



Administrative Package Cover Page

This file contains the following documents:

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



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS DOMESTIC WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

City of Spearman (CN 600251235) operates The City of Spearman Wastewater Treatment Facility (RN 103137923), a Texas Land Application Permits. The facility is located at approximately 1 mile northwest of the intersection of FM 760 and State Highway 15 and 1.6 miles northeast of the intersection of State Highway 15 and FM 2387, in Spearman, Hansford County, Texas 79081. Renewal for disposal of treated domestic wastewater effluent at a daily average flow not exceeding 0.40 million gallons per day (MGD) via surface irrigation of 241.8 acres of non-public access land. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain five-day biochemical oxygen demand (CBOD₅), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Treated domestic wastewater is treated by first entering a facultative lagoon, followed by treatment in two stabilization ponds. After treatment, the effluent is stored in two storage ponds. The final step is surface irrigation of non-public access land using the treated and stored effluent.

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

AGUAS RESIDUALES DOMESTICAS /AGUAS PLUVIALES

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

Ciudad de Spearman (CN600251235) opera la planta de tratamiento de aguas residuales de la ciudad de Spearman RN103137923, un Sistema de laguna facultativa. La instalación está ubicada en 2650 pies al oeste de la intersección de County Road U y Farm to Market 790, en Spearman, Condado de Hansford, Texas 79081. Solicitud de renovación. <<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno (BOD5) de cinco días. Aguas residuales domésticas. están tratados por un Sistema de laguna facultativa y estanque de almacenamiento.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0010977001

APPLICATION. City of Spearman, P.O. Box 37, Spearman, Texas 79081, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0010977001 to authorize the disposal of wastewater at a volume not to exceed a daily average flow of 400,000 gallons per day via surface irrigation of 241.8 acres of non-public access land. The domestic wastewater treatment facility and disposal area are located approximately one mile northwest of the intersection of Farm-to-Market Road 760 and State Highway 15, near the city of Spearman, in Hansford County, Texas 79081. TCEQ received this application on October 1, 2025. The permit application will be available for viewing and copying at Spearman City Hall, City Secretary's Office, 30 Southwest Court, Spearman, in Hansford County, Texas, prior to the date this notice is published in the newspaper. The application is available for viewing and copying at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.204722,36.206666&level=18>

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at:

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

El aviso de idioma alternativo en español está disponible en

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

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

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

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

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

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

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

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

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

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

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

Further information may also be obtained from City of Spearman at the address stated above or by calling Mr. Justin Parker, City Manager, at 806-659-2524.

Issuance Date: November 21, 2025

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0010977001

SOLICITUD. Ciudad de Spearman, P.O. Box 37, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) Permiso de Solicitud de Tierras de Texas (TLAP) n° WQ0010977001 autorizar la eliminación de aguas residuales con un volumen que no exceda un caudal medio diario de 400.000 galones por día mediante riego superficial de 241,8 acres de terreno de acceso no público. La instalación de tratamiento de aguas residuales domésticas y el área de eliminación están ubicadas aproximadamente una milla al noroeste de la intersección de Farm-to-Market Road 760 y State Highway 15, cerca de la ciudad de Spearman, en el condado de Hansford, Texas 79081. La TCEQ recibió esta solicitud el de 1 Octubre 2025. La solicitud de permiso estará disponible para su visualización y copia en el Ayuntamiento, de Spearman Ayuntamiento, Oficina del Secretario Municipal, 30 Southwest Court, Spearman, en el condado de Hansford, Texas, antes de la fecha en que se publique este aviso en el periódico. La aplicación está disponible para su visualización y copia en la siguiente página web: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.204722,36.206666&level=18>

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

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

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.**

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia

administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Ciudad de Spearman a la dirección indicada arriba o llamando a Justin Parker al (806) 659-2524.

Fecha de emisión: 21 de noviembre de 2025

**MUNICIPAL WASTEWATER TREATMENT PLANT (WWTP)
PERMIT RENEWAL**

CITY OF SPEARMAN, TEXAS

City of Spearman Municipal Wastewater Treatment Plant
Hansford County
WWTP Permit No. WQ0010977001
September 2025



DOMESTIC ADMINISTRATIVE REPORT



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT NAME: City of Spearman

PERMIT NUMBER (If new, leave blank): WQ0010977001

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

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

For TCEQ Use Only

Segment Number _____ County _____
Expiration Date _____ Region _____
Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**DOMESTIC WASTEWATER PERMIT APPLICATION
ADMINISTRATIVE REPORT 1.0**

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

Section 1. Application Fees (Instructions Page 26)

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

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

Minor Amendment (for any flow) \$150.00 ☐

Payment Information:

Mailed Check/Money Order Number: 1,615.00
Check/Money Order Amount: \$1,615.00
Name Printed on Check: City of Spearman

EPAY Voucher Number: N/A

Copy of Payment Voucher enclosed? Yes ☒

Section 2. Type of Application (Instructions Page 26)

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

- ☒ Publicly Owned Domestic Wastewater
☐ Privately-Owned Domestic Wastewater
☐ Conventional Water Treatment

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

- ☒ Active ☐ Inactive

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

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

d. Check the box next to the appropriate application type

- | | |
|---|---|
| ☐ New | |
| ☐ Major Amendment <u>with</u> Renewal | ☐ Minor Amendment <u>with</u> Renewal |
| ☐ Major Amendment <u>without</u> Renewal | ☐ Minor Amendment <u>without</u> Renewal |
| ☒ Renewal without changes | ☐ Minor Modification of permit |

e. For amendments or modifications, describe the proposed changes: [Click to enter text.](#)

f. For existing permits:

Permit Number: WQ00 10977001

EPA I.D. (TPDES only): TX 0032328

Expiration Date: April 1, 2026

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

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

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

City of Spearman

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

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)?

You may search for your CN on the TCEQ website at <http://www15.tceq.texas.gov/crpub/>

CN: 600251235

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

Prefix: Mr.

Last Name, First Name: Parker, Justin

Title: City Manager

Credential: N/A

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

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

N/A

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

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

CN: N/A

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

Prefix: N/A

Last Name, First Name: N/A

Title: N/A

Credential: N/A

Provide a brief description of the need for a co-permittee: N/A

C. Core Data Form

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

Section 4. Application Contact Information (Instructions Page 27)

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

- A. Prefix: Mr. Last Name, First Name: Parker, Justin
Title: City Manager Credential: N/A
Organization Name: City of Spearman
Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address: citymanager@spearman.tx.gov
Check one or both: ☒ Administrative Contact ☐ Technical Contact
- B. Prefix: Mr. Last Name, First Name: Garcia, Adolfo
Title: Professional Engineer Credential: P.E.
Organization Name: Hi-Plains Civil Engineers
Mailing Address: 4537 Canyon Dr. City, State, Zip Code: Amarillo, Texas, 79110
Phone No.: (806) 353-7233 E-mail Address: adolfo@hpcetx.com
Check one or both: ☐ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 27)

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

- A. Prefix: Mr. Last Name, First Name: Parker, Justin
Title: City Manager Credential: N/A
Organization Name: City of Spearman
Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address: citymanager@spearman.tx.gov

B. Prefix: Mr. Last Name, First Name: Shields, Tobe
Title: Mayor Credential: N/A
Organization Name: City of Spearman
Mailing Address: City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address:

Section 6. Billing Contact Information (Instructions Page 27)

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

Prefix: Mr. Last Name, First Name: Parker, Justin
Title: City Manager Credential: N/A
Organization Name: City of Spearman
Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address: citymanager@spearman.tx.gov

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

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

Prefix: Mr. Last Name, First Name: Parker, Justin
Title: City Manager Credential: N/A
Organization Name: City of Spearman
Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address: citymanager@spearman.tx.gov

Section 8. Public Notice Information (Instructions Page 27)

A. Individual Publishing the Notices

Prefix: Mr. Last Name, First Name: Parker, Justin
Title: City Manager Credential: N/A
Organization Name: City of Spearman
Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman Texas, 79081
Phone No.: (806) 659-2524 E-mail Address: citymanager@spearman.tx.gov

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

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

☐ E-mail Address

☐ Fax

☒ Regular Mail

C. Contact permit to be listed in the Notices

Prefix: Mr.

Last Name, First Name: Parker, Justin

Title: City Manager

Credential: N/A

Organization Name: City of Spearman

Mailing Address: P.O. Box 37

City, State, Zip Code: Spearman Texas, 79081

Phone No.: (806) 659-2524

E-mail Address: citymanager@spearmantx.gov

D. Public Viewing Information

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

Public building name: City Hall

Location within the building: City Secretary's Office

Physical Address of Building: 30 Southwest Court

City: Spearman

County: Hansford

Contact (Last Name, First Name): Parker, Justin

Phone No.: (806) 659-2524 Ext.: N/A

E. Bilingual Notice Requirements

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

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

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

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

☒ Yes ☐ No

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

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

☒ Yes ☐ No

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

☐ Yes ☐ No

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

☐ Yes ☒ No

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

F. Summary of Application in Plain Language Template

Complete the F. Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS, and include as an attachment.

Attachment: 2

G. Public Involvement Plan Form

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

Attachment: N/A

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. RN 103137923

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

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

City of Spearman Wastewater Treatment Facility

C. Owner of treatment facility: City of Spearman

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

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

Prefix: City of Spearman Last Name, First Name: N/A

Title: N/A Credential: N/A

Organization Name: City of Spearman

Mailing Address: P.O. Box 37 City, State, Zip Code: Spearman, Texas 79081

Phone No.: (806) 659-2524 E-mail Address: citymanager@spearmantx.gov

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

Attachment: N/A

E. Owner of effluent disposal site:

Prefix: N/A

Last Name, First Name: City of Spearman

Title: N/A

Credential: N/A

Organization Name: City of Spearman

Mailing Address: P.O. Box 37

City, State, Zip Code: Spearman Texas, 79081

Phone No.: (806) 659-2524

E-mail Address: citymanager@spearmantx.gov

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

Attachment: N/A

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

Prefix: N/A

Last Name, First Name: City of Spearman

Title: N/A

Credential: N/A

Organization Name: City of Spearman

Mailing Address: P.O. Box 37

City, State, Zip Code: Spearman Texas 79081

Phone No.: (806) 659-2524

E-mail Address: citymanager@spearmantx.gov

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

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 31)

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

☐

Yes

☐

No

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

Click to enter text.

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

☐

Yes

☐

No

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

Click to enter text.

City nearest the outfall(s):

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

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

☐

Yes

☐

No

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

- ☐ Authorization granted ☐ Authorization pending

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

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

- D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: [Click to enter text.](#)

Section 11. TLAP Disposal Information (Instructions Page 32)

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

☐ Yes ☒ No

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

The effluent disposal site is located 2650 ft. West of the intersection of County Road U and Farm to Market 760

- B. City nearest the disposal site: Spearman

- C. County in which the disposal site is located: Hansford

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

Effluent is to be pumped through a force main to the disposal site adjacent to the treatment plant.

- E. For TLAPs, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Horse Creek

Section 12. Miscellaneous Information (Instructions Page 32)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

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

N/A

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

☐ Yes ☒ No

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

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account number: N/A

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, please provide the following information:

Enforcement order number: N/A

Amount past due: N/A

Section 13. Attachments (Instructions Page 33)

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

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

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

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

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: N/A

Section 14. Signature Page (Instructions Page 34)

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

Permit Number: WQ0010977001

Applicant: City of Spearman

Certification:

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

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

Signatory name (typed or printed): Justin Parker

Signatory title: City Manager

Signature: _____

(Use blue ink)

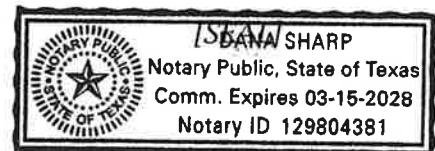
Date: _____

9/26/25

Subscribed and Sworn to before me by the said Dana Sharp, Notary Public
on this 26th day of September, 2025.
My commission expires on the 15th day of March, 2025.

Dana Sharp
Notary Public

Hansford
County, Texas



DOMESTIC TECHNICAL REPORT



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

Section 1. Permitted or Proposed Flows (Instructions Page 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.6

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

B. Interim II Phase

Design Flow (MGD): 0.6

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

C. Final Phase

Design Flow (MGD): 0.6

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

D. Current Operating Phase

Provide the startup date of the facility: 2022

Section 2. Treatment Process (Instructions Page 42)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant’s head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided.**

A lagoon system consisting of a facultative lagoon, storage lagoon, and land application area.

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Facultative Lagoon -	1	810' x 270' x 10' - 15'
Storage Lagoon	1	810' x 383.5' x 13'
Irrigation Pivots	2	166.6 acres and 75 acres

C. Process Flow Diagram

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

Attachment: 4

Section 3. Site Information and Drawing (Instructions Page 43)

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

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

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

- Latitude: 36.206675
- Longitude: -101.204743

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

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

disposal site.

Attachment: 5

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

City of Spearman, located in Hansford County, Texas

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

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
City of Spearman Wastewater Treatment Facility	City of Spearman	Publicly Owned	2964
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 5. Closure Plans (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 6. Permit Specific Requirements (Instructions Page 44)

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

A. Summary transmittal

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

☒ Yes ☐ No

If yes, provide the date(s) of approval for each phase: 04/16/2019

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

Notify TCEQ within 60 days of construction completion

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

N/A

C. Other actions required by the current permit

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

☐ Yes ☒ No

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

N/A

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

N/A

3. Grit disposal

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

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. *Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

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

N/A

E. Stormwater management

1. *Applicability*

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

2. *MSGP coverage*

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

☐ Yes ☐ No

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

TXR05 N/A or TXRNE N/A

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

☐ Yes ☐ No

3. Conditional exclusion

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

☐ Yes ☐ No

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

N/A

4. Existing coverage in individual permit

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

☐ Yes ☐ No

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

N/A

5. Zero stormwater discharge

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

☐ Yes ☐ No

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

N/A

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

6. Request for coverage in individual permit

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

☐ Yes ☐ No

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

N/A

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
N/A

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

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

☐ Yes ☒ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☒ Yes ☐ No

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

☐ Yes ☒ No

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

☒ Yes ☐ No

If **yes to any of the above**, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

The City of Spearman accepts an average of 45,000 gallons of septic waste per month.

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

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

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

☐ Yes ☒ No

If **yes**, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 49)

Is the facility in operation?

☒ Yes ☐ No

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

If yes, provide effluent analysis data for the listed pollutants. **Wastewater treatment facilities** complete Table 1.0(2). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

Table 1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l	N/A	N/A	N/A	N/A	N/A
Chlorine Residual, mg/l					
<i>E.coli</i> (CFU/100ml) freshwater					
Enterococci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l					
Electrical Conductivity, μ mohs/cm, †					
Oil & Grease, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃)*, mg/l	N/A	N/A	N/A	N/A	N/A

*TPDES permits only

†TLAP permits only

Table 1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Steven T. Dettner

Facility Operator's License Classification and Level: MSW, Class A

Facility Operator's License Number: #SW008049

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 50)

A. WWTP's Sewage Sludge or Biosolids Management Facility Type

Check all that apply. See instructions for guidance

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

B. WWTP's Sewage Sludge or Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (≥ 2 years)
- ☐ Methane or Biogas Recovery

☐ Other Treatment Process: [Click to enter text.](#)

C. Sewage Sludge or Biosolids Management

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

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): [N/A](#)

D. Disposal site

Disposal site name: [City of Spearman Municipal Waste Landfill](#)

TCEQ permit or registration number: [2352](#)

County where disposal site is located: [Hansford County](#)

E. Transportation method

Method of transportation (truck, train, pipe, other): [Front end Loader](#)

Name of the hauler: [City of Spearman Municipal Waste Landfill](#)

Hauler registration number: [2352](#)

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 52)

A. Beneficial use authorization

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

B. Sludge processing authorization

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

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

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:
Attachment: N/A
- USDA Natural Resources Conservation Service Soil Map:
Attachment: N/A
- Federal Emergency Management Map:
Attachment: N/A
- Site map:
Attachment: N/A

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands

- ☐ Located less than 60 meters from a fault
- ☐ None of the above

Attachment: N/A

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

N/A

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: N/A

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: N/A

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: N/A

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A

Provide the following information:

Volume and frequency of sludge to the lagoon(s): N/A

Total dry tons stored in the lagoons(s) per 365-day period: N/A

Total dry tons stored in the lagoons(s) over the life of the unit: N/A

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

☐ Yes ☐ No

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
Attachment: N/A
- Copy of the closure plan
Attachment: N/A
- Copy of deed recordation for the site
Attachment: N/A
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons
Attachment: N/A
- Description of the method of controlling infiltration of groundwater and surface water from entering the site
Attachment: N/A
- Procedures to prevent the occurrence of nuisance conditions
Attachment: N/A

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 54)

A. Additional authorizations

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

☐ Yes ☒ No

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

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

N/A

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 55)

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

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

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

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

CERTIFICATION:

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

Printed Name: Justin Parker

Title: City Manager

Signature: _____

Date: _____


9/26/2025

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

Section 1. Type of Disposal System (Instructions Page 67)

Identify the method of land disposal:

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

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

For existing authorizations, provide Registration Number: [Click to enter text.](#)

Section 2. Land Application Site(s) (Instructions Page 67)

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Native grass, Pastureland (Warm Season)	241.8	400,000	N
Rye grass (Overseed during cool season)	241.8	400,000	N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 67)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
-------------	----------------------	----------------------------	------------	------------

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
1	4.93	44.39	810' x 270'	Compacted Clay
2	7.04	74.80	810' x 383.5'	Compacted Clay

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

Attachment: 7

Section 4. Flood and Runoff Protection (Instructions Page 67)

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

☐ Yes ☒ No

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

N/A

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

USGS map and topographic survey

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

The proposed disposal area is located in an area that has slopes from 0% to 3%. The infiltration rate of the soil according to the Soil Survey of Hansford County, Texas is shown to range from 0.5 to 2.0 inches per hour. The application rate proposed will be less than the intake rate of the soil. It is proposed to have an automatic cut-off switch on the sprinkler system should there be a line break. It is proposed to construct a berm around the sprinkler system to prevent runoff and run on from minor rainfall events.

Section 5. Annual Cropping Plan (Instructions Page 67)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment:** 8

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

Section 6. Well and Map Information (Instructions Page 68)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment: 9**

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

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	

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

Attachment: 10

Section 7. Groundwater Quality (Instructions Page 68)

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

Attachment: 11

Are groundwater monitoring wells available onsite? ☐ Yes ☒ No

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

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

Attachment: N/A

Section 8. Soil Map and Soil Analyses (Instructions Page 69)

A. Soil map

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

Attachment: 12

B. Soil analyses

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

Attachment: 13

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 70)

Is the facility in operation?

☐

Yes

☐

No

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

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

Table 3.0(5) – Effluent Monitoring Data

[illegible]

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

Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 87)

A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

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

☐ Yes ☒ No

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

N/A

C. Treatment plant pass through

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

☐ Yes ☒ No

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

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

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 87)

A. Substantial modifications

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

☐ Yes ☐ No

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

N/A

B. Non-substantial modifications

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

☐ Yes ☐ No

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 88)

A. General information

Company Name: N/A

SIC Code: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

Telephone number: N/A

Email address: N/A

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Category: Subcategories: N/A

[Click or tap here to enter text.](#) N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

F. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

ATTACHMENTS

Attachment 1 – Core Data From (Administrative Report 1.0 – Item 3C)

Attachment 2 – Summary of Application in Plain Language (Administrative Report 1.0 – Item 8F)

Attachment 3 – USGS Topographic Map (Administrative Report 1.0 – Item 13)

Attachment 4 – Process Flow Diagram (Technical Report 1.0 – Item 2C)

Attachment 5 – Site Drawing (Technical Report 1.0 – Item 3)

Attachment 6 – Pollutant Analysis Treated Effluent (Technical Report 1.0 – Item 7)

Attachment 7 – Liner Certification (Technical Report 3.0 – Item 3)

Attachment 8 – Annual Cropping Plan (Technical Report 3.0 – Item 5)

Attachment 9 – USGS Map (Technical Report 3.0 – Item 6)

Attachment 10 – Well Log (Technical Report 3.0 – Item 6)

Attachment 11 – Groundwater Quality Report (Technical Report 3.0 – Item 7)

Attachment 12 – Soil Map (Technical Report 3.0 – Item 8A)

Attachment 13 – Soil Analysis Lab Results (Technical Report 3.0 – Item 8B)

Attachment 14 – Copy of Payment

ATTACHMENT 1

Domestic Administrative Report 1.0

3. Facility Owner (Applicant) and Co-Applicant Information
Item (c) Core Data Form



TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
☐ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
☒ Renewal (Core Data Form should be submitted with the renewal form)	☐ Other	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 600251235		RN 103137923

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		9/10/2025			
☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership ☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)							
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>							
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)				<i>If new Customer, enter previous Customer below:</i>			
City of Spearman							
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID (9 digits)			
		75-6000673		75-6000673			
10. DUNS Number (if applicable)							
11. Type of Customer:		☐ Corporation		☐ Individual			
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other		☐ Sole Proprietorship		Partnership: ☐ General ☐ Limited			
12. Number of Employees		13. Independently Owned and Operated?					
☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher		☐ Yes ☒ No					
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following							
☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other: ☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant							
15. Mailing Address:		City of Spearman					
		P.O. Box 37					
		City	Spearman	State	TX	ZIP	79081

16. Country Mailing Information <i>(if outside USA)</i>		17. E-Mail Address <i>(if applicable)</i>	
		citymanager@spearman.tx.gov	
18. Telephone Number	19. Extension or Code	20. Fax Number <i>(if applicable)</i>	
(806) 659-2524		(806) 659-3859	

SECTION III: Regulated Entity Information

21. General Regulated Entity Information <i>(If 'New Regulated Entity' is selected, a new permit application is also required.)</i>							
☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information							
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>							
22. Regulated Entity Name <i>(Enter name of the site where the regulated action is taking place.)</i>							
City of Spearman Wastewater Treatment Plant							
23. Street Address of the Regulated Entity: <i>(No PO Boxes)</i>							
	City		State		ZIP		ZIP + 4
24. County	Hansford						

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

25. Description to Physical Location:	Located approximately 1 mile northwest of the intersection of FM 760 and State Highway 15 and 1.6 miles northeast of the intersection of State Highway 15 and FM 2387 in Hansford County Texas				
26. Nearest City	State		Nearest ZIP Code		
Spearman	TX		79081		
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>					
27. Latitude (N) In Decimal:		28. Longitude (W) In Decimal:			
36.206675		-101.204743			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
36	12	24.03	101	12	21.24
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)		
4953		22132			
33. What is the Primary Business of this entity? <i>(Do not repeat the SIC or NAICS description.)</i>					
34. Mailing Address:	City of Spearman				
	P.O. Box 37				

	City	Spearman	State	TX	ZIP	79081	ZIP + 4	
35. E-Mail Address:		citymanager@spearmantx.gov						
36. Telephone Number			37. Extension or Code		38. Fax Number (if applicable)			
(806) 659-2524					() -			

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0010183001			

SECTION IV: Preparer Information

40. Name:	Adolfo Garcia		41. Title:	Engineer
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address	
(806) 353-7233		(806) 353-7261	adolfo@hpcetx.com	

SECTION V: Authorized Signature

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

Company:	City of Spearman	Job Title:	City Manager
Name (In Print):	Justin Parker	Phone:	(806) 659- 2524
Signature:		Date:	9/26/2025

ATTACHMENT 2

Domestic Administrative Report 1.0

8. Public Notice Information

Item (f) Summary of Application in Plain Language Template



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS DOMESTIC WASTEWATER/STORMWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

City of Spearman (CN 600251235) operates The City of Spearman Wastewater Treatment Facility (RN 103137923), a Texas Land Application Permits. The facility is located at approximately 1 mile northwest of the intersection of FM 760 and State Highway 15 and 1.6 miles northeast of the intersection of State Highway 15 and FM 2387 , in Spearman, Hansford County, Texas 79081. Renewal for disposal of treated domestic wastewater effluent at a daily average flow not exceeding 0.40 million gallons per day (MGD) via surface irrigation of 241.8 acres of non-public access land. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain five-day biochemical oxygen demand (CBOD₅), total suspended solids (TSS), and *Escherichia coli*. Additional potential pollutants are included in the Domestic Technical Report 1.0, Section 7. Treated domestic wastewater is treated by first entering a facultative lagoon, followed by treatment in two stabilization ponds. After treatment, the effluent is stored in two storage ponds. The final step is surface irrigation of non-public access land using the treated and stored effluent.

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

AGUAS RESIDUALES DOMESTICAS /AGUAS PLUVIALES

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

Ciudad de Spearman (CN600251235) opera la planta de tratamiento de aguas residuales de la ciudad de Spearman RN103137923, un Sistema de laguna facultativa. La instalación está ubicada en 2650 pies al oeste de la intersección de County Road U y Farm to Market 790, en Spearman, Condado de Hansford, Texas 79081. Solicitud de renovación. <<Para las solicitudes de TLAP incluya la siguiente oración, de lo contrario, elimine:>> Este permiso no autorizará una descarga de contaminantes en el agua en el estado.

