



Administrative Package Cover Page

This file contains the following documents:

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

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

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

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

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

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

Ridley USA Inc (CN604674556) operates Ridley Block Operations (RN106364409), an animal feed supplement manufacturing plant. The facility is located at 125 Industrial Blvd, in Buffalo, Leon County, Texas 75831. We are applying to renew the current permit and amend it to reflect the correct landfarming location and acreage. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD, TSS, Nitrogen, Ammonia Nitrogen, and Oil and Grease. Wash water and cooling water is pumped to tanks outside the facility where it is aerated before being land applied at the facility.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0005121000

APPLICATION. Ridley USA Inc., 125 Industrial Boulevard, Buffalo, Texas 75831, which owns a prepared feeds and feed ingredients for cattle manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Land Application Permit (TLAP) No. WQ0005121000 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 7,500 gallons per day via 6 acres of land. The facility and disposal site are located at 125 Industrial Boulevard, in the city of Buffalo, in Leon County, Texas 75831. TCEQ received this application on October 23, 2024. The permit application will be available for viewing and copying at Buffalo Public Library, 1005 Hill Street, Buffalo, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications>. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-96.070555,31.441944&level=18>

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 Ridley USA Inc. at the address stated above or by calling Mr. Tommy Davis, Plant Manager, at 909-322-4228.

Issuance Date: March 20, 2025

Abesha Michael

From: Jordan McKinney <jmckinney@hallenvironmental.net>
Sent: Wednesday, March 5, 2025 1:11 PM
To: Erwin Madrid
Cc: Abesha Michael
Subject: RE: Request for Information NOD WQ0005121000
Attachments: LABELS.pdf; Landowners Maps.pdf; Mailing addresses.pdf; Page 2.pdf; Page 3.pdf; Page 9.pdf; Page 12.pdf; Proof of payment.pdf; Attachment 2.A revised aerial.pdf; Attachment 11.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon!

Attached are the updated pages of the application.

I also attached the 4 sets of labels, if I need to mail hard copies of these please let me know where to mail them.

A check for the remaining \$35 has been mailed to the address on page 15 of the Administrative Report, along with a copy of Page 15. If you need this page, I can send it as well.

The attachment "Landowners Maps" shows how I obtained all the adjacent landowner information, unfortunately the landowner you requested information on is not available and I am unaware of another place to locate this information. If there is any additional information you need for the application or errors I need to fix, please let me know!

Thank you!

Jordan McKinney
Environmental Engineer
Hall Environmental Consultants, LLC
1376 Danville Road Loop # 1
Nicholasville, KY 40356
Office (859) 885-3331
Cell (859) 806-0568
www.hallenvironmentalconsultants.com

From: Randy Shelley <rshelley@hallenvironmental.net>
Sent: Tuesday, February 25, 2025 2:00 PM
To: Jordan McKinney <jmckinney@hallenvironmental.net>
Subject: Fw: Request for Information NOD WQ0005121000

From: Jimmy Sexton <jsexton@Alltech.com>
Sent: Tuesday, February 25, 2025 11:58:30 AM
To: Randy Shelley <rshelley@hallenvironmental.net>
Subject: Fw: Request for Information NOD WQ0005121000

From: Erwin Madrid <Erwin.Madrid@tceq.texas.gov>
Sent: Tuesday, February 25, 2025 12:56:16 PM
To: Jimmy Sexton <jsexton@Alltech.com>
Cc: Tommy Davis <Tommy.Davis@alltech.com>; Abesha Michael <Abesha.Michael@tceq.texas.gov>
Subject: Request for Information NOD WQ0005121000

Good afternoon,

I am following up on a request for information regarding permit WQ0005121000 (RIDLEY USA INC).

As per our technical team the change you requested as a minor change has to be major changes and the application has to be completed as a major amendment application. Please email me the updates pages only.

Item 1E on page 3 of the administrative report: Please check Major Amendment with renewals.

Item 1F on page 3 of the administrative report: Please update the amendment or modification description if needed

Item 1G & 1H, Payment Information, on page 3 of the administrative report: The application fee for a major amendment is \$350.00. Please pay the remaining amount \$35.00 and email the proof of payment with the response to this email.

Item 9F, Plain Language Summary (PLS), on page 7 of the administrative report: Please update the PLS for a major amendment application.

Item 11B, TLAP Disposal Information on page 8 of the administrative report: Please check the information which applies for a TLAP Disposal.

Item 1A, Affected Landowner Information, on page 12 of the administrative report: 1.1: Please check only the information which applies for a TLAP disposal.

Item 1A, Affected Landowner Information, on page 12 of the administrative report: 1.1. Please confirm the applicant property boundary is the same as the facility boundary, if not please submit a revised landowners map and delineate the applicant property boundary, and the facility boundary within the property boundary, Effluent disposal site boundaries and all surrounding landowners.

Item 1A, Affected Landowner Information, on page 12 of the administrative report: 1.1: Thank you for the affected landowner's map. However, the map is insufficient, it doesn't delineate the landowner on the northwest side of the applicant property boundary (between the property boundary and County Road 306). And please submit the cross-referenced mailing list and mailing labels (please follow the instruction pages for the mailing list and labels)

If you have any questions/concerns, please reach out to Ms. Abesha Michael or myself.

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.



November 1, 2034

Abesha Michael
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

RE: *Application to Renew Permit NO: WQ005121000*
Ridley USA (CN604674556)
Ridley Operations (RN106364409)

Dear Abesha Michael:

Thank you for your prompt review of our application for the above-referenced permit. Please find below our responses to the requested items for your review:

1. **Item 1F on page 2 of the Administrative Report:** We have updated the application to include the amount of reduced irrigated acreage. The revised pages are attached.
2. **Item 9F, Plain Language Summary (PLS), on page 7 of the Administrative Report 1.0:** Attached is the English Plain Language Summary for your review.
3. **Items 10D, 10F on page 7 of the Administrative Report:** We have updated these items to correctly indicate that the owner of the treatment facility and the land where the treatment activity is listed is Ridley USA Inc. The revised pages are attached.
4. **Items 10G on page 8 of the Administrative Report:** We have updated these items to indicate the owner of the effluent TLAP disposal site. Since the owner of the land is Ridley USA Inc., we have not included copy of the deed or long-term lease agreement.
5. **Item 11D on page 9 of the Administrative Report:** We have completed items I, J, K, L, and M, which are required for TLAP. The revised pages are attached.
6. **Item 13 on page 12, and Item 2C of the application on page 3 of the Administrative Report:** We have provided a notarized signature page signed by Mr. Jimmy Sexton,

7. Regional EHS Director, who is authorized to sign the application. The revised page is attached.
8. **NORI Review:** We have reviewed the provided portion of the NORI and confirmed its accuracy, except the acreage of 175 acres. It should be revised to 9 acres.

We appreciate your understanding and cooperation throughout this process. Should you have any questions or require further information, please do not hesitate to contact me at jsexton@alltech.com.

Best regards,



Jimmy Sexton
Global EHS Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the industrial wastewater permit application.

APPLICANT NAME: Ridley USA Inc.

PERMIT NUMBER (If new, leave blank): WQ00 05121000

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

	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 9.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 10.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plain Language Summary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Worksheet 11.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 1.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 4.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 6.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 7.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

For TCEQ Use Only

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use the Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst¹](#)).

Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Ridley USA Inc.

Permit No.: WQ0005121000

EPA ID No.: TX0 [Click to enter text.](#)

Expiration Date: February 1, 2025

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☒ TPDES Permit

☐ TLAP

☐ TPDES with TLAP component

- e. Check the box next to the appropriate application type.

☐ New

☒ Renewal with changes

☐ Renewal without changes

☐ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Reduce the acreage from 125 acres to 6 acres and update the drainage basin description.

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____

Permit Number _____

¹ https://www.tceq.texas.gov/publications/search_forms.html

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input type="checkbox"/> \$350	<input checked="" type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ²	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

h. Payment Information

Mailed

Check or money order No.: [Click to enter text.](#)

Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

Epay

Voucher number: [726587](#)

Copy of voucher attachment: [Attachment 8](#)

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: [CN604674556](#)

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)³.

b. Legal name of the entity (applicant) applying for this permit: [Ridley USA Inc](#)

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: [Mr.](#) Full Name (Last/First Name): [Jimmy Sexton](#)

Title: [Regional EHS Director](#)

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

d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

² All facilities are designated as minors until formally classified as a major by EPA.

³ <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 27)

☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: [Click to enter text.](#)

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): [CNClick to enter text.](#)

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

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

Full Name (Last/First Name): [Click to enter text.](#)

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

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

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 27)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: [Attachment 1](#)

Item 5. Application Contact Information (Instructions, Page 27)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. ☒ Administrative Contact ☐ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Jimmy Sexton

Title: Global EHS Director Credential: [Click to enter text.](#)

Organization Name: Alltech

Mailing Address: 3031 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-9613

Email: jsexton@alltech.com

b. ☐ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Tommy Davis

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

Organization Name: Ridley USA Inc

Mailing Address: 125 Industrial Blvd

City/State/Zip: Buffalo/TX/75831

Phone No: 903-322-4228

Email: tommy.davis@alltech.com

Attachment: Click to enter text.

Item 6. Permit Contact Information (Instructions, Page 28)

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

a. Prefix: Mr. Full Name (Last/First Name): Jimmy Sexton

Title: Global EHS Director Credential: Click to enter text.

Organization Name: Alltech

Mailing Address: 3031 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-9613

Email: jsexton@alltech.com

b. Prefix: Mr. Full Name (Last/First Name): Tommy Davis

Title: Plant Manager Credential: Click to enter text.

Organization Name: Ridley USA Inc

Mailing Address: 125 Industrial Blvd

City/State/Zip: Buffalo/TX/75831

Phone No: 903-322-4228

Email: tommy.davis@alltech.com

Attachment: Click to enter text.

Item 7. Billing Contact Information (Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for 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 (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

Prefix: Mr. Full Name (Last/First Name): Randy Shelley

Title: Billing Contact Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: 1376 Danville Loop 1 Road

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-3331

Email: rshelley@hallenvironmental.net

Item 8. DMR/MER Contact Information (Instructions, Page 28)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

Prefix: Click to enter text. Full Name (Last/First Name): Jordan McKinney

Title: Consultant Credential: Click to enter text.

Organization Name: Alltech

Mailing Address: 1376 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Item 9. Notice Information (Instructions, Pages 28)**a. Individual Publishing the Notices**Prefix: Click to enter text.Full Name (Last/First Name): Tommy DavisTitle: Plant ManagerCredential: Click to enter text.Organization Name: Ridley USA IncMailing Address: 125 Industrial BlvdCity/State/Zip: Buffalo/TX/75831Phone No: 909-322-4228Email: tommy.davis@alltech.com**b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)**☒ E-mail: rshelley@hallenvironmental.net☐ Fax: Click to enter text.☐ Regular Mail (USPS)Mailing Address: Click to enter text.City/State/Zip Code: Click to enter text.**c. Contact in the Notice**Prefix: Click to enter text.Full Name (Last/First Name): Tommy DavisTitle: Plant ManagerCredential: Click to enter text.Organization Name: Ridley USA IncPhone No: 909-322-4228Email: tommy.davis@alltech.com**d. Public Viewing Location Information****Note:** If the facility or outfall is located in more than one county, provide a public viewing place for each county.Public building name: Buffalo Public Library LibrarianLocation within the building: Check withPhysical Address of Building: 1005 Hill StCity: Buffalo County: Leon**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.

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is 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 Item 8 (Regulated Entity and Permitted Site Information.)

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 ☐ N/A

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? [Click to enter text.](#)

- f. Plain Language Summary Template – Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment. Attachment: [Click to enter text.](#)

- g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: [Click to enter text.](#)

Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

- a. TCEQ issued Regulated Entity Number (RN), if available: [RN106364409](#)

Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

- b. Name of project or site (the name known by the community where located): [Ridley Block Operations](#)

- c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

- d. Owner of treatment facility:

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: [Ridley USA Inc](#)

Mailing Address: [125 Industrial Blvd](#)

City/State/Zip: [Buffalo/TX/75831](#)

Phone No: [903-322-4228](#)

Email: [tommy.davis@alltech.com](#)

- e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

- f. Owner of land where treatment facility is or will be: Ridley USA Inc
 Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.
 or Organization Name: Ridley Block Operations
 Mailing Address: 125 Industrial Blvd City/State/Zip: Buffalo/TX/75831
 Phone No: 903-322-4228 Email: tommy.davis@alltech.com
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: N/A
- g. Owner of effluent TLAP disposal site (if applicable): Ridley USA Inc
 Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.
 or Organization Name: Ridley Block Operations
 Mailing Address: 125 Industrial Blvd City/State/Zip: Buffalo/TX/75831
 Phone No: 903-322-4228 Email: tommy.davis@alltech.com
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A
- h. Owner of sewage sludge disposal site (if applicable):
 Prefix: N/A Full Name (Last/First Name): Click to enter text.
 or Organization Name: Click to enter text.
 Mailing Address: Click to enter text. City/State/Zip: Click to enter text.
 Phone No: Click to enter text. Email: Click to enter text.
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Page 31)

- a. Is the facility located on or does the treated effluent cross Native American Land?
☐ Yes ☒ No
- b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.
- | | |
|---|--|
| <input checked="" type="checkbox"/> One-mile radius | <input checked="" type="checkbox"/> Three-miles downstream information |
| <input checked="" type="checkbox"/> Applicant's property boundaries | <input type="checkbox"/> Treatment facility boundaries N/A |
| <input checked="" type="checkbox"/> Labeled point(s) of discharge | <input checked="" type="checkbox"/> Highlighted discharge route(s) |
| <input checked="" type="checkbox"/> Effluent disposal site boundaries | <input type="checkbox"/> All wastewater ponds N/A |
| <input type="checkbox"/> Sewage sludge disposal site N/A | <input type="checkbox"/> New and future construction N/A |
- Attachment: Attachment 2
- c. Is the location of the sewage sludge disposal site in the existing permit accurate?
☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: 125 Industrial Blvd.

- d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- e. Are the discharge route(s) in the existing permit correct?

☐ Yes ☒ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: See Attachment 2 for land application locations and stormwater outfalls.

- f. City nearest the outfall(s): Buffalo, TX

- g. County in which the outfalls(s) is/are located: Leon

- h. 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, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: Click to enter text.

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.

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

☐ Yes No or New Permit ☒ No

If no, or a new application, provide an accurate location description: The current permit references the correct address, but the incorrect acreage and location description.

- j. City nearest the disposal site: Buffalo, TX

- k. County in which the disposal site is located: Leon

- l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Wash water is pumped to tanks outside the facility where it is aerated before being land applied using spray irrigation.

- m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Tributary to Lake Limestone

Item 12. Miscellaneous Information (Instructions, Page 33)

- a. 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: [Click to enter text.](#)

- b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: [Click to enter text.](#)

Total amount due: [Click to enter text.](#)

- c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: [Click to enter text.](#)

Amount due: [Click to enter text.](#)

Item 13. Signature Page (Instructions, Page 33)

Permit No: WO0005121000

Applicant Name: Ridley USA Inc

Certification: I, Jimmy Sexton, 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): Jimmy Sexton

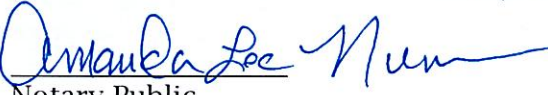
Signatory title: Global EHS Director

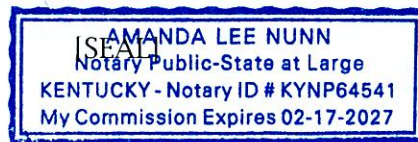
Signature: 
(Use blue ink)

Date: Oct. 31, 2024

Subscribed and Sworn to before me by the said Jimmy Sexton
on this 31st day of October, 20 24.

My commission expires on the 17th day of February, 20 29.


Notary Public



Fayette, Kentucky
County, Texas

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

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

Item 2. Original Photographs (Instructions, Page 37)

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

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☒ At least one photograph of the existing/proposed effluent disposal site.
- ☐ A plot plan or map showing the location and direction of each photograph.

Attachment: Attachment 3

INDUSTRIAL WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: Attachment 4

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

- ☒ Core Data Form (TCEQ Form No. 10400)
*(Required for all applications types. Must be completed in its entirety and signed.
Note: Form may be signed by applicant representative.)*
- ☒ Correct and Current Industrial Wastewater Permit Application Forms
(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)
- ☒ Water Quality Permit Payment Submittal Form (Page 14)
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
- ☒ 7.5 Minute USGS Quadrangle Topographic Map Attached
*(Full-size map if seeking "New" permit.
8 ½ x 11 acceptable for Renewals and Amendments.)*
- ☒ N/A ☐ Current/Non-Expired, Executed Lease Agreement or Easement Attached
- ☐ N/A ☒ Landowners Map
(See instructions for landowner requirements.)

Things to Know:

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

- ☒ N/A ☐ Landowners Cross Reference List
(See instructions for landowner requirements.)
- ☒ N/A ☐ Landowners Labels or CD-RW attached
(See instructions for landowner requirements.)
- ☒ Original signature per 30 TAC § 305.44 – Blue Ink Preferred
*(If signature page is not signed by an elected official or principle executive officer,
a copy of signature authority/delegation letter must be attached.)*
- ☒ Plain Language Summary



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use the Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst¹](#)).

Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Ridley USA Inc.

Permit No.: WQ0005121000

EPA ID No.: TX0 [Click to enter text.](#)

Expiration Date: February 1, 2025

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☐ TPDES Permit

☐ TLAP

☒ TPDES with TLAP component

- e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes

☐ Renewal without changes

☒ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Amend the current permit to reflect the correct acreage and location. Reduce the acreage from 125 acres to 6 acres and update the drainage basin description.

For TCEQ Use Only

Segment Number _____ County _____

¹ https://www.tceq.texas.gov/publications/search_forms.html

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input checked="" type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ²	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

h. Payment Information

Mailed

Check or money order No.: 15800

Check or money order amt.: \$35.00

Named printed on check or money order: Hall Environmental Consultants,LLC

Epay

Voucher number: 726587

Copy of voucher attachment: Attachment 8

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: CN604674556

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)³.

b. Legal name of the entity (applicant) applying for this permit: Ridley USA Inc

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: Mr. Full Name (Last/First Name): Jimmy Sexton

Title: Regional EHS Director

Credential: Click to enter text.

² All facilities are designated as minors until formally classified as a major by EPA.

³ <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

Attachment: Attachment 2

- c. Is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: Industrial process water, not sewage sludge is applied at 125 Industrial Blvd.

- d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- e. Are the discharge route(s) in the existing permit correct?

☐ Yes ☒ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: See Attachment 2 for land application locations and stormwater outfalls.

- f. City nearest the outfall(s): Buffalo, TX

- g. County in which the outfalls(s) is/are located: Leon

- h. 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, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: N/A

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: N/A

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

☐ Yes ☐ No or New Permit ☒ No

If no, or a new application, provide an accurate location description: The current permit references the correct address, but the incorrect acreage and location description. See Attachment 2 for the correct application locations.

- j. City nearest the disposal site: Buffalo, TX

- k. County in which the disposal site is located: Leon

- l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Wash water is pumped to tanks outside the facility where it is aerated before being land applied using spray irrigation.

- m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Tributary to Lake Limestone

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

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

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☒ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☒ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: N/A

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

☐ Readable/Writeable CD ☒ Four sets of labels

Attachment: Attachment 13. Physical copies mailed.

- d. Provide the source of the landowners' names and mailing addresses:

<https://www.leoncad.org/>

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

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

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

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

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

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

Ridley USA Inc (CN604674556) operates Ridley Block Operations (RN106364409), an animal feed supplement manufacturing plant. The facility is located at 125 Industrial Blvd, in Buffalo, Leon County, Texas 75831. We are applying to renew the current permit and amend it to reflect the correct landfarming location and acreage. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD, TSS, Nitrogen, Ammonia Nitrogen, and Oil and Grease. Wash water and cooling water is pumped to tanks outside the facility where it is aerated before being land applied at the facility.

