	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0065	ppm	0.2012	ppm	0.2235	ppm	0.0705	ppm	0.0039	ppm	0.0460	ppm
Reporting Limit	1	ppm	11	ppm								

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC953	10/10/2023	FMR	10/11/2023	JLP
IC954	10/10/2023	FMR	10/11/2023	JLP
blk205	10/10/2023	FMR	10/11/2023	JLP

Print Date: 25-Oct-23

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
13119	IC953	5.8	na	0.249	dS/M	6.267	ppm	
13120	IC954	5.8	na	0.25	dS/M	5.636	ppm	
	Mean IC	5.83	na	0.2495	dS/M	5.9515	ppm	
13120spike	Spiked sample	•	-	=		4.9	ppm	83.4
	IC lower	5.760	na	0.238	dS/M	4.6	ppm	
	IC Upper	5.990	na	0.306	dS/M	7.1	ppm	
	blk205	351	na	0	dS/M	-1.088	ppm	

Laboratory ID:	рΗ	pH	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	pH/Conduct	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC953	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
IC954	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW
blk205	10/9/2023	DEC	10/10/2023	DEC	10/10/2023	DEC	10/10/2023	FMR	10/11/2023	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 551	e76
Sample ID: 01-04	
Standard Requ	est for Analysis
NO3-N	Mg
P Mehlich III by ICP	Conductivity
K	pH
Na	
Additio	nal Tests
NA	

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

December 11, 2024

CERTIFIED MAIL 7022 2410 0000 5131 8077 RETURN RECEIPT REQUESTED

Mr. Sherwyn Dallas Wood Sherwyn Wood Dairy 757 CR 229 Stephenville, Texas 76401

Re:

Annual Soil Sample Analysis Results at Sherwyn Wood Dairy CAFO Permit No.: WQ0004843000

Dear Mr. Wood

Attached are the analytical results for the soil samples that were collected at your facility on October 7, 2024, and October 8, 2024. A copy of the sampling map is attached. Please utilize these results to update your nutrient management plan.

In addition, if any of the results are greater than 200 parts per million for phosphorus, please develop a new nutrient utilization plan (NUP) or revise your existing NUP, in accordance with your permit. All new or revised NUPs that are required to be submitted for TCEQ review and approval shall be mailed to the following address:

Water Quality Assessment Section Manager Water Quality Division, MC 150 Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087

If you collected a duplicate sample following RG-408 protocol during the TCEQ sampling event that indicates a significant difference in the TCEQ analysis results (greater than 20% difference), you may choose to dispute the TCEQ sample results within 20 calendar days from the date of this letter. You must provide copies of all supporting documentation, including but not limited to your sample results, chain of custody documentation and laboratory quality assurance documentation. Please submit this information in writing to the TCEQ at the following address:

ATTN: Annual CAFO Soil Sample Analysis Disputes Water Section Manager Dallas/Fort Worth Regional Office Texas Commission on Environmental Quality 2309 Gravel Drive Fort Worth, TX 76118-6951 An analysis dispute received after the time allocated above will not be eligible for re-analysis. If you have any questions, please feel free to contact Mr. Michael Martin in the Stephenville Office at 254-552-1900.

Sincerely,

Michael Martin, Team Leader, Water Section

DFW Region Office

Texas Commission on Environmental Quality

MM/dm

Enclosures: Laboratory Analysis Reports

TEXAS COMMIS ENVIRO QUALITY	MENTAL		Ch	ain	of	Cust	tod	y l	Rec	ord	5 5 770
Location: C	Sherw) G hot fill	in this shade	O ed area i	Da l	illy inform	nation	must l	be confid	ential)	Permit #: 4843
Region:	Organization	#:	PCA Code	e :		Progran	n:			Sampler telephone number:	900
E-Mail ID:		Sampler:	(signature)							Sampler: (please print clearly)	
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	CL2	pН	Cond.	Analyses Requested	REMARKS
17221	-01	10-7-24	11:00							See RFA	LMU 1 (0-2)
14222	-02		11:00								LMU1 (2-6)
14223	-03		11:00								Lmu1 (6-24)
14224	-04		11:30								LMU2 (0-6)
14225	-05	1	11:30								LMU Z (6-24)
	-06										LMU 3 (0-6)
+	-07										LMU 3 (6-24)
14226	-08	10-8-24	14:00								LMU4 (0-2)
14227	-09		14:00								LMU4 (2-6)
14228	-10	1	14:00		0	1					LMU 4 (6-24)
Delinquished b	y: NUMLA	Date 19/1474	BiyB		ed by	h 11	j-[6	24	For Laboratory Use:	
Relinquished b	y:	Date	Time	Receive	о ву:	. ,				Received on ice: Y	N deg. C
Relinquished b	y:	Date	Time	Receive	ed by:					Preservatives: Y	N
Relinquished b	y:	Date	Time	Receive	ed by:					COC Seal: Y	N
Shipper name:	EX	Shipper N 7797 White (Orig	umber:	1 12		ellow-Lab			Pin	Seals Intact: Y c-Contract Lab Manager	N Goldenrod-Collector Copy

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055770a-45622 Print Date: 26-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name:

Sherwyn Wood Dairy

Client address:

not provided

Standard Sample Report

TCEQ COC# 055770

Laboratory ID:	TCEQ/client Sample ID:	Sample Death (inches)	Sample Coll. Date:	Collector Name:	TCEQ Region #	Date Received	Sample Type:	Sample opened Date	Sample Ground Date	Process Tech.
14221	55770-01	0-2	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14222	55770-02	2-6	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14223	55770-03	6-24	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14224	55770-04	0-6	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14225	55770-05	6-24	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14226	55770-08	0-2	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14227	55770-09	2-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14228	55770-10	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca, Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Print Date: 26-Nov-24

Standard Sample Report

tanuaru Jam	p.o respon		014 000#	000110									
Laboratory ID:	TCEQ/client	Mehlich III	Mehlich II										
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
14221	55770-01	190	ppm	341	ppm	7022	ppm	460	ppm	77.8	ppm	21.6	ppm
14222	55770-02	105	ppm	247	ppm	9167	ppm	403	ppm	87.6	ppm	51.6	ppm
14223	55770-03	11.4	ppm	183	ppm	16024	ppm	280	ppm	146	ppm	108	ppm
14224	55770-04	125	ppm	750	ppm	9255	ppm	434	ppm	87.2	ppm	24.4	ppm
14225	55770-05	8.71	ppm	328	ppm	18827	ppm	284	ppm	169	ppm	78.3	ppm
14226	55770-08	163	ppm	471	ppm	11010	ppm	361	ppm	110	ppm	19.7	ppm
14227	55770-09	62.6	ppm	387	ppm	13561	ppm	322	ppm	123	ppm	29.7	ppm
14228	55770-10	5.19	ppm	207	ppm	22445	ppm	210	ppm	189	ppm	40.9	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Са сопс.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	1	ppm	1	ppm	11	ppm	1	ppm	1	ppm	11	ppm

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
14221	55770-01	11/13/2024	FMR	11/14/2024	JLP
14222	55770-02	11/13/2024	FMR	11/14/2024	JLP
14223	55770-03	11/13/2024	FMR	11/14/2024	JLP
14224	55770-04	11/13/2024	FMR	11/14/2024	JLP
14225	55770-05	11/13/2024	FMR	11/14/2024	JLP
14226	55770-08	11/13/2024	FMR	11/14/2024	JLP
14227	55770-09	11/13/2024	FMR	11/14/2024	JLP
14228	55770-10	11/13/2024	FMR	11/14/2024	JLP

Print Date: 26-Nov-24 OC# 055770

116poil ID. 0007 / 0a~40022	FIIIL D
Standard Sample Report	TCEQ CO
Laborate AD TOFOLE A N	

Nitrate-N	Nitrate-N	Conductivity	Conductivity	pН	рH	TCEQ/client	Laboratory ID:
units		units		units		Sample ID:	
ppm	29.8	dS/M	0.3	NA	7.25	55770-01	14221
ppm	12.616	dS/M	0.315	NA	7.68	55770-02	14222
ppm	9.157	dS/M	0.342	NA	7.8	55770-03	14223
ppm	12.68	dS/M	0.271	NA	7.54	55770-04	14224
ppm	4.568	dS/M	0.26	NA	7.83	55770-05	14225
ppm	28.438	dS/M	0.264	NA	7.24	55770-08	14226
ppm	9.011	dS/M	0.241	NA	7.66	55770-09	14227
ppm	5.645	dS/M	0.273	NA	7.82	55770-10	14228

Laboratory ID:	На	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	.	units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conducti	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N E	Extract	Nitrate-N A	nalysis
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14221	55770-01	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14222	55770-02	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14223	55770-03	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14224	55770-04	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14225	55770-05	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14226	55770-08	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14227	55770-09	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14228	55770-10	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
14239	IC1019	46.4	ppm	293	ppm	2186	ppm	336	ppm	39.3	ppm	44.4	ppm
14240	IC1020	47.0	ppm	294	ppm	2142	ppm	343	ppm	38.8	ppm	42.8	ppm
	Mean IC	0	ppm										
	IC Lower	39.4	ppm	241.0	ppm	1610.0	ppm	269.0	ppm	25.9	ppm	28.0	ppm
	IC Upper	47.2	ppm	307.0	ppm	2531.0	ppm	341.0	ppm	41.0	ppm	53.0	ppm
	blk219	0.104	ppm	< 0.131	ppm	<2.04	ppm	< 0.294	ppm	<0.1000	ppm	<0.0100	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	1	ppm	3	ppm								

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC1019	11/13/2024	FMR	11/14/2024	JLP
IC1020	11/13/2024	FMR	11/14/2024	JLP
blk219	11/13/2024	FMR	11/14/2024	JLP

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
•			units	conc.	units	conc.	units	% recovery
14239	IC1019	5.9	па	0.253	dS/M	5.669	ppm	
14240	IC1020	5.9	na	0.251	dS/M	5.718	ppm	
	Mean IC	5.86	na	0.252	dS/M	5.6935	ppm	
14240spike	Spiked sample	427	3	150	(2)	4.5	ppm	82.4
	IC lower	5.760	na	0.241	dS/M	4.5	ppm	
	IC Upper	5.990	па	0.299	dS/M	6.9	ppm	
	blk219		na	0	dS/M	0.184	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	mqq

Laboratory ID:	pH/Conductivity prep		pH Analysis		Conductivity		Nitate-N Extract		Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1019	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
IC1020	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
blk219	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 557	70
Sample ID: 01-05,	28-10
Standard Red	quest for Analysis
NO3-N	Mg
P Mehlich III by ICP	Conductivity
K	pH
Na	
Addit	ional Tests
NF	+



COMMISS ENVIRON QUALITY	(MENTAL		Ch	nain	of	Cust	od	y F	Rec	ord		5 5 77 1			
Location:	Organization	JUK FIII	in this shade	d ed area i		inty inform	ation r	must b	e confid	ential)		Permit #: 4843			
Region:	Region: Organization #:		PCA Code	э:		Program:				Sampler tel	ephone number: 1254 557	Z- 1900			
E-Mail ID:	-Mail ID: Sampler:		: (signature)	signature)							Sampler: (please print glearly)				
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	€L2	pН	Cond-		ses Requested	REMARKS			
4229	-01	10824	11:36							Su	RFA	LMU5 (0-2)			
14230	-02		11:36						i.e			Lmu 5 (2-6)			
14231	-03		11:36									LMU 5 (6-24)			
14232	-04		11:55									LMU 5A (0-2)			
14 233	-05		11:55									LMU 5A (2-6)			
14234	-06	1	11:55									LMUSA (6-24)			
	-07								_			LMU6 (06)			
	-08											Lmu 6 (624)			
14235	-09	10-8-24	121.23									Lmu 7 (0-6)			
14236	-10	10-8-2/	12:23			_/				u d		LMU 7 (624)			
Relinguished by	elsen	Date 19/15/24	B:48	Receive	ed by:	In 1	0-16	6-2	4	For Labora	tory Use:				
Relinquished by	y:	Date	Time	Receive	ed My					Received o	n ice: Y	N deg. C			
Relinquished by	<i>y</i> :	Date	Time	Receive	ed by:					Preservativ	es: Y	N			
Relinquished by	γ:	Date	Time	Receive	ed by:					COC Seal:	Y	N			
Shipper name:		Shipper N	umber: 61	1214	,					Seals Intac	t Y				

Report for Samples analyzed Under Contract Number: 582-10-99518 Report ID: 055771a-45622

Print Date: 26-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name: Sherwyn Wood Dairy

Client address: not provided

Standard Sample Report TCEQ COC# 055771

Laboratory ID:	TCEQ/client Sample ID:	Sample Depth (inches)	Sample Coll. Date:	Collector Name:	TCEQ Region #	Date Received	Sample Type;	Sample opened Date	Sample Ground Date	Process Tech.
14229	55771-01	0-2	10/8/2024	Cody Christian	A A	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14230	55771-02	2-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14231	55771-03	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14232	55771-04	0-2	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14233	55771-05	2-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14234	55771-06	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14235	55771-09	0-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14236	55771-10	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055771a-45622 Standard Sample Report Print Date: 26-Nov-24 TCEQ COC# 055771

Otaniaa a oan	pro report		024 0001	000171									
Laboratory ID:	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
14229	55771-01	184	ppm	1001	ppm	6967	ppm	630	ppm	73.3	ppm	96.9	ppm
14230	55771-02	79.8	ppm	607	ppm	9718	ppm	591	ppm	92.9	ppm	139	ppm
14231	55771-03	8.16	ppm	259	ppm	14253	ppm	371	ppm	130	ppm	299	ppm
14232	55771-04	223	ppm	707	ppm	7306	ppm	454	ppm	80.7	ppm	69.6	ppm
14233	55771-05	92.4	ppm	582	ppm	10272	ppm	408	ppm	107	ppm	92.0	ppm
14234	55771-06	6.05	ppm	205	ppm	19924	ppm	259	ppm	179	ppm	137	ppm
14235	55771-09	42.9	ppm	293	ppm	13538	ppm	331	ppm	119	ppm	41.5	ppm
14236	55771-10	4.67	ppm	188	ppm	21715	ppm	181	ppm	185	ppm	45.9	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
14229	55771-01	11/13/2024	FMR	11/14/2024	JLP
14230	55771-02	11/13/2024	FMR	11/14/2024	JLP
14231	55771-03	11/13/2024	FMR	11/14/2024	JLP
14232	55771-04	11/13/2024	FMR	11/14/2024	JLP
14233	55771-05	11/13/2024	FMR	11/14/2024	JLP
14234	55771-06	11/13/2024	FMR	11/14/2024	JLP
14235	55771-09	11/13/2024	FMR	11/14/2024	JLP
14236	55771-10	11/13/2024	FMR	11/14/2024	JLP

Report ID: 055771a-45622

Print Date:

26-Nov-24

Standard Sample Report

TCEQ	COC#	055771
pН		Conductiv

Laboratory ID:	TCEQ/client Sample ID:	рH	pH units	Conductivity	Conductivity units	Nitrate-N	Nitrate-N units
14229	55771-01	7.5	NA	0.4	dS/M	25.665	ppm
14230	55771-02	7.86	NA	0.382	dS/M	7.99	ppm
14231	55771-03	7.94	NA	0.434	dS/M	3.328	ppm
14232	55771-04	7.53	NA	0.487	dS/M	34.495	ppm
14233	55771-05	7.85	NA	0.405	dS/M	16.547	ppm
14234	55771-06	7.89	NA	0.496	dS/M	7.934	ppm
14235	55771-09	7.63	NA	0.468	dS/M	20.366	ppm
14236	55771-10	7.77	NA	0.447	dS/M	12.257	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conducti	ivity prep	pH Ana	lysis	Conduc	tivity	Nitate-N 6	Extract	Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14229	55771-01	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14230	55771-02	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	w
14231	55771-03	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14232	55771-04	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14233	55771-05	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14234	55771-06	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14235	55771-09	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14236	55771-10	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

Report ID: 055771a-45622 Quality Control Report Print Date: 26-Nov-24

port TCEQ COC# 055771

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
14239	IC1019	46.4	ppm	293	ppm	2186	ppm	336	ppm	39.3	ppm	44.4	ppm
14240	IC1020	47.0	ppm	294	ppm	2142	ppm	343	ppm	38.8	ppm	42.8	ppm
	Mean IC	0	ppm										
	IC Lower	39.4	ppm	241.0	ppm	1610.0	ppm	269.0	ppm	25.9	ppm	28.0	ppm
	IC Upper	47.2	ppm	307.0	ppm	2531.0	ppm	341.0	ppm	41.0	ppm	53.0	ppm
	blk219	0.104	mag	< 0.131	ppm	<2.04	ppm	<0.294	ppm	<0.1000	ppm	<0.0100	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	1	ppm										

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC1019	11/13/2024	FMR	11/14/2024	JLP
IC1020	11/13/2024	FMR	11/14/2024	JLP
blk219	11/13/2024	FMR	11/14/2024	JLP

Report ID: 055771a-45622

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recovery
14239	IC1019	5.9	na	0.253	dS/M	5.669	ppm	
14240	IC1020	5.9	na	0.251	dS/M	5.718	ppm	
	Mean IC	5.86	na	0.252	dS/M	5.6935	ppm	
14240spike	Spiked sample	VER	₩	~	725	4.5	ppm	82.4
	IC lower	5.760	na	0.241	dS/M	4.5	mgg	
	IC Upper	5.990	na	0.299	dS/M	6.9	ppm	
	blk219	17.	na	0	dS/M	0.184	ppm	

Laboratory ID:	ID: pH		Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:			pH Ana	lysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1019	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
IC1020	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
blk219	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 5577]										
Sample ID: 01-00-09, 10										
Standard Request for Analysis										
NO3-N	Mg									
P Mehlich III by ICP	Conductivity									
K	pH									
Na										
Additi	onal Tests									
N	A									

TEXA COMI ENVIR QUAL	AISSION ON Ronmental		Ch	nain	of	Cust	toc	ly	Rec	ord		5 5 772	
Location: (3herw		Permit #: 4843										
Region:	Organizatio	zation #: PCA Code: Program: Sampler telephone number:						7-1900					
E-Mail ID:		Sampler	(signature)						Sampler: (c	lease print clearly)	,	
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,1	CL2	pН	Cond.		ses Requested	REMARKS	
	-01									See	R¥A _	LMU8 (0-6)	
	-02											LMU8 (6-24)	
14237	7 -03	10-8-24	13:03									LMU9 (0-6)	
14238	-04	1	13:03									LM49 (6-24)	
	-05											LMU10 (0-6)	
	-06											1 mut 10 (6-24)	
14241	-07	10-7-24	11:15									Lmu11 (0-6)	
14242	-08	10-7-24	11:15									LMU11 (6-24)	

-10 Date 10/15/24 Relinquished by: B:48 Received by: 10-16-24 For Laboratory Use: Relinquished by: Date Time Received by: Received on ice: Υ deg. C Relinquished by: Received by: Date Time Preservatives: Υ N Relinquished by: Received by: Date Time COC Seal: Υ Shipper Number: Shipper name: 1214 Seals Intact: Υ

-09

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055772a-45622 Print Date:

26-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name:

Sherwyn Wood Dairy

Client address:

not provided

Standard Sample Report

TCEQ COC# 055772

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
14237	55772-03	0-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14238	55772-04	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Print Date: 26-Nov-24

TCEQ COC# 055772 Standard Sample Report Laboratory ID: TCEQ/client Mehlich III Mehlich III Mehlich III

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III										
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
14237	55772-03	21.0	ppm	255	ppm	13912	ppm	294	ppm	124	ppm	32.1	ppm
14238	55772-04	4.53	ppm	220	ppm	20962	ppm	206	ppm	190	ppm	49 .6	ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na сопс.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	11	ppm	1	ppm								

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
14237	55772-03	11/13/2024	FMR	11/14/2024	JLP
14238	55772-04	11/13/2024	FMR	11/14/2024	JLP

Report ID: 055772a-45622 Standard Sample Report

Print Date: 26-Nov-24

Laboratory ID:	TCEO/client	рΗ	рH	Conductivity	Conductivity	Nitrate_N	Nitrate-N	
	Sample ID:	W	units	Conducting	units	Micato-N	units	
14237	55772-03	7.67	NA	0.579	dS/M	14.604	ppm	
14238	55772-04	7.78	NA	0.489	dS/M	17.452	ppm	

Laboratory ID:	pН	pH units	Conductivity	Conductivity units	Nitrate-N	Nitrate-N units
Detection Limit	0.01	ла	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conduct	ivity prep	рН Ала	lysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14237	55772-03	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14238	55772-04	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
14239	IC1019	46.4	ppm	293	ppm	2186	ppm	336	ppm	39.3	ppm	44.4	ppm
14240	IC1020	47.0	ppm	294	ppm	2142	ppm	343	ppm	38.8	ppm	42.8	ppm
	Mean IC	0	ppm										
	IC Lower	39.4	ppm	241.0	ppm	1610.0	ppm	269.0	ppm	25.9	ppm	28.0	ppm
	IC Upper	47.2	ppm	307.0	ppm	2531.0	ppm	341.0	ppm	41.0	ppm	53.0	ppm
	blk219	0.104	ppm	<0.131	ppm	<2.04	mag	<0.294	ppm	<0.1000	ppm	<0.0100	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich (II)	Mehlich III							
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.0117	ppm	0.1371	ppm	0.0183	ppm	0.0849	ppm	0.0394	ppm	0.0036	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC1019	11/13/2024	FMR	11/14/2024	JLP
IC1020	11/13/2024	FMR	11/14/2024	JLP
blk219	11/13/2024	FMR	11/14/2024	JLP

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		рН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	сопс.	units	% recovery
14239	IC1019	5.9	na	0.253	dS/M	5.669	ppm	
14240	IC1020	5.9	па	0.251	dS/M	5.718	ppm	
	Mean IC	5.86	na	0.252	dS/M	5.6935	ppm	
14240spike	Spiked sample		-	•	121	4.5	ppm	82.4
	IC lower	5.760	na	0.241	dS/M	4.5	ppm	
	IC Upper	5.990	na	0.299	dS/M	6.9	ppm	
	blk219	(a)	na	0	dS/M	0.184	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	ла	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	mqg

Laboratory ID:	pH/Conducti	ivity prep	рН Ала	lysis	Conduc	tivity	Nitate-N Extract		Nitrate-N	Analysis
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1019	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	W
IC1020	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
blk219	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055772b-45622 Print Date: 26-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU College Station, TX 77843-2478 979-862-4955

Client Name:

Sherwyn Wood Dairy

Client address:

not provided

Standard Sample Report

TCEQ COC# 055772

Laboratory ID:	TCEQ/client Sample ID:	Sample Depth (inches)	Sample Coll. Date:	Collector Name:	TCEQ Region #	Date Received	Sample Type:	Sample opened Date	Sample Ground Date	Process Tech.
14241	55772-07	0-6	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14242	55772-08	6-24	10/7/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms. p. 643-687. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Print Date: 26-Nov-24 TCEQ COC# 055772

Standard Sample Report

Laboratory ID	D: TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
14241	55772-07	101	ppm	343	ppm	15219	ppm	362	ppm	144	ppm	27.8	ppm
14242	55772-08	9.38	nom	195	nnm	24619	nnm	233	nom	207	nom	50.0	nnm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.1528	ppm	0.0977	ppm	0.0434	ppm	0.0040	ppm	0.0010	ppm	0.0106	ppm
Reporting Limit	1	ppm										

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal.Date	Anal. Tech
14241	55772-07	11/18/2024	FMR	11/19/2024	JLP
14242	55772-08	11/18/2024	FMR	11/19/2024	JLP

Print Date: 26-Nov-24

Standard Sample Report

Laboratory ID:	TCEQ/client	рН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	Sample ID:		units		units		units
14241	55772-07	7.49	NA	0.308	dS/M	18.896	ppm
14242	55772-08	7.89	NA	0.203	dS/M	5.412	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	па	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conducti	pH/Conductivity prep		pH Analysis		tivity	Nitate-N I	Extract	Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14241	55772-07	11/12/2024	DEÇ	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14242	55772-08	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

IC Upper

blk220

Print Date: 26-Nov-24

ppm

ppm

Quality Control Report

TCEQ COC# 055772

307.0

< 0.0977

Laboratory ID: Mehlich III P conc. P units Ca conc. Ca units S conc. S units Na conc. K conc. K units Mg conc. Mg conc. Na units 14259 IC1021 45.1 277 2052 316 35.4 37.9 ppm ppm ppm ppm ppm ppm 14260 IC1022 41.6 254 1888 295 32.2 35.7 ppm ppm ppm ppm ppm ppm Mean IC 0 0 0 0 0 0 ppm ppm ppm ppm ppm ppm IC Lower 39.4 241.0 1610.0 269.0 25.9 28.0 ppm ppm ppm ppm ppm ppm

ppm

ppm

341.0

< 0.003973

41.0

<0.01000

ppm

ppm

ppm

ppm

53.0

<0.1000

ppm

ppm

Laboratory ID:	Mehlich III											
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Мд сопс.	S conc.	S units	Na conc.	Na units
Detection Limit	0.1528	ppm	0.0977	ppm	0.0434	ppm	0.0040	ppm	0.0010	ppm	0.0106	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	1	ppm	1	mgq	1	ppm

2531.0

< 0.0434

ppm

ppm

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC1021	11/18/2024	FMR	11/19/2024	JLP
IC1022	11/18/2024	FMR	11/19/2024	JLP
blk220	11/18/2024	FMR	11/19/2024	JLP

47.2

0.16

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		pН	рН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	CONC.	units	% recovery
14259	IC1021	5.9	na	0.252	dS/M	5.584	ppm	
14260	IC1022	5.9	na	0.25	dS/M	5.669	ppm	
	Mean IC	5.86	ла	0.251	dS/M	5.6265	ppm	
14260spike	Spiked sample	•	말	=	-	4.4	ppm	80.7
	IC lower	5.760	na	0.241	dS/M	4.5	ppm	
	IC Upper	5.990	na	0.299	dS/M	6.9	ppm	
	blk220		na	0	dS/M	0.563	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	mqg

Laboratory ID:	pH/Conductivity prep		pH Ana	llysis	Conduc	tivity	Nitate-N	Extract	Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1021	11/12/2024	DEC	11/12/2024	DEÇ	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
IC1022	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
blk220	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 55	772
Sample ID: 03,04	07,08
Standard Red	quest for Analysis
NO3-N	Mg
P Mehlich III by ICP	Conductivity
K	pH
Na	
Addit	ional Tests
t CN	A

19	
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ENVIRO QUALIT						Cust					5 5 773
Location:	Organization	U Frot fill	in this shade	O d	if the fac	SQ I Y	U	must 1	be confid	dential)	Permit #: 43
Region:	Organization	#:	PCA Cod	e:		Progran	n:			Sampler telephone number:	-1900
E-Mail ID:		Sampler	: (signature)						Sampler: (please print clearly)	1750
Lab ID Number	Sample ID	Date	Time	# of Bottles	Grab/ Comp.	Matrix L,S,M,O,T	CL2	рН	Cond	Analyses Requested	REMARKS
	-01									SURFA	LMU13 (0-6)
	-02										LMU13 (6-24)
	-03										LM414 (0-6)
	-04										LMU14 (6-24)
MUB	-05	15-8-24	13:1R								LMU13 (0-6)
14244	-06	1	13:45							1	LMU15 (6-24)
	-07										
	-08										
	-09										
	-10					1					
Pelinguished by	y: Nillen	Date 10/19/24	™8:48	Receiv	1	1/11/11	2-10	5-2	4	For Laboratory Use:	
Relinquished by	y:	Date	Time	Receive	ed by:					Received on ice: Y	N deg. C
Relinquished by		Date	Time	Receive	ed by:					Preservatives: Y	N
Relinquished by		Date	Time	Receive	ed by:					COC Seal: Y	N
Shipper name:	-	Shipper N	umber: 67	181	12	14				Seals Intact:	1

Report for Samples analyzed Under Contract Number: 582-10-99518

Report ID: 055773a-45622 Print Date: 26-Nov-24

Texas A&M AgriLife Extension Service Soil, Water and Forage Testing Laboratory 108 Soil Testing Laboratory, 2478 TAMU

College Station, TX 77843-2478

979-862-4955

Client Name:

Sherwyn Wood Dairy

Client address:

not provided

Standard Sample Report

TCEQ COC# 055773

Laboratory ID:	TCEQ/client	Sample	Sample Coll.	Collector	TCEQ	Date	Sample	Sample opened	Sample Ground	Process
	Sample ID:	Depth (inches)	Date:	Name:	Region #	Received	Type:	Date	Date	Tech.
14243	55773-05	0-6	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP
14244	55773-06	6-24	10/8/2024	Cody Christian	4	10/16/2024	soil	10/16/2024	10/25/2024	TLP

Methods and Sample Preparation:

Receiving of samples

Processing - SWFTL0097R0.SOP

Upon opening of sample chests, all samples are identified and organized as listed on COC to insure completeness and condition of shipment. Individually each sample is spread across a non-reactive tray where foreign materials is physically removed and discarded. The sample(s) are then placed inside a 65C drying oven and allow to remain until dry. Individual samples were then removed from drying oven and pulverized with an Agvise soil pulzerized fitted with a shaking 2mm screen. Every attempt was again made to remove any remaining plant tissue in the pulverized sample(s). Soil was then transferred to the laboratory sample cups and while additional sample was stored.