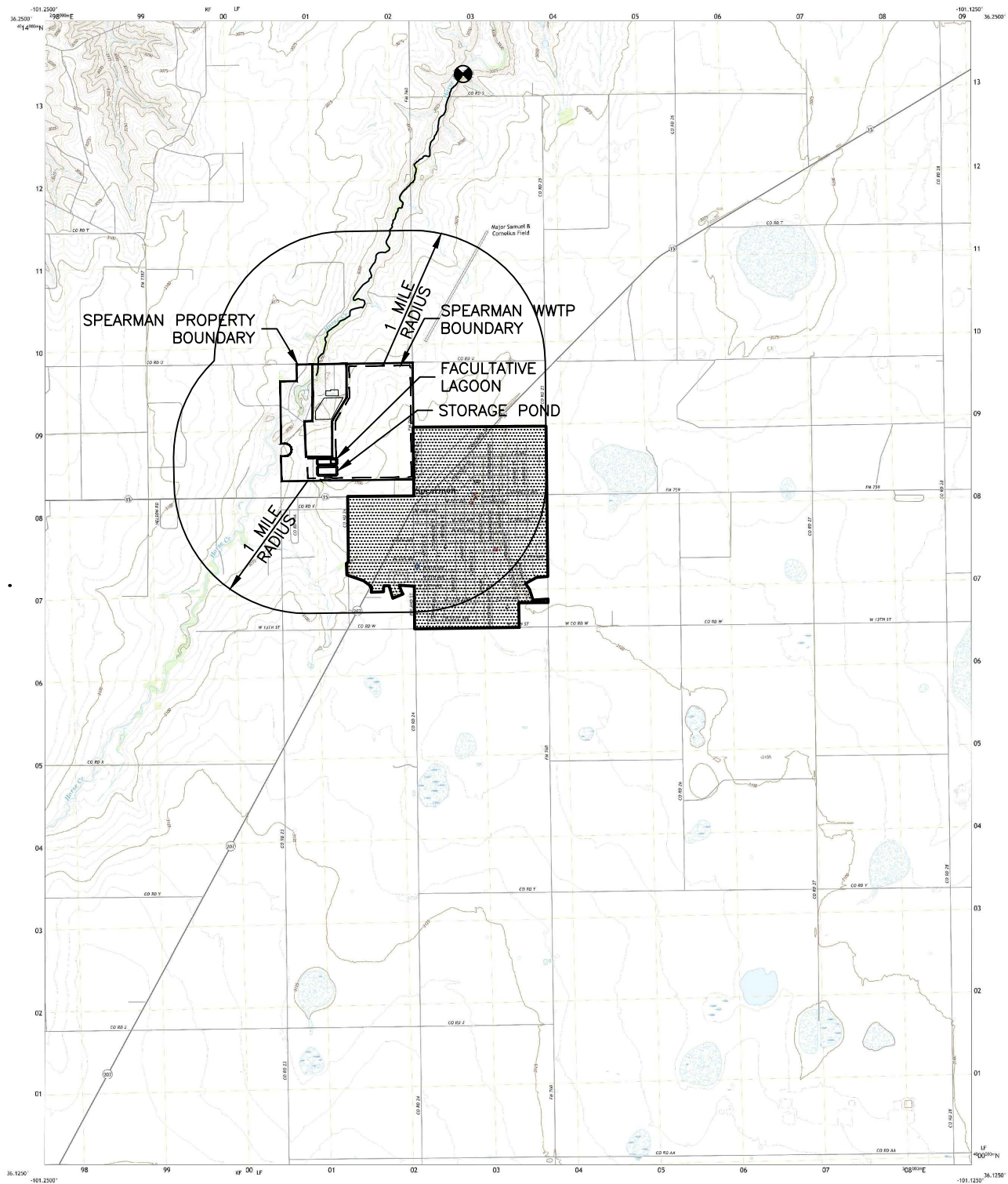
Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno (BOD5) de cinco días. Aguas residuales domésticas. están tratados por un Sistema de laguna facultativa y estanque de almacenamiento.

ATTACHMENT 3

Domestic Administrative Report 1.0

13. Attachments

Original full-size USGS Topographic Map



Produced by the United States Geological Survey

North American Datum of 1983 (NAD83)
North American Datum of 1983 (NAD83) Projection and
1 foot contour interval. Horizontal datum: Zone 14C
This map is not a legal document. Boundaries may be
generalized for this map scale. Private and public government
reservations may not be shown. Obtain permission before
entering private lands.

Imagery: NAD, September 2016 - November 2016

Base: U.S. Census Bureau, 2013

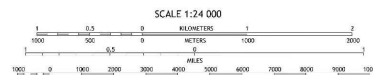
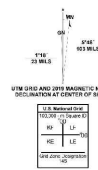
Names: U.S. Census Bureau, 2013

Hydrography: National Hydrography Dataset, 2016

Contours: National Elevation Dataset, 2019

Boundaries: Multiple sources; see metadata file, 2019 - 2021

Wetlands: FWS National Wetlands Inventory, Not Available



CONTOUR INTERVAL: 5 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
This map was produced to conform with the
National Geographic Program US Topo Product Standard.



1	2	3	1 Windmill
4	5	6	2 Water Dam
7	8	9	3 Water
			4 Windmill
			5 Spearman NE
			6 Spearman SE
			7 Fault
			8 Spearman SE

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

SPEARMAN, TX
2022



(FOR PERMIT PURPOSES ONLY)

CITY OF SPEARMAN
PERMIT RENEWAL - WASTEWATER TREATMENT PLANT

USGS MAP
WASTEWATER TREATMENT PLANT

PROJ. NO. 82989

DATE: SEPTEMBER 2025

SCALE: 1"=6000'

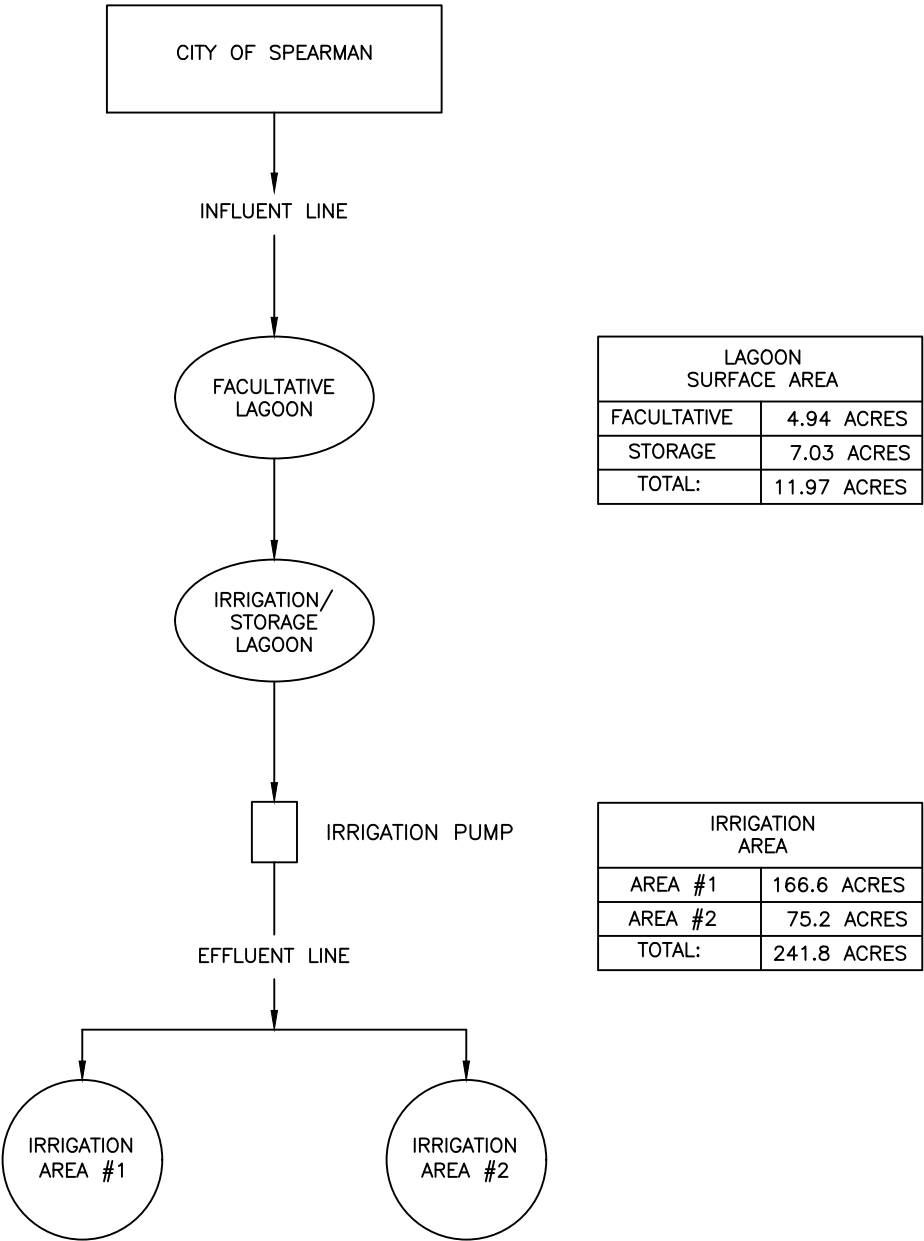
FIGURE:

#3

ATTACHMENT 4

Domestic Technical Report 1.0
2. Treatment Process
Process Flow Diagram

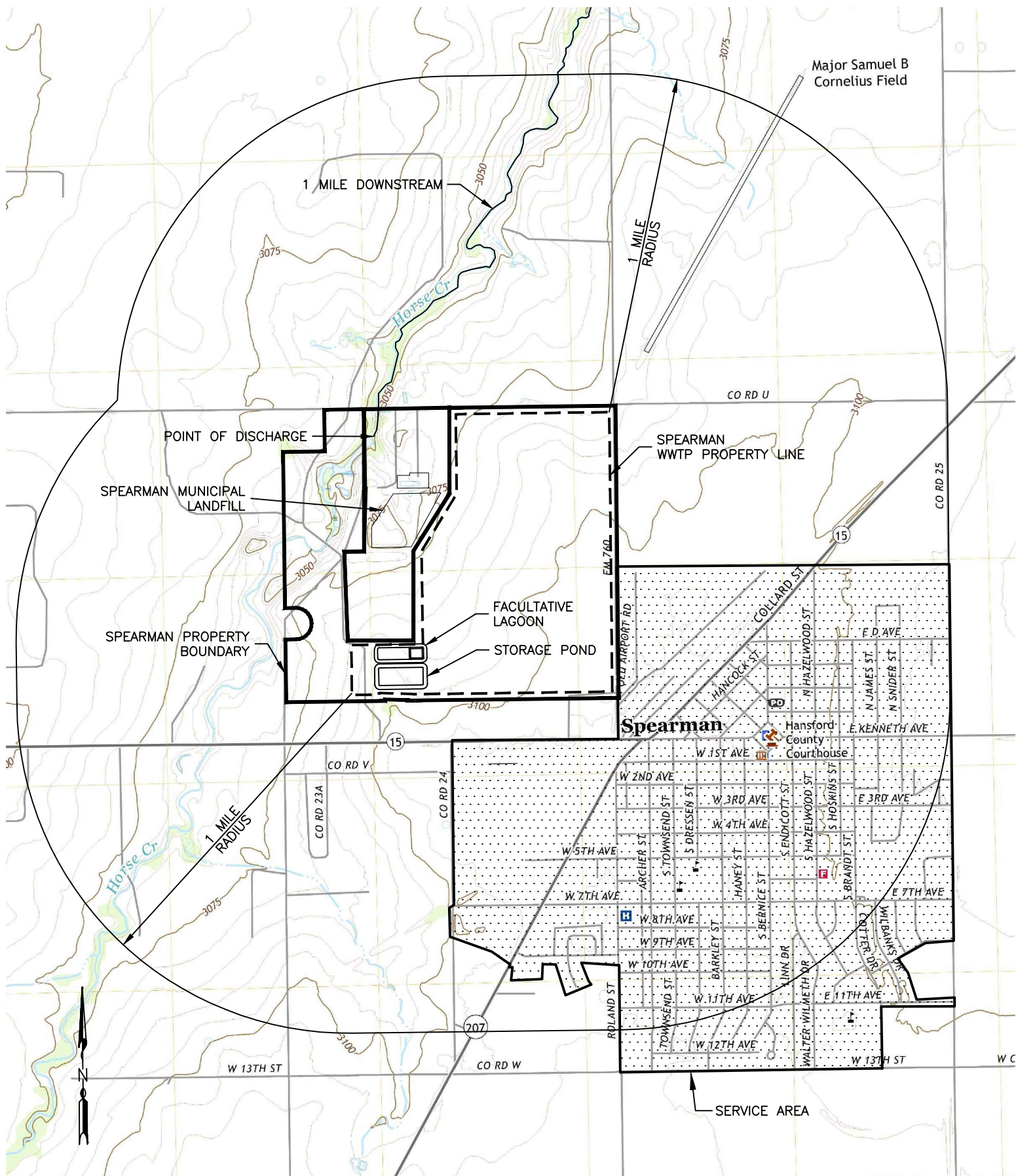
CITY OF SPEARMAN
WASTEWATER TREATMENT PLANT



(FOR PERMIT PURPOSES ONLY)

ATTACHMENT 5

Domestic Technical Report 1.0
3. Site Information and Drawing
Attached Site Map



(FOR PERMIT PURPOSES ONLY)

CITY OF SPEARMAN
PERMIT RENEWAL – WASTEWATER TREATMENT PLANT

**SITE DRAWING
WASTEWATER TREATMENT PLANT**

PROJ. NO. 82989 | DATE: SEPTEMBER 2025 | SCALE: 1"=2000'

FIGURE:

#5

ATTACHMENT 6

Domestic Technical Report 1.0
7. Pollutant Analysis of Treated Effluent data

DOMESTIC TECHNICAL REPORT 1.0

7. POLLUTANT ANALYSIS OF TREATED EFFLUENT

Table 1.0 (2) Pollutant Analysis for Wastewater Treatment Facilities

The Pollutant Analysis for The Wastewater Treatment Facility will be submitted to TCEQ upon completion of testing.

ATTACHMENT 7

Domestic Technical Report 3.0
3. Storage and Evaporation Lagoons/Ponds
Liner Certification

July 30, 2021

City of Spearman
P.O. Box 37
Spearman, TX 79081

Re: Letter of Certification
B1909776: City of Spearman Wastewater Treatment Plant
Facultative Lagoon - Placed Clay Liner
Hwy. 15, 1 mile west of Hwy. 207
Spearman, TX 79081

Dear City of Spearman:

It has been requested that Braun Intertec Corporation provide a "Letter of Certification" for the work performed at the City of Spearman Wastewater Treatment Plant. Braun sampled and performed the laboratory testing for the placed clay liner.

Based on a review of our records, the placed clay liner meets the TCEQ requirements for percent passing the No. 200 sieve, liquid limit, plasticity index, and hydraulic conductivity.

Should you have any questions, comments or require additional information, please do not hesitate to contact us at 806.677.0600.

Respectfully Submitted,

Shane Nance, P.E.

Shane Nance, P.E.
Business Unit Leader / Senior Engineer





Davis Geomatics, LLC
Professional Geomatic Consultants

J.D. Davis, RPLS, LSLS, CFedS
Licensed State Land Surveyors
Colorado•Kansas•Oklahoma•Texas

Professional Land Surveyors

Certified Federal Surveyors

August 22, 2021

City of Spearman
30 Southwest Ct.
Spearman, Texas 79801

RE: City of Spearman Irrigation Storage Lagoon Contruction

It has been requested that Davis Geomatics, LLC provide a "Letter of Certification" for the work performed at the City of Spearman Wastewater Treatment Plant for the Irrigation Storage Lagoon. Davis Geomatic, LLC took sub-grade elevation measurements and finished clay liner surface elevation measurements.

Based on a review of our records, the clay liner meets the TCEQ requirements for a thickness of 3.00 feet for water depths of greater than 8.0 feet.

Respectfully Submitted


J.D. Davis, RPLS, LSLS, CFedS
Davis Geomatics, LLC
Professional Geomatic Consultants

DAVIS GEOMATICS, LLC
PROFESSIONAL GEOMATIC CONSULTANTS
616 N. Polk Street, Amarillo, Texas 79107 • P.O. Box 4061, Amarillo, Texas 79116
866-570-0169 • 806-374-4334 • Fax 806-359-0686 • www.geopro.us
Texas Professional Surveying Firm No. 100828-00



Davis Geomatics, LLC
Professional Geomatic Consultants

J.D. Davis, RPLS, LSLS, CFedS
Licensed State Land Surveyors
Colorado•Kansas•Oklahoma•Texas

Professional Land Surveyors

Certified Federal Surveyors

August 22, 2021

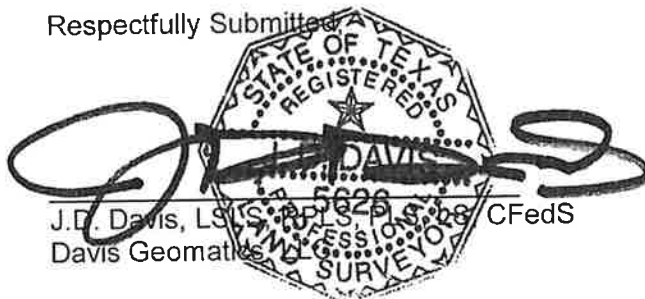
City of Spearman
30 Southwest Ct.
Spearman, Texas 79801

RE: City of Spearman Facultative Lagoon Contruction

It has been requested that Davis Geomatics, LLC provide a "Letter of Certification" for the work performed at the City of Spearman Wastewater Treatment Plant for the Facultative Lagoon. Davis Geomatic, LLC took sub-grade elevation measurements and finished clay liner surface elevation measurements.

Based on a review of our records, the clay liner meets the TCEQ requirements for a thickness of 3.00 feet for water depths of greater than 8.0 feet.

Respectfully Submitted


J.D. Davis, LSLS, RPLS, CFedS
Davis Geomatics, LLC
The seal is a circular stamp for the State of Texas, Registered Professional Surveyor, J.D. Davis, No. 5626, Commission Expires 08/01/2022.

DAVIS GEOMATICS, LLC
PROFESSIONAL GEOMATIC CONSULTANTS
616 N. Polk Street, Amarillo, Texas 79107 • P.O. Box 4061, Amarillo, Texas 79116
866-570-0169 • 806-374-4334 • Fax 806-359-0686 • www.geopro.us
Texas Professional Surveying Firm No. 100828-00

ATTACHMENT 8

Domestic Technical Report 3.0

5. Annual Cropping Plan

Annual Cropping Plan

DOMESTIC WORKSHEET 3.0 – LAND DISPOSAL OF EFFLUENT

5. ANNUAL CROPPING PLAN

1. Crop Type & Soil Map,

The City of Spearman operates a TLAP WWTP and uses effluent for irrigation.

100% of the 241.8-acre area irrigated by wastewater effluent is planted with perennial pasture consisting of native grasses. Soil survey maps, including the designated irrigation areas, are provided in Attachment 12.

2. Crop Growing Season & Nutrient Requirements

Perennial grasses in the region are capable of year-round growth, only going dormant during very dry or cold conditions. The consumptive use of water for perennial pasture, as outlined in the Texas Board of Water Engineers Bulletin 6019, is 90% of the consumptive use of alfalfa. This 90% value was used for the water balance calculation. The average consumptive water use for grasses is 46.17 inches per year.

According to the EPA (625/1-81-013) *Design Manual for Land Treatment of Municipal Wastewater*, nitrogen uptake values are as follows:

- Bermuda grass: 356–602 lb/acre/year
- Fescue grass: 134–290 lb/acre/year

Data from the *Journal of Range Management* indicate that Blue Grama grass recovers similar amounts of applied nitrogen as Sudan grass and Bermuda grass. The current nitrogen loading rate is unknown due to test results not being available at this time. For the purposes of this cropping plan, the nitrogen loading rate is estimated at approximately 42 lb/acre/year. This estimate is subject to change upon initiation of the new facilities.

3. Proposed Crop Table

Crops proposed in designated areas include the following:

Crop	Designated Area	Growing Season	Nitrogen Requirement #/acre	Water Requirement acre-feet/acre	Harvests
Native Grass	241.8	April-Aug.	0-250	5.0	1-2
Rye Grass	241.8	Sept.-May	0-250	5.0	1

4. Supplemental Watering & Fertilization

The perennial grasses do not require any supplemental watering or fertilization beyond the applied effluent. The area is currently sustaining grass growth without additional irrigation or fertilization.

5. Salt Tolerances

- **Rye Grass:** Relatively salt tolerant
 - o Electrical Conductivity (EC): 6.0–8.0 milliohms/cm at 25°C
- **Blue Grama Grass:** Highly salt tolerant
 - o Electrical Conductivity (EC): 8.0–12.0 milliohms/cm at 25°C

For water balance calculations, an EC value of 7.0 milliohms/cm was used. Refer to Attachment 8 for detailed water balance calculations.

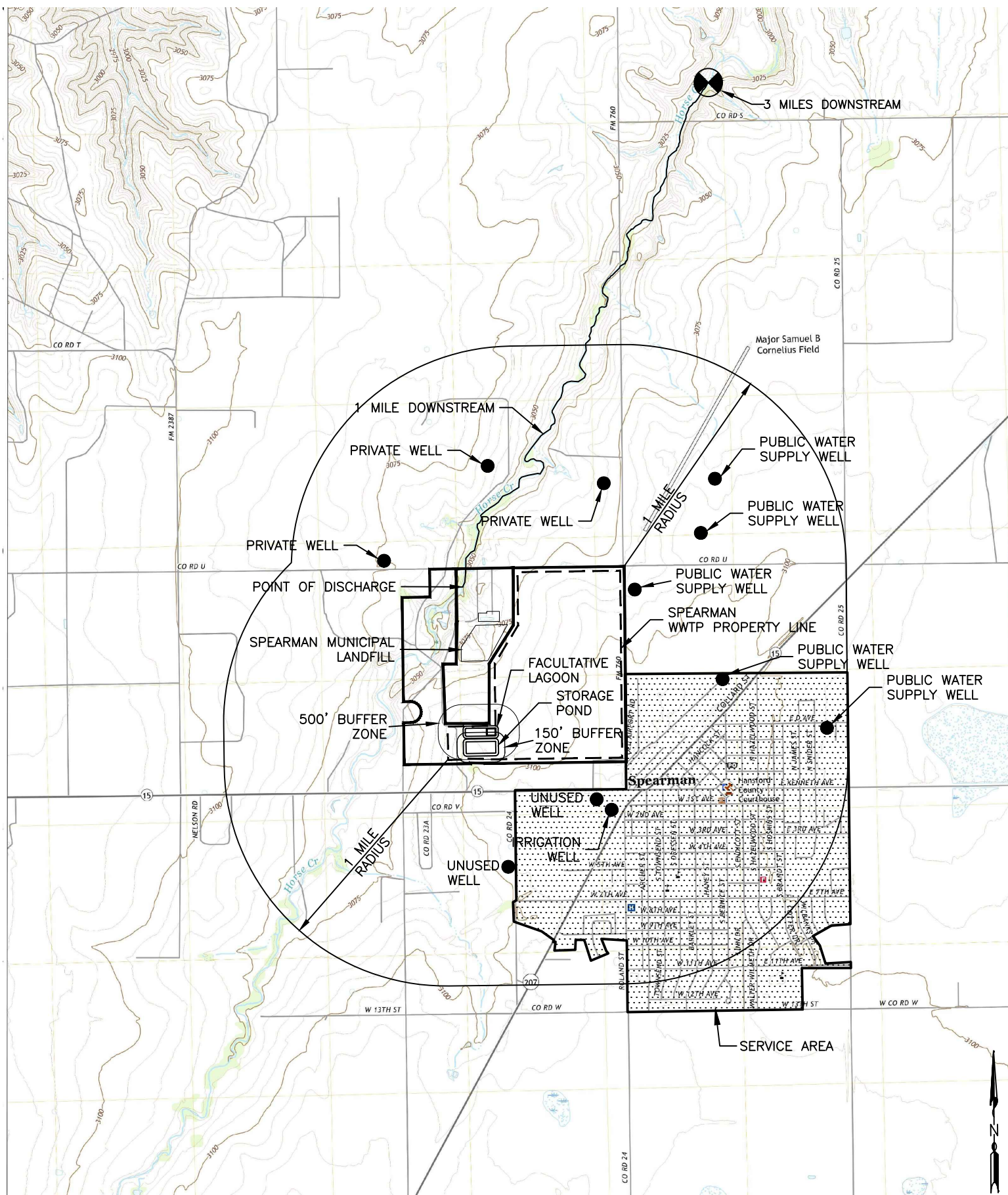
Data source: 31 TAC 309.20 Subchapter C. *Land Disposal of Sewage Effluent*, Table 3: Salt Tolerance of Various Crop Plants.

6. Harvesting Methods

Grass crops are managed through grazing. The total pasture area is 385 acres, of which 241.8 acres are designated for wastewater disposal. Grass crops are alternated annually between grazing and cutting. During cutting years, 1 to 2 cuttings may be required. The cuttings are swathed and baled. Cattle grazing allows the facility to operate without requiring grass to be harvested each year.