RUBY JESSE B & NELDA J

11939 CR 306 BUFFALO TX 75831

ORTEGA REAL ESTATE INTEREST LP

8830 LONG POINT RD SUITE 700 HOUSTON TX 77055

RUBY JESSE B & NELDA J
11939 CR 306
BUFFALO, TX 75831

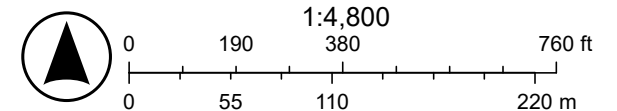
ORTEGA REAL ESTATE INTEREST LP
8830 LONG POINT RD
SUITE 700
HOUSTON, TX 77055

Ridley USA Inc



- Wastewater Outfall
- Land Application Area
- Property Boundaries
- Building/Facility Boundary

1 Owner: RUBY JESSE B & NELDA J
 2 Owner: ORTEGA REAL ESTATE INTEREST LP
 3 Owner: Unknown
 4 Owner: Ridley USA Inc



Esri Community Maps Contributors, Baylor University, Texas Parks & Wildlife,
 © OpenStreetMap, Microsoft, CONANP, Esri, TomTom, Garmin, SafeGraph,

Hall Environmental Consultants Inc.
 1376 Danville Loop 1 Rd, Nicholasville, KY 40356



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the industrial wastewater permit application.

APPLICANT NAME: Ridley USA Inc.

PERMIT NUMBER (If new, leave blank): WQ00 05121000

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



	Y	N		Y	N
Administrative Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 8.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Administrative Report 1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 9.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPIF	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 10.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Core Data Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Involvement Plan Form	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Plain Language Summary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Technical Report 1.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Worksheet 11.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 1.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original USGS Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 2.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Affected Landowners Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner Disk or Labels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Flow Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Site Drawing	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 3.3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Original Photographs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Worksheet 4.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Design Calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 4.1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solids Management Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 5.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Water Balance	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Worksheet 6.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Worksheet 7.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>			

RECEIVED

JAN 17 2025

WATER QUALITY DIVISION
TCEQ

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____

Permit Number _____



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use the Oil and Gas Exploration and Production Administrative Report ([TCEO Form-20893 and 20893-inst¹](#)).

Item 1. Application Information and Fees (Instructions, Page 26)

- a. Complete each field with the requested information, if applicable.

Applicant Name: Ridley USA Inc.

Permit No.: WO0005121000

EPA ID No.: TX0Click to enter text.

Expiration Date: February 1, 2025

- b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

- c. Check the box next to the appropriate facility status.

☒ Active

☐ Inactive

- d. Check the box next to the appropriate permit type.

☐ TPDES Permit

☐ TLAP

☒ TPDES with TLAP component

- e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes

☐ Renewal without changes

☒ Major amendment with renewal

☐ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: Reduce the acreage from 125 acres to 6 acres and update the drainage basin description.

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____

Permit Number _____

¹ https://www.tceq.texas.gov/publications/search_forms.html

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$350	<input checked="" type="checkbox"/> \$350	<input type="checkbox"/> \$315	<input type="checkbox"/> \$150
Minor facility subject to EPA categorical effluent guidelines (40 CFR Parts 400-471)	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,250	<input type="checkbox"/> \$1,215	<input type="checkbox"/> \$150
Major facility	N/A ²	<input type="checkbox"/> \$2,050	<input type="checkbox"/> \$2,015	<input type="checkbox"/> \$450

h. Payment Information

Mailed

Check or money order No.: [Click to enter text.](#)

Check or money order amt.: [Click to enter text.](#)

Named printed on check or money order: [Click to enter text.](#)

Epay

Voucher number: [726587](#)

Copy of voucher attachment: [Attachment 8](#)

Item 2. Applicant Information (Instructions, Pages 26)

- a. Customer Number, if applicant is an existing customer: [CN604674556](#)

Note: Locate the customer number using the [TCEQ's Central Registry Customer Search](#)³.

- b. Legal name of the entity (applicant) applying for this permit: [Ridley USA Inc](#)

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

- c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: [Mr.](#) Full Name (Last/First Name): [Jimmy Sexton](#)

Title: [Regional EHS Director](#)

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

- d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

² All facilities are designated as minors until formally classified as a major by EPA.

³ <https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch>

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 27)

☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: Click to enter text.

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): CNClick to enter text.

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

Prefix: Click to enter text.

Full Name (Last/First Name): Click to enter text.

Title: Click to enter text.

Credential: Click to enter text.

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 4. Core Data Form (Instructions, Pages 27)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: Attachment 1

Item 5. Application Contact Information (Instructions, Page 27)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. ☒ Administrative Contact ☐ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Jimmy Sexton

Title: Global EHS Director Credential: Click to enter text.

Organization Name: Alltech

Mailing Address: 3031 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-9613

Email: jsexton@alltech.com

b. ☐ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Tommy Davis

Title: Plant Manager Credential: Click to enter text.

Organization Name: Ridley USA Inc

Mailing Address: 125 Industrial Blvd

City/State/Zip: Buffalo/TX/75831

Phone No: 903-322-4228

Email: tommy.davis@alltech.com

Attachment: Click to enter text.

Item 6. Permit Contact Information (Instructions, Page 28)

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

a. Prefix: Mr. Full Name (Last/First Name): Jimmy Sexton

Title: Global EHS Director Credential: Click to enter text.

Organization Name: Alltech

Mailing Address: 3031 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-9613

Email: jsexton@alltech.com

b. Prefix: Mr. Full Name (Last/First Name): Tommy Davis

Title: Plant Manager Credential: Click to enter text.

Organization Name: Ridley USA Inc

Mailing Address: 125 Industrial Blvd

City/State/Zip: Buffalo/TX/75831

Phone No: 903-322-4228

Email: tommy.davis@alltech.com

Attachment: Click to enter text.

Item 7. Billing Contact Information (Instructions, Page 28)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for 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 (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

Prefix: Mr. Full Name (Last/First Name): Randy Shelley

Title: Billing Contact Credential: Click to enter text.

Organization Name: Click to enter text.

Mailing Address: 1376 Danville Loop 1 Road

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-3331

Email: rshelley@hallenvironmental.net

Item 8. DMR/MER Contact Information (Instructions, Page 28)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

Prefix: Click to enter text. Full Name (Last/First Name): Jordan McKinney

Title: Consultant Credential: Click to enter text.

Organization Name: Alltech

Mailing Address: 1376 Catnip Hill Rd

City/State/Zip: Nicholasville/KY/40356

Phone No: 859-885-3331

Email: jmckinney@hallenvironmental.net

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Click to enter text.

Full Name (Last/First Name): Tommy Davis

Title: Plant Manager

Credential: Click to enter text.

Organization Name: Ridley USA Inc

Mailing Address: 125 Industrial Blvd

City/State/Zip: Buffalo/TX/75831

Phone No: 909-322-4228

Email: tommy.davis@alltech.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

☒ E-mail: rshelley@hallenvironmental.net

☐ Fax: Click to enter text.

☐ Regular Mail (USPS)

Mailing Address: Click to enter text.

City/State/Zip Code: Click to enter text.

c. Contact in the Notice

Prefix: Click to enter text.

Full Name (Last/First Name): Tommy Davis

Title: Plant Manager

Credential: Click to enter text.

Organization Name: Ridley USA Inc

Phone No: 909-322-4228

Email: tommy.davis@alltech.com

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: Buffalo Public Library

Location within the building: Check with Librarian

Physical Address of Building: 1005 Hill St

City: Buffalo County: Leon

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.

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is 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 Item 8 (Regulated Entity and Permitted Site Information.)

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 ☐ N/A

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? [Click to enter text.](#)

- f. Plain Language Summary Template - Complete the Plain Language Summary (TCEQ Form 20972) and include as an attachment. Attachment: [Attachment 11](#)

- g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: [Attachment 12](#)

Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

- a. TCEQ issued Regulated Entity Number (RN), if available: [RN106364409](#)

Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

- b. Name of project or site (the name known by the community where located): [Ridley Block Operations](#)

- c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

- d. Owner of treatment facility:

Prefix: [Click to enter text.](#) Full Name (Last/First Name): [Click to enter text.](#)

or Organization Name: [Ridley USA Inc](#)

Mailing Address: [125 Industrial Blvd](#)

City/State/Zip: [Buffalo/TX/75831](#)

Phone No: [903-322-4228](#)

Email: [tommy.davis@alltech.com](#)

- e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

- f. Owner of land where treatment facility is or will be: Ridley USA Inc
 Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.
 or Organization Name: Ridley Block Operations
 Mailing Address: 125 Industrial Blvd City/State/Zip: Buffalo/TX/75831
 Phone No: 903-322-4228 Email: tommy.davis@alltech.com
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: N/A
- g. Owner of effluent TLAP disposal site (if applicable): Ridley USA Inc
 Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.
 or Organization Name: Ridley Block Operations
 Mailing Address: 125 Industrial Blvd City/State/Zip: Buffalo/TX/75831
 Phone No: 903-322-4228 Email: tommy.davis@alltech.com
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A
- h. Owner of sewage sludge disposal site (if applicable):
 Prefix: N/A Full Name (Last/First Name): N/A
 or Organization Name: N/A
 Mailing Address: N/A City/State/Zip: N/A
 Phone No: N/A Email: N/A
Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Page 31)

- a. Is the facility located on or does the treated effluent cross Native American Land?
☐ Yes ☒ No
- b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.
- | | |
|---|--|
| <input checked="" type="checkbox"/> One-mile radius | <input checked="" type="checkbox"/> Three-miles downstream information |
| <input checked="" type="checkbox"/> Applicant's property boundaries | <input type="checkbox"/> Treatment facility boundaries N/A |
| <input checked="" type="checkbox"/> Labeled point(s) of discharge | <input checked="" type="checkbox"/> Highlighted discharge route(s) |
| <input checked="" type="checkbox"/> Effluent disposal site boundaries | <input type="checkbox"/> All wastewater ponds N/A |
| <input type="checkbox"/> Sewage sludge disposal site N/A | <input type="checkbox"/> New and future construction N/A |
- Attachment: Attachment 2
- c. Is the location of the sewage sludge disposal site in the existing permit accurate?
☐ Yes ☒ No or New Permit

If no, or a new application, provide an accurate location description: Industrial process water, not sewage sludge is applied at 125 Industrial Blvd.

- d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

- e. Are the discharge route(s) in the existing permit correct?

☐ Yes ☒ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: See Attachment 2 for land application locations and stormwater outfalls.

- f. City nearest the outfall(s): Buffalo, TX

- g. County in which the outfalls(s) is/are located: Leon

- h. 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, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: N/A

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: N/A

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

☐ Yes No or New Permit ☒ No

If no, or a new application, provide an accurate location description: The current permit references the correct address, but the incorrect acreage and location description.

- j. City nearest the disposal site: Buffalo, TX

- k. County in which the disposal site is located: Leon

- l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Wash water is pumped to tanks outside the facility where it is aerated before being land applied using spray irrigation.

- m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Tributary to Lake Limestone

Item 12. Miscellaneous Information (Instructions, Page 33)

- a. 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: [Click to enter text.](#)

- b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: [Click to enter text.](#)

Total amount due: [Click to enter text.](#)

- c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: [Click to enter text.](#)

Amount due: [Click to enter text.](#)

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0005121000

Applicant Name: Ridley USA Inc

Certification: I, Jimmy Sexton, 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): Jimmy Sexton

Signatory title: Global EHS Director

Signature: Jimmy Sexton (Use blue ink) Date: Jan. 14. 2025

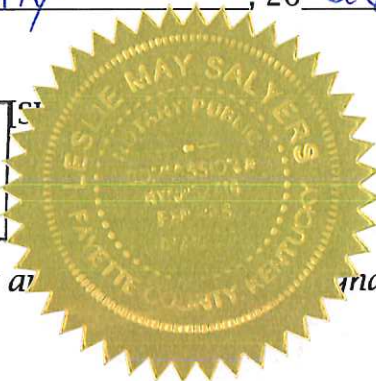
Subscribed and Sworn to before me by the said Jimmy Sexton
on this 14th day of January, 2025.

My commission expires on the 29th day of July, 2026.

Leslie May Salyers
Notary Public

Fayette, Kentucky
County, Texas

Leslie May Salyers
NOTARY PUBLIC
STATE AT LARGE
KENTUCKY
ID. # KYNP52716
MY COMMISSION EXPIRES JULY 29, 2026



Note: If co-applicants are necessary, each entity must submit a separate signature page.

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

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

a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.

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

Attachment: Attachment 2

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

- ☐ Readable/Writeable CD ☐ Four sets of labels

Attachment: N/A

d. Provide the source of the landowners' names and mailing addresses: N/A

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

- ☐ Yes ☒ No

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

Item 2. Original Photographs (Instructions, Page 37)

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

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☒ At least one photograph of the existing/proposed effluent disposal site.
- ☐ A plot plan or map showing the location and direction of each photograph.

Attachment: Attachment 3

INDUSTRIAL WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: Attachment 4

INDUSTRIAL WASTEWATER PERMIT APPLICATION

CHECKLIST OF COMMON DEFICIENCIES

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

- ☒ Core Data Form (TCEQ Form No. 10400)
(Required for all applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)
- ☒ Correct and Current Industrial Wastewater Permit Application Forms
(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)
- ☒ Water Quality Permit Payment Submittal Form (Page 14)
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
- ☒ 7.5 Minute USGS Quadrangle Topographic Map Attached
*(Full-size map if seeking "New" permit.
8 ½ x 11 acceptable for Renewals and Amendments.)*
- ☒ N/A ☐ Current/Non-Expired, Executed Lease Agreement or Easement Attached
- ☐ N/A ☒ Landowners Map
(See instructions for landowner requirements.)

Things to Know:

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

- ☒ N/A ☐ Landowners Cross Reference List
(See instructions for landowner requirements.)
- ☒ N/A ☐ Landowners Labels or CD-RW attached
(See instructions for landowner requirements.)
- ☒ Original signature per 30 TAC § 305.44 - Blue Ink Preferred
(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached.)
- ☒ Plain Language Summary



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

TECHNICAL REPORT 1.0

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

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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

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

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

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

Sic code 2048. Manufacture animal feed supplements

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

Wash water will be generated from the weekly washing of cookers used to reduce moisture of animal feed supplements. Cooling water will be generated as the animal feed supplements are transferred from the cookers on a cooling belt. The wastewater will be used to irrigate approximately 6 acres of lawn at the facility.

¹
https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

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

Materials List

Raw Materials	Intermediate Products	Final Products
Dry grains		Animal feed
Micronutrients		
Pharmaceuticals		
Molasses		

Attachment: N/A

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

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

Attachment: Attachment 2

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

☐ Yes ☒ No

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

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

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain: [FEMA's National Flood Hazard Layer Viewer](#)

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

Attachment: N/A

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

☐ Yes ☒ No ☐ N/A (renewal only)

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

☐ Yes ☐ No

If **yes**, provide the permit number: N/A

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

Item 2. Treatment System (Instructions, Page 40)

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

Wash water is pumped to tanks outside the facility where it is aerated before being land applied.

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

Attachment: Attachment 10

Item 3. Impoundments (Instructions, Page 40)

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

☐ Yes ☒ No

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

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

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

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

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

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

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

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

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

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

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) (S) or (A)				
Alt. Liner Attachment Reference				
Leak Detection System, Y/N				
Groundwater Monitoring Wells, Y/N				
Groundwater Monitoring Data Attachment				
Pond Bottom Located Above The Seasonal High-Water Table, Y/N				
Length (ft)				
Width (ft)				
Max Depth From Water Surface (ft), Not Including Freeboard				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
40 CFR Part 257, Subpart D, Y/N				
Date of Construction				

Attachment: N/A

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

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

1. Liner data

☐ Yes ☐ No ☐ Not yet designed

2. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

3. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

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

Attachment: N/A

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

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

Attachment: N/A

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

Attachment: N/A

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

Attachment: N/A

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

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

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

For TLAP applications: Indicate the disposal method and each individual irrigation area I, evaporation pond E, or subsurface drainage system S by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

Outfall Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
003	31.442665°	-96.070031°

Outfall Location Description

Outfall No.	Location Description
003	Wastewater can be sampled from one of the tanks before it is land applied.

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

Outfall No.	Description of sampling point
003	Wastewater can be sampled from one of the tanks before it is land applied.

Outfall Flow Information - Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
003	0.0075 MGD	0.0075 MGD	0.0075 MGD	0.0075 MGD	2/1/2025

Outfall Discharge - Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
003	Y	N	Flow meter

Outfall Discharge - Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
003	Y	N	N	8 hrs/day	20 days/mo	12 mo/yr

Outfall Wastestream Contributions

Outfall No. 003

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Wash water	0.0075 MGD	100%

Outfall No. Click to enter text.

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

Outfall No. Click to enter text.

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

Attachment: N/A

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

a. Indicate if the facility currently or proposes to:

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

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

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

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

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

Attachment: N/A

c. Cooling Towers and Boilers

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

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

Item 6. Stormwater Management (Instructions, Page 44)

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

☐ Yes ☒ No

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

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

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

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- ☒ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - ☐ Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - ☐ Facility is a POTW. Complete Worksheet 5.0.
 - ☐ Domestic sewage is not generated on-site.
 - ☐ Other (e.g., portable toilets), specify and Complete Item 7.b: Click to enter text.
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
City of Buffalo WWTP	

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

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
- ☒ Yes ☐ No
- b. Has the permittee completed or planned for any improvements or construction projects?
- ☐ Yes ☒ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: The facility is in the process of responding and correcting items in a notice of violation. The submittal of this application is the last step.

Item 9. Toxicity Testing (Instructions, Page 45)

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

☐ Yes ☒ No

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

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

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

a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☐ Yes ☒ No

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

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

b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: N/A

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

☐ Yes ☐ No

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

Attachment: N/A

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

☐ Yes ☐ No

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

Item 11. Radioactive Materials (Instructions, Page 46)

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

☐ Yes ☒ No

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

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)

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

☐ Yes ☒ No

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

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)

Item 12. Cooling Water (Instructions, Page 46)

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

☐ Yes ☒ No

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

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

☐ Yes ☐ No

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

- c. Cooling Water Supplier

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

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

CWIS ID				
Owner				
Operator				

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

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: [PWS No. Click to enter text.](#)

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

☐ Yes ☐ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: [Click to enter text.](#)

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

☐ Yes ☐ No

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

d. 316(b) General Criteria

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

☐ Yes ☐ No

2. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

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

☐ Yes ☐ No

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

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

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

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

☐ Yes ☐ No

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

f. Oil and Gas Exploration and Production

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

g. Compliance Phase and Track Selection

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

☐ Yes ☐ No

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

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

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

- ☐ Track I – AIF greater than 10 MGD

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

- ☐ Track II

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

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

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

☐ Yes ☐ No

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

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

☐ Yes ☐ No

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

- ☐ Track I – Fixed facility

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

- ☐ Track I – Not a fixed facility

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

- ☐ Track II – Fixed facility

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

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

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

This item is only applicable to existing permitted facilities.

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

☒ Yes ☐ No

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

The current permit expires on February 1, 2025. We would like to renew the permit for the next ten (10) years. The current permit lists the address as 125 Industrial Boulevard, Leon County, Texas 75831. This is correct. However, the current permit references approximately 175 acres of agricultural land located in the drainage area of Trinity River Above Lake. This is incorrect. We would like to amend the permit to reference the current location of land application. Washwater is aerated then applied using spray irrigation to approximately 6 acres of lawn at 125 Industrial Boulevard. The facility is located in the Buffalo Creek watershed and Bliss Creek subwatershed.

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

☐ Yes ☒ No

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

N/A

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

☐ Yes ☒ No

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

Change the drainage basin location to match the property. The facility is located in the Buffalo Creek watershed and Bliss Creek subwatershed.

Item 14. Laboratory Accreditation (Instructions, Page 49)

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

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

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

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

CERTIFICATION:

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

Printed Name: Tommy Davis

Title: Plant Manager

Signature: _____

Date: 10-8-24

N/A

Item 14. Laboratory Accreditation (Instructions, Page 49)

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

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

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

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

CERTIFICATION:

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

Printed Name: Tommy Davis

Title: Plant Manager

Signature: _____

Date: _____

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

☐ Yes ☒ No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information below.

40 CFR Effluent Guideline

Industry	40 CFR Part

Item 2. Production/Process Data (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by *40 CFR Part 414, Appendices A and B*.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

Click to enter text.

Item 3. Process/Non-Process Wastewater Flows (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Click to enter text.