Analytical Methods:

Soil pH 2:1 DI water:soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Schofield, R.K. and A.W. Taylor. 1955. The measurement of soil pH. Soil Sci. Soc. Am. Proc. 19:164-167.

Soil Conductivity 2:1 DI Water:Soil

SOIL pH AND CONDUCTIVITY - SWFTL0015R1.SOP

Rhoades, J.D. 1982. Soluble salts. p. 167-178. In: A.L. Page, et al. (ed.). Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil Nitrate-N KCl Extractable with Cd-Reduction Analyses

NO3-N EXTRACTION - SWFTL0014R5.SOP/NO3-N ANALYSIS - SWFTL0089R1.SOP

Keeney, D.R. and D.W. Nelson. 1982. Nitrogen - inorganic forms, p. 643-687. In: A.L. Page, et al. (ed.), Methods of Soil Analysis: Part 2. Agronomy Monogr. 9. 2nd ed. ASA and SSSA, Madison, WI.

Soil P. K. Ca. Mg. S and Na -- Mehlich III by ICP

M3 EXTRACTION - SWFTL0079R1.SOP/M3 ANALYSIS - SWFTL0081R2.SOP

Mehlich-3 soil test extractant: a modification of Mehlich-2 extractant. Commun. Soil Sci. Plant Anal. 15(12):1409-1416

Report ID: 055773a-45622

Print Date: 26-Nov-24 TCEQ COC# 055773

Standard Sample Report

Laboratory ID;	TCEQ/client	Mehlich III											
	Sample ID:	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg units	S conc.	S units	Na conc.	Na units
14243	55773-05	129	ppm	542	ppm	12237	ppm	338	ppm	122	ppm	17.2	ppm
14244	55773-06	5.06	ppm	181	ppm	30385	ppm	190	ppm	239	ppm	28.1	ppm

Laboratory ID:	Mehlich III P conc.	Mehlich III Punits	Mehlich III K conc.	Mehlich III K units	Mehlich III Ca conc.	Mehlich III Ca units	Mehlich III Mg conc.	Mehlich III Mg conc.	Mehlich III S conc.	Mehlich III S units	Mehlich III Na conc.	Mehlich III Na units
Detection Limit	0.1528	ppm	0.0977	ppm	0.0434	ppm	0.0040	ppm	0.0010	ppm	0.0106	ppm
Reporting Limit	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm	1	ppm

Laboratory ID:	TCEQ/client	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Sample ID:	Extract Date	Extract Tech	Anal Date	Anal. Tech
14243	55773-05	11/18/2024	FMR	11/19/2024	JLP
14244	55773-06	11/18/2024	FMR	11/19/2024	JLP

Report ID: 055773a-45622

Print Date: 26-Nov-24

Standard Sample Report

Laboratory ID:	TCEQ/client	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
	Sample ID:		units		units		units
14243	55773-05	7.47	NA	0.36	dS/M	24.383	ppm
14244	55773-06	7.81	NA	0.318	dS/M	21.521	ppm

Laboratory ID:	pН	pН	Conductivity	Conductivity	Nitrate-N	Nitrate-N
		units		units		units
Detection Limit	0.01	na	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	na	0.001	dS/M	1	ppm

Laboratory ID:	TCEQ/client	pH/Conductivity prep		pH Analysis		Conduc	tivity	Nitate-N Extract		Nitrate-N Analysis	
	Sample ID:	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
14243	55773-05	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
14244	55773-06	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

Report ID: 055773a-45622 Quality Control Report

Print Date: 26-Nov-24

Laboratory ID:		Mehlich III											
		P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na сопс.	Na units
14259	IC1021	45.1	ppm	277	ppm	2052	ppm	316	ppm	35.4	ppm	37.9	ppm
14260	IC1022	41.6	ppm	254	ppm	1888	ppm	295	ppm	32.2	ppm	35.7	ppm
	Mean IC	0	ppm										
	IC Lower	39.4	ppm	241.0	ppm	1610.0	ppm	269.0	ppm	25.9	ppm	28.0	ppm
	IC Upper	47.2	ppm	307.0	ppm	2531.0	ppm	341.0	ppm	41.0	ppm	53.0	ppm
	blk220	0.16	ppm	< 0.0977	ppm	< 0.0434	ppm	< 0.003973	ppm	< 0.01000	ppm	<0.1000	ppm

Laboratory ID:	Mehlich [1]	Mehlich III										
	P conc.	P units	K conc.	K units	Ca conc.	Ca units	Mg conc.	Mg conc.	S conc.	S units	Na conc.	Na units
Detection Limit	0.1528	ppm	0.0977	ppm	0.0434	ppm	0.0040	ppm	0.0010	ppm	0.0106	ppm
Reporting Limit	1	ррп	1	ppm								

Laboratory ID:	Mehlich III	Mehlich III	Mehlich III	Mehlich III
	Extract Date	Extract Tech	Anal.Date	Anal. Tech
IC1021	11/18/2024	FMR	11/19/2024	JLP
IC1022	11/18/2024	FMR	11/19/2024	JLP
blk220	11/18/2024	FMR	11/19/2024	JLP

Report ID: 055773a-45622

Print Date: 26-Nov-24

Quality Control Report

Laboratory ID:		pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N	Nitrate-N
			units	conc.	units	conc.	units	% recover
14259	IC1021	5.9	na	0.252	dS/M	5.584	ppm	
14260	IC1022	5.9	па	0.25	dS/M	5.669	ppm	
	Mean IC	5.86	na	0.251	dS/M	5.6265	ppm	
14260spike	Spiked sample	3	-		•	4.4	ppm	80.7
	IC lower	5.760	na	0.241	dS/M	4.5	ppm	
	IC Upper	5.990	na	0.299	dS/M	6.9	ppm	
	blk220		na	0	dS/M	0.563	ppm	

Laboratory ID:	pН	pН	Conducitity	Conducitity	Nitrate-N	Nitrate-N
		units	conc.	units	conc.	units
Detection Limit	0.01	па	0.001	dS/M	0.01	ppm
Reporting Limit	0.1	па	0.001	dS/M	1	ppm

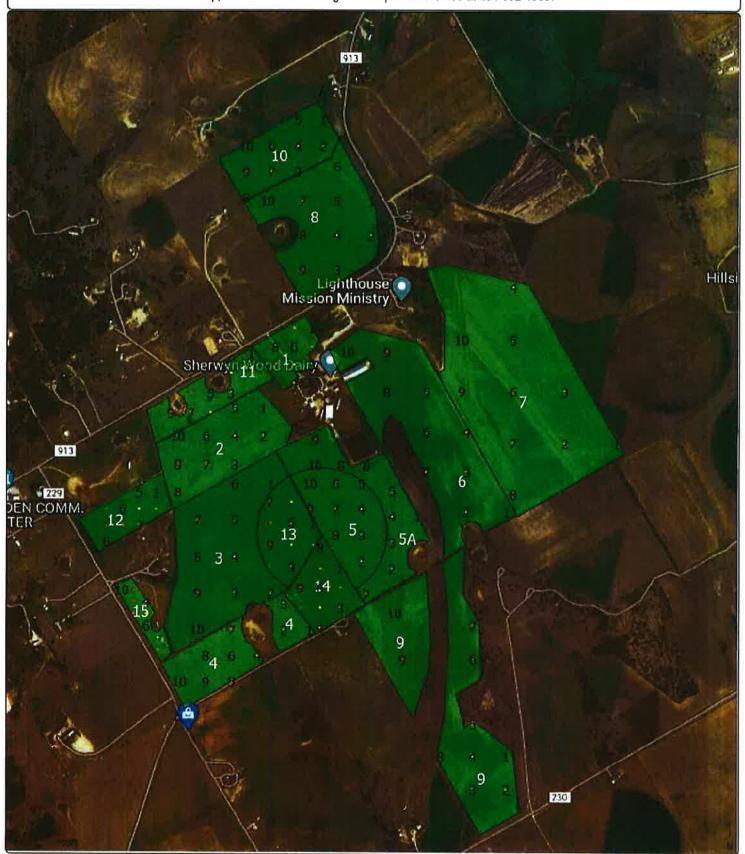
Laboratory ID:	pH/Conduct	ivity prep	pH Analysis		Conductivity		Nitate-N Extract		Nitrate-N Analysis	
	Date	Tech	Date	Tech	Date	Tech	Date	Tech	Date	Tech
IC1021	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
IC1022	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW
blk220	11/12/2024	DEC	11/12/2024	DEC	11/12/2024	DEC	11/13/2024	FMR	11/14/2024	JW

REQUEST FOR ANALYSIS TCEQ-BOSQUE 1255/1226 SOIL SAMPLES

COC Number: 55	773						
Sample ID: 05,00							
Standard Rec	uest for Analysis						
NO3-N	Mg						
P Mehlich III by ICP	Conductivity						
K	pH						
Na							
Additi	onal Tests						
	NA						

Sherwyn Wood Dairy**757 CR 229, Stephenville, TX 76401**Mar 4, 2021 Permit

This map was generated by the Region 4 Stephenville Office of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the TCEQ Region 4 Stephenville Office at 254-552-1900.



5.0 RECHARGE FEATURE CERTIFICATION

CERTIFICATION

I certify that potential Recharge Features in the form of artificial penetrations and natural features exist on property utilized under this application as defined in 30 TAC §321.32(50). The protective measures in the form of best management practices identified in this report, when implemented, are designed to avoid adverse impacts to these features and associated groundwater formations.

All information presented on this page and in the following supporting documents is true and accurate to the best of my knowledge.

NORMAN H. MULLIN

66107

COUCENSES

Corman The Un 8/11/2

Norman Mullin, P.E.

Enviro-Ag Engineering, Inc.

Firm #F-2507

5.1 General

This recharge feature certification report was authorized by Mr. Sherwyn Wood representing Sherwyn Wood Dairy. The findings and recommendations contained herein were compiled by Mrs. Jourdan Mullin and Mr. Norman Mullin, P.E., of Enviro-Ag Engineering, Inc., Amarillo, Texas,

5.2 Purpose of Report

Sherwyn and Angela Wood are applying for a renewal of current TPDES #4843 under 30 TAC, Chapter 321, Subchapter B, Concentrated Animal Feeding Operations. The purpose of this report is to determine if the subject property has any natural or artificial features, either on or beneath the ground surface, which would provide a significant pathway for effluent or solids from the facility into the underlying aquifer. At a minimum, the records and/or maps of the following entities/agencies were reviewed to locate any artificial recharge features: A) Texas Railroad Commission, B) local water district, C) Texas Water Development Board, D) TCEQ, E) Natural Resource Conservation Service (NRCS), F) current land owners and G) onsite inspection. The TCEQ Regulatory Guidance RG-433 was followed to identify recharge features and recommend best management practices.

5.3 Property Under Evaluation

The property under evaluation consists of approximately 675 acres in Erath County, Texas. The area is within the jurisdiction of Middle Trinity Ground Water Conservation District.

5.4 Definition of Waste Production

The processes by which wastewater is produced at a dairy begins with the use of fresh water to clean manure from the milking parlor and equipment sanitization. Wastewater from the milking parlor is directed to a concrete settling lane then into the earthen settling basin and then to RCS #1 for storage and disposal through beneficial land application.

The second process of wastewater production involves the accumulation of manure solids in the open confinement lots. Rain falling on the open lots comes into contact with the manure layer and absorbs some of the excreted nutrients present in manure. The nutrient enriched runoff is considered wastewater, which flows by designed slopes from the open lots toward the settling basins and into the RCS.

Manure solids accumulated in the open confinement lots are collected at least annually and hauled off-site to farmland by a waste transporter. While in the open lots, manure becomes compacted and slowly permeable due to hoof action by the cattle. This compacted manure layer results in an increase of the overall runoff volume during rainfall events. Infiltration of nutrients downward through the manure layer into the underlying soils is considered minimal as a result of pen surface compaction (Sweeten, 1990).

Renewal 2025

5.5 Definition of Recharge Feature

TCEQ rules define a "Recharge Feature" as: "Those natural or artificial features either on or beneath the ground surface at the site under evaluation that provide or create a significant hydrologic connection between the ground surface and the underlying groundwater within an aquifer. Significant artificial features include, but are not limited to, wells and excavation or material pits. Significant natural hydrologic connections include, but are not limited to: faults, fractures, sinkholes or other macro pores that allow direct surface infiltration; a permeable or shallow soil material that overlies and aquifer; exposed geologic formations that are identified as an aquifer; or a water course bisecting an aquifer." (30 TAC §321.32(50))

The TCEQ Regulatory Guidance RG-433 further defines a "recharge feature" as: "A natural or artificial feature either on or beneath the ground surface that provides or creates a <u>significant</u> hydrologic connection (or pathway) between the ground surface and the underlying groundwater within an aquifer."

The guidance document also defines a "significant pathway" as: "A significant pathway between the land surface and the subsurface has the ability to transmit waste, wastewater, or precipitation mixed with waste to groundwater. The wastewater may impact the groundwater quality within an aquifer or migrate laterally to discharge as seeps that may impact surface water quality. Recharge features with significant pathways include geomorphologic, geologic, soil, and artificial features. Agricultural practices may also enhance existing recharge features."

EVALUATION OF NATURAL FEATURES

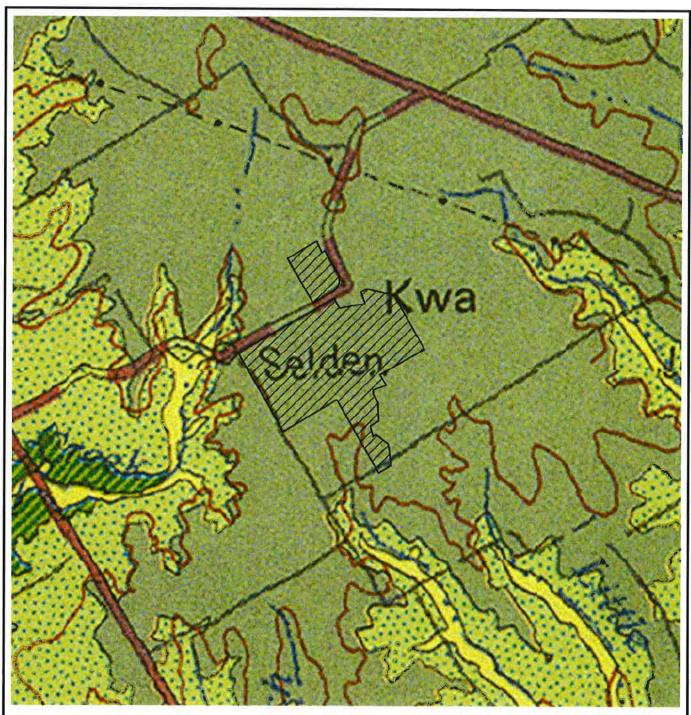
5.6 Geomorphologic/Geologic Features

The Windthorst-Duffau and Maloterre-Dugout-Purves soil associations in this area of Erath County are immediately underlain by the Cretaceous Walnut Formation as shown in Figure 5.1, Geologic Atlas.

The Walnut Formation comprises the beds of clay and nonchalky limestones at the base of the Fredericksburg division. They consist of alternations of calcareous laminated clays, weathering yellow on oxidation, semicrystalline limestone flags, and shell agglomerate, all of which grade upward without break into the more chalky beds of the Edwards limestones. In places they weather into rich black soils and make extensive agricultural belts (Hill, 1901.)

Forming the upper unit of the Trinity Group, the Paluxy Formation consist of up to 400 feet of predominantly fine to coarse-grained sand interbedded with clay and shale. Underlying the Paluxy, the Glen Rose Formation forms a gulfward-thickening wedge of marine carbonates consisting primarily of limestone. Paluxy bedrock outcrops along the northeast portion of this site. Limiting application rates of wastewater and manure will protect this feature form adverse impacts.

The basal unit of the Trinity Group consists of the Twin Mountains and Travis Peak formations, which are laterally separated by a facies change. To the north, the Twin Mountains Formation consists mainly of medium-to coarse-grained sands, silty clays, and conglomerates (Ashworth, 1995).



 $\begin{array}{lll} \underline{Legend} \colon \\ \mathbf{Kwa} & - \text{ Cretaceous Walnut Formation} \end{array}$

Source: Geologic Atlas of Texas, Abilene Sheet, 1972.



No Scale

Sherwyn Wood Dairy Stephenville, Texas Erath County

Geologic Atlas of Texas Figure 5.1 Page 21



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5.6.1 Outcrops/Stream Interception

An inspection of the CAFO property and review of the USGS topographic map indicated the presence of the Little Duffau Creek located in LMUs #4, #6 and #9. All of these areas are protected with buffers from waste and wastewater application. The freshwater ponds located in LMUs #4, #5A, #8, #9 and #11 are also protected with buffers from waste and wastewater application. The caliche pit and freshwater pond located on the east side of the property is not located in an LMU and therefore is protected from waste and wastewater application.

5.6.2 Excessive Slopes

No slopes of greater than 8 percent are present on the property.

5.6.3 Other Large-Scale Conduits

No faults, fractured sediments, caves, sinkholes, solution cavities, vugs or concentrated or extensive animal burrowing was observed during an on-site visit, nor is identified on the geologic atlas, soil surveys or USGS maps.

5.6.4 Surface Water

The "water in the state" designation is based on Enviro-Ag Engineering, Inc., site inspections, the permittee's knowledge of the property and the USDA-FSA aerial photograph (2017). The buffer zones and LMU boundaries in Figure 6.1 (Refer to Section 6) are submitted with this application for TCEQ approval.

5.6.5 Aquifer

The Trinity aquifer consist of early Cretaceous age formations of the Trinity Group where they occur in a band extending through the central part of the state in all or parts of 55 counties, from the Red River in North Texas to the Hill Country of South-Central Texas.

Formations comprising the Trinity Group are (from youngest to oldest) the Paluxy, Glen Rose, and Twin Mountains-Travis peak. Updip, where the Glen Rose thins or is missing, the Paluxy and Twin Mountains coalesce to form the Antlers Formation. The Antlers consists of up to 900 feet of sand and gravel, with clay beds in the middle section. Water from the Antlers is mainly used for irrigation in the outcrop area of North and Central Texas (Ashworth and Hopkins, 1995).

The aquifer is underlain and confined by low-permeability rocks that range in age from Precambrian to Jurassic. Where the aquifer does not crop out, it is confined above by the Walnut Formation in most of the area.

Recharge to the Trinity aquifer is generally as precipitation that falls on aquifer outcrop areas and as seepage from streams and ponds where the head gradient is downward. In the Hill Country, water might flow laterally into the Trinity aquifer form the adjacent Edwards-Trinity aquifer. The aquifer discharges by evapotranspiration, spring discharges, diffuse lateral or upward leakage into shallower aquifers, and withdrawals from wells

(USGS, 2003). Land application at agronomic rates and maintain permanent cover crops will protect the feature from adverse impacts associated with this operation.

5.7 Soil Features

Soil mapping units included in this section for the production area and land application areas were taken from the electronic NRCS Soil Survey for Erath County. Soils descriptions are included in the supporting documentation and were obtained from the most current version of the NRCS electronic soil information database for Erath County available on the NRCS Web Soil Survey.

5.7.1 Production Area

Soils underlying the pen and pond areas are predominately of the Slidell (HoB), Maloterre (Ma) and Purves (PcB) series. The RCS has been certified as meeting TCEQ guidelines for soil liner (30 TAC §321.38(g). Best management practices pertaining to surface drainage, surface compaction and manure management within the open lot confinement area will be followed. Steve Evans, Ph.D., soil physicist with the USDA Agricultural Research Service in Bushland, Texas, stated that his work with lysimeters and potential evapotranspiration indicated limited infiltration and even less deep percolation will occur on areas with sloped surfaces (1996). Work performed by the NRCS calculated the feedlot surface curve number (potential for runoff) as 90 on a scale of 100.

5.7.2 Land Application Areas

Soils underlying the land application areas are primarily of the Slidell (HoB), Maloterre (Ma), Purves (PcB and PcC) and Purves-Dugout (Pd) series. The application of wastewater and/or manure will be performed at agronomic rates according to an approved NUP/NMP. No pooling or ponding is anticipated due to application through sprinklers.

Figure 5.2 shows the soils underlying the property as delineated from the electronic NRCS Soil Survey map for Erath County. The electronic version of the soil survey is considered the most current soils information available. Table 5.1 is a summary of the estimated physical properties of the soils in the subject area, obtained from the NRCS Web Soil Survey.

Table 5.1: Estimated Soil Properties

Soil Series (Map ID)	Slope (%)	HSG	Depth (in)	USDA Soil Texture	Permeability / Infiltration Rate (in/hr)	Available Water Capacity (in/in of soil)
BdC – Bolar	3-5	С	0-16	Clay Loam	0.6-2.0	0.17-0.21
			16-32		0.6-2.0	0.16-0.20
Denton		D	0-10	Silty Loam	0.06-0.20	0.11-0.15
			10-28		0.06-0.20	0.09-0.14
DeB – Denton	1-3	С	0-13	Silty Clay	0.06-0.20	0.10-0.18
			13-19		0.06-0.6	0.10-0.18

			19-36		0.20-2.0	0.10-0.14
HoB – Slidell	1-3	D	0-19 19-32	Clay	.001-0.06 .001-0.06	0.10-0.18 0.10-0.18
Ma – Maloterre		D	0-5 5-20	Gravelly Clay Loam	0.60-2.0 0.06-2.0	0.14-0.16
PcB – Purves	1-3	D	0-8 8-12 12-14 14-40	Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.12-0.20 0.08-0.18 0.04-0.07
PcC – Purves	3-5	D	0-7 7-12 12-17 7-40	Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.12-0.20 0.08-0.18 0.04-0.07
Pd – Purves	(Selection)	D	0-8 8-12 12-14 14-24	Stony Clay	0.06-0.20 0.06-0.6 0.06-0.6 0.06-2.0	0.11-0.20 0.08-0.18 0.04-0.07
Dugout		D	0-8 8-18 18-28	Gravelly Clay Loam	0.20-0.6 0.20-0.6 0.06-2.0	0.06-0.15 0.07-0.16
Maloterre		D	0-8 8-18	Gravelly Clay Loam	0.6-2.0 .001-0.06	0.06-0.11

The major soil series within each LMU are identified in Table 5.2. All soils at the site that have been identified by NRCS as being at high risk for various limitations are presented in Table 5.3. Associated best management practices will be implemented, as appropriate, based on physical and economic conditions.

Table 5.2: Major Soil Types

LMU ID	Major Soil Type
3 4, 5, 6, 7, 8, 9	Slidell (HoB)
2, 10, 12, 14, 15	Maloterre (Ma)
5A, 13	Purves-Dugout-Maloterre (Pd)
1, 11	Purves (PcB)

Table 5.3: Potential Soil Limitations for Land Application

Soil Series	Potential Soil Limitations	Best Management Practices
BdC	Depth to Bedrock Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.

Soil Series	Potential Soil Limitations	Best Management Practices
HoB, DeB	Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). No land application to inundated soils.
Ма	Depth to Bedrock Droughty	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.
PcB, PcC	Droughty Depth to Bedrock Slow Water Movement	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.
Pd	Droughty Depth to Bedrock Slow Water Movement Large Stones on the Surface	 Land Application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP). Land Application will be based upon the AWC (refer to NMP) of the soil and will not exceed agronomic rates for nutrients. No land application to inundated soils.

5.7.3 Erosion

Figure 5.2 shows the onsite soils classified by NRCS as Highly Erodible Land (HEL), including Purves (PcB and PcC). LMUs will be protected with typical conservation farming practices within the standards of the NRCS. The following methods will be used to control/prevent erosion of exposed soils in the production area:

- Seeding/sprigging exposed areas with forage or cover crops,
- Constructing terraces or berms (shortening the length and steepness of slopes),
- Covering erosive areas with road surfacing materials,
- Implementing reduced tillage practices,
- Maintaining a cover of plants or crop residue.



Map Revised 7/21/2025

LEGEND:

Denotes Production Area

Note: For Specifics on Soils Refer to Table 5.3





Source: USDA-NRCS Soil Survey, Soil Survey Geographic Database for (Erath County, TX). Available at: http://soildatamart.nrcs.usda.gov. Accessed July, 2025.

Sherwyn Wood Dairy Stephenville, Texas Erath County NRCS Soils Map Figure 5,2 Page 26



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ARTIFICIAL FEATURES

5.8 Railroad Commission Records

A search of the online RRC map viewer was conducted. No proposed locations or existing penetrations for oil and gas were identified on the subject property. Railroad Commission database information is included as an attachment to this document.

5.9 Ground Water Conservation District Records

The Middle Trinity Groundwater Conservation District (GCD) online database was reviewed for artificial penetrations. Should an abandoned penetration be encountered anywhere on the subject property at any time, the penetration will be marked, inspected and properly sealed to prevent a potential impact to the underlying aquifer. Appropriate well plugging reports shall be submitted as required to the Texas Department of Licensing and Regulation (TDLR) and will be maintained in the onsite PPP.

5.10 GeoSearch

GeoSearch was not utilized in this report.

5.11 Texas Water Development Board Water Data Interactive (WDI) The TWDB WDI online database was reviewed for artificial penetrations. The database revealed water wells registered with the TWDB as being located on the subject property. The wells that could be correlated with onsite wells are shown on Table 5.4.

5.12 Natural Resource Conservation Service

The historical NRCS Soil Survey of Erath County (1973) was reviewed for locations of potential recharge features. No potential recharge features were identified.

5.13 Other Artificial Features

Numerous features, such as irrigation tail water pits and stock ponds, exist on the subject property and are shown to be buffered on Figure 5.3. These areas shall be buffered during land application events or backfilled prior to the first land application event.

5.14 Previous/Current Landowner

Mr. Sherwyn Wood was contacted regarding then presence of any potential recharge features on the property. Mr. Wood has owned the subject property for two decades and is considered the most knowledgeable about the property. The previous landowner could not be located. Mr. Wood confirmed the locations of all active water wells.

5.15 Onsite Inspection

The property has been inspected both on the ground and by historical mapping. All active water wells were documented on the property during the onsite inspection and are shown on Figure 5.3. The BMPs for all wells are listed in Table 5.4. Should any open well or test hole be encountered, it will be marked, reported to the Engineer, included on

Figure 5.3 and properly plugged (30 TAC §321.34(f)(3)(B)). Well plugging reports shall be submitted as required to the Texas Department of Licensing and Registration (Well Drillers Board) and will be maintained in the onsite PPP.

All well data listed in Table 5.4 is based on information received from the water district, TCEQ and TWDB files, onsite inspection, and interviews of persons knowledgeable of the property. The map number corresponds to the location shown in Figure 5.3. The well identification number corresponds to the database number or drilling report number used by the water district, TCEQ or TWDB Commission.