ATTACHMENT 9

Domestic Technical Report 3.0
6. Well and Map Information
USGS Map



(FOR PERMIT PURPOSES ONLY)

CITY OF SPEARMAN
PERMIT RENEWAL – WASTEWATER TREATMENT PLANT

USGS MAP
WASTEWATER TREATMENT PLANT

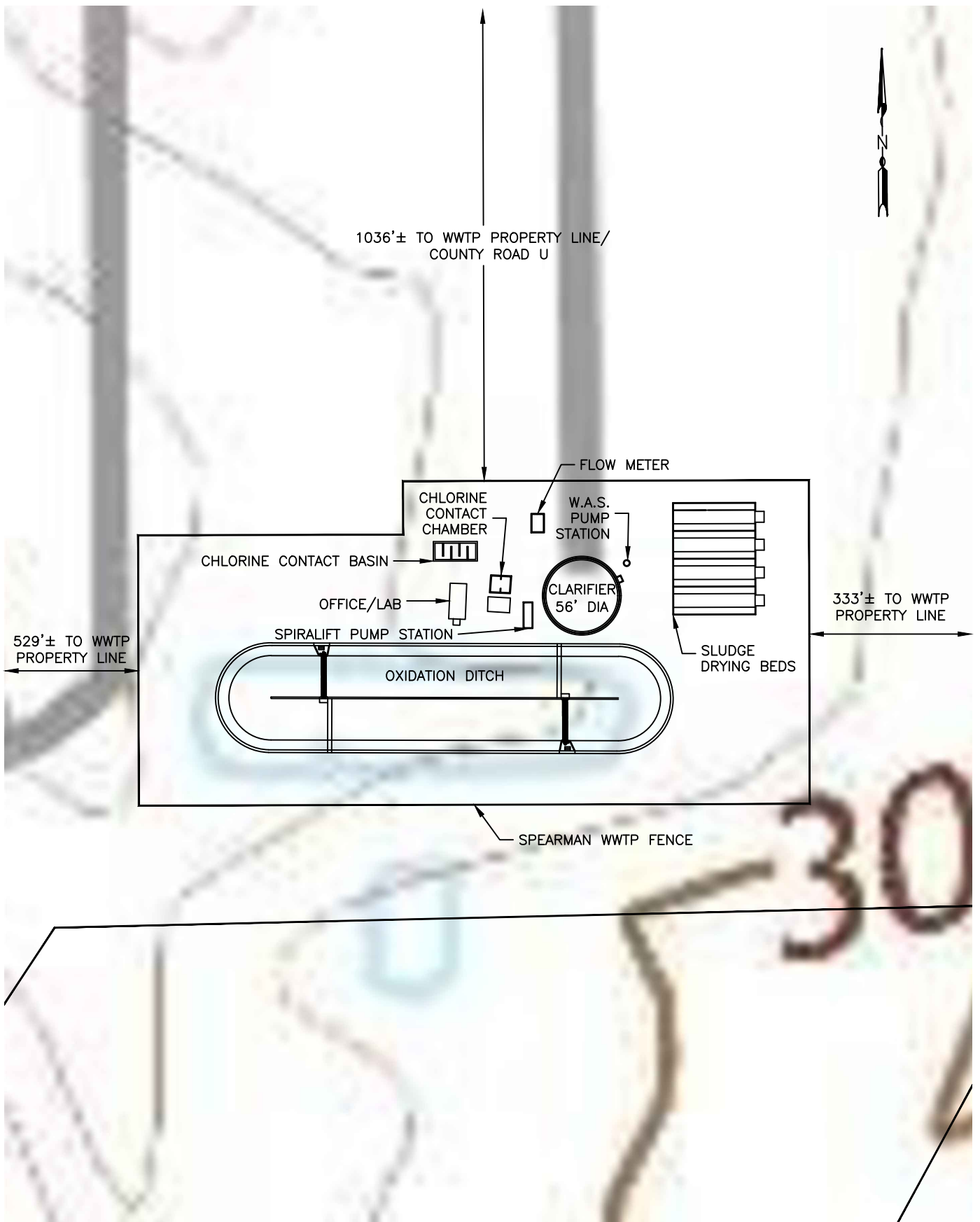
PROJ. NO. 82989

DATE: SEPTEMBER 2025

SCALE: 1"=3000'

FIGURE:

#9



(FOR PERMIT PURPOSES ONLY)

CITY OF SPEARMAN
PERMIT RENEWAL – WASTEWATER TREATMENT PLANT

USGS MAP
WASTEWATER TREATMENT PLANT

PROJ. NO. 82989

DATE: SEPTEMBER 2025

SCALE: 1"=100'

FIGURE:

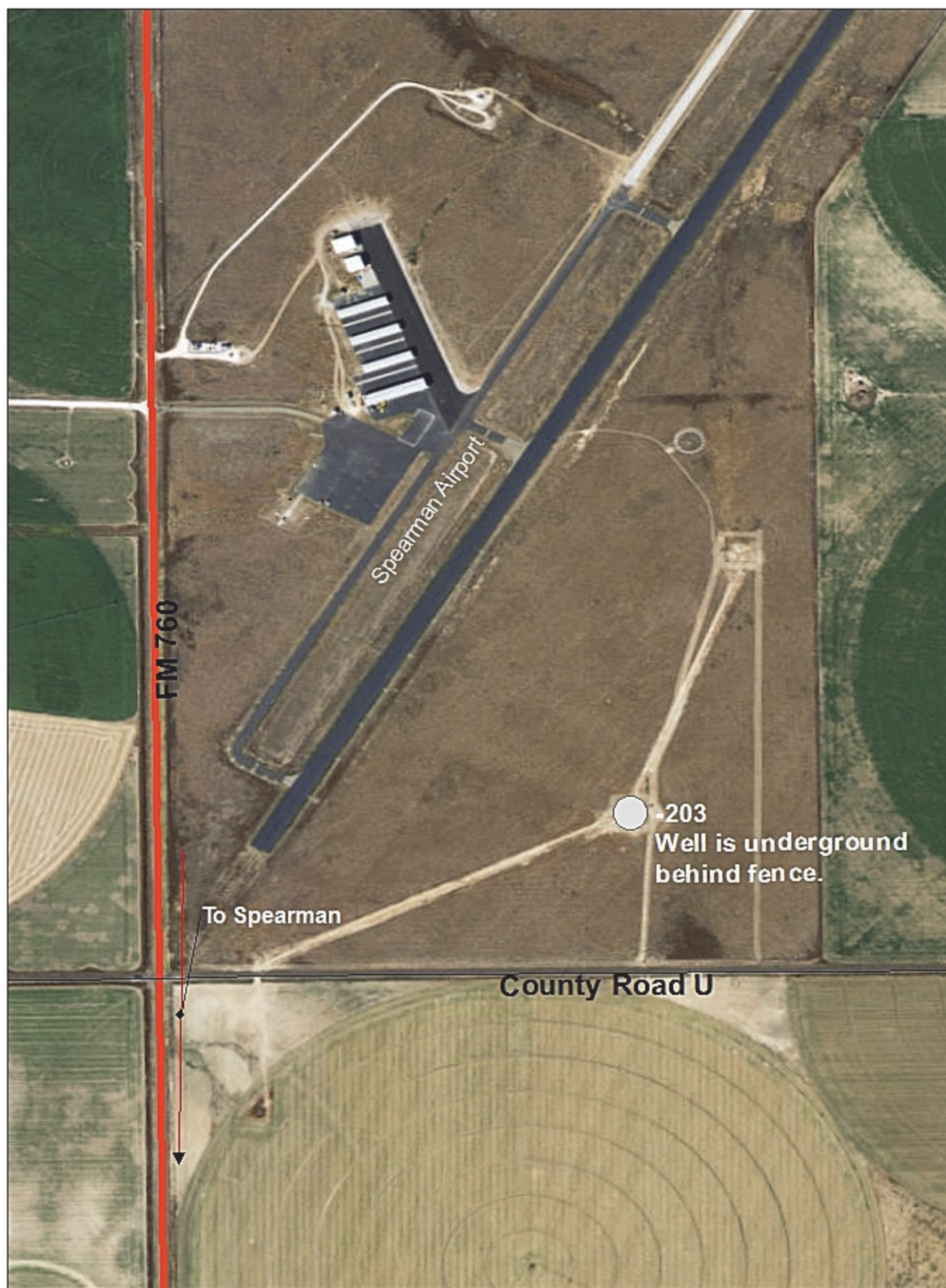
#9

ATTACHMENT 10

Domestic Technical Report 3.0
6. Well and Map Information
Well Log

Well ID	Well Use	Producing? Y/N	Open, Cased, Capped, or Plugged?	Proposed Best Management Practice	Meets Buffer
3555212	Public Supply	Y	Cased	TCEQ Regulations	Y
353514	Public Supply	Y	Cased	TCEQ Regulations	Y
355202	Public Supply	Y	Cased	TCEQ Regulations	Y
355506	Public Supply	Y	Cased	TCEQ Regulations	Y
355504	Public Supply	Y	Cased	TCEQ Regulations	Y
355501	Irrigation	Y	Cased	TCEQ Regulations	Y
355502	Unused	N	Cased	TCEQ Regulations	Y
355401	Unused	N	Cased	TCEQ Regulations	Y
60619	Industrial	Y	Cased	TCEQ Regulations	Y
14086	Private	Y	Cased	TCEQ Regulations	Y
271896	Irrigation	Y	Cased	TCEQ Regulations	Y
165753	Industrial	Y	Cased	TCEQ Regulations	Y
71864	Irrigation	Y	Cased	TCEQ Regulations	Y

SWN 03-55-203 Well Location



WQ FY 2016

TWDB Water Quality Field Data Sheet

Newly Invented Well Y

SWN: 03-SS-203
 County: Hanford
 County Code: 145
 Aquifer Code: _____
 Aquifer Id: _____

Name: City of Spearman
 Address: Po Box 37
Spearman, TX 74081
 Attention: Chris Douglas

ID Number: 847
 Date: 9-21-16
 Sampler(s): EP

Well Name or #: 11

1	2	3	4	5	6	7	8	9	10	11
250 ml filtered	500 ml filtered	250 ml filtered	1 Liter filtered	1 Liter filtered	1 Liter filtered	40 ml unfiltered				
Cation	Anions/T. Alk.	Nitrate	Gross Alpha	Radium 226	Radium 228	Atrazine				
HNO ₃	ICE	ICE + H ₂ SO ₄	HNO ₃ by lab	HNO ₃ by lab	HNO ₃ by lab	ICE				

Calibration Verification Readings	
pH	SLOPE = <u>101.9</u> 7 = <u>7.03</u> 4 or 10 = <u>9</u>
Conductivity	500 = <u>486</u> 1000 = <u>1001</u> 2000 = <u>1941</u> 5000 = <u>4710</u>

Time In: 10:10Time Out: 10:50

Water Level: _____

M.P. = _____ W.L. remark: _____

Pumping time: _____

Sampling Point: FAWWell Use: P

FIELD G.P.S. readings

Lift: SLatitude: 36 12 53.3Power: ELongitude: 101 11 40.1

Casing Type: _____

Casing Size: _____

Sample Time: 10:25Filter pressure: hand pump (line) / spring sampler

Field Alkalinity Titration	
<u>7.50</u>	Start pH
<u>4.48</u>	End pH
<u>50</u>	mL Sample Size
	mL Acid Phenol (> 8.3)
<u>11.4</u>	mL Acid Total (to pH 4.5)
mL acid added x 20 = Alkalinity	

Phenol Alkalinity (82244): _____ mg/L

Total Alkalinity (39086): 228 mg/LNotes: Underground

Water Quality Stabilization Parameters Table (At least 3 readings @ 5 min. intervals)

Time	10:15	10:20	10:25						
pH	<u>6.45</u>	<u>7.20</u>	<u>7.35</u>						
Celsius Temp.	<u>18.2</u>	<u>17.9</u>	<u>17.9</u>						
Conductivity	<u>481</u>	<u>486</u>	<u>483</u>						

STATE OF TEXAS WELL REPORT for Tracking #353512

Owner:	City of Spearman	Owner Well #:	Well #11
Address:	30 SW Court Spearman, TX 79081	Grid #:	03-55-2 03
Well Location:	Spearman, TX	Latitude:	36° 12' 53" N
Well County:	Hansford	Longitude:	101° 11' 40" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Public Supply

Drilling Start Date: **12/2/2013**

Drilling End Date: **12/21/2013**

Plans Approved by TCEQ - **YES**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	22	0	663
Drilling Method:	Reverse Circulation		
Borehole Completion:	Filter Packed		
	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>
Filter Pack Intervals:	365	663	Gravel
			<i>Size</i>
			12/20 16/3
	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	360	528 cement
	360	365	13 bentonite
Seal Method:	Pressure cement through tremie pipe		
Sealed By:	Hydro Resources/Perryton Redi Mix		
	Distance to Property Line (ft.): No Data		
	Distance to Septic Field or other concentrated contamination (ft.): No Data		
	Distance to Septic Tank (ft.): No Data		
	Method of Verification: No Data		
Surface Completion:	Pitless Adapter Used		

Water Level:	353 ft. below land surface on 2013-12-18	Measurement Method:	Unknown
Packers:	No Data		
Type of Pump:	Submersible		
Well Tests:	Pump	Yield: 410 GPM with 96 ft. drawdown after 36 hours	

Water Quality:

Strata Depth (ft.)

Water Type

No Data

No Data

Chemical Analysis Made: Yes

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

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

Company Information: Hydro Resources Mid Continent Inc

P.O. Box 639
Garden City, KS 67846

Driller Name: Miguel Camarena

License Number: 54592

Apprentice Name: Enrique Santos

Apprentice Number: 57578

Comments: No Data

Lithology: DESCRIPTION & COLOR OF FORMATION MATERIAL Casing: BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description	Dia. (in.)	New/Used	Type	Setting From/To (ft.)
0	37	Surface soil, brown clay w/sandy clay stks	12	New	Steel casing	0 - 480 .250"
37	74	Caliche w/sand stks	12	New	Stainless steel screen	480 - 555 .030" slot
74	340	Sand w/few clay stks	12	New	Stainless steel casing	555 - 575 .250"
340	360	Fine to med sand w/few clay stks	12	New	Stainless steel screen	575 - 610 .030" slot
360	520	Fine sand	12	New	Stainless steel casing	610 - 625 .250"
520	560	Very fine sand w/sandy clay mixed	12	New	Stainless steel screen	625 - 635 .020" slot
560	580	Sandy clay w/very fine sand mixed	12	New	Stainless steel casing	635 - 645 .250"
580	655	Very fine sand w/clay mix	12	New	Stainless steel screen	645 - 655 .020" slot
655	663	Red clay	12	New	Stainless steel casing	655 - 658 .250"

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

**Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880**

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID: **Q1639313017**

Date Received: 9/22/2016 14:57

Matrix: Aqueous

Sample ID: **0355203**

Date Collected: 9/21/2016 10:25

Sample Type: SAMPLE

Project ID: **TWDB CAN**

Parameters	Results Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
INORGANICS										
Analysis Desc: E200.7 Metals, Trace Elements Preparation Method: E200.7 Prep Analytical Method: E200.7 Metals, Trace Elements										
Boron Dissolved	163 ug/L	50.0	20.0		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Calcium Dissolved	41.6 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Strontium Dissolved	1140 ug/L	10.0	4.00		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Iron Dissolved	<50.0 ug/L	50.0	20.0		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Magnesium Dissolved	23.5 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Potassium Dissolved	4.98 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Sodium Dissolved	109 mg/L	0.500	0.200		1	09/27/16 11:27	BS	09/28/16 20:20	FO	
Analysis Desc: E200.8, ICP-MS Preparation Method: E200.8, ICP-MS Prep Analytical Method: E200.8, ICP-MS										
Aluminum Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Antimony Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Arsenic Dissolved	3.40 ug/L	2.00	0.700		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Barium Dissolved	19.2 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Beryllium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Cadmium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Chromium Dissolved	3.11 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Cobalt Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Copper Dissolved	1.87 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Lithium Dissolved	60.4 ug/L	2.00	0.700		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	N
Lead Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Manganese Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Molybdenum Dissolved	7.50 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Selenium Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Silver Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Thallium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Uranium Dissolved	9.55 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	N
Vanadium Dissolved	17.9 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	
Zinc Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:17	SLW	

Report ID: 226751 - 2818039

Page 51 of 87

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID: **Q1639313017**
Sample ID: **0355203**
Project ID: **TWDB CAN**

Date Received: 9/22/2016 14:57 Matrix: Aqueous
Date Collected: 9/21/2016 10:25 Sample Type: SAMPLE

Parameters	Results Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
Analysis Desc: E300.0, Anions										
Preparation Method: E300.0, Anions										
Analytical Method: E300.0, Anions										
Chloride Dissolved	96.4 mg/L	5.00	2.00		5	09/26/16 18:01	ML	09/26/16 18:01	ML	
Bromide Dissolved	0.146 mg/L	0.100	0.0400		5	09/26/16 18:01	ML	09/26/16 18:01	ML	
Fluoride Dissolved	1.81 mg/L	0.0500	0.0200		5	09/26/16 18:01	ML	09/26/16 18:01	ML	
Sulfate Dissolved	103 mg/L	5.00	2.00		5	09/26/16 18:01	ML	09/26/16 18:01	ML	
TOTAL PHOSPHATE AS P										
Analysis Desc: E365.4 Phosphorus, Total										
Preparation Method: E365.4 / E351.2 Water Prep										
Analytical Method: E365.4 Phosphorus, Total										
Phosphorus, Dissolved (As P)	<0.0200 mg/L	0.0200	0.00800		1	09/26/16 17:36	MM	09/27/16		ML
ALKALINITY										
Analysis Desc: SM2320B, Alkalinity										
Preparation Method: SM2320B, Alkalinity										
Analytical Method: SM2320B, Alkalinity										
Phenolphthalein Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Hydroxide Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Bicarbonate Alkalinity	214 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Carbonate Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Total Alkalinity (CaCO3)	214 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	
NITRATE AND NITRITE										
Analysis Desc: SM4500-NO3-H, Nitrate/Nitrite										
Preparation Method: SM4500-NO3-H, Nitrate/Nitrite										
Analytical Method: SM4500-NO3-H, Nitrate/Nitrite										
Nitrate/Nitrite Dissolved	2.22 mg/L	0.0400	0.0160		2	09/30/16	ML	09/30/16		ML
SILICA										
Analysis Desc: SM4500-SiO2-C, Silica										
Preparation Method: SM4500-SiO2-C, Silica										
Analytical Method: SM4500-SiO2-C, Silica										
Silica, Dissolved	36.7 mg/L	1.00	0.400		2	09/28/16	MO	09/28/16		MO
HEAVY METALS										
Analysis Desc: E245.1 Mercury Water										
Preparation Method: E245.1 Mercury Water										
Analytical Method: E245.1 Mercury Water										
Mercury Dissolved	<0.200 ug/L	0.200	0.0700		1	09/26/16	FM	09/26/16 12:25		FM

Report ID: 226751 - 2818039

Page 52 of 87



LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
Fax: (512)356-6021

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID: Q1639313017

Date Received: 9/22/2016 14:57

Matrix: Aqueous

Sample ID: 0355203

Date Collected: 9/21/2016 10:25

Sample Type: SAMPLE

Project ID: TWDB CAN

Parameters	Results Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
INORGANICS										
Analysis Date: SM1030B Cation/Anion Balance										
Preparation Method: SM1030B Cation/Anion Balance										
Analytical Method: SM1030B Cation/Anion Balance										
Cation/Anion Balance	1.890 %				1	09/30/16 14:05	CW	09/30/16 14:05	CW	



SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Analytical Report

(consolidated)

WO#: **16091825**

Date Reported: **10/13/2016**

CLIENT: LCRA Environmental Laboratory Services

Collection Date: 9/21/2016 10:25:00 AM

Project: Q1639314

Lab ID: 16091825-017

Matrix: NON-POTABLE WATER

Client Sample ID Q1639314017

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
GROSS ALPHA / GROSS BETA RADIOACTIVITY (EPA 9310)				SW9310	E900	Analyst: BRD
ALPHA, Gross	11.2	3.00		pCi/L	1	10/11/2016 12:13:00 PM
RADIUM-226 (EPA 903.0)				E903.0	E903-904	Analyst: BRD
Radium-226	ND	1.00		pCi/L	1	10/7/2016 7:53:00 AM
Yield	1.00				1	10/7/2016 7:53:00 AM
RADIUM-228 (EPA 904.0)				E904.0	E903-904	Analyst: BRD
Radium-228	ND	1.00		pCi/L	1	10/6/2016 12:54:00 PM
Yield	1.00				1	10/6/2016 12:54:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level.
M Manual Integration used to determine area response
PL Permit Limit
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
W Sample container temperature is out of limit as specified at testcode

Original

03-55-203

STATE OF TEXAS WELL REPORT for Tracking #353514

Owner:	City of Spearman	Owner Well #:	Well #12
Address:	30 SW Court Spearman, TX 79081	Grid #:	03-55-2
Well Location:	Spearman, TX	Latitude:	36° 13' 06" N
Well County:	Hansford	Longitude:	101° 11' 36" W
Elevation:	No Data	GPS Brand Used:	No Data
Type of Work:	New Well	Proposed Use:	Public Supply; Plans Approved by TCEQ

Drilling Date: Started: 12/5/2013
 Completed: 12/28/2013
Diameter of Hole: Diameter: 22 in From Surface To 679 ft
Drilling Method: Reverse Circulation
Borehole Completion: Gravel Packed From: 365 ft to 679 ft
 Gravel Pack Size: 12/20 16/3
Annular Seal Data: 1st Interval: From 0 ft to 360 ft with 528 cement (#sacks and material)
 2nd Interval: From 360 ft to 365 ft with 13 bentonite (#sacks and material)
 3rd Interval: No Data
 Method Used: Pressure cement through tremie pipe
 Cemented By: Hydro Resources/Perryton Radi Mix
 Distance to Septic Field or other Concentrated Contamination: No Data
 Distance to Property Line: No Data
 Method of Verification: No Data
 Approved by Variance: No Data
Surface Completion: Pitless Adapter Used

Water Level: Static level: 346 ft. below land surface on 12/22/2013
 Artesian flow: No Data
Packers: No Data
Plugging Info: Casing or Cement/Bentonite left in well: No Data
Type Of Pump: Submersible
 Depth to pump bowl: (No Data) ft
Well Tests: Pump
 Yield: 525 GPM with 146 ft drawdown after 36 hours

Water Quality: Type of Water: No Data
 Depth of Strata: No Data
 Chemical Analysis Made: Yes
 Did the driller knowingly penetrate any strata which contained undesirable constituents: No

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

Company Information: **Hydro Resources Mid Continent Inc**
P.O. Box 639
Garden City , KS 67846

Driller License Number: **54592**

Licensed Well Driller Signature: **Miguel Camarena**

Registered Driller Apprentice Signature: **Enrique Santos**

Apprentice Registration Number: **57578**

Comments: **No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #353514) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft)	Description
0 - 35	Surface soil, brown clay w/sandy clay stks
35 - 60	Caliche w/sand stks
60 - 340	Sand w/few clay stks
340 - 360	Fine to med sand
360 - 380	Fine sand
380 - 400	Fine to med sand w/ some red clay mixed
400 - 620	Fine sand
620 - 640	Very fine sand w/clay mix
640 - 671	Fine sand
671 - 679	Red clay

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
12	New	Steel casing	0 - 520 .250"
12	New	Stainless steel screen	520 - 620 .030" slot
12	New	Stainless steel casing	620 - 630 .250"
12	New	Stainless steel screen	630 - 670 .020" slot
12	New	Stainless steel casing	670 - 673 .250"

150 yds Soot Wind Sack

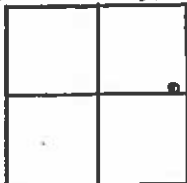
Sec. 58 Blk 4-T

Survey T+NO Co. Hansford

N. 36.21821° W. 101.19349°

36.21803

101.19312



155 yds S.E.
from wind direction
indicator.



Hydro
RESOURCES

P.O. Box 784
Sunray, Texas 79086
(806) 948-4421

Nº 17142

City of Spearman
Ed Hanson 659-2524

Well #12

Waterwell ☐

DATE 12/6/13

NO.

FROM	TO	DESCRIPTION	SAND
0	35	Surface top Soil brown clay w/ sandy clay strips	
35	60	Caliche	
60	340	Sand w/ minor clay strips	
340	360	fine to med fine fairly loose sand	20
360	380	fine fairly loose sand	20
380	400	fine to med to coarse fairly loose sandy/ some red clay mix	20
400	420	fine fairly loose sand	20
420	440	fine fairly loose sand	20
440	460	fine fairly loose sand	20
460	480	fine fairly loose sand w/ clay mix	20
480	500	fine fairly loose sand	20
500	520	fine fairly loose sand	20
520	540	fine fairly loose sand	20
540	560	fine fairly loose sand	20
560	580	fine fairly loose sand	20
580	600	fine fairly loose sand	20
600	620	fine fairly loose sand	20
620	640	very fine fairly loose sandy/red clay mix	20
640	660	fine fairly loose sand	20
660	67.9	fine fairly loose sandy/red clay strip	11

Cementers: Fill in shaded areas.
Operator: Fill in other items.

Cementing Certificate

1. Operator's Name <i>Hydro Resources - Bruce Reichmuth</i>	2. Driller's Texas License No. <i>54 587</i>	3. County of Well Site <i>Hansford</i>
4. Project Name <i>City of Spearman, TX Water System Improvements - Wells #11 & 12</i>	5. Drilling Permit No.	6. Well No. <i>12</i>

CASING CEMENTING DATA:		WELL CASING		MONO-STAGE CEMENTING PROCESS		MULTI-STAGE CEMENTING PROCESS	
		Single String	Multiple Parallel Strings	Tool	Shoe	Tool	Shoe
7. Cementing Date		<i>12/1/13</i>					
8. •Drilled hole size		<i>22</i>					
•Est. % wash or hole enlargement		<i>3%</i>					
9. Size of casing (in O.D.)		<i>12 3/4</i>					
10. Top liner (ft.)							
11. Setting depth (ft.)		<i>360</i>					
12. Hrs. Waiting on cement before drill-out							
1 st Slurry	13. Type of cement used: No. of sack >	<i>528</i>					
	<i>C 150</i> Class > Type II >						
	No. of sack >						
2 nd Slurry	Class >						
	No. of sack >						
1 st	14. Slurry pumped: Volume (cu. ft.) >	<i>630</i>					
	Height (ft.) >						
2 nd	Volume (cu. ft.) >						
	Height >						
Total	Volume (cu. ft.) >	<i>630</i>					
	Height (ft.) >						
15. Was cement circulated to ground surface (or bottom of cellar) outside casing?		<i>Yes</i>					
16. Remarks							

OVER >

CEMENTER'S CERTIFICATE: I declare that I am authorized to make this certification, that the cementing of casing and/or the placing of cement plugs in this well as shown in the report was performed by me or under my supervision, and that the cementing data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers cementing data only.