Item 4. New Source Determination (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater Generating Processes Subject to Effluent Guidelines

Process	EPA Guideline Part	EPA Guideline Subpart	Date Process/ Construction Commenced

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

Worksheet 2.0 **is required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

Item 1. General Testing Requirements (Instructions, Page 55)

- Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm.
Attachment: [Click to enter text.](#)

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [Click to enter text.](#)

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)				
CBOD (5-day)				
Chemical oxygen demand				
Total organic carbon				
Dissolved oxygen				
Ammonia nitrogen				
Total suspended solids				
Nitrate nitrogen				
Total organic nitrogen				
Total phosphorus				
Oil and grease				
Total residual chlorine				

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total dissolved solids				
Sulfate				
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO ₃)				
Temperature (°F)				
pH (standard units)				

Table 2 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total					0.5
Barium, total					3
Beryllium, total					0.5
Cadmium, total					1
Chromium, total					3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total					2
Cyanide, available					2/10
Lead, total					0.5
Mercury, total					0.005/0.0005
Nickel, total					2
Selenium, total					5
Silver, total					0.5
Thallium, total					0.5
Zinc, total					5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 is required for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile					50
Anthracene					10
Benzene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
Bis(2-chloroethyl)ether					10
Bis(2-ethylhexyl)phthalate					10
Bromodichloromethane [Dichlorobromomethane]					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane [Dibromochloromethane]					10
Chloroform					10
Chrysene					5
m-Cresol [3-Methylphenol]					10
o-Cresol [2-Methylphenol]					10
p-Cresol [4-Methylphenol]					10
1,2-Dibromoethane					10
m-Dichlorobenzene [1,3-Dichlorobenzene]					10
o-Dichlorobenzene [1,2-Dichlorobenzene]					10
p-Dichlorobenzene [1,4-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
1,2-Dichloroethane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1-Dichloroethene [1,1-Dichloroethylene]					10
Dichloromethane [Methylene chloride]					20
1,2-Dichloropropane					10
1,3-Dichloropropene [1,3-Dichloropropylene]					10
2,4-Dimethylphenol					10
Di-n-Butyl phthalate					10
Ethylbenzene					10
Fluoride					500
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Methyl ethyl ketone					50
Nitrobenzene					10
N-Nitrosodiethylamine					20
N-Nitroso-di-n-butylamine					20
Nonylphenol					333
Pentachlorobenzene					20
Pentachlorophenol					5
Phenanthrene					10
Polychlorinated biphenyls (PCBs) (**)					0.2
Pyridine					20
1,2,4,5-Tetrachlorobenzene					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethene [Tetrachloroethylene]					10
Toluene					10
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethene [Trichloroethylene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAI (µg/L)*
2,4,5-Trichlorophenol					50
TTHM (Total trihalomethanes)					10
Vinyl chloride					10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☐ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

This facility discharges/proposes to discharge directly into freshwater receiving waters and *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☐ No

Domestic wastewater is/will be discharged.

☐ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters that may contain pesticides or herbicides, check N/A.

☐ N/A

Table 5 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Endosulfan I (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	<input type="checkbox"/>	<input type="checkbox"/>					400
Color (PCU)	<input type="checkbox"/>	<input type="checkbox"/>					—
Nitrate-Nitrite (as N)	<input type="checkbox"/>	<input type="checkbox"/>					—
Sulfide (as S)	<input type="checkbox"/>	<input type="checkbox"/>					—
Sulfite (as SO ₃)	<input type="checkbox"/>	<input type="checkbox"/>					—
Surfactants	<input type="checkbox"/>	<input type="checkbox"/>					—
Boron, total	<input type="checkbox"/>	<input type="checkbox"/>					20
Cobalt, total	<input type="checkbox"/>	<input type="checkbox"/>					0.3
Iron, total	<input type="checkbox"/>	<input type="checkbox"/>					7
Magnesium, total	<input type="checkbox"/>	<input type="checkbox"/>					20
Manganese, total	<input type="checkbox"/>	<input type="checkbox"/>					0.5
Molybdenum, total	<input type="checkbox"/>	<input type="checkbox"/>					1
Tin, total	<input type="checkbox"/>	<input type="checkbox"/>					5
Titanium, total	<input type="checkbox"/>	<input type="checkbox"/>					30

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
<input type="checkbox"/> Adhesives and Sealants		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Aluminum Forming	467	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Auto and Other Laundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Battery Manufacturing	461	<input type="checkbox"/> Yes	No	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Coal Mining	434	No	No	No	No
<input type="checkbox"/> Coil Coating	465	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Copper Forming	468	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Electric and Electronic Components	469	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Electroplating	413	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Explosives Manufacturing	457	No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Foundries		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts A,B,C,E	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Gum and Wood Chemicals - Subparts D,F	454	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Inorganic Chemicals Manufacturing	415	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Iron and Steel Manufacturing	420	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Leather Tanning and Finishing	425	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Mechanical Products Manufacturing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Nonferrous Metals Manufacturing	421,471	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Ore Mining - Subpart B	440	No	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Organic Chemicals Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Paint and Ink Formulation	446,447	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Pesticides	455	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Petroleum Refining	419	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Pharmaceutical Preparations	439	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Photographic Equipment and Supplies	459	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Plastic and Synthetic Materials Manufacturing	414	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Plastic Processing	463	<input type="checkbox"/> Yes	No	No	No
<input type="checkbox"/> Porcelain Enameling	466	No	No	No	No
<input type="checkbox"/> Printing and Publishing		<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart C	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts F, K	430	<input type="checkbox"/> *	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> *
<input type="checkbox"/> Pulp and Paperboard Mills - Subparts I, J, L	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *	<input type="checkbox"/> Yes
<input type="checkbox"/> Pulp and Paperboard Mills - Subpart E	430	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> *
<input type="checkbox"/> Rubber Processing	428	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Soap and Detergent Manufacturing	417	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Steam Electric Power Plants	423	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No	No
<input type="checkbox"/> Textile Mills (Not Subpart C)	410	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	No
<input type="checkbox"/> Timber Products Processing	429	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: [Click to enter text.](#)

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,1,1-Trichloroethane					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Bis(2-chloroethyl)ether					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

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

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnell) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☐ None of the above

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

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☐ No

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

If **yes** to either Items a or b, complete Table 12 as instructed.

Table 12 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☐ Yes ☐ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☐ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT

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

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

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

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

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

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)
7,500 gal/day	6 acres	Bermuda grass and winter ryegrass	N

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

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

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

Attachment: Attachment 6

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

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

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

Attachment: Attachment 2

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

Well and Map Information Table

Well ID	Well Use	Producing? Y/N/U	Open, cased, capped, or plugged?	Proposed Best Management Practice
no water wells are located onsite or within 500 feet of the property				

Attachment: N/A

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

- ☐ Yes ☒ No

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

Attachment: N/A

d. Attach a short groundwater technical report using 30 TAC § 309.20(a)(4) as guidance.

Attachment:

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

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

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

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

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

Table 14 for Outfall No.: 003

Samples are (check one): ☐ Composite ☒ Grab

[illegible]

Item 7. Pollutant Analysis (Instructions, Page 72)

- Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 3/19/2021-7/15/2024
- ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- Complete Tables 15 and 16.

Table 15 for Outfall No.: 003

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	1460	5720		
CBOD (5-day)				
Chemical oxygen demand		15000		
Total organic carbon				
Dissolved oxygen				
Ammonia nitrogen	152	25.1		
Total suspended solids	770	375		
Nitrate nitrogen	<2.0	0.201		
Total organic nitrogen				
Total phosphorus	29.3	52.8		
Oil and grease	20.9			
Total residual chlorine				
Total dissolved solids				
Sulfate	<500			
Chloride				
Fluoride				
Total alkalinity (mg/L as CaCO ₃)				
Temperature (°F)				
pH (standard units)	8.22	4.90		

Table 16 for Outfall No.: 003

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total					2.5
Antimony, total					5
Arsenic, total		<10			0.5
Barium, total					3

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Beryllium, total					0.5
Cadmium, total		<2			1
Chromium, total		36.7			3
Chromium, hexavalent					3
Chromium, trivalent					N/A
Copper, total		585			2
Cyanide, available					2/10
Lead, total		6.71			0.5
Mercury, total					0.005/0.0005
Nickel, total		78.7			2
Selenium, total		43.8			5
Silver, total		<5			0.5
Thallium, total					0.5
Zinc, total		3190			5.0

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION

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

Item 1. Edwards Aquifer (Instructions, Page 73)

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

☐ Yes ☒ No

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

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

☐ 30 TAC Chapter 213, Subchapter A

☐ 30 TAC Chapter 213, Subchapter B

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

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

Attachment: N/A

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

- a. Provide the following information on the irrigation operations:

Area under irrigation (acres): 6 acres

Design application rate (acre-ft/acre/yr): 0.262 acre-ft/acre/year

Design application frequency (hours/day): 8 hours/day

Design application frequency (days/week): 2 days/week

Design total nitrogen loading rate (lbs nitrogen/acre/year): 0.2 lbs/acre/year

Average slope of the application area (percent): ~5%

Maximum slope of the application area (percent): 5%

Irrigation efficiency (percent): 83%

Effluent conductivity (mmhos/cm): 1093

Soil conductivity (mmhos/cm): 3.59 mmhos/cm

Curve number: 55

Describe the application method and equipment: four holding tanks in series, on the last one a pump pumps water to irrigation spray heads

- b. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** 10

Item 3. Evaporation Ponds (Instructions, Page 74)

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

Item 4. Evapotranspiration Beds (Instructions, Page 74)

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

Item 5. Overland Flow (Instructions, Page 74)

- a. Provide the following information on the overland flow:
- Area used for application (acres): 6
- Slopes for application area (percent): 0-5%
- Design application rate (gpm/foot of slope width): Click to enter text.
- Slope length (feet): 600 feet
- Design BOD5 loading rate (lbs BOD5/acre/day): 10.8 lbs/acre/day
- Design application frequency (hours/day): 8 hours/Day
- Design application frequency (days/week): 2 day/Week
- b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** 10

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

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

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

Item 1. Edwards Aquifer (Instructions, Page 75)

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

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

Item 2. Subsurface Application (Instructions, Page 75)

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

This worksheet is **required** for all applications for a permit to dispose of wastewater using a subsurface area drip dispersal system (SADDs).

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

Item 1. Edwards Aquifer (Instructions, Page 76)

- a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?

☐ Yes ☐ No

- b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?

☐ Yes ☐ No

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

Item 2. Administrative Information (Instructions, Page 76)

- a. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility: [Click to enter text.](#)

- b. The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.

☐ Yes ☐ No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located: [Click to enter text.](#)

- c. Provide the legal name of the owner of the SADDs: [Click to enter text.](#)

- d. The owner of the SADDs is the same as the owner of the WWTF or the site where the WWTF is/will be located.

☐ Yes ☐ No

If **no**, identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c: [Click to enter text.](#)

- e. Provide the legal name of the owner of the land where the SADDs is located: [Click to enter text.](#)

- f. The owner of the land where the SADDs is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDs.

☐ Yes ☐ No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e: [Click to enter text.](#)

Item 3. SADDs (Instructions, Page 77)

- a. Check the box next to the type SADDs requested by this application:

☐ Subsurface drip/trickle irrigation

☐ Surface drip irrigation

☐ Other: [Click to enter text.](#)

- b. Attach a description of the SADDs proposed/used by the facility (see instructions for guidance). **Attachment:** [Click to enter text.](#)

- c. Provide the following information on the SADDs:

Application area (acres): [Click to enter text.](#)

Soil infiltration rate (inches/hour): [Click to enter text.](#)

Average slope of the application area: [Click to enter text.](#)

Maximum slope of the application area: [Click to enter text.](#)

Storage volume (gallons): [Click to enter text.](#)

Major soil series: [Click to enter text.](#)

Depth to groundwater (feet): [Click to enter text.](#)

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

- d. The facility is/will be located west of the boundary shown in *30 TAC § 222.83* **and** using a vegetative cover of non-native grasses over seeded with cool-season grasses.

☐ Yes ☐ No

If **yes**, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft²/day.

- e. The facility is/will be located east of the boundary shown in *30 TAC § 222.83* **or** is the facility proposing any crop other than non-native grasses.

☐ Yes ☐ No

If **yes**, the facility must use the formula in *30 TAC § 222.83* to calculate the maximum hydraulic application rate.

- f. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

☐ Yes ☐ No

If **yes**, provide the following information on the hydraulic application rates:

- Hydraulic application rate (gal/square foot/day): [Click to enter text.](#)
- Nitrogen application rate (gal/square foot/day): [Click to enter text.](#)

g. Provide the following dosing information:

Number of doses per day: [Click to enter text.](#)

Dosing duration per area (hours): [Click to enter text.](#)

Rest period between doses (hours): [Click to enter text.](#)

Dosing amount per area (inches/day): [Click to enter text.](#)

Number of zones: [Click to enter text.](#)

h. The system is/will be a surface drip irrigation system using existing native vegetation as a crop?

☐ Yes ☐ No

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

- A vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species.

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

- Attach a separate engineering report using *30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent* as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

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

Item 4. Required Plans (Instructions, Page 78)

a. Attach a Soil Evaluation with all information required in *30 TAC § 222.73*.

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

b. Attach a Site Preparation Plan with all information required in *30 TAC § 222.75*.

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

c. Attach a Recharge Feature Plan with all information required in *30 TAC § 222.79*.

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

d. Provide soil sampling and testing with all information required in *30 TAC § 222.157*.

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

Item 5. Flood and Run-On Protection (Instructions, Page 79)

a. Is the existing/proposed SADDs located within the 100-year frequency flood level?

☐ Yes ☐ No

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

If **yes**, describe how the site will be protected from inundation: [Click to enter text.](#)

b. Is the existing/proposed SADDs within a designated floodway?

☐ Yes ☐ No

If **yes**, attach either the FEMA flood map or alternate information used to make this determination. **Attachment:** [Click to enter text.](#)

Item 6. Surface Waters in The State (Instructions, Page 79)

a. Attach a buffer map which shows the appropriate buffers on surface waters in the state, water wells, and springs/seeps. **Attachment:** [Click to enter text.](#)

b. The facility has or plans to request a buffer variance from water wells or waters in the state?

☐ Yes ☐ No

If **yes**, attach the additional information required in *30 TAC § 222.81(c)*. **Attachment:** [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet is **required** for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: N/A
2. The distance and direction from the outfall to the drinking water supply intake: N/A

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: N/A feet

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: N/A

- c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☐ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: N/A

Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☐ Yes ☒ No

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

- a. Name of the immediate receiving waters: Tributary to Lake Limestone
- b. Check the appropriate description of the immediate receiving waters:
- ☐ Lake or Pond
 - Surface area (acres): Click to enter text.
 - Average depth of the entire water body (feet): Click to enter text.
 - Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.
 - ☐ Man-Made Channel or Ditch
 - ☒ Stream or Creek
 - ☐ Freshwater Swamp or Marsh
 - ☐ Tidal Stream, Bayou, or Marsh
 - ☐ Open Bay
 - ☐ Other, specify:

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c - 4.g below:

- c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

- ☒ Intermittent (dry for at least one week during most years)
- ☐ Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
- ☐ Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

- ☒ USGS flow records
- ☒ personal observation
- ☐ historical observation by adjacent landowner(s)
- ☐ other, specify: Click to enter text.

- d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Lake Limestone
- e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).
- ☐ Yes ☒ No

If **yes**, describe how: [Click to enter text.](#)

- f. General observations of the water body during normal dry weather conditions: small creek, not much flow

Date and time of observation: 3/25/24 11:00 AM

- g. The water body was influenced by stormwater runoff during observations.

☒ Yes ☐ No

If **yes**, describe how: flow was heavier than usual due to rainfall

Item 5. General Characteristics of Water Body (Instructions, Page 81)

- a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

<input type="checkbox"/> oil field activities	<input type="checkbox"/> urban runoff
<input type="checkbox"/> agricultural runoff	<input type="checkbox"/> septic tanks
<input type="checkbox"/> upstream discharges	<input type="checkbox"/> other, specify: Click to enter text.

- b. Uses of water body observed or evidence of such uses (check all that apply):

<input type="checkbox"/> livestock watering	<input type="checkbox"/> industrial water supply
<input type="checkbox"/> non-contact recreation	<input type="checkbox"/> irrigation withdrawal
<input type="checkbox"/> domestic water supply	<input type="checkbox"/> navigation
<input type="checkbox"/> contact recreation	<input type="checkbox"/> picnic/park activities
<input type="checkbox"/> fishing	<input type="checkbox"/> other, specify: Click to enter text.

- c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

☐ **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional

☒ **Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored

☐ **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid

☐ **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS

The following information **is required** for new applications, EPA-designated Major facilities, and major amendment applications requesting to add an outfall if the receiving waters are perennial or intermittent with perennial pools (including impoundments) for a TDPES permit.

Complete the transects downstream of the existing or proposed discharges.

Item 1. Data Collection (Instructions, Page 82)

- a. Date of study: [Click to enter text.](#) Time of study: [Click to enter text.](#)
 Waterbody name: [Click to enter text.](#)
 General location: [Click to enter text.](#)
- b. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):
☐ perennial ☐ intermittent with perennial pools ☐ impoundment
- c. No. of defined stream bends:
 Well: [Click to enter text.](#) Moderately: [Click to enter text.](#) Poorly: [Click to enter text.](#)
- d. No. of riffles: [Click to enter text.](#)
- e. Evidence of flow fluctuations (check one):
☐ Minor ☐ Moderate ☐ Severe
- f. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: [Click to enter text.](#)
- g. Complete the following table with information regarding the transect measurements.

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**									

* riffle, run, glide, or pool
 ** channel bed to water surface

Item 2. Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): [Click to enter text.](#)

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): [Click to enter text.](#)

Length of stream evaluated (ft): [Click to enter text.](#)

Number of lateral transects made: [Click to enter text.](#)

Average stream width (ft): [Click to enter text.](#)

Average stream depth (ft): [Click to enter text.](#)

Average stream velocity (ft/sec): [Click to enter text.](#)

Instantaneous stream flow (ft³/sec): [Click to enter text.](#)

Indicate flow measurement method (VERY IMPORTANT - type of meter, floating chip timed over a fixed distance, etc.): [Click to enter text.](#)

Flow fluctuations (i.e., minor, moderate, or severe): [Click to enter text.](#)

Size of pools (i.e., large, small, moderate, or none): [Click to enter text.](#)

Maximum pool depth (ft): [Click to enter text.](#)

Total number of stream bends: [Click to enter text.](#)

Number well defined: [Click to enter text.](#)

Number moderately defined: [Click to enter text.](#)

Number poorly defined: [Click to enter text.](#)

Total number of riffles: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

a. Is this a new permit application or an amendment permit application?

☐ Yes ☐ No

b. Does or will the facility discharge in the Lake Houston watershed?

☐ Yes ☐ No

If **yes** to either Item 1.a or 1.b, attach a solids management plan. **Attachment:** [Click to enter text.](#)

Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

- ☐ Permitted landfill
- ☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
- ☐ Registered land application site, attach Form TCEQ-00565
- ☐ Processed by the permittee, attach Form TCEQ-00744
- ☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
- ☐ Transported to another WWTP
- ☐ Beneficial land application, attach Form TCEQ-10451
- ☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

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

b. Provide the following information for each disposal site:

Disposal site name: [Click to enter text.](#)

TCEQ Permit/Registration Number: [Click to enter text.](#)

County where disposal site is located: [Click to enter text.](#)

c. Method of sewage sludge transportation:

☐ truck ☐ train ☐ pipe ☐ other: [Click to enter text.](#)

TCEQ Hauler Registration Number: [Click to enter text.](#)

d. Sludge is transported as a:

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

e. Purpose of land application: ☐ reclamation ☐ soil conditioning ☐ N/A

f. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

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

Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- ☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
- ☐ Processed by the permittee, attach Form TCEQ-00744
- ☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
- ☐ Beneficial land application, attach Form TCEQ-10451
- ☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

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

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit.** New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION

The following information **is required** for all applications for publicly-owned treatment works (POTWs).

For an explanation of the terms used in this worksheet, refer to the General Definitions on pages 4-12 and the Definitions Relating to Pretreatment on pages 13-14 of the Instructions.