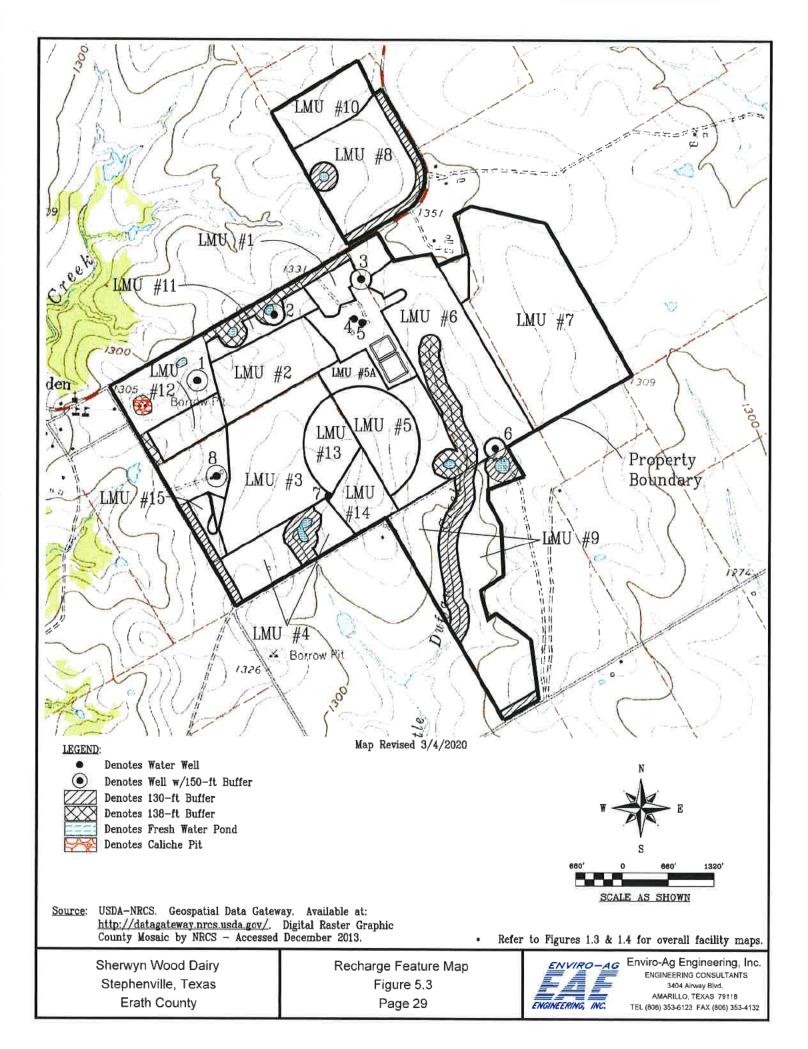
Table 5.4: Well Information

Map No.	Well ID	Best Management Practices
1	16797	Maintain 150-ft buffer
2	N/A	Maintain 150-ft buffer
3	480269	Maintain 150-ft buffer
4	16795	 See Attached Approved Well Buffer Exception
5	16792	See Attached Approved Well Buffer Exception
6	16793	Maintain 150-ft buffer
7	16790	See Attached Approved Well Buffer Exception
8	16794	Maintain 150-ft buffer

Note: A copy of the well logs for onsite wells are attached.

No public water supply wells are located within 500 feet of the property boundary. All offsite wells within the required buffer distances required by this authorization are shown (on the Site Map) with their appropriate buffers. Wells outside the required buffer distances are shown for reference only.

All irrigation systems or water distribution systems into which any type of chemical or foreign substance, such as wastewater, is distributed into the water pumped from the well are required by 16 TAC §76 to install an in-line, automatic quick-closing check valve capable of preventing pollution of groundwater.



REFERENCES

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- Wood, Sherwyn Current Landowner Interview, July 2025.

Supporting Documentation

USDA Soil Descriptions & Limitations
Texas Railroad Commission Map
Water District Well Location Map (if available)
Onsite Well Logs (if available)

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Report—Physical Soil Properties

					Phys	ical Soil Propert	ies-Erath Cou	inty, Texas						
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Saturated hydraulic	Available water	Linear extensibility	Organic matter	1 7	Frosio		Wind erodibility	Wind erodibility
					density	conductivity	capacity			Kw	Kf	Т	group	index
	In	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct					
BdC—Bolar- Denton complex 3 to 5 percent slopes														
Bolar	0-16	20-34- 45	17-36- 53	27-30- 40	1.21-1.38	4.00-14.00	0.17-0.21	2.4-6.8	1.0-4.0	.20	.20	2	4L	86
	16-32	15-34- 45	15-36- 50	20-30- 40	1.34-1.46	4.00-14.00	0.16-0.20	0.4-5.9	0.5-2.0	.28	.28			
	32-36	15-34- 45	15-36- 50	20-30-40	1.38-1.56	4.00-14.00	0.12-0.16	0.3-5.5	0.3-1.0	.17	.32			
	36-80	-		_	-	0.42-14.00	-	_	-					
Denton	0-10	3- 6- 15	40-48- 57	40-46- 57	1.16-1.34	0.42-1.40	0.11-0.15	5.0-11.1	1.0-4.0	.17	.17	2	4	86
	10-28	5- 7- 25	28-48- 60	35-45- 55	1.28-1.41	0.42-1.40	0.09-0.14	3.7-10.3	1.0-4.0	.20	.20			
	28-32	5- 7- 25	28-48- 60	35-45- 55	1.31-1.41	0.42-1.40	0.09-0.13	2.7-9.4	0.5-2.0	.32	.32			
	32-38	5- 7- 30	40-63-83	12-30-40	1.36-1.45	4.00-14.00	0.08-0.12	0.0-5.2	0.1-1.0	.43	.43			
	38-80	-	-			0.42-14.00	_	_						4
DeB—Denton silty clay, 1 to 3 percent slopes														
Denton	0-13	0- 6- 20	40-44- 60	40-50- 57	1.18-1.32	0.42-1.40	0.10-0.18	6.0-15.0	1.0-4.0	.20	.20	3	4	86
	13-19	0- 7- 20	40-43- 63	35-50- 55	1.28-1.50	0.42-4.00	0.10-0.18	6.0-12.0	1.0-3.0	.24	.24			
	19-36	5-15-30	40-60-75	20-25- 40	1.40-1.65	1.40-14.00	0.10-0.14	0.8-5.4	0.1-1.5	.43	.43			
	36-52	5-15-30	40-60-83	12-25- 40	1.40-1.65	1.40-14.00	0.08-0.12	0.1-5.1	0.1-1.0	.49	.49			
	52-80	_		_	=	0.42-14.00		_						

					Phys	ical Soil Properti	ies-Erath Cou	nty, Texas						
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear extensibility	Organic matter	1	Erosio		Wind erodibility	Wind erodibility
					density	conductivity	capacity			Kw	Kf	Т	group	index
	In	Pct	Pct	Pct	g/cc	micro m/sec	in/In	Pct	Pct					
HoB—Slidell clay, 1 to 3 percent slopes														
Slidell	0-19	0-22- 35	20-28- 40	40-50-60	1.10-1.45	0.01-0.42	0.10-0.18	7.0-16.0	1.0-4.0	.17	.17	5	4	86
	19-32	0-22-35	20-28- 60	40-50-60	1.10-1.45	0.01-0.42	0.10-0.18	6.6-17.0	1.0-3.0	.24	.24			
	32-49	0-22-35	20-28- 60	40-50-60	1.20-1.55	0.01-0.42	0.10-0.18	4.9-13.0	0.1-1.0	.24	.24			
	49-80	0-22-35	20-28- 60	40-50- 60	1.20-1.55	0.01-0.42	0.10-0.18	4.9-10.8	0.1-1.0	.24	.24			
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes														
Maloterre	0-5	20-31- 45	20-35- 45	30-34- 40	1.37-1.39	4.00-14.00	0.14-0.16	2.6-5.6	0.5-1.0	.15	.28	1	5	56
	5-20	_	==:	===	-	0.42-14.00	_	_	_					
PcB—Purves clay, 1 to 3 percent slopes														
Purves	8-0	8-25- 40	7-28- 40	40-48- 55	1.15-1.45	0.42-1.40	0.12-0.20	5.4-10.9	1.0-5.0	.10	.10	1	4	86
	8-12	8-26-40	20-29- 54	35-45- 55	1.20-1.45	0.42-4.00	0.08-0.18	5.0-10.3	1.0-4.0	.15	.15			
	12-14	8-26-40	20-29- 54	35-45- 55	1.20-1.45	0.42-4.00	0.04-0.07	1.0-6.9	1.0-3.0	.05	.17			
	14-40	_	-:	 -	_	0.42-14.00	_	_	<u></u> :					

					Physi	ical Soil Propert	ies-Erath Cou	nty, Texas						
Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk	Saturated hydraulic	Available water	Linear extensibility	Organic matter		rosio		Wind erodibility	Wind erodibility
					density	conductivity	capacity			Kw	Kf	Т	group	index
	In	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct					
PcC—Purves clay, 3 to 5 percent slopes														
Purves	0-7	8-25-40	7-28- 40	40-48- 55	1.15-1.45	0.42-1.40	0.12-0.20	5.4-10.9	1.0-5.0	.15	.15	1	4	86
	7-12	8-26-40	20-29- 54	35-45- 55	1.20-1.45	0.42-4.00	0.08-0.18	5.0-10.3	1.0-4.0	.17	.17			
	12-17	8-26-40	20-29- 54	35-45- 55	1.20-1.45	0.42-4.00	0.04-0.07	1.0-6.9	1.0-3.0	.05	.17			
	17-40	-		-	1/	0.42-14.00	-	=	-					
Pd—Purves- Dugout- Maloterre complex, 1 to 20 percent slopes														
Purves, stony clay	0-8	8-25-40	7-28- 40	40-48- 55	1.16-1.35	0.42-1.40	0.11-0.20	4.1-9.3	1.0-5.0	.05	.10	1	5	56
	8-12	8-26-40	20-29- 54	35-45- 55	1.17-1.47	0.42-4.00	0.08-0.18	2.9-10.8	1.0-4.0	.15	.15			
	12-14	8-26-40	20-29- 54	35-45- 55	1.21-1.47	0.42-4.00	0.04-0.07	1.0-7.3	1.0-3.0	.05	.17			
	14-24	_	= 0	-	=	0.42-14.00	_	_	-					
Dugout, gravelly clay loam	0-8	22-30- 42	28-42- 51	27-28- 35	1.31-1.47	1.40-4.00	0.06-0.15	1.9-5.4	1.0-2.0	-15	.28	1	5	56
	8-18	20-23- 40	28-48- 60	15-29-35	1.40-1.53	1.40-4.00	0.07-0.16	0.0-4.9	0.1-1.2	.28	.28			
	18-28	-	-	_	-	0.42-14.00	-	_	_					
Maloterre, gravelly clay loam	0-8	30-35- 45	24-36- 43	27-29- 35	1.18-1.40	4.00-14.00	0.06-0.11	1.8-6.0	1.0-7.0	.15	.24	1	5	56
	8-18	_	_	_	_	0.01-0.42	_		_					

Data Source Information

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

RUSLE2 Related Attributes

This report summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. Soil property data for each map unit component include the hydrologic soil group, erosion factor Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic layer.

Report—RUSLE2 Related Attributes

Soil properties and interpretations for erosion runoff calculations. The surface mineral horizon properties are displayed or the first mineral horizon below an organic surface horizon. Organic horizons are not displayed.

	RUS	LE2 Rela	ted Attributes-Erath	County,	Texas			
Map symbol and soil name	Pct. of map unit	Slope length	Hydrologic group	Kf	T factor	Repre	sentative	value
	map unit	(ft)				% Sand	% Silt	% Clay
BdC—Bolar-Denton complex 3 to 5 percent slopes								
Bolar	55	180	С	.20	2	34.0	36.0	30.0
Denton	35	200	D	.17	2	6.0	48.0	46.0
DeB—Denton silty clay, 1 to 3 percent slopes								
Denton	85	298	С	.20	3	6.0	44.0	50.0
HoB—Slidell clay, 1 to 3 percent slopes								
Slidell	85	298	D	.17	5	22.0	28.0	50.0
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes								
Maloterre	80	161	D	.28	1	31.0	35.0	34.0
PcB—Purves clay, 1 to 3 percent slopes	-							
Purves	89	298	D	.10	1	25.0	27.5	47.5
PcC—Purves clay, 3 to 5 percent slopes								
Purves	89	180	D	.15	1	25.0	27.5	47.5
Pd—Purves-Dugout-Maloterre complex, 1 to 20 percent slopes								
Purves, stony clay	37	200	D	.10	1	25.0	27.5	47.5
Dugout, gravelly clay loam	25	161	D	.28	1	30.0	42.0	28.0
Maloterre, gravelly clay loam	22	180	D	.24	1	35.0	36.0	29.0

Data Source Information

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024

Selected Soil Interpretations

This report allows the customer to produce a report showing the results of the soil interpretation(s) of his or her choice. It is useful when a standard report that displays the results of the selected interpretation(s) is not available.

When customers select this report, they are presented with a list of interpretations with results for the selected map units. The customer may select up to three interpretations to be presented in table format.

For a description of the particular interpretations and their criteria, use the "Selected Survey Area Interpretation Descriptions" report.

Report—Selected Soil Interpretations

		Selected Soil Into	erpretat	ions–Erath County, Tex	as		
Map symbol and soil name	Pct. of	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applica Municipal Sewage S		ENG - Sewage Lage	oons
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BdC—Bolar-Denton complex 3 to 5 percent slopes							
Bolar	55	Somewhat limited		Somewhat limited		Very limited	
		Seepage, porous bedrock	0.50	Slow water movement	0.37	Depth to hard bedrock	1.00
		Slow water movement	0.37	Depth to bedrock	0.07	Seepage	0.50
		Too steep for surface application	0.08			Slope	0.32
		Depth to bedrock	0.07				
Denton	35	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Depth to hard bedrock	1.00
		Droughty	0.44	Droughty	0.44	Seepage	0.50
		Depth to bedrock	0.01	Depth to bedrock	0.01	Slope	0.08
DeB—Denton silty clay, 1 to 3 percent slopes							
Denton	85	Very limited		Very limited		Somewhat limited	
		Slow water movement	1.00	Slow water movement	1.00	Seepage	0.50
		Seepage, porous bedrock	0.50			Depth to hard bedrock	0,26
HoB—Slidell clay, 1 to 3 percent slopes							
Slidell	85	Very limited		Very limited		Not limited	
		Slow water movement	1.00	Slow water movement	1.00		

	D			ions–Erath County, Tex				
Map symbol and soll name	Pct. of map	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applica Municipal Sewage S				
	unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	
Ma—Maloterre gravelly clay loam, 1 to 8 percent slopes								
Maloterre	80	Very limited		Very limited		Very limited		
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to hard bedrock	1.00	
		Droughty	1.00	Droughty	1.00	Slope	0.68	
		Seepage, porous bedrock	0.50			Seepage	0.21	
		Too steep for surface application	0.32					
PcB—Purves clay, 1 to 3 percent slopes								
Purves	89	Very limited		Very limited		Very limited		
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00	
		Depth to bedrock	1.00	Depth to bedrock	1.00			
		Slow water movement	1.00	Slow water movement	1.00			
		Seepage, porous bedrock	0.50					
PcC—Purves clay, 3 to 5 percent slopes								
Purves	89	Very limited		Very limited		Very limited		
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.32	
		Slow water movement	1.00	Slow water movement	1.00			
		Seepage, porous bedrock	0.50					
		Too steep for surface application	0.08					

Map symbol and soil name	Pct. of	AWM - Irrigation Disp Wastewater	osal of	AWM - Land Applica Municipal Sewage S		ENG - Sewage Lagoon	
	map unit	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and Ilmiting features	Value
Pd—Purves-Dugout- Maloterre complex, 1 to 20 percent slopes							
Purves, stony clay	37	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.08
		Slow water movement	1.00	Slow water movement	1.00		
		Large stones on the surface	1.00	Large stones on the surface	1.00		
		Seepage, porous bedrock	0.50				
Dugout, gravelly clay loam	25	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to hard bedrock	1.00
		Droughty	1.00	Droughty	1.00	Slope	0.68
		Seepage, porous bedrock	0.50	Slow water movement	0.37	Seepage	0.21
		Slow water movement	0.37				
		Too steep for surface application	0.32				
Maloterre, gravelly clay loam	22	Very limited		Very limited		Very limited	
		Slow water movement	1.00	Slow water movement	1.00	Depth to hard bedrock	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Slope	0.32
		Droughty	1.00	Droughty	1.00		
		Seepage, porous bedrock	0.50				
		Too steep for surface application	0.08				

Data Source Information

Soil Survey Area: Erath County, Texas Survey Area Data: Version 21, Aug 30, 2024 Bryan W. Shaw, Ph.D., P.E., Chairman Toby Baker, Commissioner Zak Covar, Commissioner Richard A. Hyde, P.E., Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 4, 2014

91 7199 9991 7033 3071 6954

CERTIFIED MAIL

Sherwyn Dallas Wood Sherwyn Wood Dairy 757 County Road 229 Stephenville, Texas 76401

Re:

Well Buffer Exception Request, Permit No. WQ0004843000, Sherwyn Wood Dairy, Erath County (CN 601313950; RN 102586807)

Dear Mr. Wood:

The Water Quality Assessment (WQA) Team of the Texas Commission on Environmental Quality (TCEQ) has reviewed a well buffer exception request submitted on your behalf by Enviro-Ag Engineering, Inc. for one (1) onsite water well identified as Well #7. The buffer exception request was signed and sealed by Mr. Norman Mullin, P.E. The buffer exception request indicates that the well does not meet the specified well buffer distance of 150 feet from potential contaminant sources (LMU #3, #4, and #5). Protective measures for the well identified by Mr. Mullin include a concrete surface slab, steel sleeve, and an enclosed structure which prevents wastewater from contacting the wellhead.

The TCEQ approves the well buffer exception for Well #7 provided it is protected in accordance with the recharge feature evaluation and certification required by 30 Texas Administrative Code (TAC), Chapter 321.34(f)(3). If you choose not to maintain the protective measures, the required buffer distances, in accordance with 30 TAC 321.38(b), for the wells must be implemented. Annual inspections around the well shall be made in order to ensure no runoff or wastes encroach upon the well.

This approval letter and all supporting documentation must be kept on-site and made available to TCEQ personnel upon request. If you have any questions, please contact me by phone at (512) 239-4591 or by e-mail at Lynda.Clayton@tceq.texas.gov.

Sincerely,

Lynda Clayton, Team Leader

Water Quality Assessment Team (MC-150)

Water Quality Division

cc: Mr. Norman Mullin, P.E., Enviro-Ag Engineering, Inc., 3404 Airway Blvd Amarillo,

Texas 79118

Bryan W. Shaw, Ph.D., P.E., Chairman Toby Baker, Commissioner Jon Niermann, Commissioner Richard A. Hyde, P.E., Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

91 7199 9991 7033 3073 OS78

November 19, 2015

CERTIFIED MAIL

Mr. Sherwyn D. Wood Sherwyn Wood Dairy 757 County Road 229 Stephenville, Texas 76401-7350

Re: W

Well Buffer Exception Request, Sherwyn Wood Dairy, Permit Number WQ0004843000 (CN601313950; RN102586807)

Dear Mr. Wood:

The Water Quality Assessment (WQA) Team has reviewed the well buffer exception request for one water well identified as Well #4 in a document dated November 17, 2015. The well buffer exception document was signed and certified by Mr. Norman Mullin, P.E., and requested an exception to the 150-foot buffer requirement for this facility well. Protective measures for the well identified by Mr. Mullin include a concrete slab.

The TCEQ approves the well buffer exception for Well #4 provided it is protected in accordance with the recharge feature evaluation and certification required by 30 Texas Administrative Code (TAC), Chapter 321.34(f)(3). If you choose not to maintain the protective measures, the required buffer distance, in accordance with 30 TAC 321.38(b), for the well must be implemented. Annual inspections around the well shall be made in order to ensure no runoff or wastes encroach upon the well.

This approval letter and all supporting documentation must be kept on-site and made available to TCEQ personnel upon request. If you have any questions, please contact me by phone at (512) 239-4591 or by e-mail at Lynda.Clayton@tceq.texas.gov.

Sincerely,

Lynd Clayton, Team Leader

Water Quality Assessment Team (MC-150)

Water Quality Division

LC/AG/tc

cc: Mr. Norman Mullin, P.E., 3404 Airway Blvd., Amarillo, Texas 79118

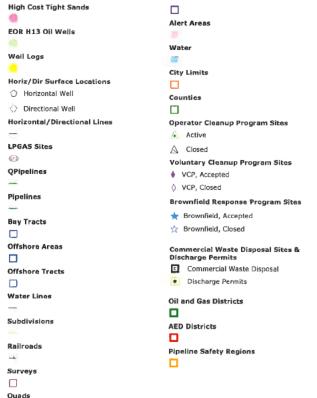


Esri, HERE, Garmin: Maxar

Public GIS Viewer Legend

Public GIS Viewer Legend Well Number Water Supply from Oil / Gas Plugged Storage / Gas Storage / Brine Mining / Oil Observation " 🧔 Storage / Brine Mining / Gas Plugged Storage Oil / Gas Well Locations Observation from Oil Mo Brine Mining " Storage / Brine Mining / Oil / Gas Permitted Location trác Observation from Gas Injection / Disposal from Storage / Brine Mining / Oil 6 Dry Hole Brine Mining Observation from Oil / Gas Brine Mining / Gas Injection / Disposal from Storage / Brine Mining / Oil 0 Brine Mining / Oil / Gas φ Gas Injection / Disposal from Storage / 10 Service Injection / Disposal from Brine * Oil / Gas Brine Mining / Gas Service from Oil ь Plugged Oil Me Injection / Disposal from Storage / Brine Mining / Oil / Gas Injection / Disposal from Brine Mining / Oil Service from Gas 悔 Plugged Gas Injection / Disposal from Brine Mining / Gas Observation from Storage / Brine Mining Service from Oil / Gas Canceled / Abandoned Location Storage from Oil / Gas Plugged Oil / Gas Injection / Disposal from Brine Mining / Oil / Gas Observation from Storage / Brine Mining / Oil Injection / Disposal from Storage Injection / Disposal Observation from Storage / Brine Injection / Disposal from Storage / Observation from Brine Mining OF Core Test Observation from Brine Mining / Observation from Storage / Brine Mining / Oil / Gas ø Sulfur Test Injection / Disposal from Storage / (Storage from Oil Observation from Brine Mining / Plugged Storage / Brine Mining Injection / Disposal from Storage / Oil / Gas Storage from Gas Observation from Brine Mining / Plugged Storage / Brine Mining / ۰ Shut-In Oil Observation from Storage D. Shut-In Gae Service from Brine Mining Plugged Storage / Brine Mining / (Observation from Storage / Oil Injection / Disposal from Oil Service from Brine Mining / Oil Observation from Storage / Gas Plugged Storage / Brine Mining / ŧζ Injection / Disposal from Gas Observation from Storage / Oil / Service from Brine Mining / Gas × Injection / Disposal from Oil / Gas Service from Brine Mining / Oil / Orphan Wells 100 ³⁴⊚ Service from Storage 0 Geothermal 05/0 Plugged Brine Mining Service from Storage / Oil Commercial Disposal Ho Brine Mining ** Service from Storage / Gas Plugged Brine Mining / Oil Vo Water Supply Injection/Disposal 12/0 Plugged Brine Mining / Gas Service from Storage / Oil / Gas Water Supply from Oil Plugged Brine Mining / Oil / Gas Plugged Storage Water Supply from Gas HCTS Deeper than 15,000 ft. Storage / Brine Mining Plugged Storage / Oil Page 1 of 3 Page 2 of 3

Public GIS Viewer Legend



Sherwyn Wood Dairy



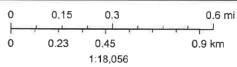
Texas Water Development Board

Plugging Reports



July 10, 2025 Well Reports





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

Owner:	Sherwyn Wood	Owner Well #:	3672
Address:	757 CR 229 Stephenville, TX 76484	Grid #:	31-56-7
Well Location:	FM 913	Latitude:	32" 09' 01.67" N
	Stephenville, TX 76401	Langitude;	098° 05' 23,69" W
Vell County:	Eralh	Elevation:	No Data

Drilling Start Date: 6/8/2017 Drilling End Date: 6/8/2017

	Dismotor (in.)	I'mp Dogitt (R.)	Bollam Depth (ft.)	
Barahole:	11	0	5	
	В		179	

Drilling Method: Air Rotary

Borehole Completion: Filter Packed

	Top Dapin (IL)	Bollom Depth (ft.)	Filter Material	Size	
Fitter Pack Intervals.	75	179	Gravel	12/20	
	Top Oxpin (It.)	Bellom Depth (ft.)	Description (number of	f secies & meteriori)	
Annular Seal Data:	0	75	Cement 6 Bags/Sacks		

Seal Method: Pumped

Distance to Property Line (ft.): 40

Sealed By: Driller

Distance to Septic Field or other concentrated contamination (ft.): 100+

Distance to Septic Tank (ft.): not on Form Method of Verification; Customer

Surface Completion: Surface Steeve Installed Surface Completion by Driller

Water Level: 80 ft. below land surface on 2017-06-08

Packers; No Data

Type of Pump: Submersible Pump Depth (ft.): 160

Well Tests: Yield: 10 GPM with unk ft. drawdown after 1 hours

7/10/2025 17:10:01 AM

Well Report Tracking Number 480269 Submitted paper form on: 7/5/2017 Enlared on: 5/25/2018

Page 1 of 2

Sitrate Dopth (ft.) 78 - 165 Paluxy

Chemical Analysis Made:

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

The driller certified that the driller drilles 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 (or completion and resubmillad.

Company Information: Associated Well Services, Inc.

PO Box 16 Stephenville, TX 76401

Driller Name: Russelll Langford License Number: 56062

Comments: No Data

Water Quality

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing: BLANK PIPE & WELL SCREEN DATA

Motortal Sci Sage Top (IL) (9) Boltors (ft) New Plastic 49 Topsoll 79 1 19 Tan clay, Shale & Limestone New Plastic (PVC) 4 Screen 79 0.020 179 19 78 Grey Clay, Shale & Limestone 78 165 Grey Sandy Clay & Sand 179 Grey Clay, Shale & Limestone 165

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. DCC: CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was offilled 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

2/10/2025 11:10:01 AM Well Report Tracking Number 480269 Submitted paper form on: 7/5/2017 Enlared on: 5/25/2018

6.0 SURFACE WATER & TMDL ASSESSMENT

6.1 Surface Water Assessment

Figure 6.1, Aerial Photograph, shows the existing land features, production area, Land Management Unit boundaries, and areas designated as "water in the state," as defined by 30 TAC §321.32(63). Buffer zones between waters in the state and LMUs will be maintained as required in 30 TAC §321.40(h) plus additional filter strips specified by NRCS Code 393, as required in 30 TAC §321.42(w)(2). Based on NRCS Code 393, Appendix 3, Table 1, and LMU slope and soil types, the buffer zones shown in the attached map will be maintained. According to NRCS, Codes 601 (applied to severely eroded areas) and 332 (applied to cropland) are not currently applicable to the LMUs at this facility. Should field conditions or cropping systems change, Codes 601 and 332 will be implemented as necessary.

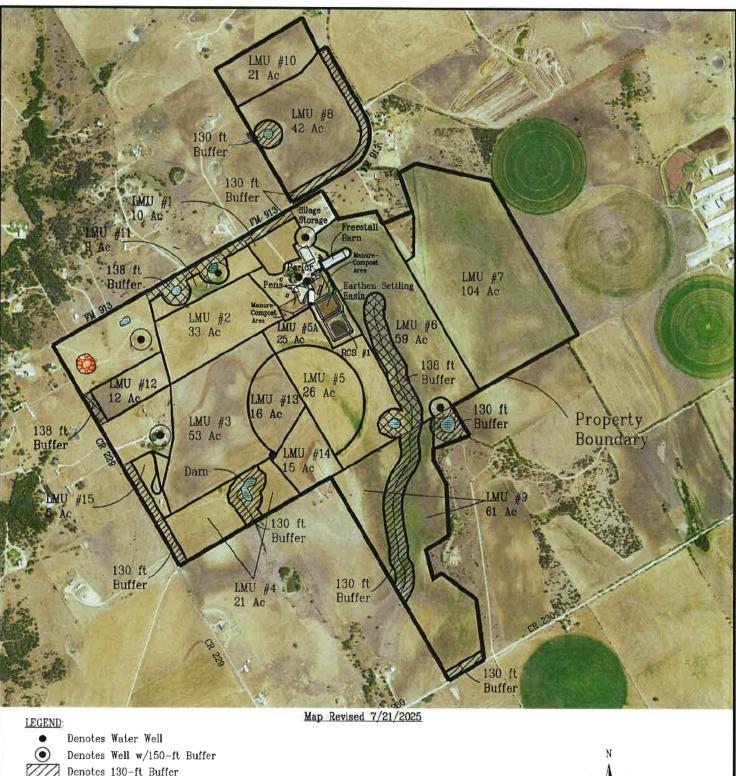
The "water in the state" designation is based on Enviro-Ag Engineering, Inc., site inspections, the permittee's knowledge of the property and the USDA-FSA aerial photograph (2017). The buffer zones and LMU boundaries in Figure 6.1 are submitted with this application for TCEQ approval.