Miguel Camarena Perryton Redi Mix Miguel Camarena
Name and title of cementer's representative Cementing Company Signature
1201 E. 8th Perryton TX 79070
Address City State Zip Code
806-435-6836 12/7/13
Phone Number Date

OPERATOR'S CERTIFICATE: I declare that I am authorized to make this certification that I have knowledge of the well data and information presented in this report, and the data and facts presented on both sides of this form are true, correct, and complete, to the best of my knowledge. This certification covers all well data.

Bruce J. Reichmuth Supervision Bruce Reichmuth
Name of operator's representatives Title Signature
Hydro Resources
P.O. Box 639 Garden City KS 67846
Address City State Zip Code
620-277-2389 12/7/14
Phone Number Date

DRILLERS LOG

CUSTOMER West Tex. Util. Spearman, TX WO# 6639

QUARTER _____ SECTION _____ TOWNSHIP _____ RANGE _____ COUNTY _____
BIT: PILOT 16" REAMER 22" RIG Teel #110

① Well #12 T.D. @ 673'

A.M. 12-5-13 Migue, Enrique, Sigi, Isidro G. 12:30

Ricardo G. Marlon Z

More capacity for. Get Loc. Ready. Spot camp. Equip. Moved up. 1 Water ② Sand ③ Ash

3:30

Bit Kelly

30.50 3:30 5:30

Start Drilling

M.D. 29.90 30.50 60.40 5:30 7:40

P.M. 12-5-13 Jose J. Tony B Marcos Octavio

	JOINTS	Depth FROM	TO	TIME RECORD START	FINISH	REMARKS
#1 Co.	24.90	60.40	85.30	7:50	8:40	vis 34 wt 8.2
T. Co.	24.91	85.30	110.21	8:50	9:40	
#1 D.P.	24.32	110.21	134.53	9:50	11:15	Put oil in compressor
2.	24.14	134.53	158.67	11:25	12:20	
3.	23.98	158.67	182.65	12:30	1:50	Drilling slow
4.	23.89	182.65	206.54	2:00	3:35	compressor stopped (wait on new compressor)
5	24.48	206.54	231.02	3:45	4:35	vis 33 wt 8.3
6	24.49	231.02	255.51	4:45	5:40	
7	24.50	255.51	280.01	5:50	6:55	
8.	24.50	280.01	304.51	7:05	8:20	

A.M. 12-6-13 Sigi, Isidro, Ricardo G. Marlon F

	JOINTS	Depth FROM	TO	TIME RECORD START	FINISH	REMARKS
9.	24.49	304.51	329.00	8:20	8:50	Run Airvation
10.	24.31	329.00	353.31	9:50	10:50	vis 32 wt 8.4
11.	24.49	353.31	377.80	11:00	11:45	
12.	23.86	377.80	401.66	11:55	12:40	
13.	24.49	401.66	426.15	12:50	1:50	
14.	24.49	426.15	450.64	2:00	2:50	
15.	24.50	450.64	475.14	3:00	4:00	
16.	24.49	475.14	499.63	4:10	5:05	
17.	24.49	499.63	524.12	5:15	6:10	vis 32 wt 8.4
18.	24.50	524.12	548.62	6:20	7:05	

DRILLERS LOG

CUSTOMER West Tex Oil Spearman Tx WO# 6639

QUARTER _____ SECTION _____ TOWNSHIP _____ RANGE _____ COUNTY _____

BIT: PILOT 16" REAMER 22" RIG Jrd #110

②

P.M.

DATE/CREW	JOINTS	Depth		TIME RECORD		REMARKS
		FROM	TO	START	FINISH	
12-6-13	Jost Jr.	Tom B	Martos	Ortavi		
19	24.05	548.62	572.67	7:15	8:40	
20	24.48	572.67	597.15	8:50	10:05	vis 33 wt 8.5
21	24.52	597.15	621.67	10:15	11:40	
22	24.48	621.67	646.15	11:50	11:20	
23	24.50	646.15	670.65	1:30	2:50	vis 33 wt 8.5
24	24.50	670.65	679.00	3:00	3:25	T.D. @ 679'
				3:25	3:40	Circulate until clean
				3:40		Pull airline + redivination
				7:30		TRIP OUT PIPE
A.M. 12-7-13	Sigis Isidro	Ricardo G.	Marina F.			
				7:30	8:30	Setup + Run Log
				8:30	9:30	Setup + Run 5 3/8
				9:30	1:30	Setup + Run Casing
				1:30		Setup + Run Gravel
		679'	680'			3 s.sks. 16/30
		680'	519'			6 s.sks. 12/20
		519'	426'			6 " " "
		426'	364'			5.5 " " "
		364'	359'	5:30	6:00	13 sks Bentonite
				6:00		Standby for Cement

Well #12

DRILLERS LOG

CUSTOMER West Texas util. Spearman WO# 6639

QUARTER _____ SECTION _____ TOWNSHIP _____ RANGE _____ COUNTY _____

BIT: PILOT _____ REAMER _____ RIG Jed 110

Casing

DATE/ CREW	JOINTS	DEPTH		TIME RECORD		REMARKS
		FROM	TO	START	FINISH	
			1	43	27	3.28 SS PL. 40.00 SS SC. .20 slot
			2	10	00	SS. PL.
				53	27	
			3	20	00	SS SC. 0.30 slot
				73	27	
			4	40	00	SS SC. .30 slot
				113	27	
			5	41	72	SS SC. .30 slot D.C 1.72
				154	44	
			6	42	05	Blk
				197	04	
			7	42	13	
				239	17	
			8	42	11	
				281	28	
			9	42	12	
				323	40	
			10	42	05	
				365	45	
			11	42	11	
				407	56	
			12	42	06	
				449	62	
			13	42	11	
				491	73	
			14	42	04	
				533	77	
			15	42	09	
				575	86	
			16	42	06	
				617	92	
			17	42	11	
				660	03	
			18	12	47	G.L. = 673
				673	00	

DRILLERS LOG

CUSTOMER West Tex. Util. Spearman, TX WO# 6639

QUARTER _____ SECTION _____ TOWNSHIP _____ RANGE _____ COUNTY _____
BIT: PILOT 16" REAMER 22" RIG Teel #110

① Well #12 T.D. @ 673'

A.M. 12-5-13

DATE/CREW	JOINTS	Depth		TIME RECORD		REMARKS
		FROM	TO	START	FINISH	
Migue, Ricardo	Enrique, G. Marlon	Sigi, Isidro	G. Marlon	12:30		More reports for. Get loc. Ready. Spot exp. Equip. Mud up. 1 Water ② Seal Ash
				3:30		② Seal ③ Seal ④ Seal
Bit Kelly			30.50	3:30	5:30	Start Drilling
M.D.	29.90	30.50	60.40	5:30	7:40	

P.M. 12-5-13

José Jr.	Tony B	Marcos	Octavio			
#1 Co.	24.90	60.40	85.30	7:50	8:40	vis 34 wt 8.2
T. Co.	24.91	85.30	110.21	8:50	9:40	
#1 D.P.	24.32	110.21	134.53	9:50	11:15	Put oil in compressor
2.	24.14	134.53	158.67	11:25	12:20	
3.	23.98	158.67	182.65	12:30	1:50	Drilling slow
4.	23.89	182.65	206.54	2:00	3:35	compressor stopped (wait on new compressor)
5.	24.48	206.54	231.02	3:45	4:35	vis 33 wt 8.3
6.	24.49	231.02	255.51	4:45	5:40	
7.	24.50	255.51	280.01	5:50	6:55	
8.	24.50	280.01	304.51	7:05	8:20	

A.M. 12-6-13

Sigi, Isidro	Ricardo, G. Marlon	on F				
				8:20	8:50	Run Airation
9.	24.49	304.51	329.00	8:50	9:40	
10.	24.31	329.00	353.31	9:50	10:50	vis 32 wt 8.4
11.	24.49	353.31	377.80	11:00	11:45	
12.	23.86	377.80	401.66	11:55	12:40	
13.	24.49	401.66	426.15	12:50	1:50	
14.	24.49	426.15	450.64	2:00	2:50	
15.	24.50	450.64	475.14	3:00	4:00	
16.	24.49	475.14	499.63	4:10	5:05	
17.	24.49	499.63	524.12	5:15	6:10	vis 32 wt 8.4
18.	24.50	524.12	548.62	6:20	7:05	

Casing/Screen/Gravel Schedule

December 2, 2013

Spearman, TX

Pampa, TX

WO# 6639 - West Texas Utilities

Well Depth - 673'

Well #12

Test Hole - Hydro

Drill 22" hole

Depth	12 3/4" SS Screen	Slot Size	12 3/4" SS Casing (.250")	12 3/4" Casing (.250"w)	SS Plate
673 673					0
673 670			3		
670 630	40	0.020"			
630 620			10		
620 520	100	0.030"			
Dielectric Coupling					
520 0				520	
Totals	140		13	520	0
				TOTAL	673

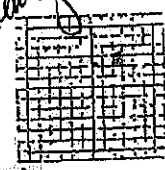
Install centering guide at approx. every 40' in the screen area

Depth					
620 673	16 - 30	3.10	Super Sacks	Actual volume	
365 620	12...20	14.89	Super Sacks	Actual volume	
360 365	Bentonite Pellets	13.27	Sks or buckets	Actual volume	
7 360	Cemnet Slurry	23.36	Yds - Perryton Ready Mix	Actual volume	
	Keep Cement down - Pitless Unit will be installed later.				
	Perryton Ready Mix - Leslie - 806-435-6836				

Well Report Job #

Customer Name: CITY of Spearman Address: 30 SW coast
 Farm: _____ City/State: Spearman TX.
 Well#: 12 Test Log # _____ GPS Lat 36.21821 Long -101.19342
 Section: 58 Block: 4-T
 Survey: T&NO County: Hansford
 Well TD: 673
 Date Well Drilled: 12-7-13
 Casing Size & Wall: 12 3/4 .250 520' Blank Perf: ALL THE DRISING WAS FROM SURFAY
 Screen Size & Wall: 12 3/4 .250 146' SS 50' Sump: 3' SS 81k -12 3/4 .250" W
 Gravel Mix/Amount: 1020' 8 .030' slot 10' - SS 14k -12 3/4 .250" W
 Gravel Mix/Amount: _____
 Concrete Pad Size: _____

570' pulled out 2. Drilling



*special order
Left away
from previous job*

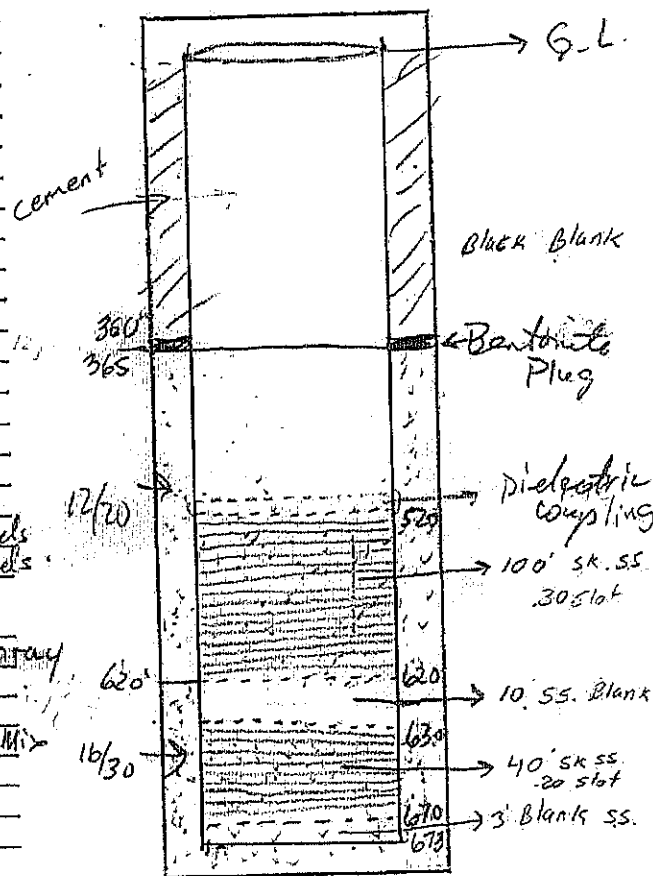
Amounts Used

GG/HV: _____
 Max Gel: 20-5K Garden City
 Hydro Vis: _____
 Hydro Pac: _____
 Hydro Seal: _____
 Drispac Regular: 5 SK Garden City
 Drispac Super Low: 3 SK Garden City
 RD 110: _____
 Soda Ash: 2 SK Garden City
 N Seal: _____
 Bentonite: _____
 Chips: _____
 PVC Pipe: _____
 HTH: _____
 Gate Valve Size: _____
 Soap: _____
 3" Pipe - Blank _____
 2" Pipe - Blank _____
 Super Sacks: 3 SK Silica sand 16/30 - Daniels
 Super Sacks: 17 1/2 Silica sand 12/20 - Daniels

Misc Materials Used:

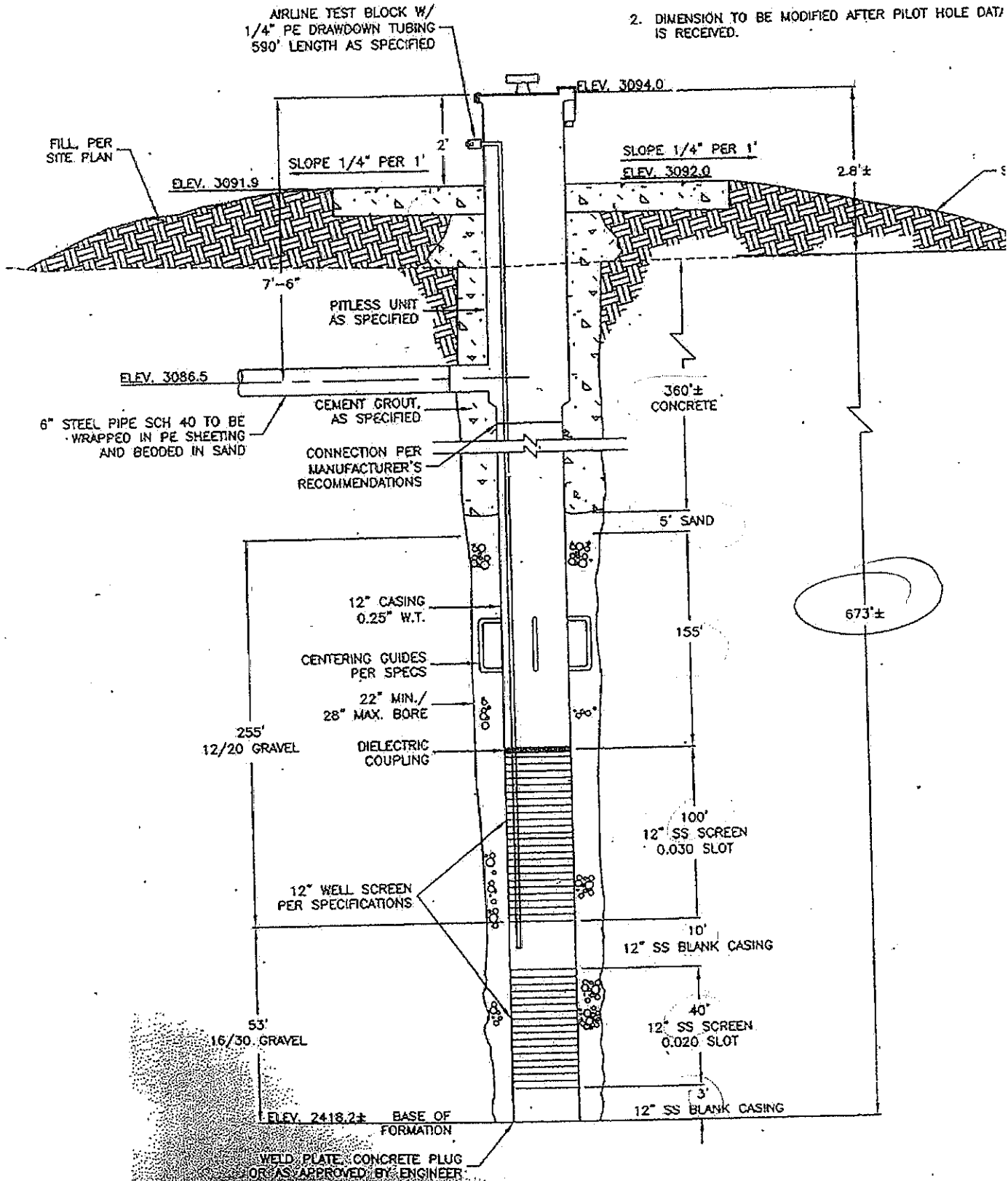
330 Gal Sodium Hypochlorite Sunray
13 SK Hole Plug - BC
22 yds - Cement grout - Perxton Bed - Mix

Well Diagram



*Iron pieces blank 12" out of
Sunray Laboratory*

1. LOCATION OF WELL SCREEN TO BE FIELD DETERMINED. CONTRACTOR SHALL CONTACT ENGINEER PRIOR TO SETTING FOR LOCATION APPROVAL.
2. DIMENSION TO BE MODIFIED AFTER PILOT HOLE DATA IS RECEIVED.



WELL NO. 12 DETAIL

Casing/Screen/Gravel Schedule

December 2, 2013

Spearman, TX

Pampa, TX

WO# 6639 - West Texas Utilities

Well Depth - 673'

Well #12

Test Hole - Hydro

Drill 22" hole

Depth	12 3/4" SS Screen	Slot Size	12 3/4" SS Casing (.250")	12 3/4" Casing (.250"w)	SS Plate
673 673					0
673 670			3		
670 630	40	0.020"			
630 620			10		
620 520	100	0.030"			
Dielectric Coupling					
520 0				520	
Totals	140		13	520	0
				TOTAL	673

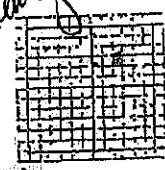
Install centering guide at approx. every 40' in the screen area

Depth					
620 673	16 - 30	3.10	Super Sacks	Actual volume	
365 620	12...20	14.89	Super Sacks	Actual volume	
360 365	Bentonite Pellets	13.27	Sks or buckets	Actual volume	
7 360	Cemnet Slurry	23.36	Yds - Perryton Ready Mix	Actual volume	
	Keep Cement down - Pitless Unit will be installed later.				
	Perryton Ready Mix - Leslie - 806-435-6836				

Well Report Job #

Customer Name: CITY of Spearman Address: 30 SW coast
 Farm: _____ City/State: Spearman TX.
 Well#: 12 Test Log # _____ GPS Lat 36.21821 Long -101.19342
 Section: 58 Block: 4-T
 Survey: T&NO County: Hansford
 Well TD: 673
 Date Well Drilled: 12-7-13
 Casing Size & Wall: 12 3/4 .250 520' Blank Perf: ALL THE DRISING WAS FROM SURFAY
 Screen Size & Wall: 12 3/4 .250 146' SS 50' Sump: 3' SS 81k -12 3/4 .250" W
 Gravel Mix/Amount: 1020' 8 .030' slot 10' - SS 14k -12 3/4 .250" W
 Gravel Mix/Amount: _____
 Concrete Pad Size: _____

570' pulled out 2. Drilling



*special order
Left away
from previous job*

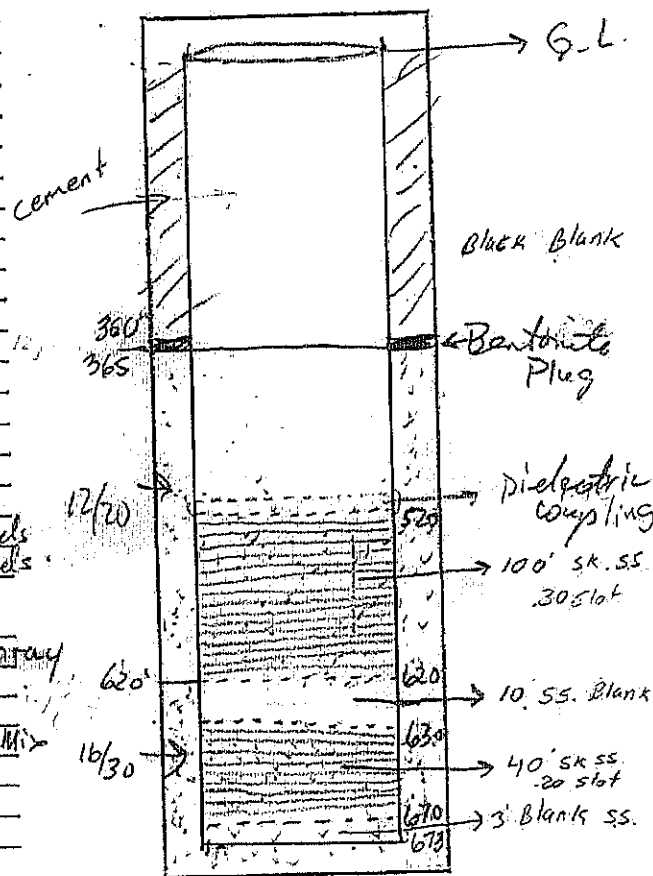
Amounts Used

GG/HV: _____
 Max Gel: 20-5K Garden City
 Hydro Vis: _____
 Hydro Pac: _____
 Hydro Seal: _____
 Drispac Regular: 5 SK Garden City
 Drispac Super Low: 3 SK Garden City
 RD 110: _____
 Soda Ash: 2 SK Garden City
 N Seal: _____
 Bentonite: _____
 Chips: _____
 PVC Pipe: _____
 HTH: _____
 Gate Valve Size: _____
 Soap: _____
 3" Pipe - Blank _____
 2" Pipe - Blank _____
 Super Sacks: 3 SK Silica sand 16/30 - Daniels
 Super Sacks: 17 1/2 Silica sand 12/20 - Daniels

Misc Materials Used:

330 Gal Sodium Hypochlorite Sunray
13 SK Hole Plug - BC
22 yds - Cement gravel - Perxton Bed - Mix

Well Diagram



*Iron pieces blank 12" out of
Sunray Drilling*

Bacteriological Analysis



Test results meet all requirements of TCEQ water quality standards. The certificate is valid for 12 months.

Single page report

City of Borger
Water Plant
Laboratory
1800 S. Florida St.
Borger, TX 79007
(806) 273-0865

P.O. Box 6250
Borger, TX 79008

TCEQ Lab ID 48114

MICROBIAL MONITORING FORM

Public Water System ID:
(Number 7 digit, includes all zeros)

0 9 8 0 0 0 1

Public Water System Name:

City of Spearman

County:

Haskell

Name:

Mike Keweenaw

Address:

P.O. Box 965

City:

Dallam

State:

TEXAS

Zip:

79022

Phone #:

806 516-5100

Fax #:

806 274 4588

Sampler Name:

Mike Keweenaw

Sampler Contact #:

806 516 5332

System Type:

Private

Bottled/Needed

Groundwater

Surface Water

Other

Collected

Groundwater with Surface Water Influence

Sample Type

Use Specific Address/Location

NOT SITE #

Raw Wells Use Source ID for Well Sampled E.C.

G1234567A

Date

Month

Day

Year

Time

Phase

AM or PM

Includes Lab ID of

Original Positive

on all Repeat

Samples

Repeat

Special

Raw Water

Concentration

Distribution

Sample Type

Sample Type

Sample Type

Sample Type

Sample Type

Sample Type

Sample Type

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

Present

Absent

Free

Total

mg/L

Rejection Criteria

Present

Absent

Present

Absent

Present

Absent

MICROBIAL MONITORING FORM									
TCEQ		City of Borger Water Plant Laboratory 1800 S. Florida St Borger, TX 79007 (806) 273-0885							
Public Water System ID: (Must be 7 digits, includes all zeros)		0 9 8 0 0 0 1							
Public Water System Name:		City of Spearman well #12							
County:		Harris							
Name:	Address:		City:		State:		Zip:		
	Hydro Resources 1 Po Box 965 Dallas		Dallas		TX		75002		
Phone #:	806 249 5100		Fax #:		806 249 4508				
Sampler Name:		Mike Anderson							
Sampler Contact #:		806 790 5332							
Public ☐ Private ☐		Bottled/Vended ☐		Groundwater ☐		Surface Water ☐			
Sample Identification/Location		Date		Time		Distribution		Raw Water ☐	
Use Specific Address/Location		Month		Day		Please circle AM or PM		Rejection Criteria	
Raw Water Use Source ID for Well Sampled Ex G1234567A		City of Spearman well #12		5/14		1:30 PM		Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	
								Total Coliform	
								Present	
								Absent	
								E. coli	
								Present	
								Absent	

[illegible]

**Texas Water Development Board
Well Schedule**

State Well No. 03 55 202 Previous Well No. AM-1624 County Hansford 195
 River Basin Canadian 01 Zone 1 Region 04 Lat. 36 12 40 Long. 101 11 58 Source of Coord. 1
 Owner's Well No. #10 Location NW 1/4, NW 1/4, Section 67, Block 4T, Survey T: NO

Owner City of Spearman Driller W. D. Jones
Drilling Co.

Address _____ Tenant/Oper. _____
 Date Drilled 03 03 1977 Depth 511 Source of Depth Datum D Altitude 3085 Source of Alt. Datum M
 Aquifer _____ 1210944 Well Type W User 217800

Well Construction Method Rotary H Casing Material steel S

Completion gravel packed slotted E Screen Material steel S

Lift Data Pump Mfr. _____ Type Turbine T No. Stages _____

Bowls Diam. _____ in. Setting 470 ft. Column Diam. _____ in.

Motor Mfr. _____ Fuel or Power elec E Horsepower _____

Yield Flow _____ GPM Pump 670 GPM Meas., Rept., Est. _____ Date 190

*Performance Test Date 3-14-77 Length of Test 24 hrs Production 850 GPM

Static Level 294 ft. Pumping Level _____ ft. Drawdown 76 ft. Sp. Cap. _____ GPM/ft.