Item 1. All POTWs (Instructions, Page 86)

- a. Complete the following table with the number of each type of industrial users (IUs) that discharge to the POTW and the daily average flows from each.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)
CIU		
SIU - Non-categorical		
Other IU		

- b. In the past three years, has the POTW experienced treatment plant interference?

☐ Yes ☐ No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference: [Click to enter text.](#)

- c. In the past three years, has the POTW experienced pass-through?

☐ Yes ☐ No

If **yes**, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass-through event. Include the names of the IU(s) that may have caused the pass-through: [Click to enter text.](#)

- d. Does the POTW have, or is it required to develop, an approved pretreatment program?

☐ Yes ☐ No

If **yes**, answer all questions in Item 2 and skip Item 3.

If **no**, skip Item 2 and answer all questions in Item 3 for each SIU and CIU.

Item 2. POTWs With Approved Pretreatment Programs or Those Required To Develop A Pretreatment Program (Instructions, Page 86)

- a. Have there been any substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ) for approval according to 40 CFR § 403.18?

☐ Yes ☐ No

If **yes**, include an attachment which identifies all substantial modifications that have not been submitted to the TCEQ and the purpose of the modifications.

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

- b. Have there been any non-substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

☐ Yes ☐ No

If **yes**, include an attachment which identifies all non-substantial modifications that have not been submitted to the TCEQ and the purpose of the modification.

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

- c. List all parameters measured above the MAL in the POTW's effluent monitoring during the last three years:

Effluent Parameters Measured Above the MAL

Pollutant	Concentration	MAL	Units	Date

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

- d. Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass-through) at the POTW in the past three years?

☐ Yes ☐ No

If **yes**, provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems: [Click to enter text.](#)

Item 3. Significant Industrial User and Categorical Industrial User Information (Instructions, Pages 88-87)

POTWs that **do not** have an approved pretreatment program **are required** to provide the following information for each SIU and CIU:

- a. Mr. or Ms.: [Click to enter text.](#) First/Last Name: [Click to enter text.](#)

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

SIC Code: [Click to enter text.](#)

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

Email address: [Click to enter text.](#)

Physical Address: [Click to enter text.](#)

City/State/ZIP Code: [Click to enter text.](#)

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

- b. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (e.g., process and non-process wastewater): [Click to enter text.](#)

c. Provide a description of the principal products(s) or service(s) performed: [Click to enter text.](#)

d. Flow rate information

Flow Rate Information

Effluent Type	Discharge Day (gallons per day)	Discharge Frequency (Continuous, batch, or intermittent)
Process Wastewater		
Non-process Wastewater		

e. Pretreatment Standards

1. Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

☐ Yes ☐ No

2. Is the SIU subject to categorical pretreatment standards?

☐ Yes ☐ No

If **yes**, provide the category and subcategory or subcategories in the SIUs Subject To Categorical Pretreatment Standards table.

SIUs Subject to Categorical Pretreatment Standards

Category in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR

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

☐ Yes ☐ No

If **yes**, provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet is **required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

☒ Yes ☐ No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
001	<input checked="" type="checkbox"/> TXR05FH32	<input type="checkbox"/>
002	<input checked="" type="checkbox"/> TXR05FH32	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, stop here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, proceed.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility's boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in *30 TAC § 327.4*) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

☐ Check the box to confirm all above information was provided on the facility site map(s).

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

Item 4. Facility/Site Information (Instructions, Page 90)

- a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)

- b. Provide the following local area rainfall information and the source of the information.
Wettest month: [Click to enter text.](#)
Average rainfall for wettest month (total inches): [Click to enter text.](#)
25-year, 24-hour rainfall (inches): [Click to enter text.](#)
Source: [Click to enter text.](#)
- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** [Click to enter text.](#)
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** [Click to enter text.](#)
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: [Click to enter text.](#)

Item 5. Pollutant Analysis (Instructions, Page 91)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: [Click to enter text.](#)

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	(max)	—	(min)	—		—
Total suspended solids						—
Chemical oxygen demand						—
Total organic carbon						—
Oil and grease						—
Arsenic, total						0.0005
Barium, total						0.003
Cadmium, total						0.001
Chromium, total						0.003
Chromium, trivalent						—
Chromium, hexavalent						0.003
Copper, total						0.002

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Lead, total						0.0005
Mercury, total						0.000005
Nickel, total						0.002
Selenium, total						0.005
Silver, total						0.0005
Zinc, total						0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: [Click to enter text.](#)

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

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

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: [Click to enter text.](#)

Duration of storm event (minutes): [Click to enter text.](#)

Total rainfall during storm event (inches): [Click to enter text.](#)

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): [Click to enter text.](#)

Maximum flow rate during rain event (gallons/minute): [Click to enter text.](#)

Total stormwater flow from rain event (gallons): [Click to enter text.](#)

Provide a description of the method of flow measurement or estimate:

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 8.0: AQUACULTURE

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges of aquaculture wastewater.

Item 1. Facility/Site Information (Instructions, Page 94)

- a. Complete the following table with information regarding production ponds, raceways, and fabricated tanks at the facility.

Production Pond Descriptions

Number of Ponds	Dimensions (include units)	Area of Each Pond (include units)	Number of Ponds x Area of Ponds (include Units)

Total surface area of all ponds: [Click to enter text.](#)

Raceway Descriptions

Number of Raceways	Dimensions (include units)

Fabricated Tank Descriptions

Number of Tanks	Dimensions (include units)

b. Does the facility have a TPWD-approved emergency plan?

☐ Yes ☐ No

If **yes**, attach a copy of the approved plan.

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

c. Does the facility have an aquatic plant transplant authorization?

☐ Yes ☐ No

If **yes**, attach a copy of the authorization letter.

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

d. Provide the number of aquaculture facilities located within 25-miles of this facility: [Click to enter text.](#)

Item 2. Species Identification (Instructions, Page 95)

Complete the following table regarding each species raised, source, origin, and disease status of the stock. Identify and attach copies of any current relevant authorizations or permits that authorize the species.

Stock Species Information

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

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

Item 3. Stock Management Plan (Instructions, Page 95)

Attach a detailed stock management plan: [Click to enter text.](#)

Item 4. Water Treatment and Discharge Description (Instructions, Page 96)

Attach a detailed description of the discharge practices and water treatment process(es): [Click to enter text.](#)

Item 5. Solid Waste Management (Instructions, Page 96)

Attach a description of the solid waste-disposal practices: [Click to enter text.](#)

Item 6. Site Assessment Report (Instructions, Page 96)

All new and expanding commercial shrimp facilities located/to be located within the coastal zone must attach a detailed site assessment report which identifies sensitive aquatic habitats within the coastal zone: [Click to enter text.](#)

WORKSHEET 9.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

TCEQ
IUC Permits Team
Radioactive Materials Division
MC-233
PO Box 13087
Austin, Texas 78711-3087
512-239-6466

For TCEQ Use Only

Reg. No. _____

Date Received _____

Date Authorized _____

Item 1. General Information (Instructions Page 99)

1. TCEQ Program Area

Program Area (PST, VCP, IHW, etc.): [Click to enter text.](#)

Program ID: [Click to enter text.](#)

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

Phone Number: [Click to enter text.](#)

2. Agent/Consultant Contact Information

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

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

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

3. Owner/Operator Contact Information

☐ Owner ☐ Operator

Owner/Operator Name: [Click to enter text.](#)

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

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

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

4. Facility Contact Information

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

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

City, State, and Zip Code: [Click to enter text.](#)

Location description (if no address is available): [Click to enter text.](#)

Facility Contact Person: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

5. Latitude and Longitude, in degrees-minutes-seconds

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

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

Method of determination (GPS, TOPO, etc.): [Click to enter text.](#)

Attach topographic quadrangle map as attachment A.

6. Well Information

Type of Well Construction, select one:

- ☐ Vertical Injection
- ☐ Subsurface Fluid Distribution System
- ☐ Infiltration Gallery
- ☐ Temporary Injection Points
- ☐ Other, Specify: [Click to enter text.](#)

Number of Injection Wells: [Click to enter text.](#)

7. Purpose

Detailed Description regarding purpose of Injection System:

[Click to enter text.](#)

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

8. Water Well Driller/Installer

Water Well Driller/Installer Name: [Click to enter text.](#)

City, State, and Zip Code: [Click to enter text.](#)

Phone Number: [Click to enter text.](#)

License Number: [Click to enter text.](#)

Item 2. Proposed Down Hole Design

Attach a diagram signed and sealed by a licensed engineer as Attachment C.

Down Hole Design Table

Name of String	Size	Setting Depth	Sacks Cement/Grout – Slurry Volume – Top of Center	Hole Size	Weight (lbs/ft) PVC/Steel
Casing					
Tubing					
Screen					

Item 3. Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

Attach a diagram signed and sealed by a licensed engineer as Attachment D.

System(s) Dimensions: [Click to enter text.](#)

System(s) Construction: [Click to enter text.](#)

Item 4. Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: [Click to enter text.](#)
2. Receiving Formation Name of Injection Zone: [Click to enter text.](#)
3. Well/Trench Total Depth: [Click to enter text.](#)
4. Surface Elevation: [Click to enter text.](#)
5. Depth to Ground Water: [Click to enter text.](#)
6. Injection Zone Depth: [Click to enter text.](#)
7. Injection Zone vertically isolated geologically? ☐ Yes ☐ No
Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:
Name: [Click to enter text.](#)
Thickness: [Click to enter text.](#)
8. Attach a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.
9. Attach the Horizontal and Vertical extent of contamination and injection plume as Attachment F.
10. Attach Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc., as Attachment G.
11. Injection Fluid Chemistry in PPM at point of injection. Attach as Attachment H.
12. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: [Click to enter text.](#)
13. Maximum injection Rate/Volume/Pressure: [Click to enter text.](#)
14. Water wells within 1/4 mile radius (attach map as Attachment I): [Click to enter text.](#)
15. Injection wells within 1/4 mile radius (attach map as Attachment J): [Click to enter text.](#)
16. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): [Click to enter text.](#)
17. Sampling frequency: [Click to enter text.](#)
18. Known hazardous components in injection fluid: [Click to enter text.](#)

Item 5. Site History

1. Type of Facility: [Click to enter text.](#)
2. Contamination Dates: [Click to enter text.](#)
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations. Attach as Attachment L.
4. Previous Remediation. Attach results of any previous remediation as Attachment M.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

Item 6. CLASS V INJECTION WELL DESIGNATIONS

- 5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)
- 5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)
- 5D02 Stormwater Drainage (IW designed for the disposal of rain water)
- 5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- 5F01 Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)
- 5W09 Untreated Sewage
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTPP disposal
- 5W20 Industrial Process Waste-disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- 5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a mine)
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X27 Other Wells
- 5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

This worksheet **is required** for all applications for individual permits for a municipal solid waste facility or mining facility located within a Water Quality Protection Area in the John Graves Scenic Riverway. **Note: Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.**

Item 1. Exclusions (Instructions, Page 100)

- a. Is this a municipal solid waste facility?
☐ Yes ☐ No
- b. Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?
☐ Yes ☐ No
- c. Is this a coal mine?
☐ Yes ☐ No
- d. Is this facility mining clay and/or shale for use in manufacturing structural clay products?
☐ Yes ☐ No

If **yes** to **any** above question, **stop here**. The facility is required to maintain documentation, as outlined in 30 TAC § 311.72(c), at the facility to demonstrate the exclusion(s).

Item 2. Location of the Quarry (Instructions, Page 101)

Check the box next to the distance between the quarry and the nearest navigable water body:

- ☐ < 200 feet ☐ 200 feet - 1,500 feet ☐ 1,500 feet - 1 mile ☐ > 1 mile

NOTE: The construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a Water Quality Protection Area in the John Graves Scenic Riverway.

Item 3. Additional Requirements (Instructions, Page 101)

Use the table in the Instructions to determine if additional application requirements apply to the facility based on distance between the quarry and the nearest waterway. Attach as appropriate or enter N/A.

- a. Attach a Restoration Plan: [Click to enter text.](#)
- b. Amount of Financial Assurance for Restoration: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)
- c. Attach a Technical Demonstration: [Click to enter text.](#)
- d. Attach a Reclamation Plan: [Click to enter text.](#)
- e. Amount of Financial Assurance for Reclamation: \$ [Click to enter text.](#)
Mechanism: [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 11.0: COOLING WATER SYSTEM INFORMATION

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12.

Item 1. Cooling Water System Data (Instructions, Page 104)

a. Complete the following table with information regarding the cooling water system.

Cooling Water System Data

Parameter	Volume (include units)
Total DIF	
Total AIF	
Intake Flow Use(s) (%)	
Contact cooling	
Non-contact cooling	
Process Wastewater	
Other	

b. Attach the following information:

1. A narrative description of the design and annual operation of the facility's cooling water system and its relationship to the CWIS(s).
2. A scaled map depicting the location of each CWIS, impoundment, intake pipe, and canals, pipes, or waterways used to convey cooling water to, or within, the cooling water system. Provide the latitude and longitude for each CWIS and any intake pipe(s) on the map. Indicate the position of the intake pipe within the water column.
3. A description of water reuse activities, if applicable, reductions in total water withdrawals, if applicable, and the proportion of the source waterbody withdrawn (on a monthly basis).
4. Design and engineering calculations prepared by a qualified professional and data to support the information provided in above item a.
5. Previous year (a minimum of 12 months) of AIF data.
6. A narrative description of existing or proposed impingement and entrainment technologies or operation measures and a summary of their performance, including, but not limited to, reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

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

Item 2. Cooling Water Intake Structure(s) Data (Instructions, Page 105)

- a. Complete the following table with information regarding each cooling water intake structure (this includes primary and make-up CWIS(s)).

Cooling Water Intake Structure(s) Data

CWIS ID				
DIF (include units)				
AIF (include units)				
Intake Flow Use(s) (%)				
Contact cooling				
Non-contact cooling				
Process Wastewater				
Other				
Latitude (decimal degrees)				
Longitude (decimal degrees)				

- b. Attach the following information regarding the CWIS(s):
1. A narrative description of the configuration of each CWIS, annual and daily operation, including any seasonal changes, and where it is located in the water body and in the water column.
 2. Engineering calculations for each CWIS.

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

Item 3. Source Water Physical Data (Instructions, Page 105)

- a. Complete the following table with information regarding the CWIS(s) source waterbody (this includes primary and make-up CWIS(s)).

Source Waterbody Data

CWIS ID				
Source Waterbody				
Mean Annual Flow				
Source				

- b. Attach the following information regarding the source waterbody.
1. A narrative description of the source water for each CWIS, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports this determination of the water body type where each cooling water intake structure is located.

2. A narrative description of the source waterbody's hydrological and geomorphological features.
3. Scaled drawings showing the physical configuration of all source water bodies used by the facility, including the source waterbody's hydrological and geomorphological features. **NOTE:** The source waterbody's hydrological and geomorphological features may be included on the map submitted for item 1.b.ii of this worksheet.
4. A description of the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies.

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

Item 4. Operational Status (Instructions, Page 106)

- a. Is this application for a power production or steam generation facility?

☐ Yes ☐ No

If **no**, proceed to Item 4.b. If **yes**, provide the following information as an attachment:

1. Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation.
2. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment.
3. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months).
4. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type.

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

- b. Process Units

1. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)?

☐ Yes ☐ No

If **no**, proceed to Item 4.c. If **yes**, continue.

2. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of *40 CFR § 125.94(c)*?

☐ Yes ☐ No

If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information:

- Individual production processes and product lines
- The operating status, including age of each line and seasonal operation
- Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors

- Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines.

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

c. Is this an application for a nuclear power production facility?

☐ Yes ☐ No

If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility.

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

d. Is this an application for a manufacturing facility?

☐ Yes ☐ No

If **no**, proceed to Worksheet 11.1. If **yes**, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 11.1: IMPINGEMENT MORTALITY

This worksheet is **required** for all TPDES permit applications **that meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Impingement Compliance Technology Selection (Instructions, Page 107)

Check the box next to the method of compliance for the Impingement Mortality Standard selected by the facility.

- ☐ Closed-cycle recirculating system (CCRS) [40 CFR § 125.94(c)(1)]
- ☐ 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] - Proceed to Worksheet 11.2
- ☐ 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]
- ☐ Existing offshore velocity cap [40 CFR § 125.94(c)(4)] - Proceed to Worksheet 11.2
- ☐ Modified traveling screens [40 CFR § 125.94(c)(5)]
- ☐ System of technologies [40 CFR § 125.94(c)(6)]
- ☐ Impingement mortality performance standard [40 CFR § 125.94(c)(7)]
- ☐ De minimis rate of impingement [40 CFR § 125.94(c)(11)]
- ☐ Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

If 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] or existing offshore velocity cap [40 CFR § 125.94(c)(4)] was selected, proceed to Worksheet 11.2. Otherwise, continue to Item 2.

Item 2. Impingement Compliance Technology Information (Instructions, Page 107)

Complete the following sections based on the selection made for item 1 above.

a. CCRS [40 CFR § 125.94(c)(1)]

- ☐ Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.

1. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

- ☐ Yes ☐ No

If **no**, proceed to item a.2. If **yes**, provide the following information as an attachment and continue.

- CWIS ID
- 12 months of intake flow data for any CWIS used for make-up intake flows to replenish cooling water losses, excluding intakes for losses due to blowdown, drift, or evaporation.

- A narrative description of any physical or operational measures taken to minimize make-up withdraws.

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

NOTE: Do not complete a separate Worksheet 11.1 for a make-up CWIS.

2. Does the facility use or propose to use cooling towers?

☐ Yes ☐ No

If **no**, proceed to Worksheet 11.2. If **yes**, provide the following information and proceed to Worksheet 11.2.

- Average number of cycles of concentration (COCs) prior to blowdown:

Average COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Attach COC monitoring data for each cooling tower from the previous year (a minimum of 12 months): [Click to enter text.](#)
- Maximum number of COCs each cooling tower can accomplish based on design of the system.

Calculated COCs Prior to Blowdown

Cooling Tower ID				
COCs				

- Describe conditions that may limit the number of COCs prior to blowdown, if any, including but not limited to permit conditions: [Click to enter text.](#)

b. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

Provide daily intake flow measurement monitoring data from the previous year (a minimum of 12 months) as an attachment and proceed to Worksheet 11.2.

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

c. Modified traveling screens [40 CFR § 125.94(c)(5)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the modified traveling screens and associated equipment.
2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods
3. Biological sampling data from the previous two years (a minimum of 24 months).

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

d. System of technologies [40 CFR § 125.94(c)(6)] or impingement mortality performance standard [40 CFR § 125.94(c)(7)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

1. A description of the system of technologies used or proposed for use by the facility to

achieve compliance with the impingement mortality standard.

2. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods.
3. Biological sampling data from the previous two years (a minimum of 24 months).

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

- e. De minimis rate of impingement [40 CFR § 125.94(c)(11)]

Provide the following information and proceed to Worksheet 11.2.

1. Attach monitoring data from the previous year (a minimum of 12 months) of intake flow measured at a frequency of 1/day on days of operation.

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

2. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.6. to support this determination.

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

- f. Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

Attach monthly utilization data from the previous 2 years (a minimum of 24 months) for each operating unit and proceed to Worksheet 11.2.

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 11.2: SOURCE WATER BIOLOGICAL DATA

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** source waterbody of a CWIS for which a facility has selected an Impingement Mortality Technology Option described at *40 CFR §§ 125.94(c)(1)-(7)*.

Name of source waterbody: [Click to enter text.](#)

Item 1. Species Management (Instructions, Page 109)

- a. The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.

☐ Yes ☐ No

If **yes**, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph *40 CFR § 125.95(f)*.

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

- b. Is the facility requesting a waiver from application requirements at *40 CFR § 122.21(r)(4)* in accordance with *40 CFR § 125.95* for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?

☐ Yes ☐ No

If **yes**, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.

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

- c. There are no federally listed threatened or endangered species or critical habitat designations within the source water body.

☐ True ☐ False

Item 2. Source Water Biological Data (Instructions, Page 109)

New Facilities (Phase I, Track I and II)

- Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

- If the answer to **1.b.** above was **no**, provide responses to all items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **true**, do not complete any items in this section and proceed to Worksheet 11.3.
- If the answer to **1.b.** was **yes** and **1.c.** was **false**, attach a response for any item in this section that is not contained within the most recent TPWD, or equivalent and proceed to Worksheet 11.3.