6.2 TMDL Assessment

Sherwyn Wood Dairy is located in Segment 1226, Upper North Bosque River, Brazos River Basin, which is a 303(d)-listed watershed. To demonstrate that Sherwyn Wood Dairy is designed and will be constructed and operated in a manner that is consistent with the Phosphorus Total Maximum Daily Load (TMDL) and Implementation Plan approved in 2001 and to address the other listed impairments for this segment, the following practices have been or will be implemented:

- 1. Implement a Nutrient Utilization Plan that limits P application to crop requirement and incorporates a P reduction component on fields over 200 ppm P.
- 2. Limit maximum P level in soils to 200 ppm.
- 3. Perform annual soil sampling in accordance with the provisions of 30 TAC §321.42(k)-(m) and with Texas Cooperative Extension guidelines for composite sampling.
- 4. Implement a certified Comprehensive Nutrient Management Plan that meets the NRCS requirements for a whole-farm Resource Management System
- 5. Maintain contracts with owners of third party fields in accordance with 30 TAC §321.42(j)(1)-(4) and with applicable requirements of 30 TAC §321.36 and §321.40.
- 6. Operate the facility in accordance with 30 TAC §321.42 with additional Best Management Practices as follows:
 - a. Scrape freestalls and cattle lanes to reduce or eliminate the need for flushing
 - b. Excluding extraneous drainage areas from the RCSs (roof areas, etc.)

c.	deposition by i	maintaining p	ermanent pastu	and downgradient Ores and additiona I above in Section (ıl filter strips

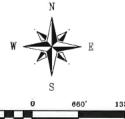




Denotes 138-ft Buffer

Denotes Fresh Water Pond

Denotes Caliche Pit



SCALE AS SHOWN

Refer to Figures 1.3 & 1.4 for overall facility maps.

Source: USDA-NRCS. Geospatial Data Gateway. Available at:

http://datagateway.nrcs.usda.gov/. Digital Ortho Graphic County Mosaic by NRCS - Accessed July, 2025.

Sherwyn Wood Dairy Stephenville, Texas Erath County

Aerial Photograph Figure 6.1 Page 34



Enviro-Ag Engineering, Inc. ENGINEERING CONSULTANTS 3404 Airway Blvd. AMARILLO, TEXAS 79118 TEL (806) 353-6123 FAX (806) 353-4132

7.0 AIR STANDARD PERMIT REQUIREMENTS

7.1 Permit Requirements

Due to the headcount, the CAFO meets the TCEQ Air Quality Permit–By-Rule (PBR) authorization in 30 TAC § 106.161 for facilities that confine less than 1000 head of cattle. See attached PBR Checklist; therefore an odor control plan is not required. The following is a list of Best Management Practices that may be implemented at the facility to decrease odors.

- Pen surfaces will be maintained to reduce ponding.
- The manure in the confinement pens will be removed on a regular basis (at least once annually) to prevent the manure from building up in the pens.
- Removal of manure and pond solids will be done in favorable wind conditions carrying odors away from nearby receptors. The TCEQ must be notified prior to RCS cleanout.
- Land application shall only occur from one hour after sunrise until one hour before sunset, unless written consent is obtained from current occupants of all residences within 1/4-mile of the LMU boundary that receives waste or wastewater.
- Dust will be controlled on facility roads with the use of a portable water truck on an as-needed basis to minimize fugitive dust emissions.
- Dead animals will be disposed of by a commercial rendering service within 72hours or properly composted on-site.

Texas Commission on Environmental Quality Title 30 Texas Administrative Code § 106.161 Air Permit by Rule (PBR) Checklist-Animal Feeding Operations

This checklist was developed by the Texas Commission on Environmental Quality (TCEQ) to assist applicants in determining whether an animal feeding operation meets all general and specific requirements of the permit by rule (PBR). If <u>all</u> PBR requirements cannot be met, the facility will not be allowed to operate under the PBR, and an application for a construction permit will be required. This checklist should accompany the Form PI-7, entitled, "Registration for Permits by Rule." Check the most appropriate answer and include any additional information in the spaces provided. If additional space is needed, please include an extra page and reference the question number. A <u>complete</u> Form PI-7, <u>complete</u> Checklist, and any other supporting documents must be reviewed and <u>approved</u> by the TCEQ prior to beginning construction if the facility is for caged poultry (egg laying or pullet) operations <u>only</u>. The PBR forms, tables, checklists, and guidance documents are available from the TCEQ Air Permits Division website at, <u>www.tceq.state.tx.us/nav/permits/air_permits.html</u>

For additional assistance with your application, including resources to help calculate your emissions, please visit the Small Business and Local Government Assistance (SBLGA) webpage at the following link: www.TexasEnviroHelp.org

Please Check the Most Appropriate Answer										
Livestock:										
Are the animal feeding operations desig	ned to feed li	vesto	ock?		X YES NO N/A					
If "YES," answer the Questions 1 - 3 ar	nd 9 and no re	gistr	ration is required, but retain this chec	cklisi	and keep records.					
If "NO," skip to Question 4.										
If the animal feeding operations of the animal feeding operations of the second o	designed to fe	ed o	nly one of the following livestock car	tegor	ries, indicate the number below:					
Livestock Category	Limits		Number of Actual Livestock	(Response					
Cattle	1,000		990		☐ YES ☐ NO ☐ N/A					
Horses and Mules	1,000				☐ YES ☐ NO ☐ N/A					
Swine weighing more than 55 pounds	2,500				☐ YES ☐ NO ☐ N/A					
Sheep and Goats	2,500				YES NO NO N/A					
livestock, and then calculate the	equivalent ani	imal	ed more than one type of livestock, in sub-totals by multiplying the factor ints," add the equivalent animal sub-to-	ndica	ated by the number of actual					
Livestock Category	Factor	x	Number of Actual Livestock	=	Equivalent Animal Sub-total					
Cattle	1.0	х	990	=	990					
Horses and Mules	2.0	х		=						
Swine weighing more than 55 pounds	0.4	х		#						
Sheep and Goats	0.1	x		=						
Total Animal Equivalents =					990					
Are the total of animal equivalents less t	han or equal	to 10	000?		ĭ YES ☐ NO ☐ N/A					

Texas Commission on Environmental Quality Title 30 Texas Administrative Code § 106.161 Air Permit by Rule (PBR) Checklist-Animal Feeding Operations

Please Check the Most Appropriate Answer					
Birds and Poultry					
3.	When determining the number of animals above, mothers with nursing young were counted as a single animal while the young were nursing. Once removed from the mother, the young animals were counted as individual animals. Swine weighing 55 pounds or less were not counted when determining the number of animals. Were animals on the pasture not considered as part of the animal feeding operations?	X YES NO NO N/A			
4.	Is the operation designed to feed <u>no more</u> than 55,000 turkeys or other birds (excluding ducks) concentrated in open lots?	YES NO X N/A			
	If "YES," list the total number of birds.				
5.	Is the operation designed to feed no more than 5,000 ducks?	YES NO XN/A			
	If "YES," list the total number of ducks				
6.	Are all caged poultry operations designed to feed no more than 30,000 birds?	YES NO X N/A			
	If "YES," list the total number of birds.				
7.	Do all housed poultry operations use wood shavings (or similar) as litter?	YES NO X N/A			
8.	If the caged poultry operation is designed to feed more than 30,000 birds and uses dry manure storage and handling system, then list the total number of birds, the type of birds, and answer the next Question. Otherwise, skip to Question 9.				
Total	otal Number of Birds; Bird Type:				
	An egg laying or caged pullet operation must be located at least 1/4 mile (1320 feet) from any recreational area, school, residence, or other structure not occupied or used solely by the owner of the operation.				
	List the distance to the nearest structure or recreational area.				
Feed Handling					
9,	Are products from the animal feeding operation (including on-site feed handling and feed milling operations) covered under this PBR registration shipped to any off-site location?	YES X NO			

Registration: If the animal feeding operation consists only of livestock or outdoor birds and poultry, no registration is required. Any caged poultry (egg laying or pullet) operations must register and obtain approval prior to construction. All others should complete the checklist and retain records on site to demonstrate compliance with the PBR.

<u>Records</u>: In order to demonstrate compliance with the general and specific requirements for this PBR, animal feeding operations are required to maintain sufficient records to show that all requirements are met at all times. Records should include (but are not limited to) number and type of animals housed; methods and application of dust and odor controls; feed handling amounts and methods; and housekeeping.

Estimate Air Emissions: In general, air emissions estimates are not required during a PBR registration review for animal feeding operations. However, in order to demonstrate compliance with the general requirements for PBRs, animal feeding operation applicants may be asked to estimate air emissions from their animal feeding operations during a PBR review or during an Investigation. These estimates can be made by compiling the required records. If sufficient records are maintained on site and requirements are being met, the animal feeding operation and the TCEQ will be able to establish these emission rates if needed.

Save Form

Reset Form

Leah Whallon

From: Jourdan Mullin <jmullin@enviroag.com>
Sent: Thursday, September 4, 2025 10:13 AM

To: Leah Whallon; Corey Mullin

Subject: RE: Application to Renew Permit No. WQ0004348000; Sherwyn Wood Dairy

Attachments: Sherwyn Wood Dairy PLS ENGLISH SPANISH.docx; Sherwyn Dallas Wood Spanish wg

cafo.docx; Sherwyn Wood, Carey Lease 2025.pdf

Follow Up Flag: Follow up Flag Status: Flagged

Good Thursday Morning Leah,

Attached is the land lease agreement for Mr. Sherwyn Wood and Mr. David Carey, the Spanish PLS and the Spanish NORI. Please let me know if you have any questions.

Respectfully,

Jourdan Mullin

Enviro-Ag Engineering, Inc. 9855 FM 847 Dublin, TX 76446

254/965-3500 – Work 806/679-5570 - Mobile

From: Leah Whallon < Leah. Whallon@Tceq.Texas.Gov>

Sent: Tuesday, September 02, 2025 2:35 PM **To:** Corey Mullin <cmullin@enviroag.com> **Cc:** Jourdan Mullin <jmullin@enviroag.com>

Subject: Application to Renew Permit No. WQ0004348000; Sherwyn Wood Dairy

CAUTION: This email originated from outside of Enviro-Ag Engineering. Do not click links or open attachments unless you have verified the sender and know the content is safe.

Good Afternoon,

Please see the attached Notice of Deficiency letter dated September 2, 2025, requesting additional information needed to declare the application administratively complete. Please send the complete response by September 16, 2025.

Please let me know if you have any questions.

Thank you,



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

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Land Lease Agreement

Lessor: David Ralph Carey

1343 CR 230 Hico, TX 76457

Lessee: Sherwyn & Angela Wood

757 County Road 229 Stephenville, TX 76401

Subject Property Legal Description & Address:

84 acres out of:

Acres 191.000, A0644 Reed John N;

Situs Address: 1343 CR 230 Erath County, TX;

(Geo ID R.0644.00105.00.0) Total of 84 Leased Acres.

Term: 5 year renewable lease. Two years must be given by either party to terminate lease.

Price: Undisclosed

Lessee further agrees to leave property in as good or better condition, to abide by any and all state and federal laws, work with Lessee for other possible income opportunities. Lessee will indemnify Lessor of any and all liability due to farming activities.

The above terms have been reviewed and are in mutual agreement between both the lessee and the lessor on this date: 9-3-25.

Lessor:

ا مددمه،

Lessee

SPANISH

El siguiente resumen se proporciona para esta solicitud pendiente de permiso de calidad del agua que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Plan de Participación Pública y el Plan de Acceso Lingüístico de la TCEQ. La información provista en este resumen puede cambiar durante la revisión técnica de la solicitud y no es una representación federal exigible de la solicitud del permiso.

- 1) Nombre del solicitante: Sherwyn Dallas and Angela Browning Wood
- 2) Ingrese el número de cliente: CN601313950; CN605783968
- 3) Nombre de la instalación: Sherwyn Wood Dairy
- 4) Ingresar Número de Entidad Regulada: RN102586807
- 5) Proporcione su número de permiso: WQ0004843000
- 6) Instalación Comercial: La instalación encierra 990 cabezas de ganado vacuno de las cuales 990 están ordeñando. La instalación tiene dieciséis (16) unidades de administración de tierras (LMU) con las siguientes superficies: LMU #1 10, LMU #2 33, LMU #3 53, LMU #4 21, LMU #5 26, LMU #5A 25, LMU #6 59, LMU #7 104, LMU #8 42, LMU #9 61, LMU #10 21, LMU #11 9, LMU #12 12, LMU #13 16, LMU #14 15 y LMU #15 5 acres. Una (1) estructura de control de retención (RCS), un pozo de lodos de concreto y un estanque de sedimentación de tierra. Las capacidades requeridas son: RCS #1 18.86 ac-ft. Hay ocho (8) pozos en el sitio. La instalación está ubicada en el Río Bosque Norte en el Segmento No. 1226 de la Cuenca del Río Brazos.
- 7) Ubicación de la instalación: La instalación está ubicada en el lado sur de FM 913, aproximadamente a 2.5 millas al sur de la intersección de FM 913 y US Hwy 67; dicha intersección está ubicada aproximadamente a 7 millas al sur de la intersección de la US Hwy 281 y la US Hwy 67, en el condado de Erath, Texas..
- 8) Tipo de Solicitud: Renovación de Permiso Individual
- 9) Descripción de su solicitud: Sherwyn Wood Dairy está presentando una solicitud de renovación con los siguientes cambios: reconfigurar el área de drenaje, eliminar el pozo de lodo/reestructuración propuesto en el noreste, cambiar el nombre del pozo de lodo sur a "Concrete Slurry Pad", agregar un nuevo edificio de taller y agregar un área de almacenamiento de estiércol/compost.
- 10) Las posibles fuentes de contaminantes en la instalación incluyen (enumere las fuentes de contaminantes): Estiércol, reservas de estiércol, aguas residuales, lodos, purines, compost, piensos y camas, reservas de ensilaje, animales muertos, polvo, lubricantes, químicos de salón, pesticidas y tanques de almacenamiento de combustible.
- 11) Las siguientes mejores prácticas de manejo se implementarán en el sitio para manejar los contaminantes de las fuentes de contaminantes enumeradas (describa las

mejores prácticas de manejo que se utilizan): las aguas pluviales se almacenan en la laguna (RCS) hasta que se aplican a la tierra mediante riego y estiércol y lodo se almacenan en el área de drenaje del RCS hasta que se aplican a la tierra o se transportan fuera del sitio para un uso beneficioso. El estiércol y los lodos generados por CAFO se conservarán y utilizarán de manera apropiada y beneficiosa de acuerdo con un plan certificado de manejo de nutrientes específico del sitio. Las aguas residuales estarán contenidas en el RCS adecuadamente diseñado ((frecuencia de 25 años y duración de 10 días (25 años/10 días), construido, operado y mantenido de acuerdo con lo dispuesto en el permiso. Mantener una zona de amortiguamiento de 100 pies para todos los pozos de riego o 150 pies para todos los pozos de suministro. Polvo - velocidad de control y mantenimiento regular del corral. Fertilizantes almacénelos bajo techo y manipúlelos de acuerdo con las instrucciones especificadas en la etiqueta. Tanques de combustible - proporcionan contención secundaria y evitan sobrellenados/derrames. Animales muertos - elimínelos a través de un servicio de procesamiento de terceros o entierre en el sitio. Recolectado dentro de las 24 horas posteriores a la muerte y eliminado dentro de los tres días.

- 12) A menos que se limite de otro modo, el estiércol, los lodos o las aguas residuales no se descargarán desde una unidad de administración de tierra (LMU) o una estructura de control de retención (RCS) hacia el agua en el estado o junto a ella desde una CAFO, excepto que resulte de cualquiera de las siguientes condiciones:
- 1) una descarga de estiércol, lodo o aguas residuales que el tenedor del permiso no puede prevenir o controlar razonablemente como resultado de una condición catastrófica que no sea un evento de lluvia;
- 2) desbordamiento de estiércol, lodo o aguas residuales de un RCS como resultado de un evento de lluvia crónica/catastrófica; o
- 3) una descarga de lluvia crónica/catastrófica de una LMU que ocurre porque el tenedor del permiso toma medidas para vaciar el RCS si el RCS está en peligro de desbordamiento inminente.

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQooo4843000

SOLICITUD. Sherwyn Dallas Wood y Angela Browning Wood, 757 County Road 229, Stephenville, Texas 76401, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) una renovación de Permiso No. WQ0004843000 (EPA I.D. No. TX0129976) para una Operación Concentrada de Alimentación Animal (CAFO) para autorizar la operación de una instalación de ganado lechero con 990 cabezas de ganado. La instalación está ubicada en el lado sur de Farm-to-Market Road 913, aproximadamente a 2.5 millas al sur de la intersección de Farm-to-Market Road 913 y U.S. Highway 67, cerca de la ciudad de Stephenville, en el Condado de Erath, Texas 76401. La TCEQ recibió esta solicitud el 22 de agosto de 2025. La solicitud de permiso estará disponible para ver y copiar en el Palacio de Justicia del Condado de Erath, Oficina de Extensión del Condado de Erath, 100 West Washington Street, Sala 206, Stephenville, en el Condado de Erath, Texas antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/cafo-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=-98.091388,32.147222&level=18

Include the following non-italicized sentence if the facility is located in the Coastal Management Program boundary and is an application for a major amendment which will increase the pollutant loads to coastal waters or would result in relocation of an outfall to a critical areas, or a renewal with such a major amendment. The Coastal Management Program boundary is the area along the Texas Coast of the Gulf of México as depicted on the map in 31 TAC §503.1 and includes part or all of the following counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda, Brazoria, Galveston, Harris, Chambers, Jefferson y Orange. If the application is for amendment that does not meet the above description, do not include the sentence: El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO.

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas

que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

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

CONTACTOS E INFORMACIÓN DE LA TCEQ. Todos los comentarios 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 de Sherwyn Dallas Wood y Angela Browning Wood a la dirección indicada arriba o llamando al Sr. Sherwyn Wood al 254-965-5142.

Fecha de emisión	[Date n	otice	issued	7
recha de emision	Duten	olle	issueu	



TPDES Permit No. WQ0004843000 This Permit supersedes and replaces Permit No. WQ0004843000 issued on March 4, 2021 [For TCEQ use only EPA ID No. TX0129976]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY P.O. Box 13087 Austin, Texas 78711-3087

TPDES PERMIT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS

under provisions of Section 402 of the Clean Water Act Chapter 26 of the Texas Water Code

I. Permittee:

A. Owner: Sherwyn Dallas Wood and Angela Browning Wood

B. Business Name: Sherwyn Wood DairyC. Owner Address: 757 County Road 229

Stephenville, Texas 76401

II. Type of Permit: Renewal / Water Quality

III. Nature of Business Producing Waste: Concentrated Animal Feeding Operation (CAFO): Dairy Cattle; SIC No. 0241

IV. General Description and Location of Waste Disposal System:

Maximum Capacity: 990 total head, of which 990 head are milking

Site Plan: See Attachment A

Retention Control Structure (RCS) total required capacity without freeboard (Acre-Feet): RCS #1-18.65

Land Management Units (LMUs) (Acres): LMU #1 – 10, LMU #2 – 33, LMU #3 – 53, LMU #4 - 21, LMU #5 – 26, LMU #5A – 25, LMU #6 – 59, LMU #7 – 104, LMU #8 – 42, LMU #9 – 61, LMU #10 – 21, LMU #11 – 9, LMU #12 – 12, LMU #13 – 16, LMU #14 – 15, LMU # 15 - 5; See Attachment B for locations

Terms of the Nutrient Management Plan (NMP): See Attachments E and F

Location: The facility is located on the south side of Farm-to-Market Road 913, approximately 2.5 miles south of intersection of Farm-to-Market Road 913 and U.S. Highway 67, said intersection is located approximately 7 miles south of the intersection of U.S. Highway 281 and U.S. Highway 67 in Stephenville, Erath County, Texas. Latitude: 32.147222° N and Longitude: 98.091388° W. See Attachment C

Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin

This permit contained herein shall expire at midnight, five years after the date of Commission approval.

ISSUED DATE:	
	For the Commission

V. Rule and Statute Applicability

- **A. Definitions.** All definitions in Chapter 26 of the Texas Water Code, 30 Texas Administrative Code (TAC) Chapters 305 and 321, Subchapter B shall apply to this permit and are incorporated by reference.
- B. Amendments, renewals, transfers, corrections, revocation, and suspension of permit. The requirements in 30 TAC Chapter 305, Subchapter D apply to this permit.

VI. Permit Applicability and Coverage

- **A. Discharge Authorization**. No discharge is authorized by this permit except as allowed by the provisions in this permit and 40 Code of Federal Regulations Chapter 412, which is adopted by reference in 30 TAC Chapter 305.541.
- **B. Application Applicability**. The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.
- **C. Air Quality Authorization**. This facility meets the requirements of a permit by rule under 30 TAC §106.161 for air quality authorization.

VII. Pollution Prevention Plan (PPP) Requirements

A. Technical Requirements

- 1. PPP General Requirements.
 - (a) The permittee shall update and implement a PPP for this facility upon issuance of this permit. The PPP shall:
 - (1) be prepared in accordance with good engineering practices;
 - (2) include measures necessary to limit the discharge of pollutants to surface water in the state;
 - (3) describe and ensure the implementation of practices which are to be used to assure compliance with the limitations and conditions of this permit;
 - (4) include all information listed in Section VII.A.;
 - (5) identify specific individual(s) who is/are responsible for development, implementation, operation, maintenance, inspections, recordkeeping, and revision of the PPP. The activities and responsibilities of the pollution prevention personnel shall address all aspects of the facility's PPP;
 - (6) be signed by the permittee or other signatory authority in accordance with 30 TAC §305.44 (relating to Signatories to Applications); and
 - (7) be retained on-site.
 - (b) The permittee shall amend the PPP:
 - (1) before any change in the number or configuration of LMUs;
 - (2) before any increase in the maximum number of animals;
 - (3) before operation of any new control facilities;
 - (4) before any change that has a significant effect on the potential for the discharge of pollutants to water in the state;
 - (5) if the PPP is not effective in achieving the general objectives of controlling discharges of pollutants from the production area or LMUs; or

- (6) within 90 days following written notification from the Executive Director that the plan does not meet one or more of the minimum requirements of this permit.
- (c) Maps. The permittee shall maintain the following maps as part of the PPP.
 - (1) Site Map. The permittee shall update the site map as needed, by permit amendment, to reflect the layout of the facility. The map shall include, at a minimum, the following information: facility boundaries; pens; barns; berms; open lots; manure storage areas; areas used for composting; dead animal burial sites; RCSs or other control facilities; LMUs; water wells, abandoned and in use, which are on-site or within 500 feet of the facility boundary; and all springs, lakes, or ponds located on-site or within one mile of the facility boundary.
 - (2) Land Application Map. Natural Resource Conservation Service (NRCS) soil survey maps of all LMUs shall depict:
 - (i) the boundary of each LMU and acreage;
 - (ii) all buffer zones required by this permit; and
 - (iii) the unit name and symbol of all soils in the LMU(s).
- (d) Potential Pollutant Sources/Site Evaluation.
 - (1) Potential Pollutant Sources. The PPP shall include a description of potential pollutant sources and indicate all measures that will be used to prevent contamination from the pollutant sources. Potential pollutant sources include any activity or material that may reasonably be expected to add pollutants to surface water in the state from the facility.
 - (2) Soil Erosion. The PPP shall identify areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. If these areas have the potential to contribute pollutants to surface water in the state, the PPP shall identify measures used to limit erosion and pollutant runoff.
 - (3) Control Facilities. The PPP shall include the location and a description of control facilities. The control facilities shall be appropriate for the identified sources of pollutants at the CAFO.
 - (4) Recharge Feature Certification. The recharge feature certification submitted in the permit application shall be implemented, updated by the permittee as often as necessary, and maintained in the PPP.
- (e) Spill Prevention and Recovery. The permittee shall take appropriate measures necessary to prevent spills and to clean up spills of any toxic pollutant. Where potential spills can occur, materials, handling procedures and storage shall be specified. The permittee shall identify the procedures for cleaning up spills and shall make available the necessary equipment to personnel to implement a clean up. The permittee shall store, use, and dispose of all pesticides in accordance with label instructions. There shall be no disposal of pesticides, solvents or heavy metals, or of spills or residues from storage or application equipment or containers, into RCSs. Incidental amounts of such substances entering a RCS as a result of stormwater transport of properly applied chemicals is not a violation of this permit.
- 2. Discharge Restrictions and Monitoring Requirements.
 - (a) Discharge Restrictions. Wastewater may be discharged to water in the state from a properly designed (25-year frequency 10-day duration (25 year/10

- day)), constructed, operated and maintained RCS whenever chronic or catastrophic rainfall, or catastrophic conditions cause an overflow. There shall be no effluent limitations on discharges from RCSs which meet the above criteria.
- (b) Monitoring Requirements. The permittee shall sample all discharges from the RCS(s) and LMU(s). The effluent shall be analyzed by a National Environmental Laboratory Accreditation Conference (NELAC) accredited lab for the parameters shown in Table 1.

Table 1: Monitoring Requirements

Parameter	Sample Type	Sample Frequency
5 Day Biochemical Oxygen Demand (BOD ₅)	Grab	1/day¹
Escherichia coli	Grab	1/day¹
Total Dissolved Solids (TDS)	Grab	1/day¹
Total Suspended Solids (TSS)	Grab	1/day¹
Nitrate (N)	Grab	1/day¹
Total Phosphorus	Grab	1/day¹
Ammonia Nitrogen	Grab	1/day¹
Pesticides ²	Grab	1/day¹

¹Sample shall be taken within the first thirty (30) minutes following the initial discharge and then once per day while discharging.

²Any pesticide which the permittee has reason to believe could be present in the wastewater.

- (c) If the permittee is unable to collect samples due to climatic conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.), the permittee shall document why discharge samples could not be collected. Once dangerous conditions have passed, the permittee shall conduct the required sampling.
- 3. RCS Design and Construction.
 - (a) RCS Certifications
 - (1) The permittee shall ensure that the design and completed construction of the RCS is certified by a licensed Texas Professional Engineer prior to use. The certification shall be signed and sealed in accordance with the Texas Board of Professional Engineers requirements.
 - (2) Documentation of liner and capacity certifications must be completed for each RCS prior to use and kept on-site in the PPP. Table 2 below shows the current RCS liner and capacity certifications.

Table 2: Current Liner and Capacity Certifications

RCS Name	Liner	Capacity Certification	Certified Capacity
	Certification Date	Date	(Acre-Feet)
RCS #1	October 18, 2010	May 21, 2010	28.47

RCS Name	Liner Certification Date	Capacity Certification Date	Certified Capacity (Acre-Feet)
Earthen Settling Basin	July 02, 2007	Not Applicable	

- (b) Design and Construction Standards. The permittee shall ensure that each RCS is designed and constructed in accordance with the technical standards developed by the NRCS, American Society of Agricultural and Biological Engineers, American Society of Civil Engineers, or American Society of Testing Materials that are in effect at the time of construction. Where site-specific variations are warranted, a licensed Texas Professional Engineer must document these variations and their appropriateness to the design.
- (c) RCS Drainage Area.
 - (1) The permittee shall describe in the PPP and implement measures that will be used to minimize entry of uncontaminated stormwater into the RCS(s).
 - (2) Stormwater must be diverted, as indicated in Attachment A Site Map from contact with feedlots and holding pens, and manure and/or process wastewater storage systems. In cases where it is not feasible to divert stormwater from the production area, the retention structures shall include adequate storage capacity for the additional stormwater. Stormwater includes rain falling on the roofs of facilities, runoff from adjacent land, or other sources.
 - (3) The permittee shall maintain the drainage area to minimize ponding or puddling of water outside the RCS(s).
- (d) RCS Sizing.
 - (1) The design plan must include documentation describing the sources of information, assumptions and calculations used in determining the appropriate volume capacity and structural features of each RCS, including embankment and liners.
 - (2) Design Rainfall Event. Each RCS authorized under this permit shall be designed and constructed to meet or exceed the margin of safety, equivalent to the volume of runoff and direct precipitation from the 25 year/10 day rainfall event. The design rainfall event for this CAFO is 12.10 inches.
 - (3) Any RCS capacity that is greater than the minimum capacity required by this permit may be allocated to additional sludge storage volume, which will increase the design sludge cleanout interval for the RCS. The new sludge cleanout interval will be identified in the RCS management plan maintained in the PPP, the stage storage tables will accurately reflect the new volumes, and the pond markers will visually identify the new volume levels.
- (e) Irrigation Equipment Design. The permittee shall ensure that the irrigation system design is capable of removing wastewater from the RCS(s) on a regular schedule. Equipment capable of dewatering the RCS(s) shall be available and operational whenever needed to restore the operating capacity required by the RCS management plan.
- (f) Embankment Design and Construction. The RCS(s) have a depth of water impounded against the embankment at the spillway elevation of three feet or

more, therefore the RCS(s) are considered to be designed with an embankment. The PPP shall include a description of the design specifications for the RCS embankments. The following design specifications are required for all new construction and/or the modified portions of existing RCSs.