Quality (Remarks) In well hse

Water Use Primary PS P Secondary _____ Tertiary _____

Other Data Available Water Level M Water Quality M Logs D _____ Other Data _____

Date ✓ 03 14 1977 Meas. 294 . _____ 7-07

Water Levels Date ✓ 09 13 1990 Meas. 312 . _____ 7-06

Date _____ Meas. _____ . _____

*NPWD SL = 312'
 DD = 98
 GPM = 670
 9-13-90

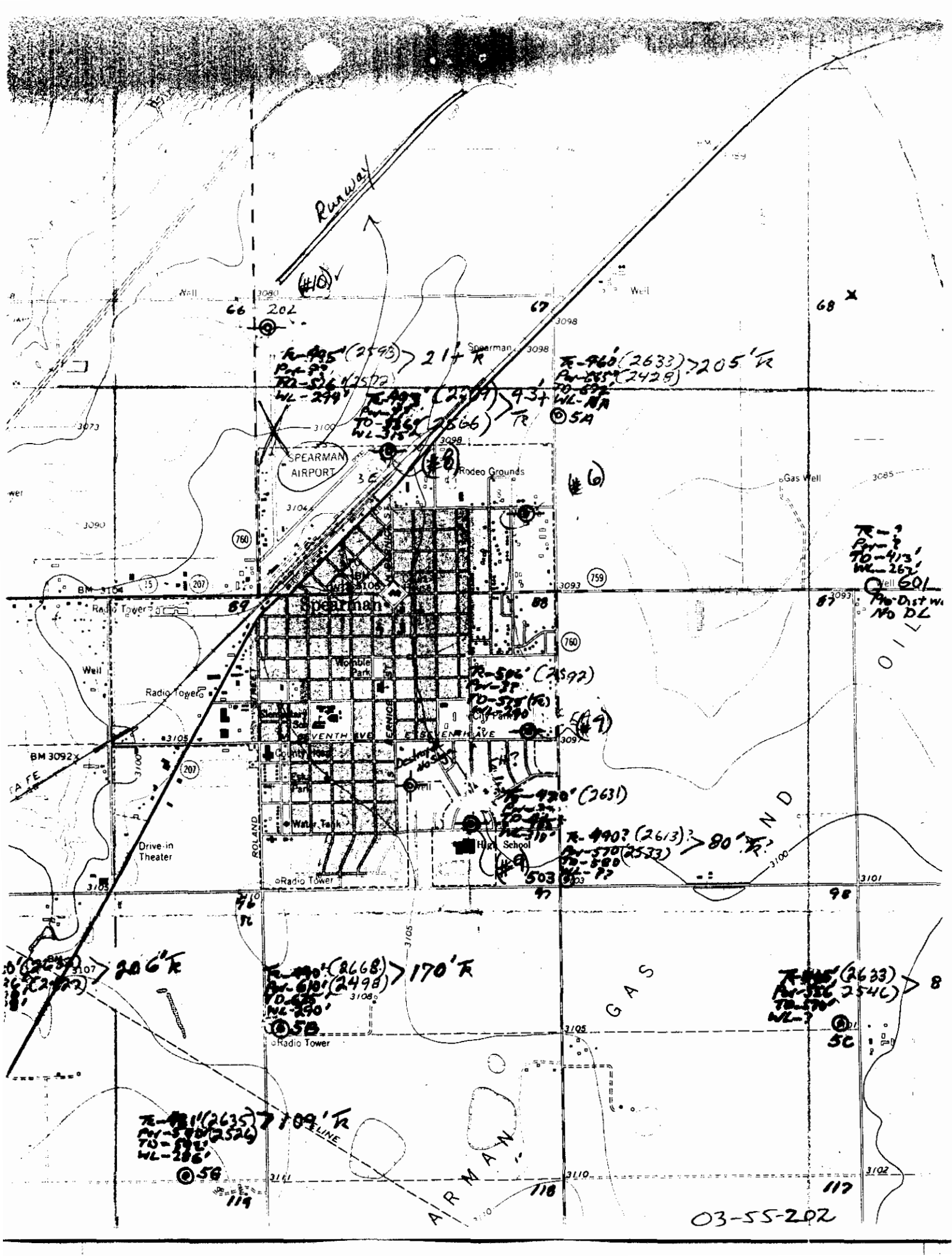
Recorded By D. Coker Date Record Collected or Updated 05 21 1991

(20 max) Reporting Agency 01

Remarks 1 Well #10. Reported yield 850 GPM
 2 with 76 feet drawdown after pumping
 3 24 hours in 1977. Reported yield
 4 670 GPM with 98 feet drawdown in
 5 1990.

Aquifer _____
 Well No. 03-55-202

KEY PUNCHED



03-55-202

Send original copy by
certified mail to the
Texas Water Development Board
P. O. Box 13087
Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TWDB use only
Well No. 03-55-56
Located on map 2-45
Received: 77

WELL #10

HN-1624

1) OWNER:
Person having well drilled City of Spearman Address Box 37 Spearman, Texas 79081
(Name) (Street or RFD) (City) (State)
Landowner _____ Address _____
(Name) (Street or RFD) (City) (State)

2) LOCATION OF WELL:
County Hansford miles in _____ direction from _____
(N.E., S.W., etc.) (Town)
Locate by sketch map showing landmarks, roads, creeks,
highway number, etc.*
NW 1/4 of Section, North end of
runway at Airport
4
(Use reverse side if necessary)
Give legal location with distances and directions from
adjacent sections or survey lines.
Lot or _____ League _____
Block 4-T Survey T&NO
Abstract No. _____
(N.W. 1/4, etc.) of Section 67

3) TYPE OF WORK (Check):
New Well Deepening
Reconditioning Flugging
4) PROPOSED USE (Check):
Domestic Industrial Municipal
Irrigation Test Well Other
5) TYPE OF WELL (Check):
Rotary Driven Dug
Cable Jetted Bored

6) WELL LOG:
Diameter of hole 24 in. Depth drilled 506 ft. Depth of completed well 509.10 ft. Date drilled 3-3-77
All measurements made from 1 1/2 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material
0	310	Surface
310	317	Fine sand w/clay strips
317	354	Coarse sand
354	385	Fine sand w/clay & sandy clay strips
385	445	Fine sand w/thin clay streaks
445	495	Fine sand & clay-muddy
495	516	Red Clay

9) Casing:
Type: Old _____ New _____ Steel _____ Plastic _____ Other _____
Cemented from _____ ft. to _____ ft.
Diameter (inches) _____ Setting From (ft.) _____ To (ft.) _____ Casing Size _____
16 0 509.10 .250
10) SCREEN:
Type 128 X .050 X 2 3/8" milled slots per
Perforated _____ Slotted _____
Diameter (inches) _____ Setting From (ft.) _____ To (ft.) _____ Slot Size _____
16 366 496 .050

7) COMPLETION (Check):
Straight well _____ Gravel packed _____ Other _____
Under reamed _____ Open Hole _____
(Use reverse side if necessary)
8) WATER LEVEL:
Static level 294 ft. below land surface Date 3-14-77
Artesian pressure 140 psi square inch Date _____
Depth to pump bowls, cylinder, jet, etc., 470 ft.
below land surface.
SL = 310
PL = 440
QD = 55
9-13-90
NPND
11) WELL TESTS:
Was a pump test made? Yes _____ No _____ If yes, by whom? W. D. Jones Drilling Co.
Yield: 850 gpm with 76 ft. drawdown after 24 hrs.
Bailer test 670 gpm with _____ ft. drawdown after 110 hrs.
Artesian flow _____ gpm 7.6
Temperature of water _____

12) WATER QUALITY:
Was a chemical analysis made? Yes _____ No _____
Did any strata contain undesirable water? Yes _____ No _____
Type of water? Fresh depth of strata _____

I hereby certify that this well was drilled by me (or under my supervision) and that
each and all of the statements herein are true to the best of my knowledge and belief.
NAME W. D. Jones Drilling Co. Water Well Drillers Registration No. 1251
(Type or Print)
ADDRESS Box 817 Dumas, Texas
(Street or RFD) (City) (State)
(Signed) Jerry Thompson W. D. Jones Drilling Co.
(Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

*Additional instructions on reverse side.

TWDB-700-6

03-55-202

Duplicate-File Copy

District File No. 6599NORTH PLAINS WATER CONSERVATION DISTRICT No. 2
REGISTRATION AND LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to County Committeeman for registration. (Please type or print.)

FOR USE OF COMMITTEEMEN

Field Well No. HN-1624Date Received 4-6-77Size of Well 8 in. Maximum Yield 1200 GPM1. Well Owner CITY OF SPEARMAN Address Box 37 SPEARMAN

2. Well located _____ miles N, _____ miles S, _____ miles E, _____ miles W of the town of _____

3. County HANSFORD League _____4. (NW¼) NE¼ SW¼ SE¼ Section 67 Block 4T Survey T & N D
(CIRCLE ONE)

5. ACTUAL LOCATION OF THIS WELL IS

246 N. measured yards from N or S section line.
120 W measured yards from E or W section line.

DRILLER'S LOG OF WELL

Method of Drilling: ROTARY

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	310	Surface			
310	317	Fine sand w/clay strips			
317	354	Coarse sand			
354	385	Fine sand w/clay & sandy clay strips			
385	445	Fine sand w/thin clay streaks			
445	495	Fine sand & clay-Muddy			
495	516	Red clay			

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller W. D. Jones Drilling Co Address Box 817 Dumas, TX Date Drilled 3-3-77 19__

DESCRIPTION OF WELL

6. Casing: new, used, or shop made. Diameter 16 in. Total length 509.10 ft.7. Casing perforations: from 366 ft to 426 ft. Size .050 Number per foot 1288. Pump Column: Size 8 in. Total length 470 ft. Suction pipe: Size 8 in. Length 3 ft.9. Pump bowls: Size 12 LK Number of stages 7 Pump discharge pipe: Size 8 in.10. Depth to water level 294 ft. Pump discharge 850 GPM. Pumping level: 370 ft.11. Power Unit: Electrical, Natural Gas, Butane, Other _____ Horsepower 108

Signature _____

OWNER OR AGENT

TITLE

ADDRESS

Final Completion of Well — Date _____, 19__.

ck. #4633
4-15-77

03-55-202

Water Quality Sampling Run

SWN: 03-55-102
 County: Hensford
 Aquifer(s): Gallala

City of Spearman

Well # 10

Sample No. 607
 Date: 9/13/91 13:45
 By: D.R. Jones

Bottle 1	Bottle 2	Bottle 3	Bottle 4	Bottle 5	Bottle 6	Bottle 7	Total
1 liter Anions	1 liter Cations/HM	1 liter H ₂ PO ₄ ⁻ , NO ₃ ⁻ , NH ₄ ⁺	500 ml Nitrate/ Phosphate	1 Qt. (glass) (TOC) Organics	500 ml Cyanide		Sub-Samples 4
	2 ml HNO ₃ (Nitric)	2 ml HNO ₃ (Nitric)	1 ml H ₂ SO ₄ (Sulfuric)	unfiltered			All filtered unless otherwise stipulated. All on ice.
Preserve with:	-				NaOH (Sodium Hydroxide)		

Water Level Feet LSD

Temperature (00010) 19.2 °C

Specific Conductance (00094) 617 µmhos/cm

pH (00400) 7.31 °C

En (00090) + 217.8 mv °C

Phenol ALK (83244) 0 mg/l

Total ALK (00431) 192 mg/l

Carbonate (00452) 0 mg/l

Bicarbonate (00453) 3.84 mg/l 234.31 mg/l

Total Cations (+) _____

Total Anions (-) _____

Total Hardness (46570) 230

Dissolved Solids (70301) 390

A.O.A. @ 1:10 Notes & Calculations out at 2:10

weather: Sunny and windy.
 Fault and discharge.

Titration test:
 pH. 7.40 @ 26.6°C at start. } 9.6 ml of 0.02N
 pH. 4.50 @ 27.40°C at end. } to 50 ml sample.

Texas Water Development Board
Chemical Water Analysis Report

HM- DAJ-1992-607
HM = Heavy Trace and Alkaline-Earth Metals

Send Reply To:
Ground Water Unit
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

Well # 10

TWDB Use Only

Work No. 320-31030

LAC No. _____

Attention: P. Nordstrom

State Well Number: 03-55-202

County: Hansford

Date & Time: 9/12/91 13:45

Owner: City of Spearman

☒ Send Copy To Owner

Address: _____

Sampled After Pumping: P.O.A. Hours

Date Drilled: 1977 Depth: 511'

Yield: 850 GPM ☐ Measured ☒ Estimated

Collection Point: Faucet on
discharge pH 7.21

Use: P.S. Temperature: 19.2 °C

By: D.A. Jones

Specific Conductance: 617

Requested Chemical Analysis

Laboratory No.: _____

Date Received: _____

SEP 19 1991

Date Reported: _____

OCT 17 1991

		mg/l			mg/l
☒ Calcium	(00915)	<u>47</u>	☒ Sodium	(00930)	<u>38</u>
☒ Magnesium	(00925)	<u>27</u>	☒ Potassium	(00935)	<u>6.0</u>
		µg/l			µg/l
☒ Aluminum	(01106)	<u><50</u>	☒ Manganese	(01056)	<u><20</u>
☒ Arsenic	(01000)	<u><10</u>	☒ Mercury	(71890)	<u><0.2</u>
☒ Barium	(01005)	<u>39</u>	☒ Molybdenum*	(01062)	<u><20</u>
☒ Cadmium	(01025)	<u><10</u>	☒ Selenium	(01145)	<u>13</u>
☒ Chromium	(01030)	<u><20</u>	☒ Silver	(01075)	<u><10</u>
☒ Copper	(01040)	<u><20</u>	☒ Strontium*	(01080)	<u>1690</u>
☒ Iron	(01046)	<u><20</u>	☒ Vanadium*	(01085)	<u>22</u>
☒ Lead	(01049)	<u><50</u>	☒ Zinc	(01090)	<u><20</u>

* Do not analyze unless it is checked.

Note: Crossout those elements not to be analyzed.

Texas Water Development Board
Chemical Water Analysis Report

GWR- DRJ-1993-607
(Anions)

Send Reply To:
Ground Water Unit
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

WP 11 # 10

TWDB Use Only

Work No. 320-31030

IAC No. _____

Attention: P. Nordstrom

State Well Number: 03-55-202

County: Harris Ford
City of Spearman

Date & Time: 9/12/91 13:45

Owner: City of Spearman

☒ Send Copy To Owner

Address: _____

Sampled After Pumping: P.D.A. Hours

Date Drilled: 1977 Depth: 511'

Yield: 8.50 GPM ☐ Measured ☒ Estimated

Collection Point: Faucet on discharge pH 7.21

Use: P.S. Temperature: 19.2 °C

By: D.R. Jones

Specific Conductance: 617

Requested Chemical Analysis

Laboratory No.: 

Date Received: SEP 19 1991

Date Reported: OCT 04 1991

THD-Sample No. EP1 2825 Date Received 09/19/91 Date Reported 10/02/91

	MEQ/L	MG/L	MEQ/L	MG/L
Silica (00955)		43		
Sulfate (00946)			1.17	56
Chloride (00941)			1.10	39
Fluoride (00950)			0.09	1.76
P.Akalinity (00415)	0.00	0		
T.Akalinity (00410)	3.98	199		
Boron (*****)				0.19

Texas Water Development Board
Chemical Water Analysis Report

GWN- DAJ-1992-607
(Nitrogen Cycle)

Send Reply To:
Ground Water Unit
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

Well # 10

TWDB Use Only

Work No. 320-31830

IAC No. _____

Attention: P. Nordstrom

State Well Number: 03-55-202

County: Hansford

Date & Time: 9/12/91 13:45

Owner: City of Spearman

☒ Send Copy To Owner

Address: _____

Sampled After Pumping: P.O.A. Hours

Date Drilled: 1977 Depth: 511'

Yield: 850 GPM ☐ Measured ☒ Estimated

Collection Point: Faucet on discharge pH 7.21

Use: P.S. Temperature: 19.2 °C

By: D.R. Jones

Specific Conductance: 617

Requested Chemical Analysis

Laboratory No.: _____

Date Received: SEP 19 1991

Date Reported: OCT 03 1991

THD-Sample No. EB1 2844

Date Received 09/19/91

Date Reported 10/03/91

00623-

0.2 TKN as N mg/L

00608-

< 0.02 Ammonia as N mg/L

00613-

0.01 Nitrite as N mg/L

00618-

2.67 Nitrate as N mg/L

00671- < 0.01 Orthophosphate as P mg/L

*Note: To convert NO₃-N to NO₃, multiply by 4.427.

Texas Water Development Board
Chemical Water Analysis Report

RAD - DAJ-1992 607
RAD = Radioactivity Sample

Send Reply To:
Ground Water Unit
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

Well # 10

TWDB Use Only

Work No. 320-31030

LAC No. _____

Attention: P. Nordstrom State Well Number: 03-55-202
County: Hansford Date & Time: 9/12/91 13:45
Owner: City of Spearman ☒ Send Copy To Owner
Address: _____ Sampled After Pumping: P.O.B. Hours
Date Drilled: 1977 Depth: 511' Yield: 850 GPM ☐ Measured ☒ Estimated
Collection Point: Faucet on discharge pH 7.21 Use: P.S. Temperature: 19.2 °C
By: D.R. Jones Specific Conductance: 617

Requested Chemical Analysis: _____

Laboratory No.: _____

Date Received: SEP 19 1991

Date Reported: DEC 02 1991

NO PUNCHED

☒ Alpha	(01503)	<u>6.9 ± 2.0</u>	pCi/l
☒ Beta	(03503)	<u>7.3 ± 2.4</u>	pCi/l
Radium 226	(09503)	_____	pCi/l
Radium 228	(81366)	_____	pCi/l
Total Radium	(11500)	_____	pCi/l
Thorium	(26403)	_____	pCi/l
Uranium	(22703)	_____	pCi/l

* Do not analyze unless it is checked yes.

WELL SCHEDULE

Field No./Owner's Well No. HN-1617 County Hansford

506

Send original copy by
certified mail to the
Texas Water Development Board
P. O. Box 12386
Austin, Texas 78711

State of Texas
WATER WELL REPORT

For TWDB use only
Well No. 03-55-56
Located on map yes
Received 7/6/76
dlc

1) OWNER:
Person having well drilled City of Spearman #2 Address Box 37 Spearman, TX
(Name) (Street or RFD) (City) (State)
Landowner _____ Address _____
(Name) (Street or RFD) (City) (State)

2) LOCATION OF WELL:
County Hansford _____ miles in _____ direction from _____
(N.E., S.W., etc.) (Town)
Locate by sketch map showing landmarks, roads, creeks,
highway number, etc.*
or Give legal location with distances and directions from
adjacent sections or survey lines.
Labor _____ League _____
Block 4-T Survey T&NO
Abstract No. _____
X-SECTION SURV. NO. of Section 67
(Use reverse side if necessary)

3) TYPE OF WORK (Check):
New Well Deepening
Reconditioning Plugging
4) PROPOSED USE (Check):
Domestic Industrial Municipal
Irrigation Test Well Other
5) TYPE OF WELL (Check):
Rotary Driven Dug
Cable Jetted Bored

6) WELL LOG:
Diameter of hole 24 in. Depth drilled 532 ft. Depth of completed well 533.40 ft. Date drilled 5-3-76
All measurements made from 1 1/2 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material
0	290	Surface
290	320	Coarse sand & small gravel
320	325	Sandy clay & clay
325	345	Fine sand w/clay strips
345	386	Med sand & small gravel
386	466	Fine sand w/sandy clay strips
466	493	Fine sand & sandy clay muddy
493	506	Fine sand & red clay strips
506	516	Red clay
516	528	Clay & shale w/trace sand
528	536	Red clay

9) Casing:
Type: Old _____ New _____ Steel _____ Plastic _____ Other _____
Cemented from _____ ft. to _____ ft.
Diameter (inches) _____ Setting From (ft.) _____ To (ft.) _____ Casing _____
16 0 533.40 .250
10) SCREEN:
Type 28-.050 x 2 3/8" milled slots per ft
Perforated _____ Slotted _____
Diameter (inches) _____ Setting From (ft.) _____ To (ft.) _____ Slot _____
16 352 522 .050

(Use reverse side if necessary)

7) COMPLETION (Check):
Straight well Gravel packed Other _____
Under reamed Open Hole _____

8) WATER LEVEL:
Static level 315 ft. below land surface Date 5-11-76
Artesian pressure _____ lbs. per square inch Date _____
Depth to pump bowls, cylinder, jet, etc., 480 ft.
below land surface. SL-33C 10-17-90
T.E. 1/4" PL-370 N.P.W.D.
inf. 00-34'
FUD

11) WELL TESTS:
Was a pump test made? Yes _____ No _____ If yes, by whom? W. D. Jones Drilling Co.
Yield: 800 gpm with 30 ft. drawdown after 24 hrs.
770 gpm with _____ ft. drawdown after _____ hrs.
Artesian flow _____ gpm
Temperature of water 70.6

12) WATER QUALITY:
Was a chemical analysis made? Yes _____ No _____
Did any strata contain undesirable water? Yes _____ No _____
Type of water? Fresh depth of strata _____

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

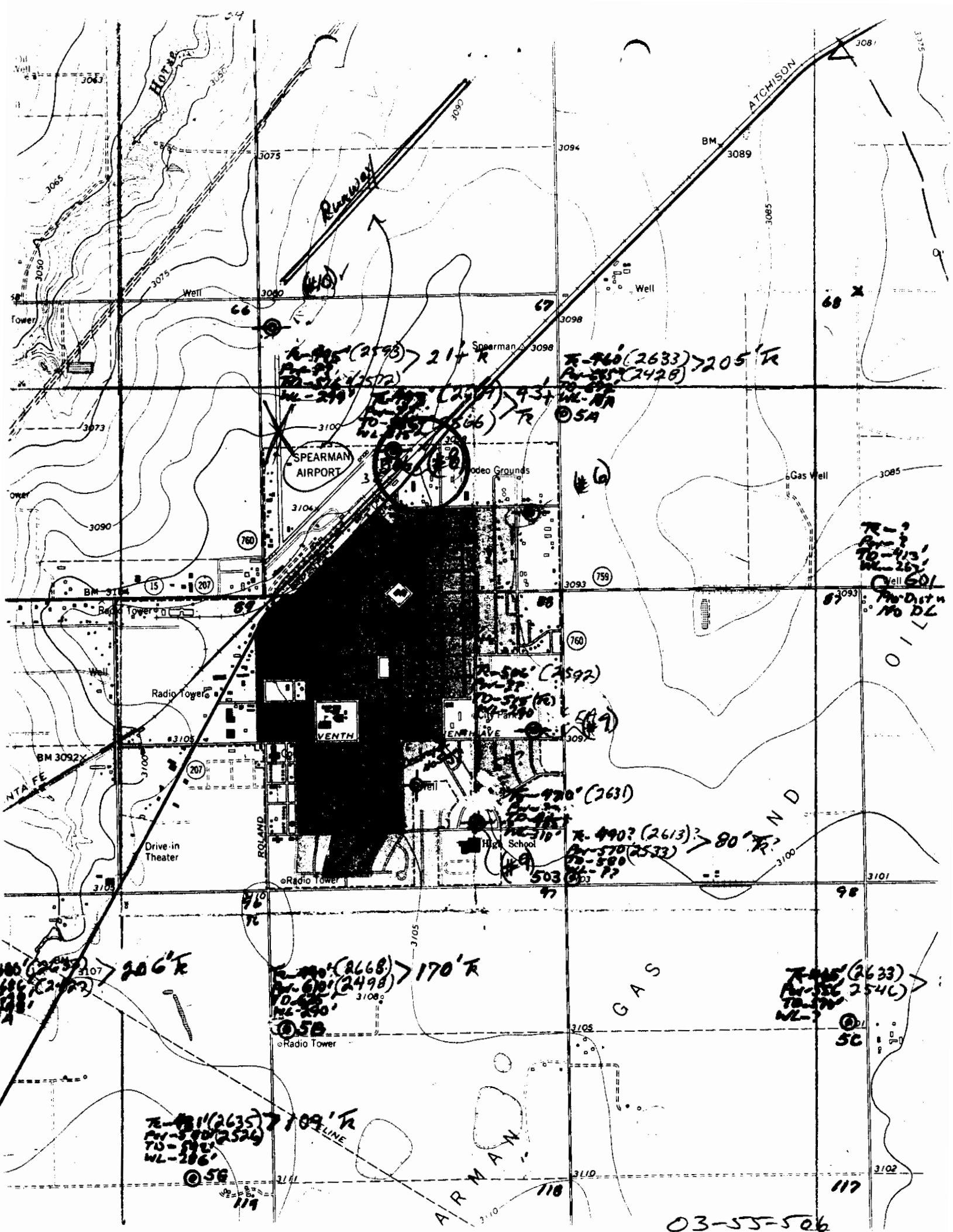
NAME W. D. Jones Drilling Co. Water Well Drillers Registration No. 1251
(Type or Print)
ADDRESS Box 817 Dumas Texas
(Street or RFD) (City) (State)
(Signed) Jerry Thompson W. D. Jones Drilling Co.
(Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

*Additional instructions on reverse side.

TWDBE-GW-53

03-55-506



Duplicate—File Copy

District File No. 24 1

FOR USE OF COMMITTEEMEN

Field Well No. AN-1617
Date Received May 21, 1976
Size of Well 8 in. Yield 1200 GPMNORTH PLAINS WATER CONSERVATION DISTRICT No. 2
REGISTRATION AND LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to County Committeeman for registration. (Please type or print.)