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

- a. A list of the data requested at *40 CFR § 122.21(r)(4)(ii)* through *(vi)* that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - significance to commercial fisheries,
 - significance to recreational fisheries,
 - primary period of reproduction,
 - larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at *40 CFR § 125.92(m)*, at the facility. The applicant need only identify those species not already identified as fragile at *40 CFR § 125.92(m)*.

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 11.3: ENTRAINMENT

This worksheet is **required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0, Item 12**. Complete one copy of this worksheet for **each** individual CWIS the facility uses or proposes to use.

CWIS ID: [Click to enter text.](#)

Item 1. Applicability (Instructions, Page 111)

Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?

☐ Yes ☐ No

- If **no** or the facility has selected **CCRS** [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here.
- If **yes** and the facility is **seeking a waiver** from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop.
- If **yes** and the facility is **not seeking a waiver** from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.

Item 2. Existing Entrainment Performance Studies (Instructions, Page 111)

Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.

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

Item 3. Facility Entrainment Performance Studies (Instructions, Page 111)

- a. Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): [Click to enter text.](#)
- b. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): [Click to enter text.](#)
- c. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): [Click to enter text.](#)
- d. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): [Click to enter text.](#)
- e. Attach a peer review analysis, as described as 40 CFR § 122.21(r)(13): [Click to enter text.](#)

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 12.0: OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES

This worksheet is **required** for all TPDES permit applications that are subject to Effluent Limitation Guidelines in 40 CFR Part 435.

Item 1. Operational Information (Instructions, Page 112)

- a. Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?

☐ Yes ☐ No

If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.

- b. Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.

Click to enter text.

Item 2. Production/Process Data (Instructions, Page 112)

- a. Provide the applicable 40 CFR Part 435 Subpart(s).

Click to enter text.

- b. Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

Click to enter text.

- c. Provide information on all waste-streams generated and specify which waste-streams you are requesting to be authorized for discharge.

Wastestreams Generated

Wastestream	Requesting authorization to discharge? (Yes/No)	Volume (MGD)	% of Total Flow

- d. Describe how the facility will manage wastestreams for which discharge authorization is not being sought.

[Click to enter text.](#)

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

- e. Provide information on miscellaneous discharges.

[Click to enter text.](#)

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

- f. List of chemicals that are in use, or will be used, downhole. Provide the category, concentration used/to be used, and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

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

- g. List of chemicals that are in use, or will be used, to treat the wastewater to be discharged under this authorization. Provide the concentration used/to be used and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Water Treatment Chemicals List

Category	Chemical Name	Concentration (include units)	Purpose

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

Item 3. Pollutant Analysis (Instructions, Page 113)

Tables 1, 2, 6, and 7 located in Worksheet 2.0 are required. In addition, Table 19 below is required and must be completed for each outfall and submitted with this application. The remaining tables in Worksheet 2.0, are required as applicable.

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): [Click to enter text.](#)
- b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** [Click to enter text.](#)
- d. Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** [Click to enter text.](#)

Table 19 for Outfall No.: [Click to enter text.](#) Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (mg/L)*	Sample 2 (mg/L)*	Sample 3 (mg/L)*	Sample 4 (mg/L)*
Calcium				
Potassium				
Sodium				

*Indicate units if different from mg/L.

Attachment 1

Core Data Form



TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
<input type="checkbox"/> New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
<input checked="" type="checkbox"/> Renewal (Core Data Form should be submitted with the renewal form)		<input type="checkbox"/> 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 604674556		RN 106364409

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)		9/1/2024	
<input type="checkbox"/> New Customer <input checked="" type="checkbox"/> Update to Customer Information <input type="checkbox"/> Change in Regulated Entity Ownership					
<input type="checkbox"/> Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)					
The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).					
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John) If new Customer, enter previous Customer below:					
Ridley USA Inc					
7. TX SOS/CPA Filing Number		8. TX State Tax ID (11 digits)		9. Federal Tax ID	
0012359606		14118751651		(9 digits)	
				411875165	
10. DUNS Number (if applicable)		105219443			
11. Type of Customer:		<input checked="" type="checkbox"/> Corporation		<input type="checkbox"/> Individual	
Government: <input type="checkbox"/> City <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Local <input type="checkbox"/> State <input type="checkbox"/> Other		<input type="checkbox"/> Sole Proprietorship		Partnership: <input type="checkbox"/> General <input type="checkbox"/> Limited	
12. Number of Employees		13. Independently Owned and Operated?			
<input type="checkbox"/> 0-20 <input checked="" type="checkbox"/> 21-100 <input type="checkbox"/> 101-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501 and higher		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following					
<input type="checkbox"/> Owner <input type="checkbox"/> Operator <input checked="" type="checkbox"/> Owner & Operator <input type="checkbox"/> Other:					
<input type="checkbox"/> Occupational Licensee <input type="checkbox"/> Responsible Party <input type="checkbox"/> VCP/BSA Applicant					
15. Mailing Address:					
125 Industrial Blvd					
City: Buffalo State: TX ZIP: 75831 ZIP + 4: 1130					
16. Country Mailing Information (if outside USA)			17. E-Mail Address (if applicable)		
			tommy.davis@alltech.com		
18. Telephone Number		19. Extension or Code		20. Fax Number (if applicable)	

SECTION III: Regulated Entity Information**21. General Regulated Entity Information** (If "New Regulated Entity" is selected, a new permit application is also required.)☐ New Regulated Entity ☒ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

Ridley Block Operations

23. Street Address of the Regulated Entity:

125 Industrial Blvd

(No PO Boxes)

City

Buffalo

State

TX

ZIP

75831

ZIP + 4

1130

24. County

Leon

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

25. Description to

Physical Location:

26. Nearest City

State

Nearest ZIP Code

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:

31.441956

28. Longitude (W) In Decimal:

-96.070464

Degrees

Minutes

Seconds

Degrees

Minutes

Seconds

29. Primary SIC Code**30. Secondary SIC Code****31. Primary NAICS Code****32. Secondary NAICS Code**

(4 digits)

(4 digits)

(5 or 6 digits)

(5 or 6 digits)

2048

311119

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

Makes livestock nutritional supplements

34. Mailing

125 Industrial Blvd

Address:

City

Buffalo

State

TX

ZIP

75831

ZIP + 4

1130

35. E-Mail Address:

tommy.davis@alltech.com

36. Telephone Number**37. Extension or Code****38. Fax Number** (if applicable)

(903) 322-4228

() -

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.


<input type="checkbox"/> Dam Safety	<input type="checkbox"/> Districts	<input type="checkbox"/> Edwards Aquifer	<input type="checkbox"/> Emissions Inventory Air	<input type="checkbox"/> Industrial Hazardous Waste
<input type="checkbox"/> Municipal Solid Waste	<input type="checkbox"/> New Source Review Air	<input type="checkbox"/> OSSF	<input type="checkbox"/> Petroleum Storage Tank	<input type="checkbox"/> PWS
<input type="checkbox"/> Sludge	<input checked="" type="checkbox"/> Storm Water	<input type="checkbox"/> Title V Air	<input type="checkbox"/> Tires	<input type="checkbox"/> Used Oil
	TXR05AZ76			
<input type="checkbox"/> Voluntary Cleanup	<input checked="" type="checkbox"/> Wastewater	<input type="checkbox"/> Wastewater Agriculture	<input type="checkbox"/> Water Rights	<input type="checkbox"/> Other:
	WQ0005121000			

SECTION IV: Preparer Information

40. Name:	Jordan McKinney	41. Title:	Consultant
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(859) 885-3331		() -	jmckinney@hallenvironmental.net

SECTION V: Authorized Signature

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

Company:	Ridley Block Operations	Job Title:	Plant Manager
Name (In Print):	Tommy Davis	Phone:	() -
Signature:		Date:	10-8-24

Attachment 2

Maps

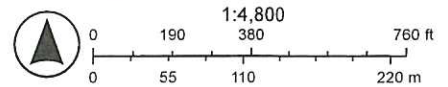
Ridley USA Inc



10/17/2024, 2:52:49 PM

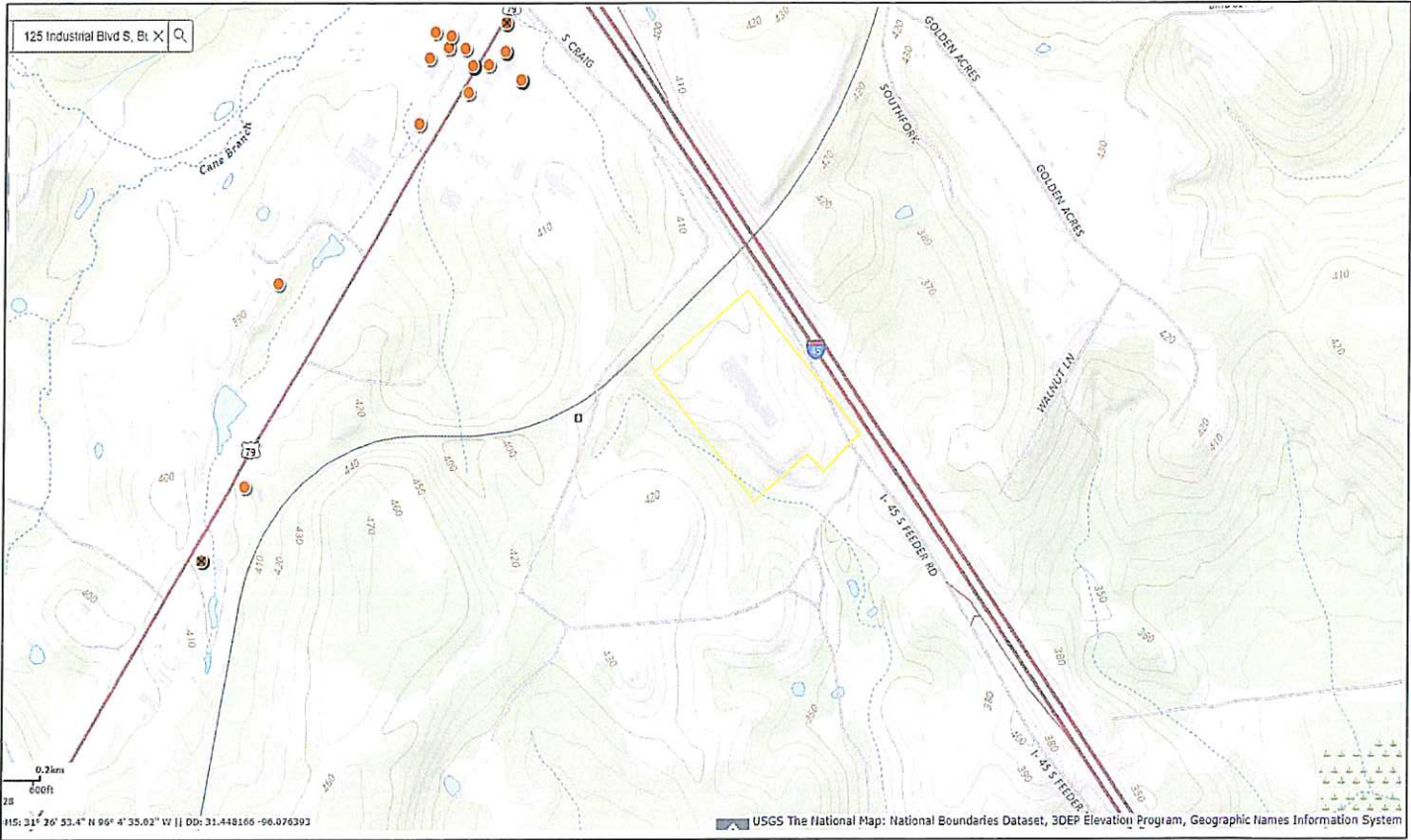
- Wastewater Outfall
- Land Application Area
- Property Boundaries
- Structure/Building

1 Owner: RUBY JESSE B & NELDA J
 2 Owner: ORTEGA REAL ESTATE
 INTEREST LP

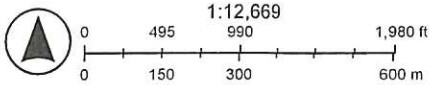


Esri Community Maps Contributors, Baylor University, Texas Parks & Wildlife,
 © OpenStreetMap, Microsoft, CONAIP, Esri, TomTom, Garmin, SafeGraph,
 Hall Environmental Consultants Inc.
 1376 Danville Loop 1 Rd, Nicholasville, KY 40356

Ridley USA Inc



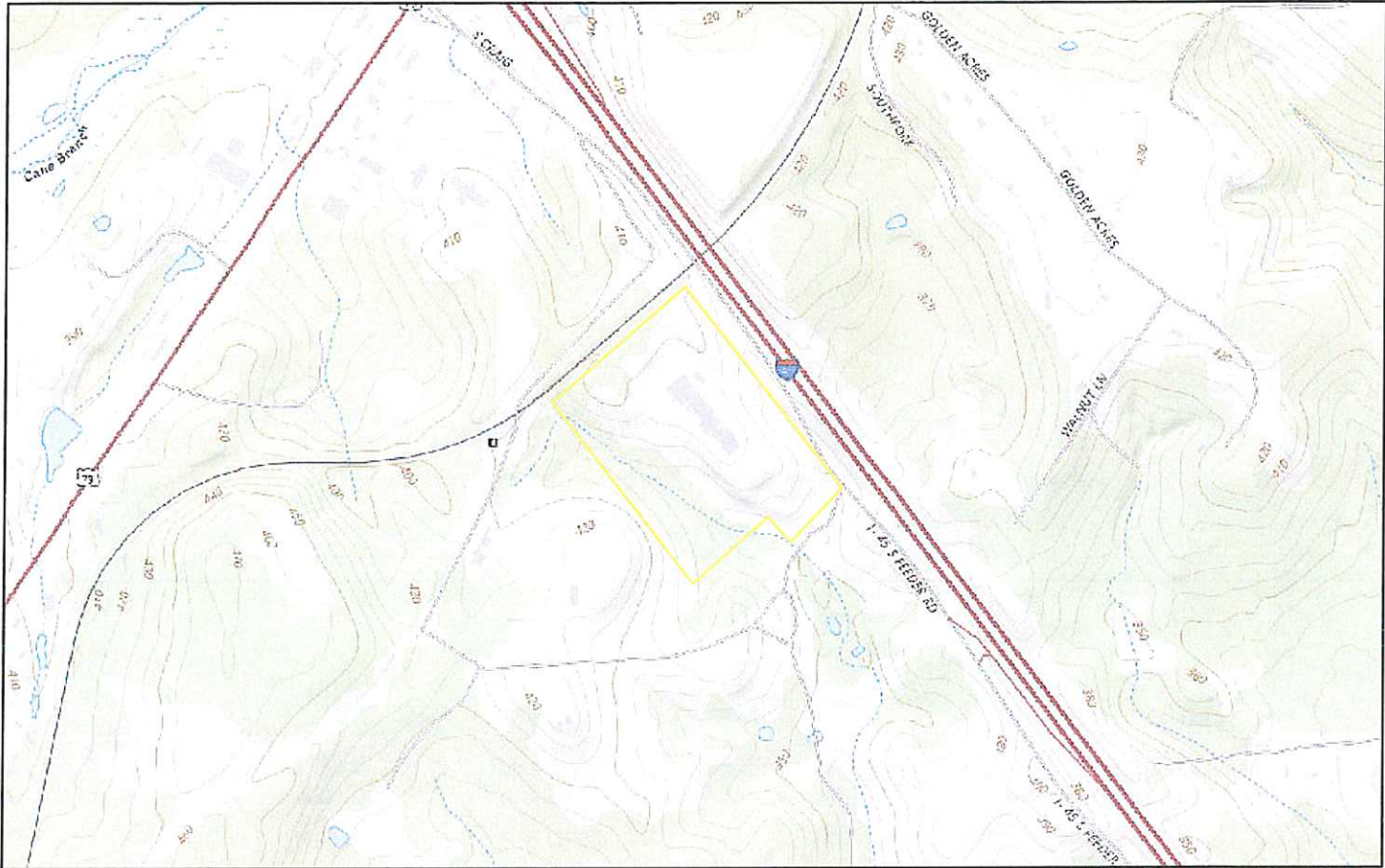
 Facility Boundary



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

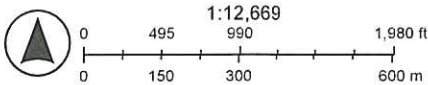
Hall Environmental Consultants Inc.
1375 Danville Loop 1 Rd, Nicholasville, KY 40356

Ridley USA Inc




9/23/2024, 1:16:48 PM

Facility Boundary Flowlines
≤100



USGS The National Map, National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography
Hall Environmental Consultants Inc.
1376 Danville Loop 1 Rd, Nicholasville, KY 40356



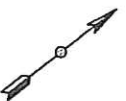
 **HALL ENVIRONMENTAL CONSULTANTS**
1376 DANVILLE LOOP #1 ROAD
NICHOLASVILLE, KENTUCKY 40356



Pretreatment Upgrade
RIDLEY BLOCK
125 INDUSTRIAL BLVD.
BUFFALO, TX. 75831



HALL ENVIRONMENTAL CONSULTANTS
1376 DANVILLE LOOP #1 ROAD
NICHOLASVILLE, KENTUCKY 40356



Pretreatment Upgrade

RIDLEY BLOCK
125 INDUSTRIAL BLVD.
BUFFALO, TX. 75831

Soil Map—Leon County, Texas







































Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/12/2024
Page 1 of 3

Soil Map—Leon County, Texas

MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)		Spoil Area
Soils		Soil Map Unit Polygons		Stony Spot
		Soil Map Unit Lines		Very Stony Spot
		Soil Map Unit Points		Wet Spot
Special Point Features		Blowout		Other
		Borrow Pit		Special Line Features
		Clay Spot		Streams and Canals
		Closed Depression		Rails
		Gravel Pit		Interstate Highways
		Gravelly Spot		US Routes
		Landfill		Major Roads
		Lava Flow		Local Roads
		Marsh or swamp		Aerial Photography
		Mine or Quarry		
		Miscellaneous Water		
		Perennial Water		
		Rock Outcrop		
		Saline Spot		
		Sandy Spot		
		Severely Eroded Spot		
		Sinkhole		
		Slide or Slip		
		Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Leon County, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

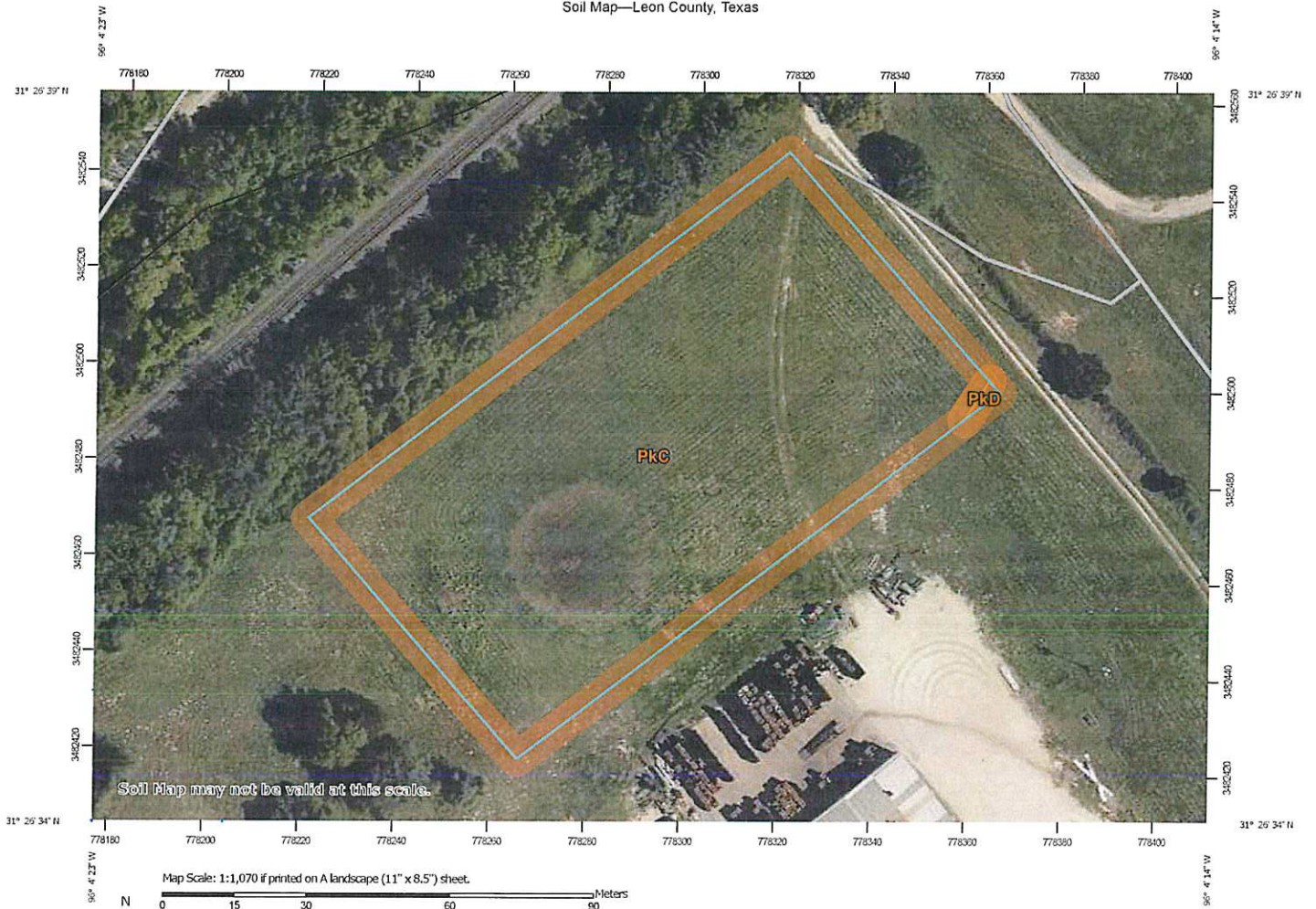
Date(s) aerial images were photographed: Mar 31, 2022—Apr 8, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PkC	Pickton loamy fine sand, 1 to 8 percent slopes	3.7	100.0%
Totals for Area of Interest		3.7	100.0%