- (1) Soil Requirements. Soils used in the embankment shall be free of foreign material such as rocks larger than four (4) inches, trash, brush, and fallen trees.
- (2) Embankment Lifts. The embankment shall be constructed in lifts or layers no more than eight (8) inches compacted to six (6) inches thick at a minimum compaction effort of 95 per cent (%) Standard Proctor Density (ASTM D698) at -1% to +3% of optimum moisture content.
- (3) Stabilize Embankment Walls. All embankment walls shall be stabilized to prevent erosion or deterioration.
- (4) Compaction Testing. Embankment construction must be accompanied by certified compaction tests including in place density and moisture in accordance with the American Society of Testing Materials (ASTM) D1556, D2167 or D2937 for density and D2216, D4643, D4944 or D4959 for moisture, or D6938 for moisture and density or equivalent testing standards. Compaction tests will provide support for the liner certification performed by a licensed Texas Professional Engineer as meeting a permeability no greater than 1 ×10-7 centimeters per second (cm/sec) over a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 × 10-6 cm/sec with a water level at spillway depth.
- (5) Spillway or Equivalent Protection. The new or modified RCS(s), which are constructed with embankments, shall be constructed with a spillway or other outflow device properly sized according to NRCS design and specifications to protect the integrity of the embankment.
- (6) Embankment Protection. The new or modified RCS(s) must have a minimum of two (2) vertical feet of materials equivalent to those used at the time of design and construction between the top of the embankment and the structure's spillway. RCS(s) without spillways must have a minimum of two (2) vertical feet between the top of the embankment and the required storage capacity.
- (g) RCS Liner Requirements. For all new construction and for all structural modifications of existing RCS(s), the RCS must have a liner consistent with one of the following:
 - (1) In-situ Material. In-situ material is undisturbed, in-place, native soil material. In-situ materials must at least meet the minimum criteria for hydraulic conductivity and thickness and specific discharge as described in Section VII.A.3(g)(2) of this permit. Samples shall be collected and analyzed in accordance with Section VII.A.3(g)(3) of this permit. This documentation must be certified by a licensed Texas Professional Engineer or licensed Texas Professional Geoscientist.
 - (2) Constructed or Installed Liner.
 - (i) Constructed or installed liners must be designed by a licensed Texas Professional Engineer. The liner must be constructed in accordance with the design and certified as such by a licensed Texas Professional

- Engineer. Compaction tests and post construction sampling and analyses, conducted in accordance with Sections VII.A.3(f)(4) and VII.A.3(g)(3) of this permit, will provide support for the liner certification.
- (ii) Liners shall be designed and constructed to have hydraulic conductivities no greater than 1 × 10⁻⁷ centimeters per second (cm/sec), with a thickness of 18 inches or its equivalency in other materials, and not to exceed a specific discharge through the liner of 1.1 × 10⁻⁶ cm/sec with a water level at spillway depth.
- (iii) Constructed or installed liners must be designed and constructed to meet the soil requirements, lift requirements, and compaction testing requirements as listed in Section VII.A.3(f)(1), (2) and (4) of this permit.
- (3) Liner Sampling and Analyses
 - (i) The licensed Texas Professional Engineer or licensed Texas Professional Geoscientist shall use best professional practices to ensure that corings or other liner samples will be appropriately plugged with material that also meets liner requirements of this subsection.
 - (ii) Samples shall be collected in accordance with ASTM D1587 or other method approved by the Executive Director. For each RCS, a minimum of two core samples collected from the bottom of the RCS and a minimum of at least one core sample from each sidewall shall be collected. Additional samples may be necessary based on the best professional judgment of the licensed Professional Engineer. Distribution of the samples shall be representative of liner characteristics, and proportional to the surface area of the sidewalls and floor. Documentation shall be provided identifying the sample locations with respect to the RCS liner.
 - (iii) Undisturbed samples shall be analyzed for hydraulic conductivity in accordance with ASTM D5084 or other method approved by the Executive Director.
- (4) Leak Detection System. If notified by the Executive Director that significant potential exists for the adverse impact of water in the state or drinking water from leakage of a RCS, the permittee shall install a leak detection system or monitoring well(s) in accordance with that notice. Documentation of compliance with the notification must be kept with the PPP, as well as copies of all sampling data.
- 4. Special Considerations for Existing RCS(s). An existing RCS that has been properly maintained without any modifications and has no apparent structural problems or leakage is considered to be properly designed with respect to the embankment design and construction and liner requirements of this permit, provided that any required documentation was completed in accordance with the requirements at the time of construction. If no documentation exists, the RCS must be certified by a licensed Texas Professional Engineer as providing protection equivalent to the requirements of this permit.

- 5. Operation and Maintenance of RCSs.
 - (a) The permittee must operate and maintain a margin of safety in the RCS(s) to contain the volume of runoff and direct precipitation from the 25 year/10 day rainfall event.
 - (b) The permittee shall implement a RCS management plan incorporating the margin of safety developed by a licensed Texas Professional Engineer. The management plan shall become a component of the PPP, shall be developed for each RCS, and must describe or include:
 - (1) RCS management controls appropriate for the CAFO and the methods and procedures for implementing such controls;
 - (2) the methods and procedures for proper operation and maintenance of each RCS consistent with the system design;
 - (3) the appropriateness and priorities of any controls reflecting the identified sources of pollutants at the facility;
 - (4) a stage/storage table for each RCS with minimum depth increments of one-foot, including the storage volume provided at each depth;
 - (5) a second table or sketch that includes increments of water level ranges for volumes of total design storage, including the storage volume provided at each specified depth (or water level) and the type of storage designated by that depth; and
 - (6) the planned end of month storage volume anticipated for each RCS for each month of the year and the corresponding operating depth expected at the end of each month of the year, based on the design assumptions.
 - (c) The wastewater level in the RCS shall be maintained at or below the maximum operating level expected during that month, according to the design of the RCS. When rainfall volumes exceed average rainfall data used in design calculations planned end of month storage volumes may encroach into the design storm event storage provided that documentation is available to support that the design parameters have been exceeded and that the RCS is otherwise being managed according to the RCS management plan criteria. In circumstances where the RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth. Also, if the water level in the RCS encroaches into the storage volume reserved for the design rainfall event, the permittee must document, in the PPP, the conditions that resulted in this occurrence. As soon as irrigation is feasible and not prohibited by Section VII.A.8(f) and (g), the permittee shall irrigate until the RCS water level is at or below the maximum operating level expected during that month.
 - (d) Imminent Overflow. If a RCS is in danger of imminent overflow from chronic or catastrophic rainfall or catastrophic conditions, the permittee shall take reasonable steps to irrigate wastewater to the LMU(s) only to the extent necessary to prevent overflow from the RCS. If irrigation results in a discharge from a LMU, the permittee shall collect samples from the drainage pathway at the point of the discharge from the edge of the LMU where the discharge occurs, analyze the samples for the parameters listed in Section VII.A.2.(b), and provide the appropriate notifications as required by Section VIII.B of this permit and 30 TAC §321.44.

- (e) Permanent Pond Marker. The permittee shall install and maintain a permanent pond marker (measuring device) in the RCS(s), visible from the top of the levee to show the following:
 - (1) the volume for the design rainfall event;
 - (2) one-foot increments beginning from the bottom of the RCS to the top of the embankment or spillway; and
 - (3) design volume levels for maximum sludge accumulation and operating volume (calculated process generated wastewater plus rainfall runoff minus evaporation) must be identifiable on the marker.
- (f) Rain Gauge. A rain gauge capable of measuring the design rainfall event shall be kept on-site and properly maintained.
- (g) Sludge Removal. The permittee shall monitor sludge accumulation and depth, based upon the design sludge storage volume in the RCS. (See Special Provision X.E for additional requirements related to sludge monitoring.) Sludge shall be removed from the RCS(s) in accordance with the design schedule for cleanout in the RCS Management Plan to prevent the accumulation of sludge from exceeding the designed sludge volume of the structure. Removal of sludge shall be conducted during favorable wind conditions that carry odors away from nearby receptors. Sludge may only be beneficially utilized by land application to a LMU if in accordance with a nutrient management plan or disposed of in accordance with Section VII.A.8(e) of this permit. A sludge sample must be collected and analyzed in accordance with Section VII.A.9(a) prior to each clean out.
- (h) Liner Protection and Maintenance. The permittee shall maintain the liner to inhibit infiltration of wastewater. Liners must be protected from animals by fences or other protective devices. No tree shall be allowed to grow such that the root zone would intrude or compromise the structure of the liner or embankment. Any mechanical or structural damage to the liner shall be evaluated by a licensed Texas Professional Engineer within thirty (30) days of the damage.
- (i) Closure Requirements. A closure plan must be developed when a RCS will no longer be used and/or when the CAFO ceases or plans to cease operation. The closure plan shall be submitted to the appropriate regional office and the CAFO Permits Team of the Water Quality Division in Austin (MC-150) within ninety (90) days of when operation of the CAFO or the RCS terminates. The closure plan for the RCS must, at a minimum, be developed using standards contained in the NRCS Practice Standard Code 360 (Closures of Waste Impoundments), as amended, and using the guidelines contained in the Texas AgriLife Extension/ NRCS publication #B-6122 (Closure of Lagoons and Earthen Manure Storage Structures), as amended. The permittee shall maintain or renew its existing authorization and maintain compliance with the requirements of this permit until the facility has been closed.
- 6. General Operating Requirements.
 - (a) Flush/Scrape Systems. Flush/scrape systems shall be flushed/scraped in accordance with design criteria in the application.
 - (b) Pen Maintenance. The permittee shall maintain earthen pens to ensure good drainage, minimize ponding, and minimize the entrance of uncontaminated storm water to the RCSs.

- (c) Carcass Disposal. Carcasses shall be collected within twenty four (24) hours of death and properly disposed of within three days of death in accordance with Texas Water Code, Chapter 26; Texas Health and Safety Code, Chapter 361; and 30 TAC Chapter 335 (relating to Industrial Solid Waste and Municipal Hazardous Waste) unless otherwise provided for by the commission. Animals must not be disposed of in any liquid manure or process wastewater system. Disposal of diseased animals shall also be conducted in a manner that prevents a public health hazard in accordance with Texas Agriculture Code, §161.004, and 4 TAC §31.3, §58.31(b), and §59.12. The collection area for carcasses shall be addressed in the potential pollutant sources section of the PPP with the management practices to prevent contamination of surface or groundwater, control access, and minimize odor.
- (d) Manure and Sludge Storage
 - (1) Manure and sludge storage capacity requirements shall be based on manure and sludge production, land availability, and the NRCS Field Office Technical Guide (Part 651, Chapter 10) or equivalent standards. (See Special Provision X.I for the storage requirements applicable to slurry collected from freestall barns.)
 - (2) When manure is stockpiled, it shall be stored in a well-drained area, and the top and sides of stockpiles shall be adequately sloped to ensure proper drainage and prevent ponding of water. Runoff from manure or sludge storage piles must be retained on-site. If the manure or sludge areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff during the design rainfall event, the manure or sludge areas must be located within the drainage area of a RCS and accounted for in the design calculations of the RCS.
 - (3) Manure or sludge stored for more than thirty (30) days must be stored within the drainage area of a RCS or stored in a manner (i.e. storage shed, bermed area, tarp covered area, etc.) that otherwise prevents contaminated storm water runoff from leaving the storage area. All storage sites and structures located outside the drainage area shall be designated on the site map.
 - (4) Temporary storage of manure or sludge shall not exceed thirty (30) days and is allowed only in a LMU or a RCS drainage area. Temporary storage of manure and sludge near water courses or near recharge features may be allowed if protected by berms or other structures to prevent inundation or damage that may occur.
- (e) Composting. Composting on-site shall be performed in accordance with 30 TAC Chapter 332 (relating to Composting). The permittee may compost waste generated on-site, including manure, sludge, bedding, feed and dead animals. The permittee may add agricultural products to provide an additional carbon source or bulking agent to aid in the composting process. If the compost areas are not roofed or covered with impermeable material, protected from external rainfall, or bermed to protect from runoff in the case of the design rainfall event, the compost areas must be located within the drainage of an RCS and must be shown on the site plan and accounted for in the design calculations of the RCS.

- 7. Site Specific Conservation Practice.
 - (a) Well Protection Requirements
 - (1) The permittee shall not locate or operate a new RCS, holding pen, or LMU within the following buffer zones:
 - (i) public water supply wells 500 feet;
 - (ii) wells used exclusively for private water supply 150 feet; or
 - (iii) wells used exclusively for agriculture irrigation 100 feet.
 - (2) Irrigation of wastewater directly over a well head will require a structure protective of the wellhead that will prevent contact from irrigated wastewater.
 - (3) Construction of any new water wells must be done by a licensed water well driller.
 - (4) All abandoned and unuseable wells shall be plugged according to 16 TAC §76.104.
 - (5) The permittee may continue the operation and use of any existing holding pens and RCSs located within the required well buffer zones provided they are in accordance with the facility's approved recharge feature evaluation and certification. Buffer zone variance documentation must be kept onsite and made available to TCEQ personnel upon request. A Well Buffer Exception request for Wells #4, #5 and #7 was submitted to and approved by the TCEQ Water Quality Assessment Team. Permittee shall implement the requirements of the Well Buffer Exception approval by TCEQ. Table 3 below shows the status of all wells on the facility and the best management practices (BMPs) used to protect them.

Table 3: Well Status and Best Management Practices

Well Number*	Status	BMPs
1	Producing	Maintain 150 ft buffer
2	Producing	Maintain 150 ft buffer
3	Producing	Maintain 150 ft buffer
4	Producing	Concrete slab
5	Producing	Concrete slab, metal shed, upgradient of pollutant source
6	Producing	Maintain 150 ft buffer
7	Producing	Concrete slab, steel sleeve and enclosed structure
8	Producing	Maintain 150 ft buffer

^{*}Well Numbers correspond with Attachment D

(b) Soil Limitations. The permittee shall implement the BMPs on Table 4 for the specified soil series.

Table 4: Soil Limitations and Best Management Practices

Soil Series and Map ID	Potential Limitations	BMPs*
BdC: Bolar-Denton	Depth to Bedrock	
Complex	Slow Water Movement	

Soil Series and Map ID	Potential Limitations	BMPs*
Ma: Maloterre	Depth to Bedrock Drougthy	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP).
PcB: Purves clay, 1-3 % slopes; PcC: Purves clay, 3-5 % slopes	Droughty; Depth to Bedrock; Slow Water Movement	Land application will be based upon the available water holding capacity (refer to NMP) of the soils, and will not
Pd: Purves-Dugout- Maloterre Complex	Droughty; Depth to Bedrock; Slow Water Movement; Large Stones on the Surface	exceed agronomic rates for nutrients. No land application to inundated soils.
HoB: Slidell; DeB: Denton	Slow water movement	Land application not to exceed agronomic rates for nutrients and soil hydraulic rates (refer to NMP).
		No land application to inundated soils.

^{*}or an equivalent protective measure identified in an NRCS Practice Standard.

(c) Pollutant Sources and Management. The permittee shall implement the BMPs on Table 5 for handling dead animals and pesticides.

Table 5: Pollutant Sources and Best Management Practices

Tuble 3. I onutum 5.	Tuble J. I ondtant bources and best Management I factices				
Potential Pollutant Source	BMPs*				
Dead Animals	Collect within 24 hours of death and remove within three days of death by a third-party rendering service, or compost in accordance with Section VII.A.6(e) of this permit				
Pesticides/Parlor Chemicals	Store under roof				
	Handle and dispose according to label directions				

^{*}or an alternative BMP as allowed by 30 TAC 321 Subchapter B or an equivalent protective measure identified in an NRCS Practice Standard.

8. Land Application.

- (a) Nutrient Management Plan (NMP) Required. The certified NMP submitted in the permit application shall be implemented upon issuance of this permit. The plan shall be updated as appropriate or at a minimum of annually according to NRCS Practice Standard Code 590. The permittee shall make available to the Executive Director, upon request, a copy of the site specific NMP and documentation of the implementation.
 - (1) For Terms of the NMP see Attachments E and F.
 - (2) The following changes to the terms of the NMP are substantial:
 - (i) Increase in animal headcount;
 - (ii) Increase in LMU acreage or a change in LMU location;
 - (iii) Change in crop and yield goal (not listed in Attachment F);
 - (3) Substantial and Non-Substantial Change to the terms of the NMP.
 - (i) Any changes (substantial or non- substantial) to the NMP, other than the Annual Recalculation of Application Rates outlined in

- Attachment E, must be submitted to the Executive Director for review, and may be subject to public comment;
- (ii) If the Executive Director determines that the changes to the NMP are not substantial, the revised NMP will be made publicly available and included in the permit record; and
- (iii) If the Executive Director determines that the changes to the NMP are substantial, the information provided by the permittee will be subject to a major amendment process as set in 30 TAC §§305.61-305.72.
- (b) Comprehensive Nutrient Management Plan (CNMP) required. The permittee must continue to operate under a CNMP certified by the Texas State Soil and Water Conservation Board.
- (c) Critical Phosphorus Level
 - (1) When results of the annual soil analysis show a phosphorus level in the soil of more than 200 ppm but not more than 500 ppm in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated) for a particular LMU or if ordered by the commission to do so in order to protect the quality of water in the state, then the permittee shall:
 - (i) file with the Executive Director a new or amended nutrient utilization plan (NUP) with a phosphorus reduction component based on crop removal that is certified as acceptable by a person described in (3) below; or
 - (ii) show that the level is supported by a NUP that is certified as acceptable by a person described in (3) below.
 - (2) The permittee shall cease land application of compost, manure, sludge, slurry and wastewater to the affected area until the NUP has been approved by the TCEQ. After a NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below the critical phosphorus level of 200 ppm extractable phosphorus. Thereafter, the permittee shall implement the requirements of the nutrient management plan.
 - (3) NUP. A NUP is a NMP, based on NRCS Practice Standard Code 590, which utilizes a crop removal application rate. The NUP, based on crop removal, must be developed and certified by one of the following individuals or entities:
 - (i) an employee of the NRCS;
 - (ii) a nutrient management specialist certified by the NRCS;
 - (iii) the Texas State Soil and Water Conservation Board;
 - (iv) the Texas AgriLife Extension;
 - (v) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas; or
 - (vi) a Certified Professional Agronomist certified by the American Society of Agronomy, a Certified Professional Soil Scientist certified by the Soil Science Society of America, or a licensed Texas Professional Geoscientist-soil scientist after approval by the Executive Director based on a determination by the Executive Director that another person or entity identified in this paragraph cannot develop the plan in a timely manner.

- (4) When results of the annual soil analysis for extractable phosphorus indicate a level greater than 500 ppm in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated), the permittee shall file with the Executive Director a new or amended NUP with a phosphorus reduction component, based on crop removal, that is certified as acceptable by a person described in (3) above. After the new or amended NUP is approved, the permittee shall land apply in accordance with the NUP until soil phosphorus is reduced below 500 ppm extractable phosphorus.
- (5) If the permittee is required to have a NUP with a phosphorus reduction component based on crop removal, and if the results of tests performed on composite soil samples collected 12 months or more after the plan is filed do not show a reduction in phosphorus concentration in Zone 1 depth (0-6 inch incorporated; 0-2 or 2-6 inch if not incorporated), then the permittee is subject to enforcement action at the discretion of the Executive Director.
- (d) Buffer Requirements. The permittee shall meet the following buffer requirements for each LMU:
 - (1) Water in the State. The permittee shall not apply compost, manure, sludge, slurry and wastewater within the buffer distances as noted on Attachment B and Special Provision X.D. Vegetative buffers shall be maintained in accordance with NRCS Field Office Technical Guidance. The permittee shall maintain the filter strip (according to NRCS Code 393) between the vegetative buffer and the land application area. If the land application area is cropland, the permittee shall install and maintain contour buffer strips (according to NRCS Code 332) within the land application area in addition to the buffer distances required by this permit.
 - (2) Water Wells. The permittee shall comply with the well protection requirements listed in Section VII.A.7.(a).
- (e) Exported wastewater, sludge, and/or manure. Wastewater, sludge, and/or manure removed from the operation shall be disposed of by:
 - (1) delivery to a composting facility authorized by the Executive Director;
 - (2) delivery to a permitted landfill located outside of the major sole source impairment zone;
 - (3) beneficial use by land application to land located outside of the major sole source impairment zone;
 - (4) put to another beneficial use approved by the Executive Director; or
 - (5) providing wastewater, sludge, and/or manure to operators of third-party fields, i.e. areas of land in the major sole source impairment zone not owned, operated, controlled, rented, or leased by the CAFO owner or operator, that have been identified in the PPP.
 - (i) There must be a written contract between the permittee and the recipient that includes, but is not limited to, the following provisions:
 - (A) All transferred wastewater, sludge, and/or manure shall be beneficially applied to third-party fields identified in the PPP in accordance with the applicable requirements in 30 TAC §321.36 and §321.40 at an agronomic rate based on soil test phosphorus.

- The requirements for development or implementation of a nutrient management plan or nutrient utilization plan, under 30 TAC §321.40, do not apply to third-party fields.
- (B) Manure and sludge must be incorporated on cultivated fields within forty-eight (48) hours after land application.
- (C) Land application rates shall not exceed the crop nitrogen requirement when the soil phosphorus concentration in Zone 1 depth (o-6 inch if incorporated; o-2 or 2-6 inch if not incorporated) is less than or equal to 50 ppm phosphorus.
- (D) Land application rates shall not exceed two times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 depth (0-6 inch if incorporated; 0-2 or 2-6 inch if not incorporated) is greater than 50 ppm phosphorus and less than or equal to 150 ppm phosphorus.
- (E) Land application rates shall not exceed one times the phosphorus crop removal rate, and not to exceed the crop nitrogen requirement, when soil phosphorus concentration in Zone 1 depth (0-6 inch if incorporated; 0-2 or 2-6 inch if not incorporated) is greater than 150 ppm phosphorus and less than 200 ppm phosphorus.
- (F) Before commencing manure, wastewater, compost, and/or sludge application to third-party fields, at least one representative soil sample from each third-party field must be collected by a certified nutrient management specialist and analyzed in accordance with 30 TAC §321.36. Third-party fields which have had wastewater, sludge, compost, and/or manure applied during the preceding year must be sampled annually by a certified nutrient management specialist and the samples analyzed in accordance with 30 TAC §321.36. For third-party fields that have not received wastewater, sludge, compost, and/or manure during the preceding year, initial sampling must be completed before re-starting land application to the third-party field.
- (G) A copy of the annual soil analyses shall be provided to the permittee within sixty (60) days of the date the samples were taken.
- (H) Temporary storage of wastewater, sludge, and/or manure is prohibited on third-party fields.
- (ii) The permittee is prohibited from delivering wastewater, sludge, and/or manure to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm or after becoming aware that the third-party operator is not following appropriate provisions of 30 TAC §321.36, §321.40 and/or the contract.
- (iii) The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field under contract.

- (iv) The permittee shall submit records to the appropriate regional office quarterly that contain the name, locations, and amounts of wastewater, sludge, and/or manure transferred to operators of third-party fields.
- (f) Irrigation Operating Requirements.
 - (1) Minimize Ponding. Irrigation practices shall be managed so as to minimize ponding or puddling of wastewater on the site, prevent tailwater discharges to water in the state, and prevent the occurrence of nuisance conditions.
 - (2) Discharge Prohibited
 - The drainage of compost, manure, sludge, slurry and wastewater is prohibited from the LMU(s), unless authorized under Section VII.A.5(d).
 - (ii) Where compost, manure, sludge, slurry and wastewater is applied in accordance with the nutrient management plan and/or NUP, precipitation-related runoff from the LMU(s) under the control of the permittee is authorized.
 - (iii) If a discharge from the irrigation system is documented as a violation, the permittee may be required by the Executive Director to install an automatic emergency shut-down or alarm system to notify the permittee of system problems.
 - (3) Backflow Prevention. If the permittee introduces wastewater or chemicals to water well heads for the purpose of irrigation, then backflow prevention devices shall be installed according to 16 TAC Chapter 76 (related to Water Well Drillers and Water Well Pump Installers).
- (g) Nighttime Application.
 - (1) Land application at night shall only be allowed if there is no occupied residence(s) within one quarter (0.25) of a mile from the outer boundary of the actual area receiving compost, manure, sludge, slurry and wastewater application. In areas with an occupied residence within one quarter (0.25) of a mile from the outer boundary of the actual area receiving compost, manure, sludge, slurry and wastewater application, application shall only be allowed from one (1) hour after sunrise until one (1) hour before sunset, unless the current occupant of such residences have, in writing, agreed to specified nighttime applications.
 - (2) Land application of compost, manure, sludge, slurry and wastewater is prohibited between 12 a.m. and 4 a.m. during normal operating conditions.
- 9. Sampling and Testing.
 - (a) Manure and Wastewater. The permittee shall collect and analyze at least one representative sample of wastewater and one representative sample of manure each year for total nitrogen, total phosphorus, and total potassium. The results of these analyses shall be used in determining application rates.
 - (b) Soils
 - (1) Initial Sampling. Before commencing compost, manure, sludge, slurry and wastewater application to the LMU(s), the permittee shall have at least one representative soil sample from each LMU, collected and analyzed according to the following procedures.

- (2) Annual Sampling. The TCEQ or its designee shall have soil samples collected annually for each current and historical LMU.
- (3) Sampling Procedures. Sampling procedures shall employ accepted techniques of soil science for obtaining representative samples and analytical results, and be consistent with approved methods described in the Executive Director's guidance entitled "Soil Sampling for Concentrated Animal Feeding Operations (CAFOs) (RG-408)."
 - (i) Soil samples must be collected by one of the following persons:
 - (A) the NRCS;
 - (B) a certified nutrient management specialist;
 - (C) the Texas State Soil and Water Conservation Board;
 - (D) the Texas AgriLife Extension; or
 - (E) an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas.
 - (ii) Samples shall be collected and analyzed within the same forty-five (45) day time frame each year, except when crop rotations or inclement weather require a change in the sampling time. The reason for a change in sampling timeframe shall be documented in the PPP.
 - (iii) Obtain one composite sample for each soil depth zone per uniform soil type (soils with the same characteristics and texture) within each LMU.
 - (iv) Composite samples shall be comprised of 10 15 randomly sampled cores obtained from each of the following soil depth zones:
 - (A) Zone 1: 0-6 inches (where the manure, sludge, slurry, or compost is physically incorporated or injected directly into the soil) or 0-2 inches (where the manure, sludge or slurry is not incorporated into the soil). Wastewater is considered to be incorporated upon land application if it is less than two percent (2%) solids. Slurry from freestall barns is treated like manure for this sampling requirement. If a 0-2 inch sample is required, then an additional sample from the 2-6 inch soil depth zone shall be obtained in accordance with the provisions of this section; and
 - (B) Zone 2: 6-24 inches.
- (4) Laboratory Analysis. Samples shall be analyzed by a soil testing laboratory. Physical and chemical parameters and analytical procedures for laboratory analysis of soil samples shall include the following:
 - (i) nitrate reported as nitrogen in ppm;
 - (ii) phosphorus (extractable, ppm) using Mehlich III with Inductively Coupled Plasma (ICP);
 - (iii) potassium (extractable, ppm);
 - (iv) sodium (extractable, ppm);
 - (v) magnesium (extractable, ppm);
 - (vi) calcium (extractable, ppm);
 - (vii) soluble salts (ppm) or electrical conductivity (dS/m) determined from extract of 2:1 (v/v) water/soil mixture; and
 - (viii) soil water pH (soil:water, 1:2 ratio).