1. Well Owner City of Spearman Address P.O. Box 37, Spearman, Texas 79081
2. Well located 3 miles N, 0 miles S, 0 miles E, 0 miles W of the town of Spearman, Texas
3. County Hansford League
4. ~~NW1/4~~ ~~NE1/4~~ SW1/4 ~~SE1/4~~ Section 67 Block 41 Survey T&NO
(CIRCLE ONE)
5. ACTUAL LOCATION OF THIS WELL IS { 870 measured yards from ~~N~~ S section line.
775 measured yards from ~~E~~ W section line.

DRILLER'S LOG OF WELL

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
	299	Surface	528	536	Red clay
299	310	Coarse sand & small gravel			
310	335	Sandy clay & clay			
335	345	Fine sand w/clay strips			
345	386	Med sand & small gravel			
386	466	Fine sand & sandy clay strips			
466	493	Fine sand & sandy clay muddy			
493	508	Fine sand & red clay strips			
508	515	Red clay			
515	528	Clay & shale w/trace sand			

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller A. J. Jones Drilling Co. Address Box 817, Dumas, TX Date Drilled 5-23 19 76

DESCRIPTION OF WELL

6. Casing: new, used, or shop made. Diameter 16 in. Total length 533.40 ft.
7. Casing perforations: from 352 ft to 528 ft. Size 1.050 Number per foot 328
8. Pump Column: Size 8 in. Total length 490 ft. Suction pipe: Size 6 in. Length 33 ft.
9. Pump bowls: Size 12 LRB Number of stages 8 Pump discharge pipe: Size 8 in.
10. Depth to water level 315 ft. Pump discharge 800 GPM. Pumping level: 345' ft.
11. Power Unit: Electrical, Natural Gas, Butane, Other Horsepower 184

Signature _____
OWNER OR AGENT TITLE ADDRESS

Final Completion of Well — Date _____, 19____.

**Texas Water Development Board
Well Schedule**

State Well No. 03 55 504 Previous Well No. AM-346 County Hansford 195

River Basin Canadian 01 Zone 1 Region 04 Lat. 36 12 08 Long. 101 11 01 Source of Coord. 1

Owner's Well No. #6 Location 1/4, SE 1.4, Section 67, Block 4T, Survey T.1N0

Owner City of Spearman Driller W. D. Jones
Drilling Co.

Address P.O. Box 37 Spearman 79081 Tenant/Oper. Jim McWilliams

Date Drilled 11 05 1962 Depth 527 Source of Depth Datum D Altitude 3094 Source of Alt. Datum M

Aquifer Well Type W User 817800

Well Construction Method Rotary A Casing Material steel S

Completion perf. 5/32" P Screen Material steel S

Lift Data Pump Mfr. Type Turbine T No. Stages

Bowls Diam. in. Setting ft. Column Diam. in.

Motor Mfr. Fuel or Power elec E Horsepower

Yield Flow GPM Pump 320 GPM Meas. Rep. Est. Date '88

* Performance Test Date 11-62 Length of Test Production 900 GPM

Static Level 264 ft. Pumping Level 317 ft. Drawdown 53 ft. Sp.Cap. GPM/ft.

Quality (Remarks) Faucet on Discharge

Water Use Primary PS P Secondary Tertiary

Other Data Available Water Level M Water Quality N Logs D Other Data

Date ✓ 11 05 1962 Meas. 264 7-07

Water Levels Date ✓ 1970 Meas. 340 7-06

Date Meas.

standby * 1970- NPWD = 340' SL
395' PL

Recorded By D. Coker Date Record Collected or Updated 05 21 1991

Remarks 1 Well #6. Reported yield 900 GPM
2 with 53 feet drawdown in 1962. Rep-
3 orted yield 320 GPM in 1988. stand-
4 by well.
5
6

	Casing or Blank Pipe (C)		Well Screen or Slotted Zone (S)		Open Hole (O)	
	Diam. (in.)	Setting (feet) From	To			
1	C 16		0	27	5	
2	S 16	27	5	49	6	
3	C 16	49	6	52	7	
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						

KEY PUNCHED

Aquifer
Well No. 03-55-504

Quadruplicate—Applicant's Copy

District File No. 76

NORTH PLAINS WATER CONSERVATION DISTRICT No. 2 REGISTRATION AND LOG OF WELL

INSTRUCTIONS: Fill out in quadruplicate. Submit all copies to County Committeeman for registration. (Please type or print.)

FOR USE OF COMMITTEEMEN

Field Well No. NAN-346
 Date Received _____
 Size of Well 8 in. Yield 1000 GPM

- Well Owner City of Spearman Address 221 Sanders St.
- Well located _____ miles N, _____ miles S, _____ miles E, _____ miles W of the town of _____
- County Hansford League _____
- ~~RECORDED~~ SE $\frac{1}{4}$ Section 67 Block 47 Survey T-10N R-10E
- ACTUAL LOCATION OF THIS WELL IS { 806 measured yards from N or XX section line.
133 measured yards from E or XX section line.

DRILLER'S LOG OF WELL

Method of Drilling: Rotary

FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL	FROM (FEET)	TO (FEET)	DESCRIPTION OF FORMATION MATERIAL
0	2	soil			
2	12	caliche			
12	42	red sandy clay			
42	70	caliche, soft sandy clay & sand			
70	178	fine sand & caliche			
178	250	coarse white sand, streaks clay			
250	280	coarse sand, small gravel			
280	318	fine streaks soft sandy clay & caliche			
318	348	coarse sand, fairly clean			
348	363	sand becoming fine, streaks soft clay			
363	401	mostly soft, sandy clay, some fine sand			
401	498	fine sand, loose streaks soft clay			
498	525	same, red clay streaks			
525		lots red clay, streaks coarse sand			

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein are true to the best of my knowledge and belief.

Driller W. D. Jones Drilling Co., Inc. Address Dumas, Texas Date Drilled 125 1962

DESCRIPTION OF WELL

- Casing: new, used, or shop made. Diameter 8 1/2 in. Total length 527.65 ft.
- Casing perforations: from 275 ft to 496 ft. Size 5/32 Number per foot 16
- Pump Column: Size _____ in. Total length _____ ft. Suction pipe: Size _____ in. Length _____ ft.
- Pump bowls: Size _____ Number of stages _____ Pump discharge pipe: Size _____ in.
- Depth to water level 264 ft. Pump discharge 900 GPM. Pumping level 317 ft.
- Power Unit: Electrical, Natural Gas, Butane, Other _____ Horsepower _____

Signature

W. D. Jones
 OWNER OR AGENT

TITLE

City Manager
 ADDRESS

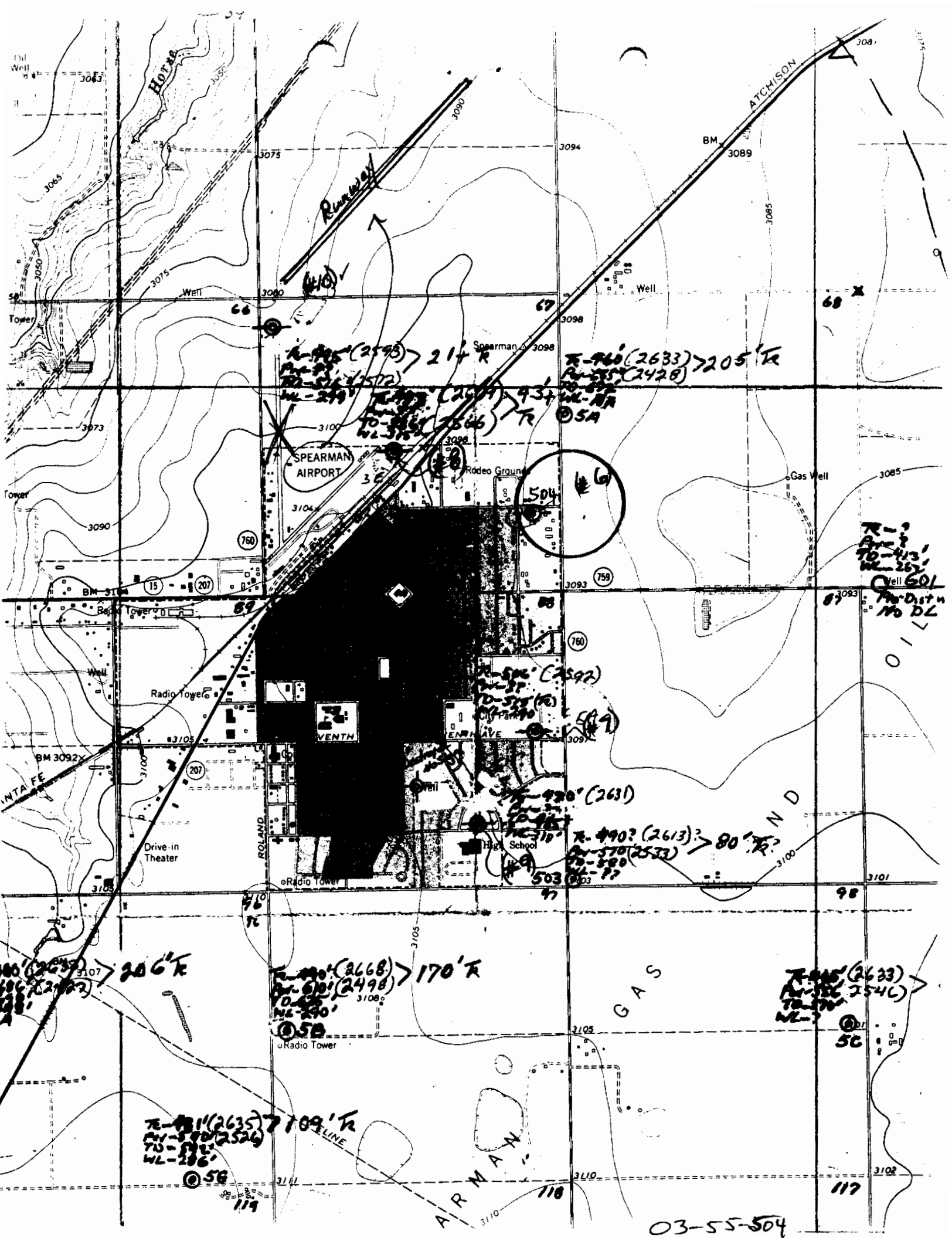
ADDRESS

Final Completion of Well — Date

2-14-62

19

03-55-504



WQ FY 2016 03-55-504

TWDB Water Quality Field Data Sheet

Newly Inventoried Well

N

SWN: ~~03-55-505~~
 County: Hansford
 County Code: 1a5
 Aquifer Code: 121 OGLL
 Aquifer Id: 21

Name: City of Spearman
 Address: Po Box 37
Spearman, TX 74081
 Attention: Chris Douglas
 Well Name or #: 36

ID Number: 846
 Date: 9-21-16
 Sampler(s): EP

1	2	3	4	5	6	7	8	9	10	11
250 ml filtered Cation	500 ml filtered Anions/T. Alk.	250 ml filtered Nitrate	1 Liter filtered Gross Alpha	1 Liter filtered Radium 226	1 Liter filtered Radium 228	40 ml unfiltered Atrazine				
HNO ₃	ICE	ICE + H ₂ SO ₄	HNO ₃ by lab	HNO ₃ by lab	HNO ₃ by lab	ICE				

Calibration Verification Readings	
pH	SLOPE = <u>101.9</u> 7 = <u>7.63</u> 4 or 10 = <u>9</u>
Conductivity	500 = <u>486</u> 1000 = <u>1001</u> 2000 = <u>1941</u> 5000 = <u>1770</u>

Time In: 4:30Time Out: 10:10

Water Level: _____

M.P. = _____ W.L. remark: _____

Pumping time: P6ASampling Point: FAWWell Use: P

FIELD G.P.S. readings

Lift: WSLatitude: 36 12 8.3Power: ELongitude: 101 11 1.6

Casing Type: _____

Casing Size: _____

Sample Time: 9:50Filter pressure: hand pump / line / spring sampler

Field Alkalinity Titration	
<u>7.42</u>	Start pH
<u>4.48</u>	End pH
<u>50</u>	mL Sample Size
	mL Acid Phenol (> 8.3)
<u>10.9</u>	mL Acid Total (to pH 4.5)
mL acid added x 20 = Alkalinity	

Phenol Alkalinity (82244): _____ mg/L

Total Alkalinity (39086): 218 mg/L

Notes: _____

Water Quality Stabilization Parameters Table (At least 3 readings @ 5 min. intervals)

Time	4:40	4:45	4:50						
pH	<u>6.88</u>	<u>7.27</u>	<u>7.33</u>						
Celsius Temp.	<u>18.5</u>	<u>17.9</u>	<u>18</u>						
Conductivity	<u>589</u>	<u>586</u>	<u>571</u>						

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID: **Q1639313016**

Date Received: 9/22/2016 14:57

Matrix: Aqueous

Sample ID: **0355504**

Date Collected: 9/21/2016 09:50

Sample Type: SAMPLE

Project ID: **TWDB CAN**

Parameters	Results Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
INORGANICS										
Analysis Desc: E200.7 Metals, Trace Elements		Preparation Method: E200.7 Prep								
		Analytical Method: E200.7 Metals, Trace Elements								
Boron Dissolved	84.2 ug/L	50.0	20.0		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Calcium Dissolved	43.8 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Strontium Dissolved	1060 ug/L	10.0	4.00		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Iron Dissolved	<50.0 ug/L	50.0	20.0		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Magnesium Dissolved	24.3 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Potassium Dissolved	4.30 mg/L	0.200	0.0700		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Sodium Dissolved	29.6 mg/L	0.500	0.200		1	09/27/16 11:27	BS	09/28/16 20:13		FO
Analysis Desc: E200.8, ICP-MS		Preparation Method: E200.8, ICP-MS Prep								
		Analytical Method: E200.8, ICP-MS								
Aluminum Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Antimony Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Arsenic Dissolved	3.59 ug/L	2.00	0.700		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Barium Dissolved	52.3 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Beryllium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Cadmium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Chromium Dissolved	2.33 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Cobalt Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Copper Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Lithium Dissolved	65.7 ug/L	2.00	0.700		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Lead Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Manganese Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Molybdenum Dissolved	5.47 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Selenium Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Silver Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Thallium Dissolved	<1.00 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Uranium Dissolved	8.44 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Vanadium Dissolved	19.6 ug/L	1.00	0.400		1	09/27/16 11:28	BS	09/29/16 13:15		SLW
Zinc Dissolved	<4.00 ug/L	4.00	1.50		1	09/27/16 11:28	BS	09/29/16 13:15		SLW

Report ID: 226751 - 2818039

Page 48 of 87

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID: **Q1639313016**
Sample ID: **0355504**
Project ID: **TWDB CAN**

Date Received: 9/22/2016 14:57 Matrix: Aqueous
Date Collected: 9/21/2016 09:50 Sample Type: SAMPLE

Parameters	Results Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
Analysis Desc: E300.0, Anions										
Preparation Method: E300.0, Anions										
Analytical Method: E300.0, Anions										
Chloride Dissolved	21.8 mg/L	1.00	0.400		1	09/26/16 17:44	ML	09/26/16 17:44	ML	
Bromide Dissolved	0.126 mg/L	0.0200	0.00800		1	09/26/16 17:44	ML	09/26/16 17:44	ML	
Fluoride Dissolved	1.65 mg/L	0.0100	0.00400		1	09/26/16 17:44	ML	09/26/16 17:44	ML	
Sulfate Dissolved	46.6 mg/L	1.00	0.400		1	09/26/16 17:44	ML	09/26/16 17:44	ML	
TOTAL PHOSPHATE AS P										
Analysis Desc: E365.4 Phosphorus, Total										
Preparation Method: E365.4 / E351.2 Water Prep										
Analytical Method: E365.4 Phosphorus, Total										
Phosphorus, Dissolved (As P)	<0.0200 mg/L	0.0200	0.00800		1	09/26/16 17:36	MM	09/27/16		ML
ALKALINITY										
Analysis Desc: SM2320B, Alkalinity										
Preparation Method: SM2320B, Alkalinity										
Analytical Method: SM2320B, Alkalinity										
Phenolphthalein Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Hydroxide Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Bicarbonate Alkalinity	203 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Carbonate Alkalinity	<20.0 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	N
Total Alkalinity (CaCO3)	203 mg/L	20.0	20.0		1	09/27/16	ADG	09/27/16	ADG	
NITRATE AND NITRITE										
Analysis Desc: SM4500-NO3-H, Nitrate/Nitrite										
Preparation Method: SM4500-NO3-H, Nitrate/Nitrite										
Analytical Method: SM4500-NO3-H, Nitrate/Nitrite										
Nitrate/Nitrite Dissolved	2.07 mg/L	0.0400	0.0160		2	09/30/16	ML	09/30/16		ML
SILICA										
Analysis Desc: SM4500-SiO2-C, Silica										
Preparation Method: SM4500-SiO2-C, Silica										
Analytical Method: SM4500-SiO2-C, Silica										
Silica, Dissolved	39.8 mg/L	2.50	1.00		5	09/28/16	MO	09/28/16		MO
HEAVY METALS										
Analysis Desc: E245.1 Mercury Water										
Preparation Method: E245.1 Mercury Water										
Analytical Method: E245.1 Mercury Water										
Mercury Dissolved	<0.200 ug/L	0.200	0.0700		1	09/26/16	FM	09/26/16 12:23		FM

Report ID: 226751 - 2818039

Page 49 of 87



LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
Fax: (512)356-6021

ANALYTICAL RESULTS

Workorder: Q1639313

Lab ID:	Q1639313016	Date Received:	9/22/2016 14:57	Matrix:	Aqueous
Sample ID:	0355504	Date Collected:	9/21/2016 09:50	Sample Type:	SAMPLE
Project ID:	TWDB CAN				

Parameters	Results	Units	LOQ	LOD	ML	DF	Prepared	By	Analyzed	By	Qual
INORGANICS											
Analysis Desc: SM1030B Cation/Anion Balance			Preparation Method: SM1030B Cation/Anion Balance								
			Analytical Method: SM1030B Cation/Anion Balance								
Cation/Anion Balance	1.360	%				1	09/30/16 14:05	CW	09/30/16 14:05	CW	



SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

Analytical Report

(consolidated)

WO#: 16091825

Date Reported: 10/13/2016

CLIENT: LCRA Environmental Laboratory Services

Collection Date: 9/21/2016 9:50:00 AM

Project: Q1639314

Lab ID: 16091825-016

Matrix: NON-POTABLE WATER

Client Sample ID Q1639314016

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
GROSS ALPHA / GROSS BETA RADIOACTIVITY (EPA 9310)				SW9310	E900	Analyst: BRD
ALPHA, Gross	20.4	3.00		pCi/L	1	10/11/2016 7:55:00 AM
RADIUM-226 (EPA 903.0)				E903.0	E903-904	Analyst: BRD
Radium-226	ND	1.00		pCi/L	1	10/7/2016 7:53:00 AM
Yield	1.00				1	10/7/2016 7:53:00 AM
RADIUM-228 (EPA 904.0)				E904.0	E903-904	Analyst: BRD
Radium-228	ND	1.00		pCi/L	1	10/6/2016 12:11:00 PM
Yield	1.00				1	10/6/2016 12:11:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level.
M Manual Integration used to determine area response
PL Permit Limit
RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
W Sample container temperature is out of limit as specified at testcode

Original

Page 21 of 33

03' 55.504

9654101

LB 03-59-501

9-185-July 1900
Revised

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

03-55-502

3 well

WELL SCHEDULE
Date 10-30, 1906 Field No. RR#2
Record by JD Office No. AA-3
Source of data field

1. Location: State Texas County Hansford

Map

1/4 sec. T N R E
S W

2. Owner: Address

Tenant: Address

Driller: Address

3. Topography

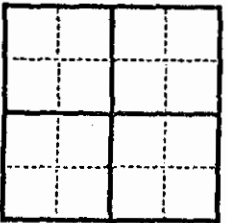
4. Elevation ft. above

5. Type: Dug, drilled, driven, bored, jetted 19

6. Depth: Rept. ft. Meas. 278 ft.

7. Casing: Diam. 13 in., to in., Type

Depth ft., Finish



8. Chief Aquifer From ft. to ft.

Others

9. Water level 259.73 ft. rept. 10-30 19 56 above top

of conc. curb which is 0-4 ft. above surface

10. Pump: Type None Capacity G. M.

Power: Kind Horsepower

11. Yield: Flow G. M., Pump G. M., Meas., Rept. Est.

Drawdown ft. after hours pumping G. M.

12. Use: Dom., Stock, PS., RR., Ind., Irr. (Obs.)

Adequacy, permanence

13. Quality Temp °F.

Taste, odor, color Sample Yes

Unit for Sample No

14. Remarks: (Log, Analyses, etc.)

065 well

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Branch

03-55-502

Survey

Water Level Measurements

Owner R. H. S. S. S. S.

Tenant T. D. 278

Location W. S. S. S.

Measuring Point

Height of Meas. Point above land-surface datum

Date	Depth to water below meas. point	Ht. M.P. above L.S.D.	Depth to water below L.S.D.	Meas. by	Remarks (pumping, M.P. changed, etc.)
1-30-02			259.35		
1-21-07			258.46		
1-14-08			260.36		

10 03-55-502

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Aquifer

Opelika

Field No.

HN152

State Well No.

03 55 401

Owner's Well No.

County

*Hansford*1. Location *NE 1/4, Sec. 89, Block 4T, Survey T4N0*2. Owner: *Cecil Crawford*

Address:

Tenant:

Address:

Driller:

Ed Wilkinks

Address:

3. Elevation of _____ is _____ ft. above msl, determined by _____

4. Drilled: _____ 19 _____; Dug, Cable Tool, Rotary, _____

5. Depth: Rept. _____ ft. Meas. _____ ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed

7. Pump: Mfr. _____ Type _____

No. Stages _____, Bowls Diam. _____ in., Setting _____ ft.

Column Diam. _____ in., Length Tailpipe _____ ft.

8. Motor: Fuel _____ Make & Model _____ HP _____

9. Yield: Flow _____ gpm, Pump _____ gpm, Meas., Rept., Est. _____

10. Performance Test: Date _____ Length of Test _____ Made by _____

Static Level _____ ft. Pumping Level _____ ft. Drawdown _____ ft.

Production _____ gpm Specific Capacity _____ gpm/ft.

11. Water Level: _____ ft. rept. _____ 19 _____ above _____ which is _____ ft. above surface.
 258.55 ft. meas. *1-24* 19 *58* below *M.P.* _____ which is *2.0* ft. below surface.
 _____ ft. meas. _____ below _____ which is _____ ft. below surface.
 _____ ft. rept. _____ 19 _____ above _____ which is _____ ft. above surface.
 _____ ft. meas. _____ below _____ which is _____ ft. below surface.