Soil Map—Leon County, Texas







































Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

11/12/2024
Page 1 of 3

Soil Map—Leon County, Texas

MAP LEGEND

Area of Interest (AOI)		Area of Interest (AOI)		Spoil Area
Soils		Soil Map Unit Polygons		Stony Spot
		Soil Map Unit Lines		Very Stony Spot
		Soil Map Unit Points		Wet Spot
Special Point Features		Blowout		Other
		Borrow Pit		Special Line Features
		Clay Spot	Water Features	
		Closed Depression		Streams and Canals
		Gravel Pit	Transportation	
		Gravelly Spot		Rails
		Landfill		Interstate Highways
		Lava Flow		US Routes
		Marsh or swamp		Major Roads
		Mine or Quarry		Local Roads
		Miscellaneous Water	Background	
		Perennial Water		Aerial Photography
		Rock Outcrop		
		Saline Spot		
		Sandy Spot		
		Severely Eroded Spot		
		Sinkhole		
		Slide or Slip		
		Sodic Spot		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Leon County, Texas
Survey Area Data: Version 21, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 31, 2022—Apr 8, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

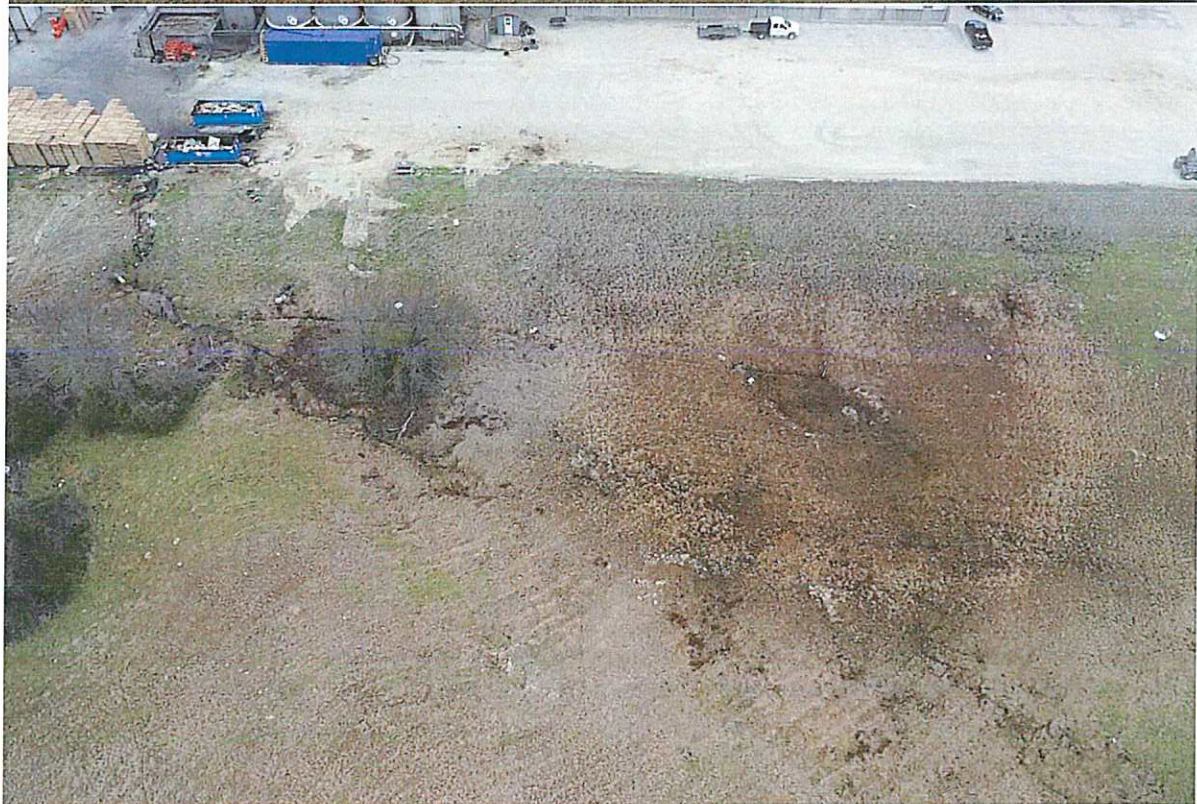
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PkC	Pickton loamy fine sand, 1 to 8 percent slopes	2.1	99.8%
PkD	Pickton loamy fine sand, 8 to 15 percent slopes	0.0	0.2%
Totals for Area of Interest		2.1	100.0%

Attachment 3

Photos







Attachment 4

SPIF

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

**FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL
TPDES WASTEWATER PERMIT APPLICATIONS**

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

____ Texas Historical Commission

____ U.S. Fish and Wildlife

____ Texas Parks and Wildlife Department

____ U.S. Army Corps of Engineers

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

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

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

The following applies to all applications:

1. Permittee: Ridley USA Inc

Permit No. WQ00 5121000

EPA ID No. TX R05AZ76

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

125 Industrial Blvd, Buffalo, TX 75831

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

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

First and Last Name: Tommy Davis

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

Title: Plant Manager

Mailing Address: 125 Industrial Blvd

City, State, Zip Code: Buffalo, TX, 75831

Phone No.: 903-322-4228 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: tommy.davis@alltech.com

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

N/A

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

Wash water will be generated from the weekly washing of cookers used to reduce moisture of animal feed supplements. Cooling water will be generated as the animal feed supplements are transferred from the cookers on a cooling belt. The wastewater will be used to irrigate approximately 6 acres at the facility.

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

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

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

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

☐ Disturbance of vegetation or wetlands

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

N/A

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

Process water used to irrigate existing grasses and trees used as landscape at the facility.

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

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

Unknown

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

For approximately the last 20 years Ridley has operated as a feed mill, feed blending, and animal feed supplement manufacturing plant.

Attachment 5

SDS

SAFETY DATA SHEET

Propane

Airgas
an Air Liquide company

Section 1. Identification

GHS product identifier	: Propane
Chemical name	: propane
Other means of identification	: Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied; E 944; HC-290; R290; E 944; PETROLEUM GAS, LIQUEFIED; PROPYL HYDRID; Normal propane
Product type	: Liquefied gas.
Product use	: Synthetic/Analytical chemistry.
Synonym	: Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied; E 944; HC-290; R290; E 944; PETROLEUM GAS, LIQUEFIED; PROPYL HYDRID; Normal propane
SDS #	: 001045
Supplier's details	: Airgas USA, LLC and its affiliates 259 North Radnor-Chester Road Suite 100 Radnor, PA 19087-5283 1-610-687-5253 Inside the US: 1-833-723-3267 (Chemtrec, 24 hours) Outside the US: 1-703-527-3887 (Chemtrec, 24 hours)
24-hour telephone	: 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: FLAMMABLE GASES - Category 1 GASES UNDER PRESSURE - Liquefied gas

GHS label elements

Hazard pictograms



Signal word

: Danger

Hazard statements

: Extremely flammable gas.
Contains gas under pressure; may explode if heated.
May cause frostbite.
May displace oxygen and cause rapid suffocation.
May form explosive mixtures with air.

Precautionary statements

General

: Read and follow all Safety Data Sheets (SDS'S) before use. Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response

: Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.

Storage

: Protect from sunlight. Store in a well-ventilated place.

Disposal

: Not applicable.

Section 2. Hazards identification

Hazards not otherwise classified : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Substance
Chemical name : propane
Other means of identification : Propyl hydride; n-Propane; Dimethyl methane; Bottled gas; propane in gaseous state; propane liquefied; E 944; HC-290; R290; E 944; PETROLEUM GAS, LIQUEFIED; PROPYL HYDRID; Normal propane
Product code : 001045

CAS number/other identifiers

CAS number : 74-98-6

Ingredient name	%	CAS number
Propane	100	74-98-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact : Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Get medical attention if symptoms occur. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area.

Ingestion : Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Liquid can cause burns similar to frostbite.

Inhalation : No known significant effects or critical hazards.

Skin contact : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
frostbite

Ingestion : Adverse symptoms may include the following:
frostbite

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Extremely flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Section 6. Accidental release measures

- Large spill** : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. See Section 10 for incompatible materials before handling or use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Propane	<p>NIOSH REL (United States, 10/2020). TWA: 1800 mg/m³ 10 hours. TWA: 1000 ppm 10 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 1800 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.</p> <p>ACGIH TLV (United States, 1/2021). Oxygen Depletion [Asphyxiant]. Explosive potential.</p>

Biological exposure indices

No exposure indices known.

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Section 8. Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Thermal hazards : If there is a risk of contact with the liquid, all protective equipment worn should be suitable for use with extremely low temperature materials.

Section 9. Physical and chemical properties

Appearance

Physical state : Gas. [Compressed gas.]

Color : Colorless.

Odor : Odorless.

Odor threshold : Not available.

pH : Not applicable.

Melting point : -187.6°C (-305.7°F)

Boiling point : -161.48°C (-258.7°F)

Critical temperature : 96.55°C (205.8°F)

Flash point : Closed cup: -104°C (-155.2°F)
Open cup: -104°C (-155.2°F)

Evaporation rate : Not available.

Flammability (solid, gas) : Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and oxidizing materials.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits	: Lower: 1.8% Upper: 8.4%
Vapor pressure	: 109 (psig)
Vapor density	: 1.6 (Air = 1)
Specific Volume (ft³/lb)	: 8.6207
Gas Density (lb/ft³)	: 0.116 (25°C / 77 to °F)
Relative density	: Not applicable.
Solubility in water	: 0.0244 g/l
Partition coefficient: n-octanol/water	: 1.09
Auto-ignition temperature	: 450°C (842°F)
Decomposition temperature	: Not available.
Flow time (ISO 2431)	: Not available.
Molecular weight	: 44.11 g/mole
<u>Aerosol product</u>	
Heat of combustion	: -46012932 J/kg

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow gas to accumulate in low or confined areas.
Incompatible materials	: Oxidizers
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Section 11. Toxicological information

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Liquid can cause burns similar to frostbite.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.
- Ingestion** : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
frostbite
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:
frostbite
- Ingestion** : Adverse symptoms may include the following:
frostbite

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- General** : No known significant effects or critical hazards.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Propane

Section 11. Toxicological information

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Propane	1.09	-	Low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty pressure vessels should be returned to the supplier. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1978	UN1978	UN1978	UN1978	UN1978
UN proper shipping name	PROPANE SEE ALSO PETROLEUM GASES, LIQUEFIED	PROPANE	PROPANO	PROPANE	Propane
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Section 14. Transport information

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Additional information

- DOT Classification** : **Limited quantity** Yes.
Packaging instruction Exceptions: 306. Non-bulk: 304. Bulk: 314, 315.
Quantity limitation Passenger aircraft/rail: Forbidden. Cargo aircraft: 150 kg.
Special provisions 19, T50, N95
- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).
Explosive Limit and Limited Quantity Index 0.125
ERAP Index 3000
Passenger Carrying Vessel Index 110
Passenger Carrying Road or Rail Index Forbidden
Special provisions 88
- IMDG** : **Emergency schedules** F-D, S-U
Special provisions 392
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: Forbidden. Packaging instructions: Forbidden. Cargo Aircraft Only: 150 kg. Packaging instructions: 200. Limited Quantities - Passenger Aircraft: Forbidden. Packaging instructions: Forbidden.
Special provisions A1
- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

U.S. Federal regulations

TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 Clean Air Act (CAA) 112 regulated flammable substances: propane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Refer to Section 2: Hazards Identification of this SDS for classification of substance.

State regulations

Massachusetts : This material is listed.

Section 15. Regulatory information

- New York** : This material is not listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.
California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : This material is listed or exempted.
Canada : This material is listed or exempted.
China : This material is listed or exempted.
Eurasian Economic Union : **Russian Federation inventory**: Not determined.
Japan : **Japan inventory (CSCL)**: This material is listed or exempted.
Japan inventory (ISHL): This material is listed or exempted.
New Zealand : This material is listed or exempted.
Philippines : This material is listed or exempted.
Republic of Korea : This material is listed or exempted.
Taiwan : This material is listed or exempted.
Thailand : This material is listed or exempted.
Turkey : This material is listed or exempted.
United States : This material is active or exempted.
Viet Nam : This material is listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	/	1
Flammability		4
Physical hazards		0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Association (U.S.A.)

Section 16. Other information



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE GASES - Category 1	Expert judgment
GASES UNDER PRESSURE - Liquefied gas	Expert judgment

History

Date of printing : 10/26/2023

Date of issue/Date of revision : 10/26/2023

Date of previous issue : 10/8/2022

Version : 1.03

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Creation Date 02-Feb-2010

Revision Date 24-Dec-2021

Revision Number 7

1. Identification

Product Name	Calcium carbonate
Cat No. :	C63-10; C63-3; XXC6350KG; NC1526621
CAS No	471-34-1
Synonyms	Precipitated chalk; Aragonite; Agricultural limestone
Recommended Use	Laboratory chemicals.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Calcium carbonate	471-34-1	>95

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.
Ingestion	Do NOT induce vomiting. Get medical attention.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Acids.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Calcium carbonate			TWA: 10 mg/m ³ TWA: 5 mg/m ³	

Legend

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
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Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	7 - 9 @ 20°C
Melting Point/Range	825 °C / 1517 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Slightly soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	825 °C
Viscosity	Not applicable
Molecular Formula	C Ca O3
Molecular Weight	100.09

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation.
Incompatible Materials	Strong oxidizing agents, Acids
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium carbonate	LD50 = 6450 mg/kg (Rat)	> 2000 mg/kg (Rat) (OECD Guideline 402)	> 3 mg/L 4h (Rat) (OECD Guideline 403)

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No skin irritation No eye irritation
Sensitization	Did not cause sensitization on laboratory animals
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Calcium carbonate	471-34-1	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects Not mutagenic in AMES Test

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Calcium carbonate	Not listed	LC50 > 56 g/L/96h	Not listed	Not listed

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
 TDG Not regulated
 IATA Not regulated
 IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Calcium carbonate	471-34-1	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Calcium carbonate	471-34-1	X	-	207-439-9	X	X	X	X	X	KE-04487

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Not applicable

Health Administration

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Calcium carbonate	471-34-1	-	Use restricted. See item 75. (see link for restriction details)	-

<https://echa.europa.eu/substances-restricted-under-reach>

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Calcium carbonate	471-34-1	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Calcium carbonate	471-34-1	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By Regulatory Affairs
 Thermo Fisher Scientific
 Email: EMSDS.RA@thermofisher.com

Creation Date 02-Feb-2010
 Revision Date 24-Dec-2021
 Print Date 24-Dec-2021
 Revision Summary SDS sections updated. 8. 9. 11. 16.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

Creation Date 17-Sep-2010

Revision Date 24-Dec-2021

Revision Number 5

1. Identification

Product Name	Urea
Cat No. :	BP169-10; BP169-212; BP169-500 ; XXBP169100KG; NC131771; XXBP1695KG; NC1798093
CAS No	57-13-6
Synonyms	Carbamide
Recommended Use	Laboratory chemicals.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) Identification

Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

None required

Hazards not otherwise classified (HNOC)

None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Urea	57-13-6	>95

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing, give artificial respiration.
Ingestion	Do NOT induce vomiting. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid contact with skin, eyes or clothing. Avoid dust formation. Protect from moisture.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

8. Exposure controls / personal protection

<u>Exposure Guidelines</u>	This product does not contain any hazardous materials with occupational exposure limit established by the region specific regulatory bodies.
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Engineering Measures	None under normal use conditions.
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Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Ammonia-like
Odor Threshold	No information available
pH	7.5-9.5 10% aq. solution
Melting Point/Range	131 - 135 °C / 267.8 - 275 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	1.25 mmHg @ 25 °C
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available

Decomposition Temperature	> 132°C
Viscosity	Not applicable
Molecular Formula	C H4 N2 O
Molecular Weight	60.06

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation. Protect from moisture.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x)
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Urea	LD50 = 8471 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	May cause irritation of respiratory tract
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Urea	57-13-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Urea	Not listed	LC50: 16200 - 18300 mg/L, 96h (Poecilia reticulata)	= 23914 mg/L EC50 Photobacterium phosphoreum 5 min	EC50: = 3910 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability Persistence is unlikely

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Urea	-1.73

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
 TDG Not regulated
 IATA Not regulated
 IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Urea	57-13-6	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

- - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Urea	57-13-6	X	-	200-315-5	X	X	X	X	X	KE-35144

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313	Not applicable
SARA 311/312 Hazard Categories	See section 2 for more information
CWA (Clean Water Act)	Not applicable
Clean Air Act	Not applicable
OSHA - Occupational Safety and Health Administration	Not applicable
CERCLA	Not applicable
California Proposition 65	This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations	Not applicable
U.S. Department of Transportation	
Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N
U.S. Department of Homeland Security	This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Urea	57-13-6	-	-	-

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Urea	57-13-6	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Urea	57-13-6	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date	17-Sep-2010
Revision Date	24-Dec-2021
Print Date	24-Dec-2021
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

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End of SDS

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 1 of 7

Zinc Oxide

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Zinc Oxide

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25641

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Environmentally Damaging

Acute hazards to the aquatic environment, category 1
Chronic hazards to the aquatic environment, category 1

Aquatic AcTox. 1
Aquatic ChrTox. 1

Signal word :Warning

Hazard statements:

Very toxic to aquatic life with long lasting effects

Precautionary statements:

If medical advice is needed, have product container or label at hand

Keep out of reach of children

Read label before use

Avoid release to the environment

Collect spillage

Dispose of contents and container to an approved waste disposal plant

Other Non-GHS Classification:

WHMIS
NFPA/HMIS

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 2 of 7

Zinc Oxide



NFPA SCALE (0-4)

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

CAS 1314-13-2

Zinc oxide

>90 %

Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Consult a physician.

After skin contact: Wash hands and exposed skin with soap and plenty of water. Consult a physician.

After eye contact: Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Consult a physician.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

Most important symptoms and effects, both acute and delayed:

Irritation. Headache. Nausea. Shortness of breath,;

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing. Avoid generating dust.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 3 of 7

Zinc Oxide

Ensure adequate ventilation.Ensure that air-handling systems are operational.

Environmental precautions:

Should not be released into environment.Prevent from reaching drains, sewer, or waterway. Prevent further leakage or spillage.