- 10. Preventative Maintenance Program.
 - (a) Facility Inspections
 - (1) General Requirements
 - (i) Inspections shall include visual inspections and equipment testing to determine conditions that could cause breakdowns or failures resulting in discharge of pollutants to water in the state or the creation of a nuisance condition.
 - (ii) The permittee shall draft a report, to be maintained in the PPP, to document the date of inspections, observations and actions taken in response to deficiencies identified during the inspection. The permittee shall correct all the deficiencies within thirty (30) days or shall document the factors preventing immediate correction.
 - (2) Daily Inspections. The permittee shall conduct daily inspections on all water lines, including drinking water and cooling water lines, which are located within the drainage area of a RCS.
 - (3) Weekly Inspections. The permittee shall conduct weekly inspections on:
 - (i) all control facilities, including RCSs, storm water diversion devices, runoff diversion structures, control devices for management of potential pollutant sources, and devices channeling contaminated storm water to RCSs; and
 - (ii) equipment used for land application of compost, manure, sludge, slurry and wastewater.
 - (4) Monthly Inspections. The permittee shall conduct monthly inspections on:
 - (i) mortality management systems, including collection areas; and
 - (ii) disposal and storage of toxic pollutants, including pesticide containers.
 - (5) Annual Site Inspection.
 - (i) The permittee shall annually conduct a complete site inspection of the production area and the LMU(s).
 - (ii) The inspection shall verify that:
 - (A) the description of potential pollutant sources is accurate;
 - (B) the site plan/map has been updated or otherwise modified to reflect current conditions; and
 - (C) the controls outlined in the PPP to reduce pollutants and avoid nuisance conditions are being implemented and are adequate.
 - (b) Five Year Evaluation. Once every five years the permittee shall have a licensed Texas Professional Engineer review the existing engineering documentation, complete a site evaluation of the structural controls, review existing liner and RCS capacity documentation, and complete and certify a report of their findings. The report must be kept in the PPP.
- 11. Management Documentation. The permittee shall maintain the following records in the PPP:
 - (a) a copy of the administratively complete and technically complete individual water quality permit application and the written authorization issued by the commission or Executive Director;
 - (b) a copy of the approved recharge feature certification and appropriate updates;

- (c) a copy of the comprehensive nutrient management plan, nutrient management plan, nutrient utilization plan and appropriate updates to these plans, if required;
- (d) the RCS liner certification(s);
- (e) any written agreement with a landowner which documents the allowance of nighttime application of compost, manure, sludge, slurry and wastewater;
- (f) documentation of employee and operator training, including verification of the date, time of attendance, and completion of training;
- (g) the RCS management plan;
- (h) the capacity of each RCS as certified by a licensed Texas Professional Engineer; and
- (i) a copy of all third-party field contracts.

B. General Requirements

- 1. The permittee shall not construct any component of the production area in any stream, river, lake, wetland, or playa (except as defined by and in accordance with the Texas Water Code §26.048).
- 2. Animals confined on the CAFO shall be restricted from coming into direct contact with surface water in the state through the use of fences or other controls.
- 3. The permittee shall prevent the discharge of pesticide contaminated waters into water in the state. All wastes from dipping vats, pest and parasite control units, and other facilities used for the application of potentially hazardous or toxic chemicals shall be handled and disposed of in a manner that prevents any significant pollutants from entering water in the state or creating a nuisance condition.
- 4. The permittee shall operate the CAFO in such a manner as to prevent nuisance conditions of air pollution as mandated by Texas Health and Safety Code, Chapters 341 and 382.
- 5. The permittee shall take reasonable steps necessary to prevent adverse effects to human health or safety, or to the environment.
- 6. The permittee shall maintain control of the RCS(s), required LMU(s), and control facilities identified on the site map submitted in the application. In the event the permittee loses control of any of these areas, the permittee shall notify the Executive Director within five (5) working days.
- 7. If animals are maintained in pastures, the permittee shall maintain crops, vegetation, forage growth or post harvest residues in those pastures during the normal growing season, excluding the feed and/or water trough areas.

C. Training

- 1. Employee Training
 - (a) Employees at the CAFO facility who are responsible for work activities relating to compliance with provisions of this permit must be regularly trained or informed of any information pertinent to the proper operation and maintenance of the facility and land application of manure, sludge, and wastewater.
 - (b) Employee training shall address all levels of responsibility of the general components and goals of the PPP. Training shall include appropriate topics, such as land application of manure, sludge, and wastewater, proper operation

- and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up.
- (c) The permittee is responsible for determining the appropriate training frequency for different levels of personnel. The PPP shall identify periodic dates for such training.
- 2. Operator Training. The operator shall attend at least eight (8) hours of continuing education in animal waste management or its equivalent, developed by the Executive Director and the Texas AgriLife Extension, for each two year period.
- 3. Verification of the date and time(s) of attendance and completion of required training shall be documented in the PPP.

VIII. Recordkeeping, Reporting, and Notification Requirements

A. Recordkeeping

The permittee shall keep records on-site for a minimum of five (5) years from the date the record was created and shall submit them within five (5) days of a written request by the Executive Director.

- 1. The permittee shall update records daily to include:
 - (a) all measurable rainfall events; and
 - (b) the wastewater levels in each RCS, as shown on the depth marker. In circumstances where a RCS has a water level exceeding the expected end of the month depth, the permittee shall document in the PPP why the level of water in the structure is not at or below the expected depth.
- 2. The permittee shall update records weekly to include:
 - (a) records of all wastewater, sludge, and/or manure removed from the CAFO that shows the dates, amount, and recipient. The permittee must make the most recent nutrient analysis available to any hauler; and
 - (b) inspections of control facilities and land application equipment.
- 3. The permittee shall update records monthly to include:
 - (a) records describing mortality management practices;
 - (b) storage and disposal of chemicals, including pesticide containers; and
 - (c) records of all compost, manure, sludge, slurry and wastewater applied on the LMU(s). Such records must include the following information:
 - (i) date of compost, manure, sludge, slurry and wastewater application to each LMU;
 - (ii) location of the specific LMU and the volume applied during each application event;
 - (iii) acreage on which compost, manure, sludge, slurry and wastewater is applied;
 - (iv) basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU on a dry basis, including sources of nutrients other than compost, manure, sludge, slurry and wastewater; and
 - (v) weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application.

- 4. The permittee shall update records annually to include:
 - (a) annual nutrient analysis for at least one representative sample of wastewater and one representative sample of manure for total nitrogen, total phosphorus, and total potassium;
 - (b) any initial and annual soil analysis reports;
 - (c) the annual site inspection report;
 - (d) percent moisture content of the manure, sludge, slurry, and wastewater; and
 - (e) actual annual yield of each harvested crop for each LMU.
- 5. The Five Year Evaluation report must be updated every five (5) years.
- 6. The permittee shall keep the following records on-site:
 - (a) a list of any significant spills of potential pollutants at the CAFO that have a significant potential to reach water in the state;
 - (b) documentation of liner maintenance by an NRCS engineer, a licensed Texas Professional Engineer or a licensed Texas Professional Geoscientist;
 - (c) RCS design calculations and as built capacity certification;
 - (d) embankment certification;
 - (e) liner certification;
 - (f) a copy of current and amended site plans; and
 - (g) copies of all notifications to the Executive Director, including any made to a regional office.

B. Reporting and Notifications

- 1. The permittee shall provide written notice to the appropriate TCEQ regional office as soon as the RCS cleaning is scheduled, but not less than ten (10) days before cleaning. The permittee shall also provide written verification of completion to the same regional office within five (5) days after the cleaning has been completed. This paragraph does not apply to the cleaning of solid separators or settling basins that are functioning as solid separators.
- 2. The permittee shall notify the appropriate TCEQ regional office in writing or by electronic mail with the date, time, and location at least ten (10) working days before collecting soil samples from current and historical LMUs; and third-party fields.
- 3. Discharge Notification. If for any reason there is a discharge of manure, sludge or wastewater into water in the state, the permittee shall notify the appropriate TCEQ regional office orally within one (1) hour of discovery; unless it is not reasonably possible to do so in which event the discharge shall be reported as soon as reasonably possible, but in no event later than twenty-four (24) hours from when the discharge occurred. The permittee shall also submit written notice, within fourteen (14) working days of the discharge to the Office of Compliance and Enforcement, Enforcement Division (MC 224). In addition, the permittee shall document the following information, keep the information on-site, and submit the information to the appropriate regional office within fourteen (14) working days of becoming aware of such discharge. The written notification must include:
 - (a) a description and cause of the discharge, including a description of the flow path to the receiving water body and an estimation of the volume discharged;
 - (b) the period of discharge, including exact dates and times, and, if not corrected, the anticipated time the discharge is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the discharge;

- (c) if caused by a precipitation event(s), the date(s) of the event(s) and the rainfall amount(s) recorded from an on-site rain gauge; and
- (d) discharge monitoring analyses required by this permit.
- 4. In the event of a discharge of manure, sludge, or wastewater from a RCS or a LMU during a chronic or catastrophic rainfall event or resulting from catastrophic conditions, the permittee shall orally notify the appropriate TCEQ regional office within one (1) hour of the discovery of the discharge. The permittee shall send written notification to the appropriate regional office within fourteen (14) working days.
- 5. Chronic Rainfall Discharge. In the event of a discharge of manure, sludge or wastewater from a RCS or a LMU due to chronic rainfall, the permittee shall submit a report to the appropriate TCEQ regional office showing the CAFO records that substantiates that the overflow was a result of cumulative rainfall that exceeded the design rainfall event without the opportunity for dewatering, and was beyond the control of the permittee. After review of the report, if required by the Executive Director, the permittee shall have an engineering evaluation by a licensed Texas Professional Engineer developed and submitted to the Executive Director. This requirement is in addition to the discharge notification requirement in this permit.
- 6. Impacts to Human Health or Safety, or the Environment. The permittee shall provide the following noncompliance notifications:
 - (a) Any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally, by e-mail, or electronic facsimile transmission (Fax) to the TCEQ regional office within twenty four (24) hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the TCEQ regional office and the Enforcement Division (MC 224) within five (5) days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times. If the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance and to mitigate its adverse effects.
 - (b) In the event the permittee discharges manure, sludge, or wastewater other than as authorized in the permit, the permittee shall give twenty four (24) hour oral, e-mail, or fax notice and five (5) day written notice to TCEQ as required by paragraph (a) above.
- 7. The permittee shall submit an annual report to the appropriate regional office and the Enforcement Division (MC 224) by March 31 of each year for the 12-month reporting period of January 1 to December 31 of the previous year. The report shall be submitted on forms prescribed by the Executive Director to include, but not limited to:
 - (a) number and type of animals, whether in open confinement or housed under roof;
 - (b) estimated total manure, sludge, and wastewater generated during the reporting period;
 - (c) total compost, manure, sludge, slurry and wastewater land applied during the last twelve (12) months on-site at the CAFO facility;

- (d) total wastewater, sludge, and/or manure transferred to other persons during the reporting period;
- (e) total number of acres for land application under the control of the permittee and all third-party acreage;
- (f) summary of discharges of manure, sludge, or wastewater from the production area that occurred during the reporting period including dates, times, and approximate volume;
- (g) a statement indicating that the NMP/NUP, under which the CAFO is operating, was developed and approved by a certified nutrient management specialist;
- (h) a copy of the initial soil analysis for each new LMU, regardless of whether manure, wastewater, or sludge has been applied;
- (i) soil monitoring reports of all soil samples collected in accordance with the requirements of this permit;
- (j) groundwater monitoring reports (if applicable);
- (k) the actual crop(s) planted and yield(s) for each LMU;
- (l) the actual nitrogen and phosphorus content of manure, sludge or process wastewater that was land applied;
- (m) the results of data used in calculations and the results of calculations conducted in accordance with Attachment E;
- (n) the results of any soil testing for nitrogen and phosphorus conducted during the previous 12 months;
- (o) the amount of any supplemental fertilizer applied during the previous 12 months; and
- (p) any other information requested by the Executive Director.
- 8. The permittee shall furnish to the appropriate regional office, and the Enforcement Division (MC 224), soil testing analysis for third-party fields of all soil samples within sixty (60) days of the date the samples were taken in accordance with the requirements of this permit.

IX. Standard Permit Conditions

- A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit conditions is a violation of the permit and statutes under which it was issued and is ground for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- B. The permittee must apply for an amendment or renewal before the expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. Authorization to continue such activity terminates upon the effective denial of said permit.
- C. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.
- D. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.
- E. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) installed or used by the permittee to achieve compliance with the permit conditions. Proper operation and maintenance also includes adequate laboratory and process controls, and appropriate quality assurance

- procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the permit conditions.
- F. The permittee shall furnish any information, at the request of the Executive Director, which is necessary to determine whether cause exists for revoking, suspending, or terminating authorization under this permit. The requested information must be provided within a reasonable time frame and in no case later than thirty (30) days from the date of the request.
- G. The permittee shall give notice to the Executive Director before physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements.
- H. Authorization from the Commission is required before beginning any change in the permitted facility or activity that would result in noncompliance with other permit requirements.
- I. Inspection and entry shall be allowed under Texas Water Code, Chapters 26-28, Health and Safety Code, §§361.032-361.033 and §361.037, and 40 Code of Federal Regulations (CFR) §122.41(I). The statement in Texas Water Code, §26.014 that the Commission entry of a facility shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during inspection.
- J. Standard Monitoring Requirements
 - 1. Samples required by this permit shall be collected and measurements shall be taken at times and in a manner so as to be representative of the monitored discharge or activity. Samples shall be delivered to the laboratory immediately upon collection, in accordance with any applicable analytical method and required maximum holding time. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 319.12. Measurements, tests and calculations shall be accurately accomplished in a representative manner.
 - 2. Records of monitoring activities must include:
 - (a) the date, time, and place of sample or measurement;
 - (b) the identity of any individual who collected the sample or made the measurement:
 - (c) the chain-of-custody procedures used to maintain sample integrity from sample collection to laboratory delivery;
 - (d) the date and time of laboratory analysis;
 - (e) the identity of the individual and laboratory who performed the analysis;
 - (f) the technique or method of analysis; and
 - (g) the results of the analysis or measurement and quality assurance/quality control records.
 - 3. The permittee shall ensure that properly trained and authorized personnel monitor and sample the soil or wastewater related to any permitted activity.
- K. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly shall be reported to the Executive Director as promptly as possible.
- L. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §305.97 (relating to Action on Application for Transfer).

- M. PPPs, reports, and other information requested or required by the Executive Director shall be signed in accordance with the requirements of 30 TAC §305.128 (relating to Signatories to Reports).
- N. A permit may be amended, suspended and re-issued, or revoked for cause. The filing of a request by the permittee for a permit amendment, suspension and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- O. A permit does not convey any property rights of any sort or any exclusive privilege.
- P. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than fourteen (14) days following each schedule date.
- Q. If the permittee becomes aware that he/she failed to submit any relevant facts in a permit application, or submitted incorrect information in an application, or in any report to the Executive Director, the permittee shall promptly submit such facts or information.
- R. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code, §§26.136, 26.212, and 26.213, for violations including but not limited to the following:
 - 1. negligently or knowingly violating Clean Water Act (CWA) §§301, 302, 306, 307, 308, 318, or 405 or any condition or limitation implementing any sections in a permit issued under CWA §402, or any requirement imposed in a pretreatment program approved under CWA §402(a)(3) or §402(b)(8);
 - 2. falsifying, tampering with, or knowingly rendering inaccurate any monitoring device or method required to be maintained under a permit; or
 - 3. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance.
- S. The permittee shall comply with all applicable rules and regulations of the commission, including 30 TAC 321, Subchapter B.
- This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - 1. Violation of any terms or conditions of this permit;
 - 2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - 3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- U. Acceptance of the permit by the person to whom it is issued constitutes acknowledgement and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- V. In accordance with the Texas Water Code §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- W. The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the

Sherwyn Dallas Wood & Angela Browning Wood TPDES Permit No. WQooo4843000 application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

X. Notice of Bankruptcy.

- 1. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - (a) the permittee;
 - (b) an entity (as that term is defined in 11 USC, §101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - (c) an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- 2. This notification must indicate:
 - (a) the name of the permittee;
 - (b) the permit number(s);
 - (c) the bankruptcy court in which the petition for bankruptcy was filed; and
 - (d) the date of filing of the petition.

X. Special Provisions

A. RCS Volumes. The permittee shall maintain the wastewater volumes in the RCS in accordance with Table 6.

Table 6: Volume Allocations for RCS (Acre-Feet)

RCS Name	Design Rainfall Event Runoff	Process Generated Wastewater	Treatment	Sludge Accumul ation	Water Balance	Required Capacity Without Freeboard	Actual Capacity Without Freeboard
RCS #1	10.34	1.46	0.0	4.19	2.67	18.65	28.47

- B. Future Revisions to Bosque River Total Maximum Daily Load (TMDL). The permittee is hereby placed on notice that this permit may be amended by the TCEQ in order to make the terms and conditions of this permit consistent with any revisions to the Bosque River TMDL, associated Implementation Plan, and any revisions to federal regulations.
- C. The permittee shall submit the following record to the appropriate Regional Office and the Enforcement Division (MC 224) by March 31 of each year for the 12-month reporting period of January 1 to December 31 of the previous year.
 - 1. date of compost, manure, sludge, slurry and wastewater application to each LMU;
 - 2. location of the specific LMU and the volume applied during each application event;
 - 3. acreage of each individual crop on which compost, manure, sludge, slurry and wastewater is applied;
 - 4. basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients other than compost, manure, sludge, slurry and wastewater on a dry basis;
 - 5. weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application;
 - 6. annual nutrient analysis for at least one (1) representative sample of manure, sludge (if applicable), slurry, and wastewater for total nitrogen, total phosphorus, and total potassium; and
 - 7. any measurements of sludge accumulations as required in each RCS.

D. Table 7 describes the buffers that the permittee is required to install and maintain according to the NRCS practice standards in the referenced code. The map in Attachment B includes the location and distance requirements for all buffers.

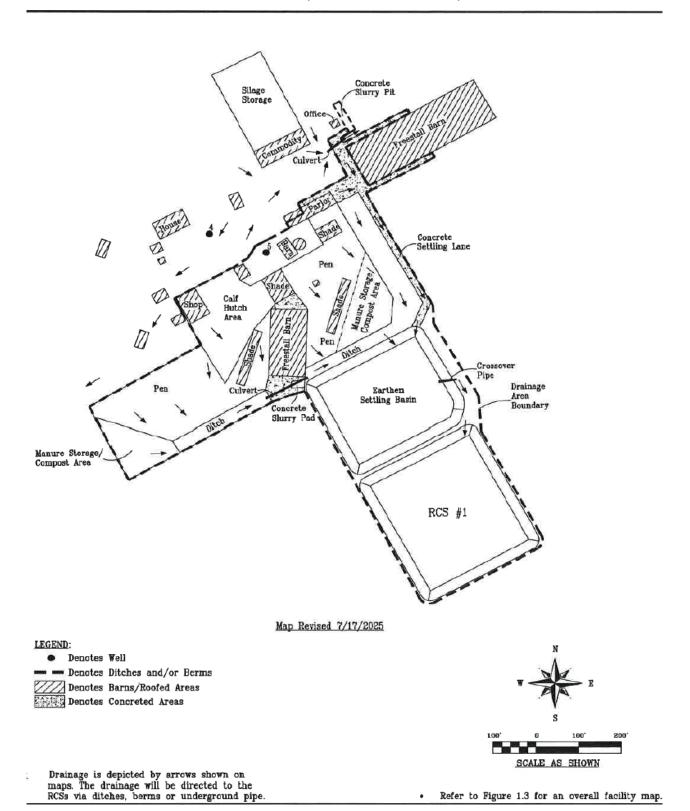
Table 7: Buffer Distances

LMU Name	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip Flow Length (feet)
LMU #1	100	30
LMU #2	Not Applicable	
LMU #3	Not Applicable	
LMU #4	100	30
LMU #5	Not Applicable	
LMU #5A	100	38
LMU #6	100	38
LMU #7	Not Applicable	-
LMU #8	100	30
LMU #9	100	30
LMU #10	Not Applicable	
LMU #11	100	38
LMU #12	100	38
LMU #13	Not Applicable	
LMU #14	Not Applicable	
LMU #15	100	30

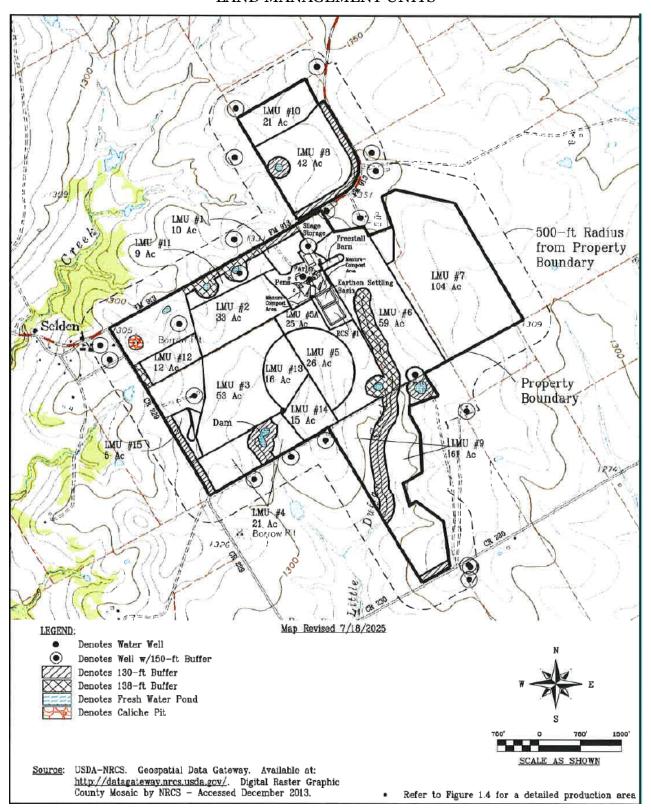
- E. The sludge volume in each RCS will be measured and recorded in the PPP as necessary, but at least annually.
- F. There will be no grazing of livestock on the LMUs for this CAFO unless the NMP reflects grazing and the grazing practices mentioned in the NRCS Conservation Practice Code 393, Filter Strip, are implemented to protect buffers.
- G. Settling Basin Solids.
 - 1. For the purpose of this permit, settling basin solids shall be defined as manure.
 - 2. If settling basin solids are land applied, an annual sample must be collected and analyzed in accordance with Section VII.A.9(a), in addition to other manure and wastewater.
 - 3. Settling basin solids shall be cleaned out regularly to maintain the percent settling basin design efficiency.
- H. All runoff from silage, commodity, and hay storage outside the RCS drainage area will be contained. Appropriate provisions for that containment will be stated in the PPP upon issuance of the permit. This permit does not authorize any discharge from the silage, commodity, or hay storage areas located outside the drainage area of the RCSs.
- I. Slurry from freestall barn
 - 1. For the purpose of this permit, slurry from freestall barns shall be defined as manure.

- 2. If slurry from freestall barns is land applied, an annual sample must be collected and analyzed in accordance with Section VII.A.9(a), in addition to other manure and wastewater.
- 3. Slurry removed from freestall barns must be stored within the drainage area of an RCS, and the storage area must be large enough to prevent overflow into settling basins and/or RCSs. Any overflow of these storage basins shall be recorded in the PPP and notification shall be provided to the Regional Office within thirty (30) days. Based on review of the information this permit may be formally amended to require additional controls or other requirements.
- J. During the annual site inspection, the permittee will inspect Well #4, Well #5 and Well #7. Special attention should be given to ensure that the concrete slabs, well heads, and the best management practices listed in Table 3 are in place and functional. Integrity compromises, such as the concrete slab cracking, sanitary seal deterioration, cracks in the well casing, or well house deterioration will be repaired within 30 days of the discovery. Permittee shall ensure no runoff or wastes encroach upon the wells. Fertilizers and pesticides will not be stored on or in any structure that houses the water wellhead. Maintenance records for the wells shall be maintained onsite.
- K. Flushing of the freestall barns is prohibited. Manure removal may be accomplished by dry scrape or vacuum only.
- L. Manure and settled solids accumulations in the settling basin must be removed on a regular and consistent basis so as to assure attainment of the 50% designed removal efficiency.
- M. A LMU map showing historical LMUs shall be maintained in the PPP.
- N. The permittee shall ensure site-specific documentation is prepared and certified by a licensed Texas Professional Engineer that shows the concrete slurry basins are free from integrity comprises such as cracking, leaking, or deterioration. This documentation shall be placed in the PPP and made available to the Executive Director upon request. Thereafter, annually (as defined in the CAFO rules at 30 TAC 321.32(3)), the permittee shall inspect the integrity of the concrete slurry basins. Integrity comprises, such as, cracking, leaking, or deterioration shall be repaired within 30 days of the inspection. Inspection and maintenance records for the concrete settling basin shall be maintained in the onsite PPP.
- O. Upon issuance of the permit, prior to land application of manure or wastewater, a current NMP must be in place and it shall thereafter be updated annually with the most recent soil, manure, and wastewater analyses. For LMUs that have a phosphorus level in the soil of more than 200 ppm, a NUP must be developed or updated in accordance with Section VII.A.8(c).

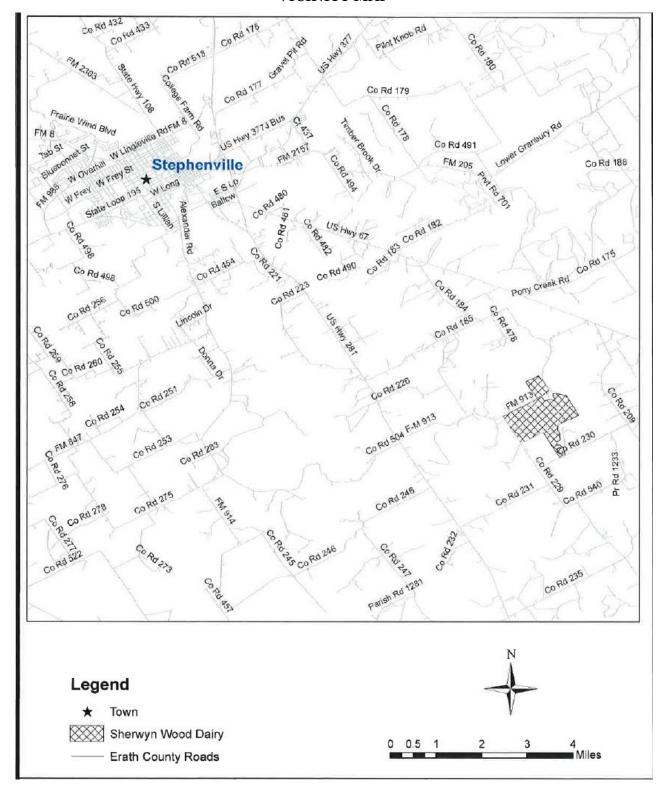
ATTACHMENT A SITE MAP (RUNOFF CONTROL)



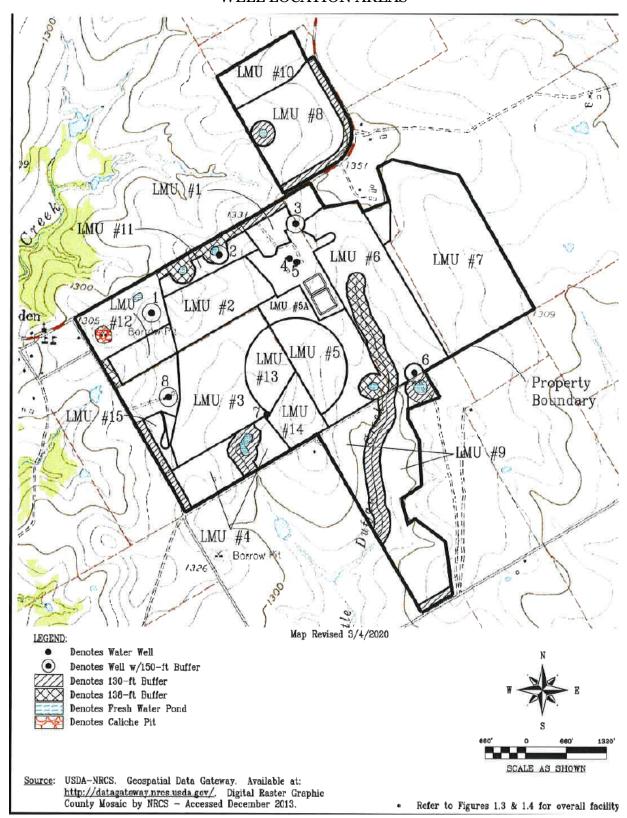
ATTACHMENT B LAND MANAGEMENT UNITS



ATTACHMENT C VICINITY MAP



ATTACHMENT D WELL LOCATION AREAS



ATTACHMENT E

METHODOLOGY FOR CALCULATING MAXIMUM APPLICATION RATES AND ANNUAL RECALCULATION OF APPLICATION RATES

1. Identify the Soil Test Phosphorus (P) Level (Extremely Low, Very Low- Low, Medium, High, Very High) on the soil test analysis.