12. Use: Dom., Stock, Public Supply, Ind. (Irr.) Waterflooding, Observation, Not Used, _____

13. Quality: (Remarks on taste, odor, color, etc.) _____

Temp. _____ °F, Date sampled for analysis _____ Laboratory _____

Temp. _____ °F, Date sampled for analysis _____ Laboratory _____

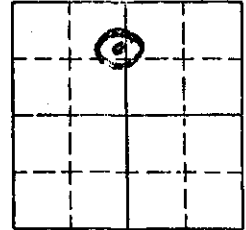
Temp. _____ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: Driller's Log, Radioactivity Log, Electric Log, _____

Formation Samples, Pumping Test, _____

15. Record by: *Copied by P.W. Wyatt* Date _____ 19 _____Source of Data *N.P. N.D.*

16. Remarks: _____



CASING & BLANK PIPE			
Cemented From		ft. to	
Diam. (in.)	Type	Setting, ft.	
		from	to

WELL SCREEN			
Screen Openings			
Diam. (in.)	Type	Setting, ft.	
		from	to

(Sketch)

obs well

03-55-401

STATE OF TEXAS WELL REPORT for Tracking #60619

Owner: **Latigo Petroleum Inc.**

Owner Well #: **#3 Riley**

Address: **15 W. 6th St., Ste. 1100
Tulsa, OK 74119**

Grid #: **03-55-1**

Well Location: **No Data**

Latitude: **36° 13' 13" N**

Longitude: **101° 12' 52" W**

Well County: **Hansford**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Industrial**

Drilling Start Date: **2/19/2004**

Drilling End Date: **2/19/2004**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	12.5	0	420

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

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	240	420	Gravel	

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	1	25	7

Seal Method: **Neat Cement**

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

Sealed By: **Driller**

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

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

Method of Verification: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: **290 ft. below land surface on 2004-02-19** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible**

Pump Depth (ft.): **336**

Well Tests: **Pump** Yield: **100 GPM with 10 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
290	Good

Chemical Analysis Made: **No**

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

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

Company Information: **Howard Drilling Co.**
Box 806
Beaver, TX 73932

Driller Name: **Phillip Howard**

License Number: **4723**

Comments: **\$dfs**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	2	Clay Top Soil
2	10	Clay
10	29	Caliche Clay
29	37	Caliche Clay Sandy Clay
37	80	Caliche Clay
80	96	Sandy Clay
96	130	Caliche Clay Sandy Clay
130	147	Sand Sandy Clay
147	183	Caliche Clay Sandy Clay
183	202	Sandy Clay
202	236	Clay
236	247	Sandy Clay Fine Sand
247	260	Caliche Clay
260	283	Sandy Clay Fine Sand
283	320	Sand
320	340	Sand Sandy Clay
340	400	Sand
400	410	Sandy Clay Sand

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
6	New	PVC +2 320 Plain	
6	New	PVC Perf. 320 420 .032	

410	420	Red Clay Sandy Clay
-----	-----	---------------------

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

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

STATE OF TEXAS WELL REPORT for Tracking #146086

Owner: **Louis Schnell**

Owner Well #: **IW #1-08 59-4T**

Address: **1015 Barkley St.
Spearman, TX 79081**

Grid #: **03-55-2**

Well Location: **Sec 59, Blk 4T, T&NO
Spearman, TX 79081**

Latitude: **36° 13' 09" N**

Longitude: **101° 12' 06" W**

Well County: **Hansford**

Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Irrigation**

Drilling Start Date: **5/30/2008**

Drilling End Date: **6/1/2008**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	25	0	542

Drilling Method: **Reverse Circulation**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	20	542	Gravel	80/20

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	20	40 cement

Seal Method: **Truck mixed**

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

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **2640**

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

Method of Verification: **Estimated**

Surface Completion: **Unknown**

Water Level: **No Data**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

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

Chemical Analysis Made: **No**

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

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

Company Information: **LT Drilling Company**
PO Box 784
Sunray, TX 79086

Driller Name: **Randal James Taylor**

License Number: **2366**

Apprentice Name: **Kenneth Bumpas, Jr**

Apprentice Number: **58150**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	20	Surface soil to brown clay to caliche
20	100	Caliche w/rock strips to sand w/minor clay strips
100	300	Sand w/minor clay strips
300	400	Med to coarse & fine sand w/sandy clay mix
400	500	Fine loose sand w/sandy clay strips
500	542	Fine sand w/clay mix to red sandy clay & clay & shale

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
16 N	Blank	.250 steel casing	+1 - 312
16 N	.100 x 104 mill	slotted steel casing	312 - 522
16 N	Blank	.250 steel casing	522 - 542

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

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

STATE OF TEXAS WELL REPORT for Tracking #271896

Owner: **Sam Beauchamp**
Address: **PO Box 301
Farmsworth, TX 79033**
Well Location: **Sec 60, Blk 4-T, T&NO
TX**
Well County: **Hansford**

Owner Well #: **IRR #3-11**
Grid #: **03-55-1**
Latitude: **36° 12' 50" N**
Longitude: **101° 13' 12" W**
Elevation: **No Data**

Type of Work: **New Well**

Proposed Use: **Irrigation**

Drilling Start Date: **9/19/2011**

Drilling End Date: **9/20/2011**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	24.5	0	485

Drilling Method: **Reverse Circulation**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	15	485	Gravel	90f/10c

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	15	40 sks cement

Seal Method: **Truck mixed**

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

Sealed By: **Hydro Resources-Mid
Continent**

Distance to Septic Field or other
concentrated contamination (ft.): **none obsvd**

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

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: **310 ft. below land surface on 2011-10-04** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Turbine** Pump Depth (ft.): **460**

Well Tests: **Pump** Yield: **650 GPM**

Water Quality:

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

Chemical Analysis Made: **No**

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

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

Company Information: **Hydro Resources-Mid Continent Inc**

**PO Box 784
Sunray, TX 79086**

Driller Name: **Randal James Taylor**

License Number: **2366**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	14	surface top soil brown clay
14	40	caliche w/rock strips
40	340	sand w/minor clay strips
340	360	med fairly loose sand w/little clay mix
360	400	med fairly loose sand
400	420	med fine fairly loose sand w/clay mix & sandy clay strips
420	440	red sandy clay & clay
440	460	red sandy clay w/med to coarse fairly loose sand & clay mix
460	485	red sandy clay to clay

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
16 N	.250	steel casing	+1 -305
16 N	.100	mill slot perfs	104 pr ft 305-465
16 N	.250	steel casing	465-485

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

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

STATE OF TEXAS WELL REPORT for Tracking #165753

Owner:	LAREDO PETROLEUM	Owner Well #:	No Data
Address:	15 W 6TH ST. STE 1800 TULSA, OK 74119	Grid #:	03-55-4
Well Location:	HANSFORD GAS UNIT 26-6 89-4- T&NO TX	Latitude:	36° 11' 08" N
		Longitude:	101° 12' 45" W
Well County:	Hansford	Elevation:	3083 ft. above sea level

Type of Work: **New Well**

Proposed Use: **Rig Supply**

Drilling Start Date: **12/20/2008** Drilling End Date: **12/20/2008**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	10.75	0	400

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

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	200	400	Gravel	

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	1	20	4

Seal Method: **CEMENT GROUT**

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

Sealed By: **HOWARD DRILLING**

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

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

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **290 ft. below land surface on 2008-12-20** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **385**

Well Tests: **Pump** Yield: **15 GPM with 40 ft. drawdown after 1 hours**

Water Quality:

Strata Depth (ft.)	Water Type
290	GOOD

Chemical Analysis Made: **No**

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

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

Company Information: **HOWARD DRILLING CO.**

**P.O. BOX 806
BEAVER, OK 73932**

Driller Name: **PHILLIP HOWARD**

License Number: **4723**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	2	CLAY
2	25	CALICHE CLAY
25	35	RED CLAY
35	50	CALICHE ROCK
50	70	CALICHE/TAN CLAY
70	82	SANDY CLAY
82	100	CALICHE ROCK
100	120	CALICHE
120	142	CALICHE/SANDY CLAY
142	181	SAND
181	189	CALICHE
189	250	CALICHE SAND
250	260	CALICHE
260	276	SANDY CLAY/SAND
276	335	SAND
335	360	RED CLAY/SAND STREAKS
360	370	RED SANDY CLAY
370	390	RED/RED SANDY CLAY

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
6	NEW	PVC PLAIN	+2 TO 300
6	NEW	PVC PERF	300 TO 400 .032

390	400	RED
-----	-----	-----

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

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

STATE OF TEXAS WELL REPORT for Tracking #71864

Owner:	Spearman Cattle Feeders	Owner Well #:	IW #2-05
Address:	P.O. Box 339 Spearman, TX 79081	Grid #:	03-55-2
Well Location:	NW/4 Sec 67, Blk 4T, T&NO Survey TX	Latitude:	36° 12' 36" N
		Longitude:	101° 11' 12" W
Well County:	Hansford	Elevation:	3119 ft. above sea level
Type of Work:	New Well	Proposed Use:	Irrigation

Drilling Start Date: **11/22/2005** Drilling End Date: **11/23/2005**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	25	0	631

Drilling Method: **Reverse Circulation**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	10	631	Gravel	90/10 crse

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	10	20 sacks cement

Seal Method: **Truck mixed**

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

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **1200**

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

Method of Verification: **Estimated**

Surface Completion: **Unknown**

Water Level: **324 ft. below land surface on 2005-11-29** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

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

Chemical Analysis Made: **No**

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

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

Company Information: **L. T. Drilling Company**
P.O. Box 784
Sunray, TX 79086

Driller Name: **Randal James Taylor**

License Number: **2366**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	52	Surface & brown clay
52	80	Caliche
80	340	Sand w/clay & sandy clay strips
340	420	Fine sand w/little clay mixed
420	460	Red sandy clay w/fine sand
460	550	Very fine sand w/little clay mix
550	620	Very fine sand w/sandy clay strips
620	631	Red clay

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
16	N	Blank steel	+1 - 341
16	N	Slotted steel	341 - 621 .100 X 104
16	N	Blank steel	621 - 631

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

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

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

ATTACHMENT 11

Domestic Technical Report 3.0
7. Groundwater Quality
Groundwater Quality Technical Report

DOMESTIC WORKSHEET 3.0 – GROUNDWATER QUALITY ASSESSMENT

7. GROUNDWATER QUALITY

1. Evaluation of the Water Wells and Groundwater

The plant is located over the Ogallala Aquifer within the bounds of the North Plains Groundwater Conservation District. The aquifer consists of sand, gravel, silt, and clay sediments. Attached are maps of Hansford County showing the current depth to water and the saturated thickness of the aquifer.

There are no known recharge features within the site boundaries. Several water wells exist within a 1-mile radius of the treatment plant (see Attachment No. 9 – Well and Map Information). Current groundwater quality remains good, as shown in the attached chemical analysis of a nearby public supply well. No nearby wells violate the required buffer zones for either wells or treatment units.

2. Wastewater Application Rate

The application rate does not exceed 1.85 acre-feet per acre per year. When irrigating at less than the permitted flow or over less than the permitted acreage, the application rate does not exceed the agronomic rate of 4.53 acre-feet per acre per year. Irrigation is not permitted during rain events. Runoff from irrigation is contained using berms and tailwater controls, ensuring it remains within the boundaries of the treatment plant.

See Attachments No. 12 and 13 – Soil Map and Soil Analysis.

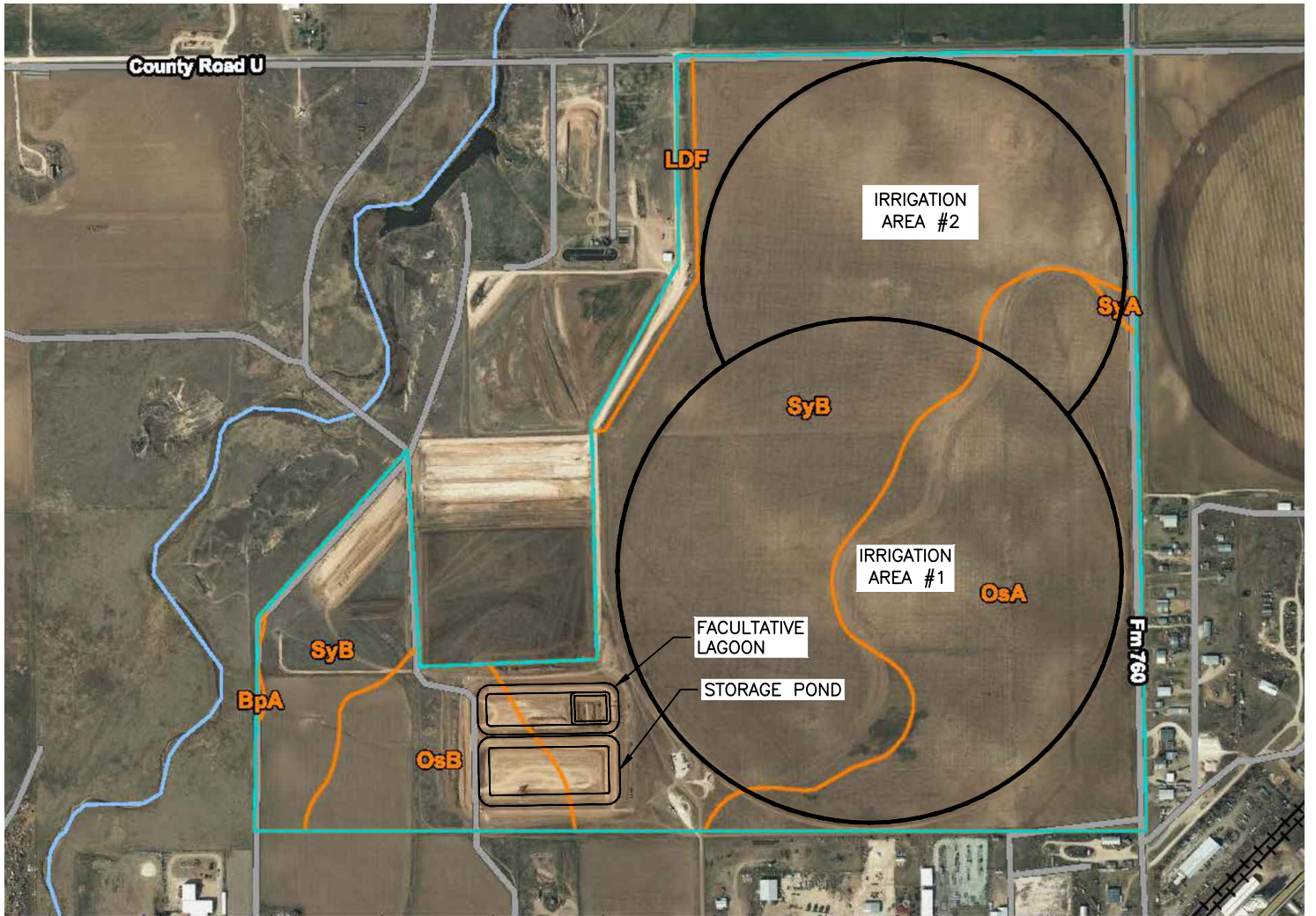
3. Pond Liners

The pond liners were constructed using clay material with a coefficient of permeability less than 1×10^{-7} centimeters per second and a minimum thickness of 3 feet.

See Attachment No. 7 – Liner Certification.

ATTACHMENT 12

Domestic Technical Report 3.0
8. Soil Map and Soil Analyses
USDA Soil Survey Map



(FOR PERMIT PURPOSES ONLY)

CITY OF SPEARMAN
PERMIT RENEWAL – WASTEWATER TREATMENT PLANT

SOIL MAP **WASTEWATER TREATMENT PLANT**

PROJ. NO. 82989

DATE: SEPTEMBER 2025

SCALE: 1"=1000'

FIGURE:

#12

ATTACHMENT 13

Domestic Technical Report 3.0
8. Soil Map and Soil Analyses
Soil Analyses

DOMESTIC WORKSHEET 3.0 – GROUNDWATER QUALITY ASSESSMENT

8. SOIL MAP AND SOIL ANALYSES B. SOIL ANALYSES

Please provide yearly soil testing data for the following

- pH
- Electrical Conductivity
- Sodium Absorption Ratio
- Total Kjeldahl Nitrogen
- Total Nitrogen
- Nitrate-nitrogen
- Potassium
- Phosphorous
- Calcium
- Magnesium
- Sulfur
- Sodium

ATTACHMENT 14

Copy of Payment



HI-PLAINS CIVIL ENGINEERS

Firm Registration No. 4174

4537 CANYON DRIVE • AMARILLO, TEXAS 79110 • 806.353.7233

October 23, 2025

Francesca Findlay
Application Review and Processing Team (MC148)
Water Quality Division
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Application to Renew Permit No. WQ0010977001
Issued to City of Spearman
(CN 600251235; RN 103137323)

Dear Ms. Findlay:

This transmittal letter is intended to address each comment in the Pre-Technical Review email dated October 8, 2025 for WWTP Permit No. WQ0010977001. The comments from the Pre-Technical review are included and addressed below.

1. Administrative Report 1.0, Section 2, item C: Please verify the appropriate permit type. Please provide an updated page.

The facility is currently in the final phase of permitting, operating under a Texas Land Application Permit (TLAP) and no longer under a Texas Pollutant Discharge Elimination System (TPDES) permit.

2. Administrative Report 1.0, Section 10: Please complete the TPDES Discharge Information. Please provide an updated page

The facility no longer falls under the jurisdiction of the Texas Pollutant Discharge Elimination System (TPDES).

3. Technical Report 1.0, Section 3, Item C: Please verify the Final Phase. Please provide an updated page.

The construction of the facility has been finalized, and the project has entered its final phase.

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

The English version of the NORI document is accurate and conforms to the intended content.

5. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

The Spanish version of the NORI document is attached.

Sincerely,

HI-PLAINS CIVIL ENGINEERS

A handwritten signature in blue ink, appearing to read 'Adolfo Garcia', with a stylized flourish at the end.

Adolfo Garcia, P.E.

cc: City of Spearman

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ00

SOLICITUD. *[Ciudad de Spearman, P.O. Box 37]*, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010977001 (EPA I.D. No. TX 0032328) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de *[400,000]* galones por día. La planta está ubicada *[en 2650 pies al oeste de la intersección de County Road U y Farm to Market 790]* en el Condado de *[Hansford]*, Texas *[79081]*. La ruta de descarga es del sitio de la planta a *[hasta Horse Creek; de allí hasta el embalse de Palo Duro; de allí hasta Palo Duro Creek; de allí hacia el estado de Oklahoma antes de llegar a un segmento clasificado en la cuenca del río Canadian.]* La TCEQ recibió esta solicitud el *[Octubre 8, 2025]*. La solicitud para el permiso estará disponible para leerla y copiarla en *[30 Southwest Court]* antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

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

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

[\[https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.204722,36.206666&level=18\]](https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.204722,36.206666&level=18)

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

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

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.**

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia

administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del *[Ciudad de Spearman]* a la dirección indicada arriba o llamando a *[Justin parker]* al *[(806) 659-2524]*.

Fecha de emisión: *[Date notice issued]*

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ00

SOLICITUD. *[Ciudad de Spearman, P.O. Box 37]*, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0010977001 (EPA I.D. No. TX 0032328) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de *[400,000]* galones por día. La planta está ubicada *[en 2650 pies al oeste de la intersección de County Road U y Farm to Market 790]* en el Condado de *[Hansford]*, Texas *[79081]*. La ruta de descarga es del sitio de la planta a *[hasta Horse Creek; de allí hasta el embalse de Palo Duro; de allí hasta Palo Duro Creek; de allí hacia el estado de Oklahoma antes de llegar a un segmento clasificado en la cuenca del río Canadian.]* La TCEQ recibió esta solicitud el *[Octubre 8, 2025]*. La solicitud para el permiso estará disponible para leerla y copiarla en *[30 Southwest Court]* antes de la fecha de publicación de este aviso en el periódico. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web:

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

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

[<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-101.204722,36.206666&level=18>]

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

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

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

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.**

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia

administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

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

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentadas electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del *[Ciudad de Spearman]* a la dirección indicada arriba o llamando a *[Justin parker]* al *[(806) 659-2524]*.

Fecha de emisión: *[Date notice issued]*

ATTACHMENT 6

Domestic Technical Report 1.0
7. Pollutant Analysis of Treated Effluent data

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 49)

Is the facility in operation?

☒ Yes ☐ No

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

If **yes**, provide effluent analysis data for the listed pollutants. **Wastewater treatment facilities** complete Table 1.0(2). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

Table 1.0(1) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l	14	-	1	GRAB	9/22/25 8:50
Total Suspended Solids, mg/l	31	-	1	GRAB	9/22/25 8:50
Ammonia Nitrogen, mg/l	4.01	-	1	GRAB	9/22/25 8:50
Nitrate Nitrogen, mg/l	<0.40	-	1	GRAB	9/22/25 8:50
Total Kjeldahl Nitrogen, mg/l	11.1	-	1	GRAB	9/22/25 8:50
Sulfate, mg/l	54.9	-	1	GRAB	9/22/25 8:50
Chloride, mg/l	143	-	1	GRAB	9/22/25 8:50
Total Phosphorus, mg/l	4.62	-	1	GRAB	9/22/25 8:50
pH, standard units	8.0	-	1	GRAB	9/22/25 8:50
Dissolved Oxygen*, mg/l	5.8	-	1	GRAB	9/22/25 8:50

Chlorine Residual, mg/l	0	-	1	GRAB	9/22/25 8:50
<i>E.coli</i> (CFU/100ml) freshwater	291	-	1	GRAB	9/22/25 8:50
Enterococci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	732	-	1	GRAB	9/22/25 8:50
Electrical Conductivity, µmohs/cm, †	1350	-	1	GRAB	9/22/25 8:50
Oil & Grease, mg/l	<7	-	1	GRAB	9/22/25 8:50
Alkalinity (CaCO ₃)*, mg/l	556	-	1	GRAB	9/22/25 8:50

*TPDES permits only

†TLAP permits only

Table 1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Steven T. Dettner

Facility Operator's License Classification and Level: MSW, Class A

Facility Operator's License Number: #SW008049



ENVIRONMENTAL MONITORING LABORATORY, L.L.C

P.O. Box 477
6145 State Highway 171
Hillsboro, Texas 76645
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL REPORT 25092232

For:

City of Spearman
P.O. Box 37
Spearman, Texas 79081

Sample Site: Renewal Analysis

Collected Date: 09/22/25



Lab Number: TX01547

Serissa R Beck

Authorized for release by:
29-SEP-25

Serissa Beck, Assistant General Manager

homeoffice@yourwaterlab.com

The test results in this report meet all 2009 NELAP and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory



ENVIRONMENTAL MONITORING LABORATORY, L.L.C

P.O. Box 477
6145 State Highway 171
Hillsboro, Texas 76645
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL RESULTS

Analytical Report: 25092232

Lab ID: 25092232-001 Collected Date: 09/22/25 08:50 Matrix: Waste Water
Client: City of Spearman Received Date: 09/22/25 18:20 Temp at Receipt: 4 °C
Sample Site: Renewal Analysis Report Date: 09/29/25 Sample Collector: GW

Analyte	Abbreviation	Method	TNI Cert	Date Analyzed	Result	Units
Ammonia Nitrogen	NH3N	SM 4500-NH3/D	NP	09/24/25 09:27	4.01	mg/L
Carbonaceous BOD	CBOD	SM 5210/B	NP	09/23/25 13:30	14	mg/L
Total Suspended Solids	TSS	SM 2540/D	NP/P	09/23/25 11:04	31	mg/L
pH	SM4500-H	SM4500/H	N	09/22/25 08:50	8.0	SU
Nitrate as N	E300.0	E 300.0	NP/P	09/23/25 13:50	<0.400	mg/L
Dissolved Oxygen	DO	SM 4500-O	N	09/22/25 08:50	5.8	mg/L
Total Phosphorus (as P)	T.PHOS.	SM 4500-P/E	NP	09/25/25 11:37	4.62	mg/L
Nitrogen, Total Kjeldahl	TKN	SM 4500-NH3/D	NP	09/24/25 14:41	11.1	mg/L
Total dissolved solids	SM2540C	SM 2540/C	NP/P	09/24/25 15:27	732.0	mg/L
Sulfate	E300.0	E 300.0	NP/P	09/23/25 14:01	54.9	mg/L
Chloride	Cl-	SM 4500-Cl-/B	NP	09/25/25 11:24	143	mg/L
Chlorine	SM4500-CL	SM4500-CL	NP	09/22/25 08:50	0.0	mg/L
n-Hexane Extractable Material (HEM)	O&G	SM 5520/B	NP	09/24/25 09:45	<7.00	mg/L
Alkalinity, Total (CaCO3)	ALK	SM 2320/B	NP	09/25/25 13:15	556	mg/L
Conductivity @ 25C	Cond	SM 2510/B	NP	09/25/25 12:46	1350	umhos/cm

P: Potable water NP: Non Potable water N: Not Certified

QUALITY ASSURANCE & QUALITY CONTROL

Control #: 25092232

ANALYTE	ABBR./ALT.NAME	STANDARD METHOD	UNITS	Quality Control					
				S.D.	CV%	REC.1%	REC.2%	MDL/PQL	Q
Nitrate as N	E300.0	E 300.0	mg/L					0.400 / 0.400	
Sulfate	E300.0	E 300.0	mg/L					1.00 / 1.80	
Alkalinity, Total (CaCO3)	ALK	SM 2320/B	mg/L					1.50 / 5.00	
Chloride	Cl-	SM 4500-Cl-/B	mg/L	1.41	0.28	100	102	1.00 / 3.00	
Ammonia Nitrogen	NH3N	SM 4500-NH3/D	mg/L	0.02	1.68	105.7	102.8	0.0300 / 0.100	
Nitrogen, Total Kjeldahl	TKN	SM 4500-NH3/D	mg/L	0.22	1.96	95.6	92.6	0.0200 / 0.120	
Total Phosphorus (as P)	T.PHOS.	SM 4500-P/E	mg/L	0.04	0.35	107.1	106.1	.02 / .05	
n-Hexane Extractable Material (HEM)	O&G	SM 5520/B	mg/L	0.07	0.07	98.2	100.8	7.00 / 7.00	
Chemical Oxygen Demand	COD	SM 5220/D	mg/L						
Turbidity	TURB.	SM 2130/B	NTUs						
Total Percent Solids	%d.w	SM 2540/G	%						N

Biochemical Oxygen Demand(BOD) Carbonaceous Biochemical Oxygen Demand(CBOD) Method: SM 5210/B			Dissolved Oxygen Method: SM 4500-O*/G			Total Suspended Solids (TSS, MLSS) Method: 2540/D		
Results	Units	Description	Results	Units	Description	Results	Units	Description
0.09	mg/L	Blank 1 - CBOD	8.88	mg/L	Set Up Calibration	0.1	mg/L	Blank 1
0	mg/L	Blank 2 - CBOD	9.07	mg/L	Read Off Calibration			
0	mg/L	Blank 3 - CBOD	20	°C	Set Up Temperature	3.48	%	Relative % Difference
			20	°C	Read Off Temperature	2.58	%	Relative % Difference
204	mg/L	G/GA Std 1 - CBOD	757	mm Hg	Set Up Barometer	Conductivity @ 25° C Method: SM2510/B Standards ran for each analytical batch.		
208	mg/L	G/GA Std 2 - CBOD	762	mm Hg	Read Off Barometer			
202	mg/L	G/GA Std 3 - CBOD						
205	mg/L	G/GA Average - CBOD	Fecal Coliform Method: SM9222 /D MF			Results	Units	Description
0.71	mg/L	Seed Corr/mL - CBOD	Results	Units	Description	umhos/cm		Conductivity Standard
0.71	mg/L	Seed Corr/mL - CBOD		CFU/100ml	Pre Blank	umhos/cm		Conductivity Standard
0.73	mg/L	Seed Corr/mL - CBOD				umhos/cm		Conductivity Standard
0.72	mg/L	Seed Corr Average - CBOD		CFU/100ml	Post Blank	TDS by SM2540/C		
			Results	Units	Description			
			0	mg/L	Blank			
			E. coli By IDEXX Colilert (enumeration)			MPN/100 mL		

Serissa R Beck

Serissa Beck
Assistant General Manager

Report Out Date: 09/29/2025

QUALITY ASSURANCE & QUALITY CONTROL

Standard Method SM 2540/D
 Matrix Waste Water
 Batch Number 83006

Sample ID	Parameter	Result	Ref. Value	Spike Conc.	Per. Rec.	Rec. Limits	RPD	RPD Limits	Flags
83006-1-MB	Total Suspended Solids	0.1000 mg/L			0%	80-120%		0-10%	