Methods and material for containment and cleaning up:

Wear protective eyeware, gloves, and clothing. Refer to Section 8.Sweep up and containerize for disposal. Avoid generating dust. Always obey local regulations.If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Pick up and arrange disposal without creating dust.Keep in suitable closed containers for disposal.Follow proper disposal methods. Refer to Section 13.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing.Follow good hygiene procedures when handling chemical materials. Refer to Section 8.Follow proper disposal methods. Refer to Section 13.Wash hands after handling. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.Do not eat, drink, smoke, or use personal products when handling chemical substances.Avoid generating dust.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages.Protect from freezing and physical damage.Provide ventilation for containers. Keep container tightly sealed.Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

1314-13-2, Zinc oxide , 2 mg/m3 USA. ACGIH (TLV)
1314-13-2, Zinc oxide , TWA 5 mg/m3 USA. NIOSH

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance.Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves.Wear protective clothing.

Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).Safety glasses or goggles are appropriate eye protection.

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 4 of 7

Zinc Oxide

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Off - white solid	Explosion limit lower: Explosion limit upper:	Non Explosive Non Explosive
Odor:	Odorless	Vapor pressure:	Not Determined
Odor threshold:	Not Determined	Vapor density:	Not Determined
pH-value:	7 50 g/l aqueous solution (susp)	Relative density:	5.610 g/cm3
Melting/Freezing point:	1975°C	Solubilities:	Insoluble
Boiling point/Boiling range:	Not Determined	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid,gaseous):	Not Determined	Viscosity:	a. Kinematic:Not Determined b. Dynamic: Not Determined
Density: Not Determined			

SECTION 10 : Stability and reactivity

Reactivity:Nonreactive under normal conditions.

Chemical stability:Stable under normal conditions.

Possible hazardous reactions:None under normal processing.

Conditions to avoid:Incompatible materials.Dust generation.

Incompatible materials:Strong oxidizing agents.Magnesium. Chlorinated rubber.

Hazardous decomposition products:Zinc oxides

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	1314-13-2	LD50 Oral - mouse - 7,950 mg/kg
Inhalation:	1314-13-2	LC50 Inhalation - mouse - 2,500 mg/m3
Chronic Toxicity: No additional information.		
Corrosion Irritation:		
Dermal:	1314-13-2	Skin - rabbit Result: Mild skin irritation - 24 h

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 5 of 7

Zinc Oxide

Ocular:	1314-13-2	Eyes - rabbit Result: Mild eye irritation - 24 h
Sensitization:		No additional information.
Single Target Organ (STOT):		No additional information.
Numerical Measures:		No additional information.
Carcinogenicity:		No additional information.
Mutagenicity:		1314-13-2: Hamster Embryo Unscheduled DNA synthesis. 1314-13-2: Hamster Embryo Morphological transformation. 1314-13-2: Hamster Embryo Sister chromatid exchange
Reproductive Toxicity:		No additional information.

SECTION 12 : Ecological information

Ecotoxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 1.1 mg/l - 96.0 h: 1314-13-2

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 0.098 mg/l - 48 h: 1314-13-2

Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

Other adverse effects: 1314-13-2: Very toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14 : Transport information

UN-Number

3077

UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)

Transport hazard class(es)



Class:

9 Miscellaneous dangerous substances and articles

Packing group:III

Environmental hazard:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 6 of 7

Zinc Oxide

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

SARA Section 313 (Specific toxic chemical listings):

1314-13-2 Zinc Oxide

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

1314-13-2 Zinc Oxide

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.20.2015

Page 7 of 7

Zinc Oxide

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)

Effective date : 01.20.2015

Last updated : 03.19.2015

SAFETY DATA SHEET

Creation Date 02-Feb-2010

Revision Date 13-Oct-2023

Revision Number 5

1. Identification

Product Name Zinc sulfate heptahydrate

Cat No. : Z68-3; Z68-500; Z76-3; Z76-12; Z76-500; NC9460712;
XXZ68DBPD50KG; NC1968623

CAS No 7446-20-0

Synonyms Zinc vitriol; Salt of vitriol; White vitriol (Crystalline/USP/FCC/Certified ACS)

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

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

Acute oral toxicity	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Heart, Blood.	

Label Elements

Signal Word

Danger

Hazard Statements

Harmful if swallowed

Causes serious eye damage
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray

Response

Get medical attention/advice if you feel unwell

Eyes

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

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Zinc sulfate heptahydrate	7446-20-0	100
Zinc sulfate	7733-02-0	-

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
Inhalation	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately.
Most important symptoms and effects	Causes eye burns.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
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Unsuitable Extinguishing Media	No information available
Flash Point	Not applicable
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products

Sulfur oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
0

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up Avoid dust formation. Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin, eyes or clothing.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong bases.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal Protective Equipment	
Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

	EN166.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Recommended Filter type:	Particulates filter conforming to EN 143.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	4.4-6 5% aq. solution
Melting Point/Range	100 °C / 212 °F
Boiling Point/Range	No information available
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	3.54 @ 25°C
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	500°C
Viscosity	Not applicable
Molecular Formula	O4 S Zn . 7 H2 O
Molecular Weight	287.53

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Avoid dust formation. Incompatible products. Excess heat.
Incompatible Materials	Strong bases
Hazardous Decomposition Products	Sulfur oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
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Zinc sulfate heptahydrate	1260 mg/kg (Rat)	Not listed	Not listed
Zinc sulfate	LD50 = 1710 mg/kg (Rat)	LD50 > 2000 mg/kg (Rat)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Severe eye irritant

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Zinc sulfate heptahydrate	7446-20-0	Not listed	Not listed	Not listed	Not listed	Not listed
Zinc sulfate	7733-02-0	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure Heart Blood

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Zinc sulfate heptahydrate	Not listed	1.9 mg/L LC50 96 h	Not listed	Not listed
Zinc sulfate	EC50: = 0.056 mg/L, 72h static (Pseudokirchneriella subcapitata)	LC50: 0.48 - 1.72 mg/L, 96h static (Poecilia reticulata) LC50: 49.23 - 64.16 mg/L, 96h semi-static (Poecilia reticulata) LC50: = 0.63 mg/L, 96h (Poecilia reticulata) LC50: 3.55 - 6.32 mg/L, 96h static (Lepomis macrochirus) LC50: 3 - 4.6 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 16.85 - 27.18 mg/L, 96h static (Cyprinus carpio) LC50: = 0.162 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 0.168 - 0.25 mg/L,	EC50 = 3.45 mg/L 15 min EC50 = 40.5 mg/L 30 min EC50 = 476 mg/L 5 min EC50 > 700 mg/L 16 h	EC50: 0.538 - 0.908 mg/L, 48h Static (Daphnia magna) EC50: = 0.75 mg/L, 48h (Daphnia magna)

		96h semi-static (Pimephales promelas) LC50: 0.23 - 0.48 mg/L, 96h (Pimephales promelas) LC50: = 0.06 mg/L, 96h static (Pimephales promelas) LC50: 0.218 - 0.42 mg/L, 96h flow-through (Pimephales promelas) LC50: 0.34 - 0.93 mg/L, 96h static (Oncorhynchus mykiss) LC50: 0.03 - 0.05 mg/L, 96h semi-static (Oncorhynchus mykiss) LC50: = 0.15 mg/L, 96h semi-static (Cyprinus carpio)		
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Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3077
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.
 Hazard Class 9
 Packing Group III

TDG

UN-No UN3077
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.
 Hazard Class 9
 Packing Group III

IATA

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.*
 Hazard Class 9
 Packing Group III

IMDG/IMO

UN-No UN3077
 Proper Shipping Name Environmentally hazardous substances, solid, n.o.s.
 Hazard Class 9
 Packing Group III

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Zinc sulfate heptahydrate	7446-20-0	-	-	-
Zinc sulfate	7733-02-0	X	ACTIVE	-

Legend:

Zinc sulfate heptahydrate

Revision Date 13-Oct-2023

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Zinc sulfate heptahydrate	7446-20-0	X	-	-	X	X		X	X	-
Zinc sulfate	7733-02-0	X	-	231-793-3	X	X	X	X	X	KE-35582

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)**U.S. Federal Regulations****SARA 313**

Not applicable

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Zinc sulfate heptahydrate	7446-20-0	100	1.0
Zinc sulfate	7733-02-0	-	1.0

SARA 311/312 Hazard Categories See section 2 for more information**CWA (Clean Water Act)**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Zinc sulfate heptahydrate	-	-	X	-
Zinc sulfate	X	1000 lb	X	-

Clean Air Act

Not applicable

OSHA - Occupational Safety and Health Administration

Not applicable

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Zinc sulfate	1000 lb	-

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc sulfate heptahydrate	-	X	X	-	-
Zinc sulfate	X	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ):

Y

DOT Marine Pollutant

N

DOT Severe Marine Pollutant

N

U.S. Department of Homeland

This product does not contain any DHS chemicals.

Security

Other International Regulations

Mexico - Grade

No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Zinc sulfate heptahydrate	7446-20-0	-	Use restricted. See item 75. (see link for restriction details)	-
Zinc sulfate	7733-02-0	-	Use restricted. See item 75. (see link for restriction details)	-

REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Zinc sulfate heptahydrate	7446-20-0	Not applicable	Not applicable	Not applicable	Not applicable
Zinc sulfate	7733-02-0	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Zinc sulfate heptahydrate	7446-20-0	Not applicable	Not applicable	Not applicable	Annex I - Y23
Zinc sulfate	7733-02-0	Not applicable	Not applicable	Not applicable	Annex I - Y23

16. Other information

Prepared By

Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date

02-Feb-2010

Revision Date

13-Oct-2023

Print Date

13-Oct-2023

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

Attachment 6

Annual cropping plan

Annual Cropping Plan:

- Cool and warm season plant species- Warm season: bermuda grass. Cool season: winter ryegrass
- Breakdown of acreage and percent of total acreage for each crop- 6 acres. 80% grass 20% trees/shrubs.
- Crop growing season- Bermuda grass April- October. Winter ryegrass November- March.
- Harvesting method/number of harvests- Mechanical mowing. 4 times per year for Bermuda grass. 2 times per year for Winter ryegrass.
- Minimum/maximum harvest height- Bermuda grass 3-6 inches. Winter ryegrass 3-8 inches.
- Crop yield goals- N/A
- Soils map- See Attachment 2
- Nitrogen requirements per crop- Bermuda grass 50-200 lbs/acre/year. Winter ryegrass 40-120 lbs/acre/year.
- Additional fertilizer requirements- No additional fertilizers used.
- Supplemental watering requirements- No supplemental watering.
- Crop salt tolerances- Moderate for both crops.
- Justification for not removing existing vegetation to be irrigated- Existing vegetation will be irrigated.

Attachment 7

Soil sample analysis



ANALYTICAL REPORT

August 05, 2024

Hall Environmental Consultants, LLC

Sample Delivery Group: L1760775
Samples Received: 07/16/2024
Project Number: Ridley Block
Description: Buffalo, TX
Site: BUFFALO 446
Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in black ink that reads "Alan Harvill".

T. Alan Harvill
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1760775

DATE/TIME:
08/05/24 09:33

PAGE:
1 of 7

SAMPLE SUMMARY

SOIL L1760775-01 Solid			Collected by Tommy Davis	Collected date/time 07/15/24 11:00	Received date/time 07/16/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2332016	1	07/30/24 12:40	08/04/24 18:05	LDT	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2332202	1	08/01/24 10:00	08/01/24 17:03	LDT	Mt. Juliet, TN
Wet Chemistry by Method 4500NOrg C-2011	WG2333214	1	08/03/24 09:22	08/04/24 18:05	LDT	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG2333234	1	07/31/24 08:19	07/31/24 10:50	KA	Mt. Juliet, TN
Wet Chemistry by Method 9050AMod	WG2331321	1	07/27/24 19:51	07/27/24 23:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2332016	5	07/30/24 12:40	07/31/24 01:51	DLH	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2333226	1	08/01/24 08:33	08/03/24 11:42	JTM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



T. Alan Harvill
Project Manager

Project Narrative

Results reported as received (wet weight). Unable to perform total solids due to sample matrix. LC 7/30/24

SOIL

Collected date/time: 07/15/24 11:00

SAMPLE RESULTS - 01

L1760775

Calculated Results

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Total Nitrogen	343		20.0	1	08/04/2024 18:05	WG2332016

Wet Chemistry by Method 350.1

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	107	J6	10.0	1	08/01/2024 17:03	WG2332202

Wet Chemistry by Method 4500NOrg C-2011

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	343	J6	20.0	1	08/04/2024 18:05	WG2333214

Wet Chemistry by Method 9045D

Analyte	Result su	Qualifier	RDL	Dilution	Analysis date / time	Batch
pH	8.09	T8	1		07/31/2024 10:50	WG2333234

Sample Narrative:

L1760775-01 WG2333234: 8.09 at 22.1C

Wet Chemistry by Method 9050AMod

Analyte	Result umhos/cm	Qualifier	RDL umhos/cm	Dilution	Analysis date / time	Batch
Specific Conductance	3590		10.0	1	07/27/2024 23:00	WG2331321

Sample Narrative:

L1760775-01 WG2331321: at 25C

Wet Chemistry by Method 9056A

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	ND		100	5	07/31/2024 01:51	WG2332016

Sample Narrative:

L1760775-01 WG2332016: dilution due to matrix

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Calcium	152		100	1	08/03/2024 11:42	WG2333226
Magnesium	175		100	1	08/03/2024 11:42	WG2333226
Phosphorus	ND		100	1	08/03/2024 11:42	WG2333226
Potassium	1240		100	1	08/03/2024 11:42	WG2333226
Sodium	407		100	1	08/03/2024 11:42	WG2333226
Sulfur	ND		100	1	08/03/2024 11:42	WG2333226

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

[illegible]

HALKKY L1757083-01, relog for multiple parameters

R5

PH

SPCON

NO2NO3

NH3

TOTALNITROGEN parent (NTTROGEN,TKN,NO2NO3)
ICP metals: K,Ca,Mg,Na,S,P

Linda Cashman

Project Manager z/National

12065 Lebanon Road | Mt. Juliet, TN 37122

400 W. Bethany Drive | Allen, TX 75013

Office: 615-773-9671 | Cell: 615-417-8450

Linda.Cashman@pacelabs.com <mailto:Linda.Cashman@pacelabs.com>

[cid:image001.jpg@01DADF48.16A08970]

Website data link <https://mydata.pacelabs.com/login>

PROCESS PAYMENTS ONLINE - click on the link below

Online Bill Pay<https://login.unitedtranzactions.com/obp/pace_analytical>

A 2.5% surcharge may be added to your credit card payment. Debit and ACH/e-checks incur no additional fees.

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Time estimate: 0h

Time spent: 0h

Members

LC Linda Cashman (responsible)



ANALYTICAL REPORT

July 25, 2024

Hall Environmental Consultants, LLC

Sample Delivery Group: L1757083
Samples Received: 07/16/2024
Project Number: Ridley Block
Description: Buffalo, TX
Site: BUFFALO 446
Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in black ink that reads "Linda Cashman".

Linda Cashman
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1757083

DATE/TIME:
07/25/24 13:20

PAGE:
1 of 7

SAMPLE SUMMARY

SOIL L1757083-01 Waste			Collected by Tommy Davis	Collected date/time 07/15/24 11:00	Received date/time 07/16/24 10:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG2324491	1	07/17/24 14:28	07/17/24 14:28	BTP	Mt. Juliet, TN
Preparation by Method 1311	WG2324493	1	07/17/24 10:20	07/17/24 10:20	JWS	Mt. Juliet, TN
Mercury by Method 7470A	WG2325865	1	07/18/24 16:04	07/20/24 13:26	AKB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2326285	1	07/20/24 10:41	07/20/24 16:06	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2325723	1	07/18/24 16:15	07/18/24 16:15	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG2327889	1	07/23/24 07:44	07/23/24 12:39	JDJ	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Linda Cashman
Project Manager

SOIL

Collected date/time: 07/15/24 11:00

SAMPLE RESULTS - 01

L1757083

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		7/17/2024 10:20:14 AM	WG2324493
TCLP ZHE Extraction	-		7/17/2024 2:28:22 PM	WG2324491
Initial pH	7.92		7/17/2024 10:20:14 AM	WG2324493
Final pH	5.19		7/17/2024 10:20:14 AM	WG2324493

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	07/20/2024 13:26	WG2325865

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Antimony	ND		0.100		1	07/20/2024 16:06	WG2326285
Arsenic	ND		0.100	5	1	07/20/2024 16:06	WG2326285
Barium	0.207		0.100	100	1	07/20/2024 16:06	WG2326285
Beryllium	ND		0.0200		1	07/20/2024 16:06	WG2326285
Cadmium	ND		0.100	1	1	07/20/2024 16:06	WG2326285
Chromium	ND		0.100	5	1	07/20/2024 16:06	WG2326285
Lead	ND		0.100	5	1	07/20/2024 16:06	WG2326285
Nickel	ND		0.100		1	07/20/2024 16:06	WG2326285
Selenium	ND		0.100	1	1	07/20/2024 16:06	WG2326285
Silver	ND		0.100	5	1	07/20/2024 16:06	WG2326285

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Benzene	ND		0.0500	0.50	1	07/18/2024 16:15	WG2325723
Carbon tetrachloride	ND		0.0500	0.50	1	07/18/2024 16:15	WG2325723
Chlorobenzene	ND		0.0500	100	1	07/18/2024 16:15	WG2325723
Chloroform	ND		0.250	6	1	07/18/2024 16:15	WG2325723
1,2-Dichloroethane	ND		0.0500	0.50	1	07/18/2024 16:15	WG2325723
1,1-Dichloroethene	ND		0.0500	0.70	1	07/18/2024 16:15	WG2325723
2-Butanone (MEK)	ND		0.500	200	1	07/18/2024 16:15	WG2325723
Tetrachloroethene	ND		0.0500	0.70	1	07/18/2024 16:15	WG2325723
Trichloroethene	ND		0.0500	0.50	1	07/18/2024 16:15	WG2325723
Vinyl chloride	ND		0.0500	0.20	1	07/18/2024 16:15	WG2325723
(S) Toluene-d8	109		80.0-120			07/18/2024 16:15	WG2325723
(S) 4-Bromofluorobenzene	112		77.0-126			07/18/2024 16:15	WG2325723
(S) 1,2-Dichloroethane-d4	115		70.0-130			07/18/2024 16:15	WG2325723

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
1,4-Dichlorobenzene	ND		0.100	7.50	1	07/23/2024 12:39	WG2327889
2,4-Dinitrotoluene	ND		0.100	0.13	1	07/23/2024 12:39	WG2327889
Hexachlorobenzene	ND		0.100	0.13	1	07/23/2024 12:39	WG2327889
Hexachloro-1,3-butadiene	ND		0.100	0.50	1	07/23/2024 12:39	WG2327889
Hexachloroethane	ND		0.100	3	1	07/23/2024 12:39	WG2327889
Nitrobenzene	ND		0.100	2	1	07/23/2024 12:39	WG2327889

SOIL

SAMPLE RESULTS - 01

Collected date/time: 07/15/24 11:00

L1757083

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Pyridine	ND	J4	0.100	5	1	07/23/2024 12:39	WG2327889
3&4-Methyl Phenol	0.845		0.100	400	1	07/23/2024 12:39	WG2327889
2-Methylphenol	ND		0.100	200	1	07/23/2024 12:39	WG2327889
Pentachlorophenol	ND		0.100	100	1	07/23/2024 12:39	WG2327889
2,4,5-Trichlorophenol	ND		0.100	400	1	07/23/2024 12:39	WG2327889
2,4,6-Trichlorophenol	ND		0.100	2	1	07/23/2024 12:39	WG2327889
(S) 2-Fluorophenol	80.5		10.0-120			07/23/2024 12:39	WG2327889
(S) Phenol-d5	59.0		10.0-120			07/23/2024 12:39	WG2327889
(S) Nitrobenzene-d5	134	J1	10.0-127			07/23/2024 12:39	WG2327889
(S) 2-Fluorobiphenyl	134	J1	10.0-130			07/23/2024 12:39	WG2327889
(S) 2,4,6-Tribromophenol	148		10.0-155			07/23/2024 12:39	WG2327889
(S) p-Terphenyl-d14	140	J1	10.0-128			07/23/2024 12:39	WG2327889

Sample Narrative:

L1757083-01 WG2327889: Duplicate Analysis performed due to QC failure. Reporting most compliant data.