Soil Test P Rating	Soil Test P Levels (ppm*)
Extremely Low	Less than 5
Very Low - Low	5 to less than 20
Medium	20 to less than 50
High	50 to less than 100
Very High	Greater than or equal to 100

^{*}ppm is equivalent to mg/kg of solids

- 2. Update Table 1 to Attachment E:
 - (a) Populate the Sub Total column with the point value that corresponds to the Site Characteristic for each.
 - (b) Calculate the Total Index Points
 - (c) Select the P Runoff Potential from the total sum of the Index Points of the Site Characteristics using the Phosphorus Index Classification Table.
- 3. Determine which of the tables (Table 2A or Table 2B) of Table 2 to Attachment E on the following page is appropriate to use. Each table describes the criteria for its use.
- 4. Determine which application rate column is appropriate using the following criteria:
 - (a) Use the Maximum TMDL Annual P Rate if this LMU is located in a segment with an approved TMDL.
 - (b) Use Maximum Annual P Application if this LMU is <u>not</u> located in a segment with an approved TMDL and you wish to apply annually.
 - (c) Use Maximum Biennial Application Rate if this LMU is <u>not</u> located in a segment with an approved TMDL and you wish to apply biennially.
- 5. Determine the Maximum Application Rate using the table identified in Step 3, the column identified in Step 4, and the P Runoff Potential identified in Step 2.(c).
- 6. Using one of the approved crops and yield goals identified on Attachment F for this LMU, determine the maximum application rate (in lbs/ac) for that crop and yield goal and the Maximum Application Rate identified in Step 5 from the S-Crop Table.
 - (a) Example 1: If the Maximum Application Rate in Step 5 is "1.5 Times Annual Crop P Requirement", find the number identified on the S-Crop Table under the column "Crop P₂O₅ requirement" for your crop/yield goal, then multiply that number by 1.5 to determine your maximum application rate (in lbs/ac P₂O₅).
 - (b) Example 2: If the Maximum Application Rate in Step 5 is "0.5 Times Annual Crop P Removal", find the number identified on the S-Crop Table under the column "Crop P₂O₅ Removal Rate" for your crop/yield goal, then multiply that number by 0.5 to determine your maximum application rate (in lbs/ac P₂O₅).

ATTACHMENT E

TABLE 1: PHOSPHORUS INDEX WORKSHEET FOR EAST TEXAS FROM NRCS PRACTICE STANDARD 590

Client Name:			Field(s):		Date:	
Planner:			Location:		Crop:	
Impaired Watershed						
(Y or N):			noff Curve No.:		% Slope:	
Site Characteristic			ctor Times the	Column Factor]		Sub
(Weighting Factor)	0	1	2	4	8	Total
Soil Test P Rating	N/A	Very Low – Low	Moderate	High	Very High	
(1.00)	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Fertilizer Phosphorus (P ₂ O ₅) Application Rate	None Applied	1-40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
(0.75)	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Organic Phosphorus (P ₂ O ₅) Application Rate	None Applied	1-40 lbs/ac P ₂ O ₅	41-90 lbs/ac P ₂ O ₅	91-150 lbs/ac P ₂ O ₅	>150 lbs/ac P ₂ O ₅	
(0.75)	[0]	[0.75]	[1.5]	[3.0]	[6.0]	
Phosphorus Fertilizer Application Method and Timing	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1-2/15	Surface applied 2/16-4/15 or 6/16- 11/30	Surface Applied 4/16-6/15	
(0.50)	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Organic Phosphorus source Application Method and Timing	None Applied	Placed deeper than 2 in. or broadcast and incorporated within 48 hours	Surface applied 12/1-2/15	Surface applied 2/16-4/15 or 6/16- 11/30	Surface Applied 4/16-6/15	
(0.50)	[0]	[0.50]	[1.0]	[2.0]	[4.0]	
Proximity of nearest field edge to named stream or lake	> 2000 feet	1000 – 1999 fee	500 – 999 feet	100 – 499 feet	< 100 feet	
(1.25)	[0]	[1.25]	[2.5]	[5.0]	[10.0]	
Runoff Class (Runoff Class Table 3)	Negligible	Low	Moderate	High	Very High	
(1.00)	[0]	[1.0]	[2.0]	[4.0]	[8.0]	
Soil Erosion	Very Low	Low	Medium	High	Very High	
(all sources)	<1 t/ac	1-3 t/ac	3-5 t/ac	5-10 t/ac	>10 t/ac	
(1.50)	[0]	[1.5]	[3.0]	[6.0]	[12.0]	
,				Т	otal Index Points:	

ATTACHMENT E

TABLE 2: APPLICATION RATES FROM NRCS PRACTICE STANDARD 590

Commercial fertilizers must be applied in accordance with SWFTL* recommendations. Application of all organic soil amendments must not exceed the values in Table 2A or 2B.

Table 2A. A Nutrient Management Plan (NMP)¹ is required where any organic soil amendments are applied where Soil Test P Level is less than 200 ppm statewide or, less than 350 ppm in arid areas² with distance to a named stream greater than one mile.

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

Table 2B. A Nutrient Utilization Plan (NUP)¹ is required where Soil Test P Level is: equal to or greater than 200 ppm in nonarid areas², or equal to or greater than 350 ppm in arid areas² with distance to a named stream greater than one mile and erosion control is adequate to keep erosion at the soil loss tolerance (T) or less, or equal to or greater than 200 ppm in arid areas² with distance to a named stream less than one mile.

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

Footnotes Applicable to both Tables

¹NMP and NUP designations are consistent with 30 TAC §321.40.

²All counties must use the 200 ppm P level limit to determine whether to use Table 2A or Table 2B. However, in counties receiving less than 25 inches of annual rainfall, the 350 ppm P level limit applies if the field application area is greater than 1 mile from a named stream or lake. See map in current Texas Agronomy Technical Note 15, Phosphorus Assessment Tool for Texas for county rainfall designations.

³Not to exceed the annual nitrogen requirement rate.

⁴Not to exceed the annual nitrogen removal rate.

SWFTL* Texas A&M AgriLife Extension Soil, Water and Forage Testing Laboratory

ATTACHMENT F

SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Table 1: Alternative Crops and Yield Goals Applicable to All Land Management Units:- 512 Acres

0	Nitrogen		P2O5	
Crop and Yield Goal	Requirement	Removal	Requirement	Remova
Alfalfa Hay 10 Tons	530	532	180	101
Alfalfa Hay 12 Tons	64Û	638	180	121
Alfalfa Hay 2 Tons	120	106	35	20
Alfalfa Hay 4 Tons	210	213	80	40
Altalta Hay 6 Tons	300	319	130	60
Alfalfa Hay 8 Tons	420	426	180	81
Bahia 2 Cut Hay 7000 #	140	89	70	21
Bahia 3 Cut Hay 8000 #	210	102	80	24
Bahia 4 Cut Hay 9000 #	280	114	115	27
Bahia Grazing + 1 Hay	110	83	70	19
Bahia Grazing 1 AU/1 ac	260	114	70	27
Bahia Grazing 1 AU/2 ac	220	108	45	25
Bahia Grazing 1 AU/3 ac	180	102	45	24
Bahia Grazing 1 AU/4 ac	140	95	45	22
Bahia Grazing 1 AU/5 ac	100	79	45	18
Bahia Grazing 1 AU/6 ac	60	63	45	15
Cantaloupes 15-20 tons	120	88	105	82
Coastal 2 Cut + Graze	260	198	125	62
Coastal 2 Cut Hay	200	169	125	39
Coastal 3 Cut + Graze	360	257	125	80
Coastal 3 Cut Hay	300	238	125	74
Coastal 4 Cut Hay	400	257	170	80
Coastal 5-6 Cut Hay	500	297	170	93
Coastal Grazing + 1 Hay	160	145	70	34
Coastal Grazing 1 AU/0.5 ac	300	218	70	68
Coastal Grazing 1 AU/1 ac	240	198	70	62
Coastal Grazing 1 AU/2 ac	200	169	70	39
Coastal Grazing 1 AU/3 ac	160	145	70	34
Coastal Grazing 1 AU/4 ac	120	120	70	28
Coastal Grazing 1 AU/5 ac	90	103	70	24
Coastal Grazing 1 AU/6 ac	60	86	70	20
Coastal GC (30%DM) 21-23 Ton	400	345	170	95
Coastal GC (30%DM) 18-20 Ton	350	300	170	82
Coastal GC (30%DM) 15-17 Ton	300	255	125	70
Coastal GC (30%DM) 9-11 Ton	200	170	125	47
Common 2 Cut Hay 6000 #	140	113	80	26
Common 3 Cut Hay 7400 #	210	141	80	46
Common 4 Cut Hay 8000 #	280	152	80	49
Common 5-6 Cut Hay 9000 #	350	171	80	36
Common Grazing + 1 Hay	110	100	70	23
Common Grazing + 2 Hay	180	132	80	30
Common Grazing + 3 Hay	250	148	80	48
Common Grazing 1 AU/1ac	260	152	70	49
Common Grazing I AU/2 ac	220	143	45	46
Common Grazing 1 AU/3 ac	180	132	45	30
Common Grazing 1 AU/4 ac	140	113	45	26
Common Grazing 1 AU/5 ac	100	94	45	22
Common Grazing 1 AU/6 ac	60	79	45	18

ATTACHMENT F

SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Table 1: Alternative Crops and Yield Goals Applicable to All Land Management Units:- 512 Acres

Core and World Core	Nitro	Nitrogen		P2O5	
Crop and Yield Goal	Requirement	Removal	Requirement	Removal	
Corn 111 - 130 bu	144	117	105	47	
Corn 131 - 150 bu	164	135	105	54	
Corn 151 - 170 bu	180	153	130	6Î	
Com 171 - 190 bu	210	171	130	68	
Corn 191 - 210 bu	250	189	130	75	
Corn 211 - 230 bu	280	207	130	83	
Corn 231 - 250 bu	300	225	130	90	
Corn 250 - 275 bu	325	243	130	97	
Corn 276 - 300 bu	350	261	130	104	
Com 301 - 350 bu	375	279	130	111	
Corn 50 - 70 bu	70	63	80	25	
Corn 71 - 90 bu	90	81	80	32	
Com 91 - 110 bu	120	99	105	39	
Cotton 0.5 Bale	25	18	30	9	
Cotton 1.0 Bale	50	36	55	18	
Cotton 2.0 Bale	100	71	105	35	
Cotton 3.0 Bale	150	107	105	53	
Cotton 3.5 Bale	175	125	105	62	
Cotton 4.0 Bale	200	142	105	71	
Cotton 4.5 Bale	225	160	105	80	
Cotton 5.0 Bale	250	178	105	89	
Eastern gamagrass- 3000 #	80	57	40	21	
Eastern gamagrass- 6000 #	120	114	60	41	
Fescue, Tall Hay/Graze 7000#	150	140	80	42	
Grain Sorg. 1000#	20	17	30	8	
Grain Sorg, 10000#	200	167	130	82	
Grain Sorg, 1500 #	30	25	30	12	
Grain Sorg. 2000 #	40	33	30	16	
Grain Sorg. 3000 #	60	50	55	25	
Grain Sorg. 4000 #	80	67	- 55	33	
Grain Sorg. 5000 #	100	84	80	41	
Grain Sorg. 6000 #	120	100	80	49	
Grain Sorg. 7000 #	140	117	130	58	
Grain Sorg. 8000 #	160	134	130	66	
Grain Sorg. 9000 #	180	150	130	74	
Guar 3500 lbs	25	22	80	76	
Johnsongrass Hay 6000 #	140	101	80	32	
Klein 3 Cut Hay 7200 #	150	83	55	16	
Klein 4 Cut Hay 7800 #	150	90	55	iŝ	
Klein Grazing + 1 Hay	80	69	55	14	
Klein Grazing 1 AU/1.5 ac	150	90	80	81	
Klein Grazing 1 AU/2.5 ac	80	69	55	14	
Klein Grazing 1 AU/6 ac	40	58	55	11	
Legume Overseeded	80	60	105	15	
Legume w/ryegrass	160	94	160	38	
Midland Bermuda 4000 #	120	75	80	17	
Midland Bermuda 6000 #	150	113	105	26	
Midland Bermuda 8000 #	200	150	105	35	

ATTACHMENT F

SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Table 1: Alternative Crops and Yield Goals Applicable to All Land Management Units:- 512 Acres

Crop and Yield Goal	Nitro	gen	P2O5	
Crop and Yield Goal	Requirement	Removal	Requirement	Remova
Native Grazing or Hay 4000#	80	44	70	34
Native Grazing or Hay 3000#	40	33	55	25
Native Grazing or Hay 1500#	20	17	27	13
Native Grazing or Hay 750#	10	8	13	6
Oat Light Grazing	120	107	55	40
Oat Moderate Grazing	160	110	80	41
Oats Hay 2-3 tons	120	100	55	37
Oats Heavy Grazing plus Hay	200	117	80	43
Old World Bluestem- 3000 #	40	33	55	25
Old World Bluestem- 6000 #	80	66	55	51
Peanut Hay Dryland 1 Ton	50	47	70	11
Peanut Hay Dryland 2 Tons	100	93	70	22
Peanut Hay Irrigated 3 Tons	150	140	95	33
Peanuts Irrigated 4500 #	180	162	95	18
Rice Early 7500 #	195	104	45	41
Rice Late 7500 #	180	104	45	41
Rice plus Ratoon Early 10000 #	295	139	60	55
Rice plus Ratoon Late 10000 #	280	139	60	55
Rye Forage 5000 #	140	84	55	31
Rye Forage 7000 #	240	117	80	43
Ryegrass Hay 6000	140	100	55	37
Ryegrass Heavy Grazing	200	117	80	43
Ryegrass Moderate Grazing	140	84	55	31
SG Green Chop(25% DM) 8 to 9 tons	260	203	90	73
SG Green Chop(25% DM) 6 to 7 tons	200	158	80	57
SG Green Chop(25% DM) 4 to 5 tons	135	113	60	41
SG Green Chop(25% DM) 2 to 3 tons	75	68	40	24
SG Silage(35% DM) 12 to 14 tons	160	128	90	67
SG Silage(35% DM) 10 to 11 tons	120	101	70	53
SG Silage(35% DM) 8 to 9 tons	95	83	40	43
SG Silage(35% DM) 5 to 7 tons	70	64	30	34
Silage - Corn(35% DM) 11 - 15 Ton	140	119	80	58
Silage - Corn(35% DM) 16 - 20 Ton	240	183	100	77
Silage - Com(35% DM) 21 - 25 Ton	350	263	105	96
Silage - Corn(35% DM) 26 - 30 Ton	420	315	135	115
Silage - Corn(35% DM) 7 - 10 Ton	85	79	60	38
Silage - Sorg(35% DM) 11 - 15 Ton	200	179	75	35
Silage - Sorg(35% DM) 16 - 20 Ton	280	238	95	74
Silage - Sorg(35% DM) 21 - 25 Ton	360	298	113	92
Silage - Sorg(35% DM) 26 - 30 Ton	380	315	130	111
Silage - Sorg(35% DM) 31 - 40 Ton	450	364	155	135
Silage - Sorg(35% DM) 41 - 50 Ton	580	455	190	168
Silage - Sorg(35% DM) 51 - 60 Ton	700	550	220	202
Silage - Sorg(35% DM) 7 - 10 Ton	125	119	60	37
Small Grain Heavy Grazing	240	112	105	41
Small Grain Light Grazing	60	75	80	28
Small Grain Moderate Grazing	160	97	105	36
Sorg Sudan Hay/Graze 11000 #	240	219	105	83

ATTACHMENT F

SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS FROM THE NUTRIENT MANAGEMENT PLAN

Table 1: Alternative Crops and Yield Goals Applicable to All Land Management Units:- 512 Acres

Command 27-14 Cont	Nitro	gen	P2O5		
Crop and Yield Goal	Requirement	Removal	Requirement	Removal	
Sorg Sudan Hay/Graze 7500 #	160	149	55	57	
Sorg Forage Hay/Graze 11000 #	240	219	105	83	
Sorg Forage Hay/Graze 7500 #	160	151	55	57	
Soybean 30 bu	011	119	60	24	
Soybean 50 bu	180	180	80	40	
Sunflower 2000#	100	71	56	30	
Sunflower 3000#	175	107	65	45	
Triticale Graze or Hay 7000 #	160	117	105	43	
Triticale Graze or Hay 9000 #	240	150	105	56	
Watermelons 12 tons	80	53	55	49	
Weeping Lovegrass 3500 #	70	39	55	30	
Wheat Forage 2000 #	60	33	80	12	
Wheat Forage 4000 #	160	67	105	25	
Wheat Forage 6000 #	240	100	105	37	
Wheat Grain 20 - 30 bu + Grazing	60	58	55	40	
Wheat Grain 20 - 30 bu	45	37	55	26	
Wheat Grain 31 - 40 bu + Grazing	80	71	75	48	
Wheat Grain 31 - 40 bu	60	50	75	34	
Wheat Grain 41 - 50 bu + Grazing	100	83	75	57	
Wheat Grain 41 - 50 bu	75	62	75	43	
Wheat Grain 51 - 60 bu + Grazing	120	96	90	65	
Wheat Grain 51 - 60 bu	90	75	90	51	
Wheat Grain 61 - 70 bu + Grazing	140	108	90	74	
Wheat Grain 61 - 70 bu	105	87	90	60	
Wheat Grain 71 - 80 bu + Grazing	160	121	95	82	
Wheat Grain 71 - 80 bu	120	100	95	68	
Wheat Grain 81 - 90 bu + Grazing	180	133	95	91	
Wheat Grain 81 - 90 bu	135	112	95	77	
Wheat Grain 91 - 100 bu + Grazing	200	146	95	99	
Wheat Grain 91 - 100 bu	150	125	95	85	
Wheat Heavy Grazing	240	114	105	42	
Wheat Light Grazing	60	75	80	28	
Wheat Moderate Grazing	160	97	105	36	
Millet GC (25% DM) 18 - 24 Ton	180	140	60	46	
Millet Hay/Graze 11000 #	150	95	45	40	
Silage - Millet(35% DM) 15 - 18 Ton	190	139	60	46	
Popcorn Shelled 3000 - 4000 #	80	74	80	27	
Popcorn Shelled 4000 - 5000 #	100	92	80	33	
Popcorn Shelled 5000 - 6000 #	120	110	80	40	
Vetch Hay I Ton	70	60	105	14	
Vetch Hay 2 Tons	140	120	105	28	
Vetch Green chop(25%DM) 4 Tons	70	56	105	7	
Vetch Green chop(25%DM) 8 Tons	140	112	105	14	
Winter Pea Hay 5000#	140	137	105	35	
Winter Pea Green chop(25%DM)8-9 Tons	140	123	105	32	
	140	120	105	26	
Cowpea Hay 2 Tons	140	170			

ATTACHMENT F

SITE SPECIFIC INFORMATION FOR LAND MANAGEMENT UNITS (LMUS) FROM THE NUTRIENT MANAGEMENT PLAN

Table 2: Current Site-Specific Information from NMP

LMU Name	Acreage	Crop(s) and Yield Goal(s)	*Nitrogen Recommend ation (lbs/ac)(*1)	*Phosphorus as P ₂ O ₅ Recommend ation (lbs/ac)(*1)	Nitrogen Maximum Application Rates (lbs/ac)* (*1)	Phosphorus as P ₂ O ₅ Maximum Application Rates (lbs/ac)* (*1)
LMU #1	10	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	400	285	400	285
LMU #2	33	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	248	262	248	262
LMU #3	53	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	400	285	400	285
LMU #4	21	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	368	263	368	263
LMU #5	26	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	330	350	330	350
LMU #5A	25	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	85	90	85	90
LMU #6	59	Silage-Sorghum: 7-10 Tons Small Grain: Green Chop 6-7 Tons	294	210	294	210
LMU #7	104	Silage-Corn: 16-20 Tons Small Grain: Silage 5-7 Tons	294	210	294	210
LMU #8	42	Silage-Corn: 16-20 Tons Small Grain: Silage 5-7 Tons	294	210	294	210
LMU #9	61	Silage-Corn: 16-20 Tons	400	285	400	285

LMU Name	Acreage	Crop(s) and Yield Goal(s)	*Nitrogen Recommend ation (lbs/ac)(*1)	*Phosphorus as P ₂ O ₅ Recommend ation (lbs/ac)(*1)	Nitrogen Maximum Application Rates (lbs/ac)* (*1)	Phosphorus as P ₂ O ₅ Maximum Application Rates (lbs/ac)* (*1)
		Small Grain: Green Chop 8-9 Tons				
LMU #10	21	Coastal: Green Chop 9-11 Tons Small Grain Green Chop: 6-7 Tons	400	285	400	285
LMU #11	9	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	400	285	400	285
LMU #12	12	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	127	90	127	90
LMU #13	16	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	400	285	400	285
LMU #14	15	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	368	263	368	263
LMU #15	5	Coastal: Graze 1 AU/1 Ac Small Grain: Moderate Graze	400	285	400	285

NOTE

*Nutrients Applied When Application is At Maximum Rates from NMP 590-633 Plan V 5.0 with the Print Date 09/18/2025. Any future revision to the NMP will be based on the current version of the 590-633 CNMP Component (NMP/NUP) Worksheet. Maximum rates are based on wastewater and manure analyses dated 06/04/2024 and soil analysis reports dated 09/05/2023, 09/06/2023, 10/08/2023, 10/08/2024 and 10/08/2024 by the Soil, Water and Forage Testing Laboratory, AgriLife Extension, College Station, Texas. The Maximum Rates (lb/ac) for nitrogen (N) and phosphorus (P_2O_5) will be updated based on most recent annual analyses of soil and waste.

(*1) Nutrient recommendations and maximum amount of nutrients derived from all sources have been established for both nitrogen and phosphorus based on the NMP submitted with the application. The permittee is required to recalculate these values annually in accordance with the requirements of this permit. These annual recalculations do not constitute a substantial change and therefore do not require an amendment of this permit.

Fact Sheet and Executive Director's Preliminary Decision

I. Description of Application

Applicant: Sherwyn Dallas Wood and Angela Browning Wood

Permit No.: WQ0004843000

Regulated Activity: Concentrated Animal Feeding Operation; Dairy Cattle

Permit Action: Renewal

Authorization: Water Quality Authorization

II. Executive Director's Recommendation

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The proposed permit shall be issued for a 5-year term in accordance with 30 TAC Chapter 305.

III. Reason for Proposed Project

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System Permit No. WQooo4843000 to authorize the permittee to continue to operate an existing dairy cattle Concentrated Animal Feeding Operation (CAFO), and amend the permit by making the following changes to the production area: add a new shop, reconfigure the retention control structure (RCS) drainage area which will change the required capacity for RCS #1 from 18.86 to 18.65 acre-feet, remove previously proposed northeast slurry pit/turnaround area, rename south "slurry pit" to "concrete slurry pad," and add a compost and manure storage area.

The authorized maximum capacity of 990 head, all of which are milking cows, and the list of alternative crops/yield goals will not change.

IV. Facility Description and Location

Maximum Capacity: 990 total head, of which 990 head are milking

Land Management Units (LMUs) (Acres): LMU #1 – 10, LMU #2 – 33, LMU #3 – 53, LMU #4 – 21, LMU #5 – 26, LMU #5A – 25, LMU #6 – 59, LMU #7 – 104, LMU #8 – 42, LMU #9 – 61, LMU #10 – 21, LMU #11 – 9, LMU #12 – 12, LMU #13 – 16, LMU #14 – 15, LMU # 15 – 5.

Location: The facility is located on the south side of Farm-to-Market Road 913, approximately 2.5 miles south of the intersection of Farm-to-Market Road 913 and U.S. Highway 67; said intersection is located approximately 7 miles south of the intersection of U.S. Highway 281 and U.S. Highway 67 in Stephenville, Erath County, Texas. Latitude: 32.147222° N and Longitude: 98.091388° W.

Drainage Basin: The facility is located in the drainage area of the North Bosque River in Segment No. 1226 of the Brazos River Basin.

The facility consists of one Retention Control Structure (RCS), and one earthen Settling Basin. The table below indicates the volume allocations for the RCS:

Table 1: Volume Allocations for RCS (Acre-Feet)

RCS Name	Design Rainfall Event Runoff	Process Generated Wastewater	Minimum Treatment Volume	Sludge	Water Balance	Required Capacity	Actual Capacity (if existing)
RCS #1	10.34	1.46	0	4.19	2.67	18.65	28.47

- A. The volume allocations are determined using Natural Resource Conservation Service standards, American Society of Agricultural and Biological Engineers standards, and/or site-specific data submitted in the permit application.
- B. The Design Rainfall Event is the volume of runoff from the 25 year, 10 day storm event. The RCS is required to include adequate capacity to contain this amount of runoff as a margin of safety to protect against discharges during rainfall events that may exceed the average monthly values used to design the RCS, but do not constitute chronic or catastrophic rainfall. This volume allocation accommodates runoff from open lot surfaces, all areas between the open lots and the RCS, runoff from roofed areas that contribute to the RCS and direct rainfall on the surface of the RCS. Runoff curve numbers used to calculate the runoff volume from the open lot surfaces are reflective of the characteristics of open lot surfaces and range between 90 and 95. Runoff curve numbers used to compute the runoff from areas between the open lots and the RCS are reflective of the land use and condition of the areas between the open lots and RCS. A curve number of 100 is used for the RCS surface and all roofed areas.
- C. Process Generated Wastewater is the volume of wet manure and wastewater generated by the facility that is flushed or otherwise directed to the RCS. Wastewater includes all water used directly or indirectly by the facility that comes in contact with manure or other waste. The RCS must contain the process generated wastewater from a 21 day period or greater. RCS #1 is designed to contain 30 days of process generated wastewater for this permit.
- D. This facility is not required to maintain a treatment volume in the RCS because it meets the requirements of a permit by rule under 30 TAC Chapter 106.161.
- E. Sludge accumulation volumes are required in the RCS that receives runoff from open lots, flushwater from freestall barns, and flushwater from the milking parlor. The sludge accumulation volume for flushwater entering the RCS is based on a rate of 0.0729 cubic feet of storage capacity per pound of total solids in the wet manure entering the RCS during the design sludge accumulation period. The sludge accumulation volume allocated for runoff from open lots is calculated using USDA Agricultural Field Waste Handbook, Kansas, Part 651.1083, which uses the following equation: (%SC) × (MAR) × (DA) × (SP), where %SC = percent solids content of runoff, MAR = mean annual runoff (in inches), DA = contributing drainage area (in acres), and SP = sediment storage period (in years). A minimum of one year of sludge storage is required in the RCS. Design sludge volumes in this permit reflect a five (5) year sludge accumulation period.
- F. The RCS volume designated as Water Balance is the capacity needed in addition to the Process Generated Wastewater volume to provide adequate operating capacity so that the operating volume does not encroach into the design storm volume. The water balance is an analysis of the inflow into the RCS, all outflows from the RCS and the consumptive use

requirements of the crops on the land areas being irrigated. The water balance is developed on a monthly basis. It estimates all inflows into the RCS including process generated wastewater and runoff from open lots, areas between open lots and the RCS, roofed areas and direct rainfall onto the RCS surface. Consumptive use potential for the areas to be irrigated is developed based on the potential evapotranspiration of the crops and the effective average monthly rainfall on the area to be irrigated. Runoff curve numbers used for the water balance are adjusted from one (1) day to 30 day curve numbers to more accurately reflect monthly values. Evaporation from the RCS surface is computed on a monthly basis. Monthly withdrawals from the RCS are developed based on the total inflow to the RCS minus evaporation from the RCS surface and limited by the monthly crop consumptive use potential.