Standard Method E 300.0
 Matrix Waste Water
 Batch Number 83015

Sample ID	Parameter	Result	Ref. Value	Spike Conc.	Per. Rec.	Rec. Limits	RPD	RPD Limits	Flags
83015-1-LCS	Nitrate as N	7.89 mg/L		8.00 mg/L	99%	90-110%		0-20%	
83015-1-LCSD	Nitrate as N	7.85 mg/L		8.00 mg/L	98%	90-110%	1%	0-20%	
83015-1-UNS	Nitrate as N	0.150 mg/L			0%	90-110%		0-20%	
25092213-001 S	Nitrate as N	7.79 mg/L	0.150 mg/L	8.00 mg/L	96 %	80-120%		0-20%	
25092213-001 SD	Nitrate as N	7.79 mg/L	0.150 mg/L	8.00 mg/L	96 %	80-120%	0%	0-20%	

Standard Method E 300.0
 Matrix Waste Water
 Batch Number 83016

Sample ID	Parameter	Result	Ref. Value	Spike Conc.	Per. Rec.	Rec. Limits	RPD	RPD Limits	Flags
83016-1-LCS	Sulfate	14.5 mg/L		15.0 mg/L	97%	90-110%		0-20%	
83016-1-LCSD	Sulfate	14.5 mg/L		15.0 mg/L	97%	90-110%	0%	0-20%	
83016-1-UNS	Sulfate	3.59 mg/L			0%	90-110%		0-20%	
25091987-001 S	Sulfate	17.4 mg/L	3.59 mg/L	15.0 mg/L	92 %	80-120%		0-20%	
25091987-001 SD	Sulfate	17.4 mg/L	3.59 mg/L	15.0 mg/L	92 %	80-120%	0%	0-20%	

QUALITY ASSURANCE & QUALITY CONTROL

Standard Method SM 2540/C

Matrix Waste Water

Batch Number 83042

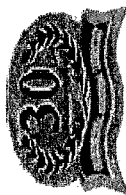
Sample ID	Parameter	Result	Ref. Value	Spike Conc.	Per. Rec.	Rec. Limits	RPD	RPD Limits	Flags
83042-1-MB	Total dissolved solids	< mg/L			0%	80-120%		0-10%	

Standard Method SM 5210/B

Matrix Waste Water

Batch Number 83088

Sample ID	Parameter	Result	Ref. Value	Spike Conc.	Per. Rec.	Rec. Limits	RPD	RPD Limits	Flags
83088-1-BKS01	Carbonaceous BOD	204 mg/L		198 mg/L	103%	85-115%		0-25%	
83088-2-BKS02	Carbonaceous BOD	208 mg/L		198 mg/L	105%	85-115%		0-25%	
83088-3-BKS03	Carbonaceous BOD	202 mg/L		198 mg/L	102%	85-115%		0-25%	
83088-4-BKS04	Carbonaceous BOD	205 mg/L		198 mg/L	104%	85-115%		0-25%	
83088-1-BLK01	Carbonaceous BOD	0.0900 mg/L			0%	85-115%		0-25%	
83088-2-BLK02	Carbonaceous BOD	< mg/L			0%	85-115%		0-25%	
83088-3-BLK03	Carbonaceous BOD	< mg/L			0%	85-115%		0-25%	



Purchase Order / Chain of Custody

Panhandle Division
13950 South US Hwy 287 Amarillo, Texas 79118
Office: 806-335-9393 Emergency: 806-786-0612

Southwest Division
841 E. Young Street, El Paso, Texas 79913
Tel: 325-247-3295 Extention 254-532-2522

East Texas Division
14295 S.H. 156 North Wilbrea, Texas 75792
Office 903-877-9222 Emergency 817-357-6515

Coastal Division
34 East Ave., Schulenburg, Texas 78086
936-274-7000 FAX 936-274-7004

Report To: City of Spearman						Report To: (Buyer)	
Company: City of Spearman						Purchase Order #:	
City of Spearman 30 SW Court St. Spearman, TX 79081						Address:	
Email:							
Phone:							
Project Name:						Quote #:	
Project Location: WWTP						City, State:	
Hand Deliver: ☐ Pick-up: ☒						Sampler: (Please Print) Gregory Willis	
Lab#	Client Sample ID	Matrix	Date	Time	Prior Code	Back Code	
25092232	1.Renewal Analysis	WW	9-23-25	0850	1	1	
	2.				2	1	
	3.				1	1	
	4.				2	2	
	5.				1	1	
	6.						
	7.						
	8.						
	9.						
	10.						

ANALYSES REQUESTED

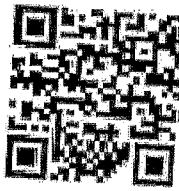
TSS, TDS pH 7.95 DO 5.82 NH₃-N (pH < 2.0, H₂SO₄) SM4500-NH₃D or G unless specified TRN, TOT PHOS FECAL COLIFORM / E.COLI (Sterile) MLSS ALKALINITY, CHLORIDE, CONDUCTIVITY OIL & GREASE NITRATE, SULFATE

Relinquished By: _____ Date: 9-22-25 Time: 1130 Received By: 1. Pgs WLD Date: 9/22/25 Time: 1130

2. Pgs WLD Date: 9/22/25 Time: 1820

3. _____ Date: _____ Time: _____

4. _____ Date: _____ Time: _____



25092232

CL2

0.0

Complete sample information is vital for proper login and recording. EML may need to subcontract some analyses due to equipment or procedural limitations.

Check us out on the web: <http://www.yourwaterlab.com>

Email us at: homeoffice@yourwaterlab.com

Revised 04/2025



ENVIRONMENTAL MONITORING LABORATORY, L.L.C

Panhandle Division
13260 South Highway 287
Amarillo, TX 79118-7005
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL REPORT 25092233

For:

City of Spearman
P.O. Box 37
Spearman, Texas 79081

Sample Site: Renewal Analysis

Collected Date: 09/22/25



Lab Number: TX01547

Authorized for release by:
24-SEP-25

Lisa Soward, Data Manager

homeoffice@yourwaterlab.com

The test results in this report meet all 2009 NELAP and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory



ENVIRONMENTAL MONITORING LABORATORY , L.L.C

Panhandle Division
13260 South Highway 287
Amarillo, TX 79118-7005
Phone: 254-582-2622

BIOLOGICAL & CHEMICAL ANALYSIS / UTILITIES MANAGEMENT & OPERATION / WATERWELL DRILLING & SERVICE / GEOLOGICAL INVESTIGATION

ANALYTICAL RESULTS

Analytical Report: 25092233

Lab ID: 25092233-001 Collected Date: 09/22/25 08:50 Matrix: Waste Water
Client: City of Spearman Received Date: 09/22/25 10:30 Temp at Receipt: 10.3 °C
Sample Site: Renewal Analysis Report Date: 09/24/25 Sample Collector: GW

Analyte	Abbreviation	Method	TNI Cert	Date Analyzed	Result	Units
E. coli	E. coli	IDEXX Colilert	NP	09/22/25 10:31	291	MPN/100 mL

P: Potable water NP: Non Potable water N: Not Certified

QUALITY ASSURANCE & QUALITY CONTROL

Control #: 25092233

ANALYTE	ABBR./ ALT.NAME	STANDARD METHOD	UNITS	Quality Control					Q
				S.D.	CV%	REC.1%	REC.2%	MDL/PQL	
Chloride	Cl-	SM 4500-Cl-/B	mg/L						
Alkalinity	ALK	SM 2320/B	mg/L						
Total Phosphorus	T.PHOS.	SM 4500-P/E	mg/L						
Total Kjeldahl Nitrogen	TKN	SM 4500-NH3/D	mg/L						
Ammonia Nitrogen	NH3N	SM 4500-NH3/D	mg/L						
Oil & Grease	O&G	SM 5520/B	mg/L						
Chemical Oxygen Demand	COD	SM 5220/D	mg/L						
Turbidity	TURB.	SM 2130/B	NTUs						
Total Percent Solids	%d.w	SM 2540/G	%						N

Biochemical Oxygen Demand(BOD) Carbonaceous Biochemical Oxygen Demand(CBOD) Method: SM 5210/B			Dissolved Oxygen Method: SM 4500-O*/G			Total Suspended Solids (TSS, MLSS) Method: 2540/D		
Results	Units	Description	Results	Units	Description	Results	Units	Description
				mg/L	Set Up Calibration			
				mg/L	Read Off Calibration			
				°C	Set Up Temperature			
				°C	Read Off Temperature			
				mm Hg	Set Up Barometer			
				mm Hg	Read Off Barometer			
			Fecal Coliform Method: SM9222 /D MF			Conductivity @ 25° C Method: SM2510/B Standards ran for each analytical batch.		
Results	Units	Description	Results	Units	Description	Results	Units	Description
	CFU/100ml	Pre Blank		umhos/cm	Conductivity Standard		umhos/cm	Conductivity Standard
	CFU/100ml	Post Blank		umhos/cm	Conductivity Standard		umhos/cm	Conductivity Standard
			TDS by SM2540/C					
Results	Units	Description	Results	Units	Description			
	mg/L	Blank						
			E. coli By IDEXX Colilert (enumeration)					
	MPN/100 mL							

Lisa Soward

Lisa Soward
Data Manager

Report Out Date: 09/24/2025



Purchase Order / Chain of Custody

Panhandle Division 32680 South US Hwy 287 Amarillo, Texas 79116 Office: 806-339-9393 Emergency: 806-266-9912	Southwest Division 891 E. Young Street El Paso, Texas 78643 Office: 325-291-3295 Emergency: 254-582-2622	East Texas Division 14295 S.H. 165 North Wilshire, Texas 75792 Office: 936-877-9222 Emergency: 817-357-6535	Coastal Division 34 East Ave., Schillingburg, Texas 78856 Office: 979-743-7010 Emergency: 254-221-3201
--	--	---	--

Report To: City of Spearman	Report To: (Buyer)
Company: City of Spearman	Purchase Order #:
City of Spearman 30 SW Court St. Spearman, TX 79081	Address:
Email:	Email:



2509233

CHILD

Analyzed in Amarillo Location of
Environmental Monitoring Laboratory, LLC
13260 South US Highway 287
Amarillo TX 79118-7005

ANALYSES REQUESTED

COBOD / BOD	
TSS, TDS	
pH	
DO	
NH3N (pH<2.0, H ₂ SO ₄) SM4500-NH3 D or G unless specified TRN, TOT PHOS	
FECAL COLIFORM / E.COLI (Sterile)	
MLSS	
ALKALINITY, CHLORIDE, CONDUCTIVITY	
OIL & GREASE	
NITRATE, SULFATE	

Sample Remarks

Renewal Analysis	WW	9-22-25	0850	6	1	X
25090733						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

IR GUN ID: D-H004
 Ice YES NO
 Temperature: 10.3

* Preservation Codes:
1. None
2. Soluble
3. Winc
4. H₂OH → Zn/H₂O
5. H₂OH
6. Stable → Thionylchloride
7. ...

Complete sample information is vital for proper login and reporting. EML may need to subcontract some analyses due to equipment or procedural limitations.

Check us out on the web: <http://www.yourwaterlab.com>

Email us at: homeoffice@yourwaterlab.com

Francesca Findlay

From: Latisha Lavrar <latishav@hpcetx.com>
Sent: Wednesday, November 5, 2025 10:24 AM
To: Francesca Findlay
Subject: Spearman Permit No. WQ0010977001
Attachments: 2989-Technical Response.pdf

Good Morning,

Please see the attached.

Thank you,

Latisha LaVrar

Administrative Assistant

4537 Canyon Drive Amarillo, Texas 79110

Office: 806.353.7233 | latishav@hpcetx.com | www.hpcetx.com



Francesca Findlay

From: Latisha Lavrar <latishav@hpcetx.com>
Sent: Thursday, November 6, 2025 2:52 PM
To: Francesca Findlay
Subject: Re: Spearman Permit No. WQ0010977001
Attachments: Municipal Discharge Renewal Spanish NORI (1).docx; Pollutant Analysis.pdf

Francesca,

My apologies on that.

Attached is the Spanish Nori in Word format and the Attachment 6 Pollutant Analysis of Treated Effluent data.

Thank you,

On Thu, Nov 6, 2025 at 1:52 PM Francesca Findlay <Francesca.Findlay@tceq.texas.gov> wrote:

Good afternoon,

Please resend the Translated Spanish Nori in a word document. Please let me know if you have any questions.

Thank you,

Francesca Findlay

License & Permit Specialist

ARP Team | Water Quality Division

512-239-2441

Texas Commission on Environmental Quality



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

From: Latisha Lavrar <latishav@hpcetx.com>
Sent: Wednesday, November 5, 2025 10:24 AM
To: Francesca Findlay <Francesca.Findlay@tceq.texas.gov>
Subject: Spearman Permit No. WQ0010977001

Good Morning,

Please see the attached.

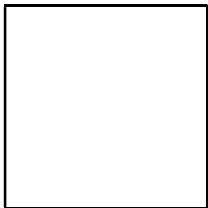
Thank you,

Latisha LaVrar

Administrative Assistant

4537 Canyon Drive Amarillo, Texas 79110

Office: 806.353.7233 | latishav@hpcetx.com | www.hpcetx.com



Erwin Madrid

From: Erwin Madrid
Sent: Wednesday, November 5, 2025 9:30 AM
To: 'citymanager@spearman.tx.gov'
Cc: Francesca Findlay; 'adolfo@hpcetx.com'
Subject: Application for Permit No. WQ0010977001 – Notice of Deficiency 30-Day Will Return Letter
Attachments: WQ0010977001_Will Return Ltr.pdf
Importance: High

Dear applicant,

The attached Notice of Deficiency 30-Day Will Return Letter was mailed on **November 5, 2025**, requesting additional information needed to declare the application administratively complete. Please mail an original and two copies (with a cover letter) of the complete response by **December 5, 2025**.

Regards,

Erwin Madrid
Team Lead
ARP Team | Water Quality Division
512-239-2191
Texas Commission on Environmental Quality



Please consider whether it is necessary to print this e-mail.

TCEQ Interoffice Memorandum

To: Deba Dutta, Team Leader, Municipal Permits Team

From: Mara Guerin, Water Quality Assessment Team

Date: October 22, 2025

Subject: **Segment Review, Permit Renewal, WQ0010977001, City of Spearman, Hansford County**

Segment Number: 0199A

Segment Name: Palo Duro Reservoir

Basin Name: Canadian River Basin



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

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

Section 1. Permitted or Proposed Flows (Instructions Page 42)

A. Existing/Interim I Phase

Design Flow (MGD): 0.4

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

B. Interim II Phase

Design Flow (MGD): 0.4

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

C. Final Phase

Design Flow (MGD): 0.4

2-Hr Peak Flow (MGD): 1.2

Estimated construction start date: 2019

Estimated waste disposal start date: 2022

D. Current Operating Phase

Provide the startup date of the facility: 2022

Section 2. Treatment Process (Instructions Page 42)

A. Current Operating Phase

Provide a detailed description of the treatment process. **Include the type of treatment plant, mode of operation, and all treatment units.** Start with the plant’s head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed, a description of *each phase* must be provided.**

A lagoon system consisting of a facultative lagoon, storage lagoon, and land application area.

B. Treatment Units

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

Table 1.0(1) - Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Facultative Lagoon -	1	810' x 270' x 10' - 15'
Storage Lagoon	1	810' x 383.5' x 13'
Irrigation Pivots	2	166.6 acres and 75 acres

C. Process Flow Diagram

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

Attachment: 4

Section 3. Site Information and Drawing (Instructions Page 43)

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

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

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

- Latitude: 36.206675
- Longitude: -101.204743

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

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

disposal site.

Attachment: 5

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

City of Spearman, located in Hansford County, Texas

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

Collection System Information

Collection System Name	Owner Name	Owner Type	Population Served
City of Spearman Wastewater Treatment Facility	City of Spearman	Publicly Owned	2964
		Choose an item.	
		Choose an item.	
		Choose an item.	

Section 4. Unbuilt Phases (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 5. Closure Plans (Instructions Page 44)

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

N/A

Section 6. Permit Specific Requirements (Instructions Page 44)

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

A. Summary transmittal

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

☒ Yes ☐ No

If **yes**, provide the date(s) of approval for each phase: 04/16/2019

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

Notify TCEQ within 60 days of construction completion

B. Buffer zones

Have the buffer zone requirements been met?

☒ Yes ☐ No

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

N/A

C. Other actions required by the current permit

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

☐ Yes ☒ No

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

N/A

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

☐ Yes ☒ No

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

2. Grit and grease processing

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

N/A

3. Grit disposal

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

☐ Yes ☐ No

If No, contact the TCEQ Municipal Solid Waste team at 512-239-2335. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. *Grease and decanted liquid disposal*

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-2335.

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

N/A

E. Stormwater management

1. *Applicability*

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

☐ Yes ☒ No

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

☐ Yes ☒ No

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

2. *MSGP coverage*

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

☐ Yes ☐ No

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

TXR05 N/A or TXRNE N/A

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

☐ Yes ☐ No

3. Conditional exclusion

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

☐ Yes ☐ No

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

N/A

4. Existing coverage in individual permit

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

☐ Yes ☐ No

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

N/A

5. Zero stormwater discharge

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

☐ Yes ☐ No

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

N/A

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

6. Request for coverage in individual permit

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

☐ Yes ☐ No

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

N/A

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If yes, attach a Sewage Sludge Solids Management Plan. See Example 5 in the instructions.
N/A

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

1. Acceptance of sludge from other WWTPs

Does or will the facility accept sludge from other treatment plants at the facility site?

☐ Yes ☒ No

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

In addition, provide the date the plant started or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

☒ Yes ☐ No

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

☐ Yes ☒ No

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

☒ Yes ☐ No

If **yes to any of the above**, provide the date the plant started or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

The City of Spearman accepts an average of 45,000 gallons of septic waste per month.

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

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

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

☐ Yes ☒ No

If **yes**, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 49)

Is the facility in operation?

☒ Yes ☐ No

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

If yes, provide effluent analysis data for the listed pollutants. **Wastewater treatment facilities** complete Table 1.0(2). **Water treatment facilities** discharging filter backwash water, complete Table 1.0(3). Provide copies of the laboratory results sheets. **These tables are not applicable for a minor amendment without renewal.** See the instructions for guidance.

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

Table 1.0(2) – Pollutant Analysis for Wastewater Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
CBOD ₅ , mg/l					
Total Suspended Solids, mg/l					
Ammonia Nitrogen, mg/l					
Nitrate Nitrogen, mg/l					
Total Kjeldahl Nitrogen, mg/l					
Sulfate, mg/l					
Chloride, mg/l					
Total Phosphorus, mg/l					
pH, standard units					
Dissolved Oxygen*, mg/l	N/A	N/A	N/A	N/A	N/A
Chlorine Residual, mg/l					
<i>E.coli</i> (CFU/100ml) freshwater					
Enterococci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l					
Electrical Conductivity, μ mohs/cm, †					
Oil & Grease, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃)*, mg/l	N/A	N/A	N/A	N/A	N/A

*TPDES permits only

†TLAP permits only

Table 1.0(3) – Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 49)

Facility Operator Name: Steven T. Dettner

Facility Operator's License Classification and Level: MSW, Class A

Facility Operator's License Number: #SW008049

Section 9. Sludge and Biosolids Management and Disposal (Instructions Page 50)

A. WWTP's Sewage Sludge or Biosolids Management Facility Type

Check all that apply. See instructions for guidance

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

B. WWTP's Sewage Sludge or Biosolids Treatment Process

Check all that apply. See instructions for guidance.

- ☐ Aerobic Digestion
- ☐ Air Drying (or sludge drying beds)
- ☐ Lower Temperature Composting
- ☐ Lime Stabilization
- ☐ Higher Temperature Composting
- ☐ Heat Drying
- ☐ Thermophilic Aerobic Digestion
- ☐ Beta Ray Irradiation
- ☐ Gamma Ray Irradiation
- ☐ Pasteurization
- ☐ Preliminary Operation (e.g. grinding, de-gritting, blending)
- ☐ Thickening (e.g. gravity thickening, centrifugation, filter press, vacuum filter)
- ☐ Sludge Lagoon
- ☐ Temporary Storage (< 2 years)
- ☐ Long Term Storage (≥ 2 years)
- ☐ Methane or Biogas Recovery

☐ Other Treatment Process: [Click to enter text.](#)

C. Sewage Sludge or Biosolids Management

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

Biosolids Management

Management Practice	Handler or Preparer Type	Bulk or Bag Container	Amount (dry metric tons)	Pathogen Reduction Options	Vector Attraction Reduction Option
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.
Choose an item.	Choose an item.	Choose an item.		Choose an item.	Choose an item.

If "Other" is selected for Management Practice, please explain (e.g. monofill or transport to another WWTP): [N/A](#)

D. Disposal site

Disposal site name: [City of Spearman Municipal Waste Landfill](#)

TCEQ permit or registration number: [2352](#)

County where disposal site is located: [Hansford County](#)

E. Transportation method

Method of transportation (truck, train, pipe, other): [Front end Loader](#)

Name of the hauler: [City of Spearman Municipal Waste Landfill](#)

Hauler registration number: [2352](#)

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 52)

A. Beneficial use authorization

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

☐ Yes ☒ No

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

☐ Yes ☐ No

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

☐ Yes ☐ No

B. Sludge processing authorization

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

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

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

☐ Yes ☐ No

Section 11. Sewage Sludge Lagoons (Instructions Page 53)

Does this facility include sewage sludge lagoons?

☐ Yes ☒ No

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

A. Location information

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

- Original General Highway (County) Map:
Attachment: N/A
- USDA Natural Resources Conservation Service Soil Map:
Attachment: N/A
- Federal Emergency Management Map:
Attachment: N/A
- Site map:
Attachment: N/A

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.

- ☐ Overlap a designated 100-year frequency flood plain
- ☐ Soils with flooding classification
- ☐ Overlap an unstable area
- ☐ Wetlands

- ☐ Located less than 60 meters from a fault
- ☐ None of the above

Attachment: N/A

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

N/A

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: N/A

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: N/A

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: N/A

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A

Provide the following information:

Volume and frequency of sludge to the lagoon(s): N/A

Total dry tons stored in the lagoons(s) per 365-day period: N/A

Total dry tons stored in the lagoons(s) over the life of the unit: N/A

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

☐ Yes ☐ No

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

- Plan view and cross-section of the sludge lagoon(s)
Attachment: N/A
- Copy of the closure plan
Attachment: N/A
- Copy of deed recordation for the site
Attachment: N/A
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons
Attachment: N/A
- Description of the method of controlling infiltration of groundwater and surface water from entering the site
Attachment: N/A
- Procedures to prevent the occurrence of nuisance conditions
Attachment: N/A

E. Groundwater monitoring

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

☐ Yes ☐ No

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

Attachment: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 54)

A. Additional authorizations

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

☐ Yes ☒ No

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

N/A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

☐ Yes ☒ No

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

☐ Yes ☒ No

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

N/A

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

A. RCRA hazardous wastes

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

☐ Yes ☒ No

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

☐ Yes ☒ No

C. Details about wastes received

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

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 55)

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

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

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

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

CERTIFICATION:

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

Printed Name: Justin Parker

Title: City Manager

Signature: _____

Date: _____

DOMESTIC WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND DISPOSAL OF EFFLUENT

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

Section 1. Type of Disposal System (Instructions Page 67)

Identify the method of land disposal:

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

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

For existing authorizations, provide Registration Number: [Click to enter text.](#)

Section 2. Land Application Site(s) (Instructions Page 67)

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Native grass, Pastureland (Warm Season)	241.8	400,000	N
Rye grass (Overseed during cool season)	241.8	400,000	N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 67)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
-------------	----------------------	----------------------------	------------	------------

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
1	4.93	44.39	810' x 270'	Compacted Clay
2	7.04	74.80	810' x 383.5'	Compacted Clay

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

Attachment: 7

Section 4. Flood and Runoff Protection (Instructions Page 67)

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

☐ Yes ☒ No

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

N/A

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

USGS map and topographic survey

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

The proposed disposal area is located in an area that has slopes from 0% to 3%. The infiltration rate of the soil according to the Soil Survey of Hansford County, Texas is shown to range from 0.5 to 2.0 inches per hour. The application rate proposed will be less than the intake rate of the soil. It is proposed to have an automatic cut-off switch on the sprinkler system should there be a line break. It is proposed to construct a berm around the sprinkler system to prevent runoff and run on from minor rainfall events.

Section 5. Annual Cropping Plan (Instructions Page 67)

Attach an Annual Cropping Plan which includes a discussion of each of the following items. If not applicable, provide a detailed explanation indicating why. **Attachment:** 8

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

Section 6. Well and Map Information (Instructions Page 68)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation indicating why. **Attachment: 9**

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

List and cross reference all water wells located within a half-mile radius of the disposal site or property boundaries shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	
			Choose an item.	

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

Attachment: 10

Section 7. Groundwater Quality (Instructions Page 68)

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

Attachment: 11

Are groundwater monitoring wells available onsite? ☐ Yes ☒ No

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

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

Attachment: N/A

Section 8. Soil Map and Soil Analyses (Instructions Page 69)

A. Soil map

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

Attachment: 12

B. Soil analyses

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

Attachment: 13

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 70)

Is the facility in operation?

☐

Yes

No

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

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

Table 3.0(5) – Effluent Monitoring Data

[illegible]

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

Click to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works.

Section 1. All POTWs (Instructions Page 87)

A. Industrial users (IUs)

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

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

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

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

☐ Yes ☒ No

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

N/A

C. Treatment plant pass through

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

☐ Yes ☒ No

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

☐ Yes ☒ No

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

Is your POTW required to develop an approved pretreatment program?

☐ Yes ☒ No

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 87)

A. Substantial modifications

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

☐ Yes ☐ No

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

N/A

B. Non-substantial modifications

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

☐ Yes ☐ No

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 88)

A. General information

Company Name: N/A

SIC Code: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

Telephone number: N/A

Email address: N/A

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

☐ Yes ☐ No

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

☐ Yes ☐ No

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

Category: Subcategories: N/A

[Click or tap here to enter text.](#) N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

Category: N/A

Subcategories: N/A

F. Industrial user interruptions

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

☐ Yes ☐ No

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

N/A