V. Summary of Changes from Existing Authorization

- A. Section IV. of the permit has been amended to show the revised RCS required capacity, and Table 6 in Section X.A. shows the revised RCS volume allocations.
- B. Attachment A (Site Map) to the permit that relates to the runoff control shows the reconfigured retention control structure drainage area, the proposed location of the shop, the manure storage area and the renamed concrete slurry pad.
- C. Attachment B (Land Management Units) and Attachment D (Well Location Areas) to the permit have been updated.
- D. A new Section X.O. has been added to the permit to address the LMUs with 200 ppm phosphorus. The requirement states:

"Upon issuance of the permit, prior to land application of manure or wastewater, a current NMP must be in place and it shall thereafter be updated annually with the most recent soil, manure, and wastewater analyses. For LMUs that have a phosphorus level in the soil of more than 200 ppm, a NUP must be developed or updated in accordance with Section VII.A.8(c)."

VI. Proposed Permit Conditions and Monitoring Requirements

A. Effluent Limitations

Compost, manure, sludge, slurry and wastewater may only be discharged from a LMU or a properly designed, constructed, operated and maintained RCS into water in the state from this CAFO if any of the following conditions are met:

- discharge resulting from a catastrophic condition other than a rainfall event that the permittee cannot reasonably prevent or control;
- a discharge resulting from a catastrophic rainfall event from a RCS;
- a discharge resulting from a chronic rainfall event from a RCS; or
- a discharge resulting from a chronic rainfall event from a LMU that occurs because the permittee takes measures to de-water the RCS in accordance with the individual permit, relating to imminent overflow.

40 CFR §122.44 specifies that any requirements, in addition to or more stringent than promulgated effluent limitation guidelines, must be applied when they are necessary to achieve state water quality standards. Water quality based effluent limitations must be established when the TCEQ determines there is a reasonable potential to cause or to

contribute to an in-stream excursion above the allowable ambient concentration of a state numeric criterion. For CAFO discharges the TCEQ must consider:

- 1. existing controls on point and non-point sources of pollution;
- 2. variability of the pollutant in the effluent; and
- 3. dilution of the effluent in the receiving water.

In proposing this permit, the TCEQ addresses considerations 2 and 3 since continuous discharges are prohibited and effluent discharges are authorized only during catastrophic conditions or a chronic or catastrophic rainfall event from a RCS properly designed, constructed, operated and maintained. The effluent pollutant levels are variable and effluent is usually not discharged. Additionally, during these climatic events, water bodies receiving a contribution of CAFO wastewater should be significantly diluted by other rainfall runoff.

Consideration 1 requires permit controls on CAFO discharges which will result in the numeric criteria of the water quality standards being met, thus ensuring that applicable uses of water in the state are attained. The principal pollutants of concern include organic matter causing biochemical oxygen demand, the discharge of ammonia-nitrogen, phosphorus and *Escherichia coli*. This permit requires discharges to be monitored for the pollutants of concern. Existing technology does not allow for practicable or economically achievable numeric effluent limitations at this time. The Environmental Protection Agency (EPA) has not promulgated effluent guidelines or numeric effluent limitations that would allow regular discharges of CAFO process wastewater or process-generated wastewater. The proposed permit addresses potential pollutant impacts through requirements including numerous narrative (non-numeric) controls on CAFO process wastewater and non-point sources of pollutant discharges associated with CAFOs. Setting specific water quality-based effluent limitations in this permit is not feasible (see 40 CFR §122.44 (k)(3)).

The general and site-specific provisions which are expected to result in compliance with water quality criteria and protection of attainable water quality are discussed in the following sections of this fact sheet: RCS Design and Operational Requirements; Requirements for Beneficial Use of Manure, Sludge, and Wastewater; Additional Water Quality Requirements; and Monitoring and Reporting Requirements.

B. RCS Design and Operational Requirements

The draft permit includes the following requirements related to proper RCS design, construction, operation and maintenance:

- 1. The RCS(s) must be designed and constructed to meet or exceed the margin of safety, equivalent to the volume of runoff and direct precipitation from the 25 year/10 day rainfall event. The design rainfall event, at which time the CAFO is authorized to discharge, is 12.10 inches. The application includes design calculations and certification by a Professional Engineer, which determine the design criteria for the RCS(s).
- 2. A RCS management plan is required to be implemented. This plan must establish expected end of the month water storage volumes for each RCS. These maximum levels are based on the design assumptions used to determine the required size of the RCS. This plan assures the permittee will maintain wastewater volumes within the

designed operating capacity of the structures, except during chronic or catastrophic rainfall events. The permittee must document and provide an explanation for all occasions where the water level exceeds the expected end of the month storage volumes. By maintaining the wastewater level at or below the expected monthly volume, the RCS will be less likely to encroach into the volume reserved for the design rainfall event and/or discharge during smaller rainfall events.

- 3. The pond marker must have one-foot increments. This requirement identifies the level of wastewater storage to assist the permittee in the implementation of the RCS management plan. It also acts as an enforcement tool for TCEQ to determine compliance with the RCS management plan.
- 4. The wastewater level in the RCS(s) must be recorded daily. This requirement will assist the permittee in the implementation of the RCS management plan and will provide a visual indication of compliance.
- 5. The amount of sludge in the RCS(s) must be maintained at or below the designed sludge volume. Proper sludge management will reduce overflows associated with insufficient wastewater storage capacity. This permit requires that sludge accumulations in the RCS(s) be measured at least annually.
- 6. The RCS(s) must be adequately lined and certified by a Texas Professional Engineer; alternatively, certification must document that in situ material meets the requirements of constructed and installed liners. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water. A liner certification, certified by a Professional Engineer, for the existing RCSs was submitted with the application.

Table 2: Existing RCS Liner Certification

RCS Name	Liner Certification Date
RCS #1	October 18, 2010
Earthen Settling Basin	July 2, 2007

- 7. The RCS(s) must maintain two vertical feet of material equivalent to construction materials between the top of the embankment and the structure's spillway to protect from overtopping the structure. RCS(s) without spillways must have a minimum of two vertical feet between the top of the embankment and the required storage capacity.
- 8. The entry of uncontaminated stormwater runoff into RCS(s) must be minimized. The site includes diversion structures to direct contaminated runoff into the RCS(s) and to prevent uncontaminated stormwater runoff from entering the RCS(s).

C. Requirements for Beneficial Use of Manure, Sludge, and Wastewater

Nutrient pollutants of concern have narrative criteria and are discharged in CAFO wastewater. Nutrient pollutants have been addressed through imposition of BMPs. No water quality impacts are expected to occur from land application based upon properly prepared and implemented nutrient management practices. The proposed permit contains requirements related to the collection, handling, storage and beneficial use of manure, wastewater, and sludge. These requirements were established based on TCEQ

rules, EPA guidance, NRCS Field Operations Technical Guidance and the Animal Waste Management Field Handbook, recommendations from the TCEQ's Water Quality Assessment Team, and best professional judgment.

The elements of a NMP as listed in 40 CFR §122.42(e)(1) have been incorporated into this permit. This permit requires a NMP developed by a certified nutrient management specialist, based on United States Department of Agriculture/Natural Resource Conservation Service (NRCS) Practice Standard 590 and each of the required elements to be implemented upon issuance of this permit. In relation to these items, the proposed permit meets federal requirements.

- 1. For LMUs with a soil phosphorus concentration of less than 200 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a certified NMP. This plan is based on the NRCS Practice Standard Code 590. This plan involves a site-specific evaluation of the LMU to include soils, crops, nutrient need and includes the phosphorus index tool. The phosphorus index is a site-specific evaluation of the risk potential for phosphorus movement into watercourses. The risk potential is determined by site characteristics such as soil phosphorus level, proposed phosphorus application rate, application method and timing, proximity of the nearest field edge to a named stream or lake, runoff class, and soil erosion potential. The application rates are adjusted according to the risk potential. The higher the risk potential, the lower the application rate; thus there is minimal potential to have excess nutrients available to leave the site and affect water quality.
- 2. For LMUs with a soil phosphorus concentration of 200-500 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a nutrient utilization plan (NUP). The NUP is a revised NMP based on crop removal. A crop removal application rate is the amount of nutrients contained in and removed by the proposed crop. At the discretion of the certified nutrient management specialist, the NUP may also include a phosphorus reduction component. This NUP must be submitted to the TCEQ for review and approval.
- 3. For LMUs with a soil phosphorus concentration of greater than 500 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated), land application of commercial fertilizer, compost, manure, sludge, slurry and wastewater must be in accordance with a NUP based on crop removal which also includes a phosphorus reduction component. A phosphorus reduction component is a management practice, incorporated into the NUP, which is designed to further reduce the soil phosphorus concentration by means such as phosphorus mining, moldboard plowing, or other practices utilized by the permittee. This revised NUP must also be submitted to the TCEQ for review and approval. Permittees required to operate under a NUP with a phosphorus reduction component must show a reduction in the soil phosphorus concentration within twelve (12) months or may be subject to enforcement actions.

4. Table 3 below identifies the maximum application rate, as shown in the NMP submitted in the permit application. NMPs are routinely updated and the values shown below are subject to change.

Table 3: LMU Maximum Application Rates and Soil Phosphorus Levels

LMU Name	Soil Test P (ppm)	Max Annual P ₂ O ₅ (lbs/ac)
LMU #1	190	285
LMU #2	125	262
LMU #3	96	285
LMU #4	163	263
LMU #5	184	350
LMU #5A	223	90
LMU #6	64	210
LMU #7	43	210
LMU #8	23	210
LMU #9	21	285
LMU #10	29	285
LMU #11	101	285
LMU #12	203	90
LMU #13	137	285
LMU #14	120	263
LMU #15	129	285

- 5. All generated manure, sludge or wastewater in excess of the amount allowed to be land applied by the NMP or NUP must be delivered to a composting facility authorized by the Executive Director, delivered to a permitted landfill, beneficially used by land application on land located outside of the major sole source impairment zone, or provided to operators of third-party fields for beneficial use subject to specified land application requirements and testing. By requiring specific outlets for excess manure, sludge and wastewater, the permit limits unregulated use of manure, sludge and wastewater within the watershed.
- 6. The permittee must continue to operate under a Comprehensive NMP (CNMP) certified by the Texas State Soil and Water Conservation Board (TSSWCB). The CNMP must be developed by a qualified individual(s) in accordance with TSSWCB regulations. The CNMP is a whole farm plan that addresses nutrient management from the origin in the feed rations to final disposition. The CNMP considers all nutrient inputs, onsite use and treatment, outputs, and losses. Inputs include animal feed, purchased animals, and commercial fertilizer. Outputs include animals sold, harvested crops removed from the facility, and manure removed from the facility. Losses include volatilization, stormwater runoff, and leaching.
- 7. The permittee must implement additional conservation practices on LMUs adjacent to water in the state. These conservation practices include a 100-foot vegetative buffer, filter strips, vegetative barrier, and/or contour buffer strips. Site specific

conditions and NRCS practice standards specify which conservation practices, in addition to the required 100-foot vegetative buffer, must be implemented. The conservation practices reduce erosion, suspended solids and nutrients in runoff from LMUs. This will improve the quality of stormwater runoff prior to entering water in the state.

8. In Table 4 below, the Additional Buffer Setback distance was determined by using the NRCS Conservation Practice Code 393, Filter Strip. The practice code uses a combination of hydrologic soil groups and field slope percentages to calculate an appropriate filter strip length.

Table 4: Buffer Distances for Each LMU

LMU Name	Vegetative Buffer Setback (feet)	Additional Buffer Setback NRCS Code 393 Filter Strip Flow Length (feet)
LMU #1	100	30
LMU #2	Not Applicable	
LMU #3	Not Applicable	
LMU #4	100	30
LMU #5	Not Applicable	
LMU #5A	100	38
LMU #6	100	38
LMU #7	Not Applicable	
LMU #8	100	30
LMU #9	100	30
LMU #10	Not Applicable	
LMU #11	100	38
LMU #12	100	38
LMU #13	Not Applicable	
LMU #14	Not Applicable	
LMU #15	100	30

- 9. Land application is prohibited between the hours of 12 a.m. and 4 a.m. This provision reduces the potential of irrigation related discharges associated with equipment malfunctions.
- 10. Discharge of wastewater from irrigation is prohibited, except a discharge resulting from irrigation events associated with imminent overflow conditions. Precipitation-related runoff from LMUs is allowed by the permit, when land application practices are consistent with a NMP or NUP.
- 11. Terms of the NMP and Changes to the Terms of the NMP
 - The permit addresses the terms of the NMP and changes to the terms of the NMP to clarify substantial and non-substantial changes.
 - (a) Attachment E of the draft permit describes the methodology for calculating maximum application rates and annual recalculation of application rates and

- Attachment F of the draft permit shows the list of the proposed alternative crops, their yield goals, and the N and P requirements and removal rates for each crop and yield goal.
- (b) To the extent that the alternative crops were identified in the application, annual recalculations do not constitute a substantial change to the terms of the NMP, and therefore will not require a permit amendment. The maximum amounts of N and P from all sources of nutrients and the amounts of manure and process wastewater to be applied on alternative crops will be determined in accordance with the methodology described in Attachment E of the draft permit when such crops are being used.
- (c) Nutrient recommendations and maximum amount of nutrients derived from all sources have been established for both nitrogen (N) and phosphorus (P) based on the NMP that was submitted with the application. The permittee is required to recalculate these values annually based on the most recent analyses of wastewater, manure, and soil.
- (d) Section VII.A.8(a)(2) of the permit lists changes to the terms of the NMP that will require a major amendment to the permit. Changes that would result in a major amendment are:
 - Increase in animal headcount;
 - Increase in LMU acreage or a change in LMU location; or
 - Change in crop and yield goal (not listed in Attachment F of the proposed permit).
- (e) Any changes (substantial or non-substantial) to the NMP, other than the annual recalculation of application rates outlined in Attachment E, must be submitted to the ED for review. If the ED determines that the changes to the NMP are non-substantial, the revised NMP will be made publicly available and included in the permit record. If the ED determines that the changes to the NMP are substantial, the information provided by the permittee will be subject to the major amendment process.

12. Third-Party Fields.

The proposed permit authorizes the use of third-party fields, i.e. land not owned, operated, controlled, rented, or leased by the CAFO owner or operator that have been identified in the Pollution Prevention Plan (PPP). The permittee must have a contract with the operator of the third-party fields. The written contract must require all transferred manure, wastewater, and sludge to be beneficially applied to third-party fields in accordance with the applicable requirements in 30 Texas Administrative Code §321.36 and §321.40 at an agronomic rate based on soil test phosphorus in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated). A certified nutrient management specialist must annually collect soil samples from each third-party field used and have the samples analyzed in accordance with the requirements for permitted LMUs. The permittee is prohibited from delivering manure, wastewater, and sludge to an operator of a third-party field once the soil test phosphorus analysis shows a level equal to or greater than 200 ppm in Zone 1 depth (0-6 inches if incorporated, 0-2 or 2-6 inch if not incorporated)

or after becoming aware that the third-party operator is not following the specified requirements and the contract. The permittee will be subject to enforcement action for violations of the land application requirements on any third-party field. The third-party fields must be identified in the PPP. The permittee must submit a quarterly report with the name, locations, and amounts of manure, wastewater, and sludge transferred to operators of third-party fields.

VII. Additional Water Quality Requirements

The approved recharge feature certification submitted in the permit application must be updated and maintained in the onsite PPP. The recharge feature certification identifies any natural or artificial features on the CAFO site, either on or beneath the ground surface, which could provide or create significant pathways for wastewater or manure to enter the underlying aquifer, and describes measures to prevent adverse impacts to groundwater. Groundwater has the potential to resurface as surface water. Therefore, preventing impacts to groundwater also provides protection to surface water.

Table 5 below shows potential soil limitations identified in the recharge feature evaluation and the proposed management practices to address those limitations.

Table 5: Soil Limitations

Soil Series	Potential	BMPs
and Map ID	Limitations	21.22 5
BdC: Bolar-Denton	Depth to Bedrock	Land application not to exceed
Complex	Slow Water Movement	agronomic rates for nutrients and soil hydraulic rates (refer to NMP).
Ma: Maloterre	Depth to Bedrock	Land application will be based upon the
	Drougthy	available water holding capacity (refer to NMP) of the soils, and will not
PcB: Purves clay, 1-3 %	Droughty; Depth to	exceed agronomic rates for nutrients.
slopes; PcC: Purves	Bedrock; Slow Water	o a constant of the constant o
clay, 3-5 % slopes	Movement	No land application to inundated soils.
Pd: Purves-Dugout-	Droughty; Depth to	
Maloterre Complex	Bedrock; Slow Water	
_	Movement; Large	
	Stones on the Surface	
HoB: Slidell;	Slow water movement	Land application not to exceed
DeB: Denton		agronomic rates for nutrients and soil hydraulic rates (refer to NMP).
		No land application to inundated soils.

Table 6 below lists all wells on the facility, their status, and what BMP will be implemented to protect groundwater. A Well Buffer Exception request for Wells #4, #5 and #7 was submitted to and approved by the TCEO Water Quality Assessment Team.

Table 6: Water Well Protection

Well Number	Status	BMPs
1	Producing	Maintain 150 ft buffer

Well Number	Status	BMPs
2	Producing	Maintain 150 ft buffer
3	Producing	Maintain 150 ft buffer
4	Producing	Concrete slab
5	Producing	Concrete slab, metal shed, upgradient of pollutant source
6	Producing	Maintain 150 ft buffer
7	Producing	Concrete slab, steel sleeve and enclosed structure
8	Producing	Maintain 150 ft buffer

VIII. Monitoring and Reporting Requirements

- A. The permittee is required to report all discharges to TCEQ. Discharges resulting from a chronic or catastrophic rainfall event or catastrophic conditions must be reported orally within one hour of the discovery of the discharge and in writing within fourteen (14) working days. For any discharges, grab samples must be collected and analyzed for Biochemical Oxygen Demand, *Escherichia coli*, Total Dissolved Solids, Total Suspended Solids, Nitrate, Total Phosphorus, Ammonia Nitrogen and pesticides (if suspected).
- B. The permittee must provide a report to the TCEQ to substantiate a chronic rainfall discharge. After review of the report, if required by the Executive Director, the permittee must have an engineering evaluation by a licensed Texas Professional Engineer developed and submitted to the Executive Director. The report and engineering evaluation may be used to verify that the facility was maintained and operated according to the permit conditions. Information reviewed may include rainfall records at the CAFO, RCS wastewater levels preceding the discharge, irrigation records, and the current sludge volume. This requirement allows for closer scrutiny by TCEQ for discharges resulting from chronic conditions and provides documentation for enforcement of unauthorized discharges.
- C. Soil samples must be taken annually from LMUs and analyzed for Nitrate, Phosphorus, Potassium, Sodium, Magnesium, Calcium, Soluble salts/electrical conductivity, and pH. The results are used in the NMP to determine land application rates. Annual soil samples must be collected by one of the following persons:
 - the NRCS; a certified nutrient management specialist;
 - the Texas State Soil and Water Conservation Board;
 - the Texas AgriLife Extension; or
 - an agronomist or soil scientist on full-time staff at an accredited university located in the State of Texas.

The TCEQ or its designee shall have soil samples collected annually for each current and historical LMUs and the TCEQ Regional Office must be notified ten (10) days prior to annual soil sample collection activities on third-party fields. The permittee is required to submit soil analyses for third-party fields to TCEQ.

D. The permittee is required to annually collect and analyze at least one (1) representative sample of wastewater, sludge (if applicable), or manure for total nitrogen, total phosphorus, and total potassium. The results are used in the NMP to determine land application rates.

- E. Some of the land application records maintained by the permittee must be submitted to the TCEQ annually. These records include: date of compost, manure, sludge, slurry and wastewater application to each LMU; location of the specific LMU and the volume applied during each application event; acreage of each individual crop on which compost, manure, sludge, slurry and wastewater is applied; basis for and the total amount of nitrogen and phosphorus applied per acre to each LMU, including sources of nutrients and amount of nutrients on a dry weight basis other than compost, manure, sludge, slurry and wastewater and; weather conditions, such as temperature, precipitation, and cloud cover, during the land application and twenty-four (24) hours before and after the land application.
- F. Other recordkeeping requirements include: daily records of RCS wastewater levels and measurable rainfall; weekly records of manure, wastewater, and sludge removed from the facility, inspections of control facilities and land application equipment; and monthly records of compost, manure, sludge, slurry and wastewater land applied.

IX. 303(D) Listing and Total Maximum Daily Load (TMDL)

The facility for this permit action is located within the watershed of the North Bosque River in Segment No. 1226 of the Brazos River Basin. The designated uses and dissolved oxygen criterion as stated in Appendix A of the Texas Surface Water Quality Standards (30 TAC §307.10) for Segment No. 1226 are primary contact recreation, public water supply, high aquatic life use, and 5.0 mg/L dissolved oxygen.

Little Duffau Creek is currently listed on the State's inventory of impaired and threatened waters (the 2024 Clean Water Act (CWA) Section 303(d) list) for bacteria in water (recreation use).

The North Bosque River (Segments 1226 and 1255) was included in the 1998 Texas Clean Water Act 303(d) List and deemed impaired under narrative water quality standards related to nutrients and aquatic plant growth. Segment No. 1226 is included in the Agency's document Two Total Maximum Daily Loads for Phosphorus in the North Bosque River, adopted by the Commission on February 9, 2001 and approved by EPA on December 13, 2001. An Implementation Plan for Soluble Reactive Phosphorus in the North Bosque River Watershed (I-Plan) was approved by the Commission on December 13, 2002 and approved by the Texas State Soil and Water Conservation Board on January 16, 2003. According to the TMDL I-Plan, management measures for control of phosphorus loading will also have some corollary effect on reducing bacteria loading, since the nonpoint source nutrient and bacteria loads largely originate from the same sites and materials and are transported via the same processes and pathways. Similarly, TCEQ expects that management measures for control of phosphorus loading will also have direct and indirect effects on dissolved oxygen by reducing the load of oxygen demanding materials.

The TMDL for the North Bosque River, Segments 1226 and 1255, identified the amount of phosphorus introduced into these segments, i.e. the load. Phosphorus load from two categories of sources was modeled to calculate the expected reductions in phosphorus load to meet instream water quality standards. Point sources included wastewater treatment plants; non-point sources included all other sources, such as CAFOs. The TMDL called for an average 50% reduction in the average concentration of soluble reactive phosphorus loadings from both point sources and non-point sources. The TMDL was developed assuming implementation of specific best management practices. This set of best

management practices represents one way to achieve the water quality targets in stream and the overall reduction goal of the TMDL.

The TMDL was approved with the understanding that an adaptive management approach was an appropriate means to manage phosphorus load to the stream. The I-Plan emphasized this approach to achieve the phosphorus reductions targeted in the TMDL. Adaptive management envisions adjustment of management practices over time as necessary to reach this target. The TMDL anticipated that, to control loading to the stream, dairy CAFO permittees would implement those best management practices which best addressed site-specific conditions. Accordingly, the TMDL is not directly tied to the number of animal units permitted in the watershed; it is instead tied to the amount of nutrients that may be land applied consistent with management practices that ensure appropriate agricultural utilization of nutrients.

Primary management strategies for dairies, both voluntary and regulatory, were identified in the I-Plan which included: phosphorus-based application rates in LMUs, voluntarily measures to reduce the amount of phosphorus in dairy cow diets, voluntarily removing 50% of dairy-generated manure from the watershed, more stringent RCS design requirements to reduce the potential for overflows from RCSs, evaluation of chronic rainfall and incidences of RCS overflows, additional tailwater requirements, additional protective measures to prevent runoff caused by excessive irrigation, CNMPs, and educational requirements for dairy operators and employees.

The proposed permit includes the following requirements to address the recommendations in the I-Plan:

- RCS(s) designed and constructed for 25 year, 10 day rainfall event
- RCS management plan
- pond marker with one foot increments
- daily recordkeeping of wastewater levels
- chronic rainfall discharge notification, including records that substantiate that the overflow was a result of cumulative rainfall that exceeded the design rainfall event without the opportunity for dewatering
- NMP and NUP based on phosphorus risk index
- CNMP
- specific outlets for excess manure, sludge and wastewater
- additional record-keeping for exported manure, sludge and wastewater to track each permittee's contribution toward the 50% voluntary removal goal in the Bosque River Total Maximum Daily Load (TMDL)
- prohibition of discharges from LMUs, except as related to imminent overflow
- minimize ponding and puddling of wastewater and prevent tailwater discharges
- additional conservation practices between land application areas and water in the state

- prohibition of land application between 12 a.m. and 4 a.m.
- automatic shutdown or alarm system may be required if unauthorized discharge occurs from irrigation system
- employee and operator required training related to land application of manure, sludge, and wastewater, proper operation and maintenance of the facility, good housekeeping, material management practices, recordkeeping requirements, and spill response and clean up

The voluntary phosphorus diet reductions may be implemented through consultations between a nutritionist and the permittee. Any such dietary phosphorus reductions will result in reduced phosphorus concentrations in manure. These strategies are facets of CNMPs.

The RCS storage capacity requirements, nutrient management practices, increased TCEQ oversight of operational activities, and requirements of the I-Plan, which are incorporated into the draft permit, are designed to reduce the potential for this CAFO to contribute to further impairment from bacteria, oxygen-demanding constituents and nutrients such as total phosphorus. Furthermore, it is anticipated the implementation of the primary management strategies and permit provisions identified above will result in phosphorus load reduction in the watershed and achieve the reductions targeted in the TMDL. The draft permit provisions are consistent with the approved TMDL and I-Plan that establish measures for reductions in loading of phosphorus (and consequently other potential pollutants) to the North Bosque River Watershed. Therefore, the draft permit is consistent with the requirements of the antidegradation implementation procedures in 30 Texas Administrative Code Section 307.5 (c)(2)(G) of the Texas Surface Water Quality Standards.

X. Threatened or Endangered Species

The discharge from this permit action is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) Biological Opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES) dated September 14, 1998 and the October 21, 1998 update. To make this determination for TPDES permits, TCEQ and Environmental Protection Agency only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS Biological Opinion. This determination is subject to reevaluation due to subsequent updates or amendments to the Biological Opinion. The permit does not require Environmental Protection Agency review with respect to the presence of endangered or threatened species.

XI. Procedures for Final Decision

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant instructing the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice

informs the public about the application, and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting. TCEQ may act on an application to renew a permit without providing an opportunity for a contested case hearing if certain criteria are met.

Once a draft permit is completed, it is sent, along with the Fact Sheet and Executive Director's Preliminary Decision, to the Office of the Chief Clerk. At that time, Notice of Application and Preliminary Decision will be mailed to the individuals identified on the Office of the Chief Clerk mailing list and published in the newspaper. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's Preliminary Decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application. A public meeting is intended for the taking of public comment, and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all timely, relevant and material, or significant public comments significant on the application or the draft permit raised during the public comment period. The Office of the Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to individuals who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that a person may request a contested case hearing or file a request for reconsideration of the Executive Director's decision within thirty (30) days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within thirty (30) days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ's Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Joy Alabi at (512) 239-1318.

XII. Administrative Record

The following items were considered in developing the proposed draft permit:

- TCEQ Permit No. WQ0004843000 issued March 4, 2021.
- The application received on August 22, 2025 and subsequent revisions.
- Interoffice Memorandum for groundwater review from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division dated September 19, 2025
- Interoffice Memorandum for NMP review from the Water Quality Assessment Team, Water Quality Assessment Section, Water Quality Division, dated September 26, 2025.

- Interoffice Memorandum from the Standards Implementation Team, Water Quality Assessment Section, Water Quality Division, dated September 16, 2025.
- Bosque River TMDL Implementation Plan.
- Federal Clean Water Act Section 402; Texas Water Code §26.027; 30 TAC §39, §305, §321 Subchapter B; Commission Policies; and EPA Guidelines.
- Texas 2024 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, June 26, 2024; approved by EPA on November 13, 2024.
- NRCS Animal Waste Management Field Handbook and Field Office Technical Guidance for Texas.
- NRCS, ASABE and ASTM Standards.
- John Borrelli, Clifford B. Fedler & James M. Gregory, February 1, 1998. Mean Crop Consumptive Use and Free-Water Evaporation for Texas.
- U.S. Department of Agriculture, Natural Resources Conservation Service, 25-Year, 10 Day precipitation (inches), Arkansas, Louisiana, New Mexico, Oklahoma and Texas. USDA, Technical Paper No 49, Weather Bureau.
- American Society of Agricultural and Biological Engineers (ASABE) Standards:
 - ➤ ASABE D384.2 MAR05_R2010) Manure Production and Characteristics
 - > ASABE EP403 4 FEB2011- Figure 2 (Loading Rate) and Table 1 (Sludge accumulation Rate)