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.


Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier Description

J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.

Company Name/Address: Hall Environmental Consultants, LLC 1376 Danville Road Loop 1 Nicholasville, KY 40356		Billing Information: Randy Shelley 1376 Danville Road Loop 1 Nicholasville, KY 40356 Email To: rshelley@hallenvironmental.net		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page ___ of ___  MT JULIET, TN <small>12005 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: http://www.pacelabs.com/pdf/chain-of-custody-terms.pdf</small>			
Report to: Randy Shelley		City/State Collected: <u>Buffalo TX</u>		Please Circle: PT MT CT ET		TCLP Metals-VOC-SVOC 1L-CL-NoPres										SDG # <u>L1757083</u> <u>D165</u>			
Project Description: Buffalo, TX		Client Project # Ridley Block		Lab Project # HALLKY-RIDLEY BTX												Acctnum: HALLKY Template: T255868 Prelogin: P1086863 PM: 650 - Linda Cashman PB: <u>mv7411/24</u> Shipped Via: FedEX Ground			
Phone: 859-885-3331		Site/Facility ID # <u>Buffalo 446</u>		P.O. #												Quote #			
Collected by (print): <u>Tommy Davis</u>		Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day <input type="checkbox"/> Five Day <input checked="" type="checkbox"/> Next Day <input type="checkbox"/> 5 Day (Rad Only) <input type="checkbox"/> Two Day <input type="checkbox"/> 10 Day (Rad Only) <input type="checkbox"/> Three Day		Date Results Needed												No. of Cntrs			
Immediately Packed on Ice N <input type="checkbox"/> Y <input checked="" type="checkbox"/>		Sample ID		Comp/Grab		Matrix *		Depth		Date		Time		No. of Cntrs		Remarks		Sample # (Lab only)	
		<u>Soil</u>		<u>Grab</u>		<u>SS</u>		<u>12"</u>		<u>7-15-24</u>		<u>11:AM</u>		<u>1</u>		<u>X</u>		<u>-01</u>	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Wastewater DW - Drinking Water OT - Other _____		Remarks:										pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> HP <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> N If Applicable VOA Zero Headspace: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N Preservation Correct/Checked: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> N					
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL / MeOH TBR		Temp: <u>5.14°C</u>		Bottles Received: <u>3.6 + 6.3 = 3.9 1</u>		If preservation required by Login: Date/Time					
Relinquished by: (Signature)		Date:		Time:		Received by: (Signature)		Temp: <u>3.6 + 6.3 = 3.9 1</u>		Bottles Received: <u>3.6 + 6.3 = 3.9 1</u>		If preservation required by Login: Date/Time							
Relinquished by: (Signature)		Date:		Time:		Received for lab by: (Signature) <u>Chasen</u>		Date: <u>7/16/24</u>		Time: <u>1000</u>		Hold:		Condition: NCF <input checked="" type="checkbox"/> OK					



ANALYTICAL REPORT

March 30, 2021

Hall Environmental Consultants, LLC

Sample Delivery Group: L1329108
Samples Received: 03/20/2021
Project Number: Ridley Block
Description: Buffalo, TX-wastewater

Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in black ink that reads "Linda Cashman".

Linda Cashman
Project Manager

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Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1329108

DATE/TIME:
03/30/21 18:56

PAGE:
1 of 7

SAMPLE SUMMARY

WW L1329108-01 WW

Collected by

Collected date/time

Received date/time

03/19/21 09:00

03/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1639546	1	03/26/21 06:25	03/26/21 06:25	SDL	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2011	WG1640647	1	03/25/21 20:09	03/25/21 21:35	CAT	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1639326	5	03/25/21 11:34	03/25/21 11:34	SL	Mt. Juliet, TN
Wet Chemistry by Method 351.2	WG1639794	50	03/24/21 20:29	03/26/21 06:25	SDL	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1639546	1	03/24/21 12:59	03/24/21 12:59	KEG	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1640857	20	03/24/21 20:29	03/26/21 04:43	SDL	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1639840	50	03/24/21 16:14	03/24/21 18:42	BJD	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG1639262	1	03/25/21 05:53	03/25/21 05:53	AMH	Mt. Juliet, TN
Wet Chemistry by Method 5210 B-2011	WG1637786	100	03/20/21 14:49	03/25/21 10:21	MJG	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1638775	1	03/23/21 07:00	03/25/21 15:54	KMG	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1638775	5	03/23/21 07:00	03/25/21 23:11	CCE	Mt. Juliet, TN

ACCOUNT:

Hall Environmental Consultants, LLC

PROJECT:

Ridley Block

SDG:

L1329108

DATE/TIME:

03/30/21 18:56

PAGE:

2 of 7

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Linda Cashman
Project Manager

WW

Collected date/time: 03/19/21 09:00

SAMPLE RESULTS - 01

L1329108

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Total Nitrogen	228		0.100	1	03/26/2021 06:25	WG1639546

Gravimetric Analysis by Method 2540 D-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	375		125	1	03/25/2021 21:35	WG1640647

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	25.1		1.25	5	03/25/2021 11:34	WG1639326

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	228		12.5	50	03/26/2021 06:25	WG1639794

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.201		0.100	1	03/24/2021 12:59	WG1639546

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus, Total	52.8		2.00	20	03/26/2021 04:43	WG1640857

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	15000		1000	50	03/24/2021 18:42	WG1639840

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	4.90	T8	1	03/25/2021 05:53	WG1639262

Sample Narrative:

L1329108-01 WG1639262: 4.9 at 19.2C

Wet Chemistry by Method 5210 B-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
BOD	5720		3330	100	03/25/2021 10:21	WG1637786

WW

SAMPLE RESULTS - 01

Collected date/time: 03/19/21 09:00

L1329108

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	03/25/2021 15:54	WG1638775
Cadmium	ND		0.00200	1	03/25/2021 15:54	WG1638775
Chromium	0.0367		0.0100	1	03/25/2021 15:54	WG1638775
Copper	0.585		0.0100	1	03/25/2021 15:54	WG1638775
Lead	0.00671		0.00500	1	03/25/2021 15:54	WG1638775
Molybdenum	0.00887		0.00500	1	03/25/2021 15:54	WG1638775
Nickel	0.0787		0.0100	1	03/25/2021 15:54	WG1638775
Potassium	1130		5.00	5	03/25/2021 23:11	WG1638775
Selenium	0.0438		0.0100	1	03/25/2021 15:54	WG1638775
Silver	ND		0.00500	1	03/25/2021 15:54	WG1638775
Zinc	3.19		0.0500	1	03/25/2021 15:54	WG1638775

GLOSSARY OF TERMS

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Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
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Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
-----------	-------------

T8	Sample(s) received past/too close to holding time expiration.
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[illegible]



ANALYTICAL REPORT

July 30, 2024

Hall Environmental Consultants, LLC

Sample Delivery Group: L1756787
Samples Received: 07/16/2024
Project Number: Ridley Block
Description: Buffalo, TX-wastewater
Site: BUFFALO 446
Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in black ink that reads "Linda Cashman".

Linda Cashman
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1756787

DATE/TIME:
07/30/24 08:29

PAGE:
1 of 7

SAMPLE SUMMARY

WASTEWATER DISCHARGE L1756787-01 WW

Collected by Tommy Davis Collected date/time 07/15/24 11:00 Received date/time 07/16/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG2323818	1	07/28/24 19:56	07/28/24 19:56	LDT	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2015	WG2323991	1	07/16/24 18:01	07/16/24 19:23	MMF	Mt. Juliet, TN
Wet Chemistry by Method 1664A	WG2326610	1	07/19/24 16:53	07/19/24 23:01	DAL	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG2328530	100	07/24/24 22:16	07/24/24 22:16	DLH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2325366	200	07/20/24 15:26	07/20/24 15:26	LAS	Mt. Juliet, TN
Wet Chemistry by Method 351.2	WG2329779	20	07/26/24 12:00	07/28/24 19:56	LDT	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG2323818	20	07/16/24 19:10	07/16/24 19:10	RTW	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG2324146	1	07/16/24 18:30	07/16/24 18:30	KRB	Mt. Juliet, TN
Wet Chemistry by Method 5210 B-2016	WG2323643	100	07/16/24 12:48	07/21/24 11:01	EAO	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG2325727	10	07/21/24 10:22	07/22/24 12:57	DJS	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Linda Cashman
Project Manager

Sample Delivery Group (SDG) Narrative

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1756787-01	WASTEWATER DISCHARGE	1664A

WASTEWATER DISCHARGE

Collected date/time: 07/15/24 11:00

SAMPLE RESULTS - 01

L1756787

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Total Nitrogen	310		2.00	1	07/28/2024 19:56	WG2323818

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	770		125	1	07/16/2024 19:23	WG2323991

Wet Chemistry by Method 1664A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Extr)	20.9		6.25	1	07/19/2024 23:01	WG2326610

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfate	ND		500	100	07/24/2024 22:16	WG2328530

Sample Narrative:

L1756787-01 WG2328530: dilution due to oily sample matrix

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	152		50.0	200	07/20/2024 15:26	WG2325366

Sample Narrative:

L1756787-01 WG2325366: dilution due to sample matrix

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	310		5.00	20	07/28/2024 19:56	WG2329779

Sample Narrative:

L1756787-01 WG2329779: dilution due to sample matrix

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	ND		2.00	20	07/16/2024 19:10	WG2323818

Sample Narrative:

L1756787-01 WG2323818: dilution due to sample matrix

WASTEWATER DISCHARGE

SAMPLE RESULTS - 01

Collected date/time: 07/15/24 11:00

L1756787

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.22	T8	1	07/16/2024 18:30	WG2324146

Sample Narrative:

L1756787-01 WG2324146: 8.22 at 22.4C

Wet Chemistry by Method 5210 B-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
BOD	1460	B1 J-	1000	100	07/21/2024 11:01	WG2323643

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Calcium	149		10.0	10	07/22/2024 12:57	WG2325727
Magnesium	169		10.0	10	07/22/2024 12:57	WG2325727
Phosphorus	29.3		1.00	10	07/22/2024 12:57	WG2325727
Potassium	1180		10.0	10	07/22/2024 12:57	WG2325727
Sodium	359		10.0	10	07/22/2024 12:57	WG2325727

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
B1	The blank depletion was greater than the recommended maximum depletion of 0.2mg/L.
J-	The associated batch QC was outside the lower control limits; associated data has a potential negative bias.
T8	Sample(s) received past/too close to holding time expiration.

[illegible]



ANALYTICAL REPORT

Hall Environmental Consultants, LLC

Sample Delivery Group: L1254527
Samples Received: 08/26/2021
Project Number: Ridley Block
Description: Ridley Block-Buffalo Texas

Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By: *Cassandra Foster*
Cassandra Foster
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



WWTP EFFLUENT L1254527-01 WW

Collected by
Client

Collected date/time
08/25/21 09:15

Received date/time
08/26/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 D-2011	WG1533904	1	08/28/21 00:22	08/28/21 02:20	TH	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1533921	10	09/01/21 18:50	09/01/21 18:50	DGR	Mt. Juliet, TN
Wet Chemistry by Method 5210 B-2011	WG1532519	10	08/26/21 17:34	08/31/21 16:04	RLC	Mt. Juliet, TN

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1254527

DATE/TIME:
09/02/21 13:01

PAGE:
2 of 8

CASE NARRATIVE

ONE LAB. NATIONWIDE.



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Cassandra Foster
Project Manager

WWTP EFFLUENT

Collected date/time: 08/25/21 09:15

SAMPLE RESULTS - 01

L1254527

ONE LAB. NATIONWIDE.



Gravimetric Analysis by Method 2540 D-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	221		25.0	1	08/28/2021 02:20	WG1533904

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrogen, Total	57.0		2.50	10	09/01/2021 18:50	WG1533921

Wet Chemistry by Method 5210 B-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
BOD	1140	J-	333	10	08/31/2021 16:04	WG1532519



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Abbreviations and Definitions

RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the Included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
J-	The associated batch QC was outside the lower control limits; associated data has a potential negative bias.

Sample Receipt Checklist			
GC/MSI Present/Intact	Y	N	12 Applicable
GC Signed Analytical	Y	N	4th Box Headspace
Bottles Sealed Intact	Y	N	Pres/Correct Chain
Correct Bottle Label	Y	N	
Sufficient Volume Sent	Y	N	
Other	Y	N	

Attachment 8

Payment

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000630346
Date: 10/18/2024 10:11 AM
Payment Method: CC - Authorization 0000018928
ePay Actor: JORDAN MCKINNEY
Actor Email: jmckinney@hallenvironmental.net
IP: 40.131.17.130
TCEQ Amount: \$315.00
Texas.gov Price: \$322.34*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: JIMMY SEXTON
Company: RIDLEY BLOCK
Address: 3031 CATNIP HILL RD, NICHOLASVILLE, KY 40356
Phone: 859-885-9613

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
726587	WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - RENEWAL		\$300.00
726588	30 TAC 305.53B WQ RENEWAL NOTIFICATION FEE		\$15.00
TCEQ Amount:			\$315.00

[ePay Again](#)[Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

Attachment 9

Groundwater Technical Report

Groundwater Technical Report



Groundwater Technical Report

Site Description

Location: 125 Industrial Blvd, Buffalo, TX 75831

Ridley Block Operations specializes in the manufacturing of high-quality prepared feeds and feed ingredients tailored specifically for livestock. Our facility is strategically located at 125 Industrial Blvd, Buffalo, TX 75831, within Groundwater Management Area 12. This area is managed by the Mid-East Texas Groundwater Conservation District, ensuring sustainable use and conservation of groundwater resources. Additionally, our operations fall within the Region H Water Planning Area, which is dedicated to the comprehensive planning and management of water resources to meet the long-term needs of the region.

Wastewater Generation:

1. **1. Washwater:** Washwater is generated from the weekly cleaning process of the cookers used in our facility. These cookers play a crucial role in reducing the moisture content of the animal feed supplements we produce. The washing process involves thoroughly rinsing and scrubbing the cookers to remove any residual feed material and ensure sanitary conditions for subsequent batches. During this process, significant amounts of water are used, which results in the generation of washwater. This washwater contains trace amounts of organic matter and nutrients from the feed supplements, making it essential to handle and treat it appropriately before disposal or reuse.
2. Cooling water is generated during the transfer of animal feed supplements from the cookers onto a cooling belt system. After the cooking process, the feed supplements, which are still at elevated temperatures, are transferred to a conveyor belt equipped with cooling mechanisms. This cooling belt system employs water to rapidly reduce the temperature of the feed supplements, ensuring they reach a safe and stable temperature for further handling and storage.

Wastewater Application: The generated wastewater from our facility is managed through treatment tanks and a spray irrigation system applied over approximately 6 acres. This method involves distributing the wastewater using specialized irrigation equipment that sprays it evenly across the designated areas. The spray irrigation process is designed to maximize the absorption and utilization of the wastewater by the soil and crops.

Regular monitoring and maintenance of the irrigation system are conducted to ensure its optimal performance and compliance with environmental regulations. This approach reflects our commitment to sustainable wastewater management practices that benefit both our operations and the surrounding environment.

Wells Information: A survey has been conducted to identify all wells located within an approximate 0.7-mile radius of the facility site. The detailed information for each well, including their geographic coordinates, usage, ownership, and completion dates, is provided in Table 1 and further elaborated in Attachment 2.

Notably, within this survey range, there are only two wells designated for domestic use. These are:

- Well number 156773, owned by Brian Freeman, located at a distance of 0.63 miles from the site.
- Well number 461997, owned by Tina Rayborn, situated at a distance of 0.7 miles from the site.

Both of these domestic wells fall outside the immediate ½ mile radius from the facility, ensuring a significant buffer zone.

Soil Type: The land application area is characterized by Pickton loamy fine sand, a well-draining soil type known for its advantageous properties for agricultural purposes. This soil type encompasses a slope ranging from 1 to 8 percent, which provides adequate drainage and minimizes the risk of waterlogging. The gentle slope ensures that the applied wastewater from spray irrigation is effectively absorbed and distributed throughout the soil profile, reducing runoff and enhancing nutrient uptake by crops.

Pickton loamy fine sand has a fine granular texture that promotes good aeration and root penetration, essential for healthy plant growth. The soil's composition, rich in loamy fine particles, allows it to retain adequate moisture while facilitating excess water drainage, making it ideal for the land application of wastewater.

To provide a comprehensive understanding of the site's topography and its suitability for wastewater application, a detailed topography map of the facility is included in Attachment 1.

Existing Groundwater Conditions

There is no available sampling data for the wells in this area. The available well reports are provided in Attachment 2. Attachment 3 includes the most recent Texas Water Conditions Report, and Attachment 4 contains the latest effluent sample results.

Table 1: Well Information

Well Number	Well Report Tracking Number	Well Use	Well Owner	Date of Completion	Latitude	Longitude	Borehole Depth	Injurious Water
37366	107804	Plugged	Glick Automotive	3/29/2007	31.449445	-96.077222	20 ft	No
458927	458927	Monitor	Buffalo Travel Center	8/28/2017	31.448889	-96.077222	20 ft	No

Well Number	Well Report Tracking Number	Well Use	Well Owner	Date of Completion	Latitude	Longitude	Borehole Depth	Injurious Water
504487	504487	Monitor	Buffalo Travel Center	2/19/2019	31.448333	-96.076806	25 ft	No
425338	425338	Monitor	Pilot Flying J #1028	6/7/2016	31.448631	-96.077661	20 ft	No
407779	407779	Monitor	Pilot Travel Centers, LLC	10/14/2015	31.448611	-96.078056	20 ft	No
425339	425339	Monitor	Pilot Flying J #1028	6/7/2016	31.4481	-96.078161	20 ft	No
425337	425337	Monitor	Pilot Flying J #1028	6/7/2016	31.448942	-96.078261	20 ft	No
425334	425334	Monitor	Pilot Flying J #1028	6/7/2016	31.448969	-96.078689	20 ft	No
433107	433107	Monitor	Pilot Flying J #1028	9/23/2016	31.449174	-96.078611	20 ft	No
433108	433108	Monitor	Pilot Flying J #1028	9/23/2016	31.449247	-96.079027	20 ft	No
433110	433110	Monitor	Pilot Flying J #1028	9/23/2016	31.448766	-96.079173	20 ft	No
173932	173932	Rig Supply	Blackwell Oper. Company	5/20/2004	31.4475	-96.079444	160 ft	No
156773	156773	Domestic	Brian Freeman	10/17/2008	31.444445	-96.083055	840 ft	No
461997	461997	Domestic	Tina Rayborn	8/5/2017	31.440556	-96.083889	895 ft	No
68843	68843	Rig Supply	Anadarko E & P Co., LP	9/23/2005	31.433055	-96.062223	260 ft	No

Potential Impacts

Parameters of Concern: pH, Electrical Conductivity, Nitrate-nitrogen, Ammonium Nitrogen, Total Kjeldahl Nitrogen, Total Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, and Sulfur.

The land application area is located in a secluded, private rural area predominantly consisting of agricultural land. Potential impacts on groundwater quality due to land application are expected to be minimal, as the crop can absorb most parameters, serving as a natural fertilizer.

Surface Spills: During daily operations, potential spills are primarily confined to fuels and lubricants used for the facility's equipment. These materials are typically contained within the building, reducing the risk of external contamination. To further mitigate the risk of groundwater contamination, we implement comprehensive spill prevention measures and adhere to best management practices (BMPs).

Spill Prevention Measures:

1. **Containment Systems:** All fuel and lubricant storage areas are equipped with secondary containment systems designed to capture any leaks or spills, preventing them from reaching the ground or nearby water sources.
2. **Regular Inspections:** Routine inspections are conducted to ensure the integrity of storage containers and to detect any signs of leakage or wear that could lead to spills.
3. **Spill Kits:** Spill response kits are strategically placed throughout the facility, ensuring that immediate action can be taken in the event of a spill. These kits contain absorbent materials, containment booms, and other tools necessary for efficient spill management.
4. **Employee Training:** All personnel are trained in spill prevention and response procedures. This includes regular drills and educational sessions to reinforce the importance of swift and effective spill management.

Best Management Practices (BMPs):

1. **Good Housekeeping:** Maintaining clean work areas and promptly addressing any small spills or leaks to prevent them from spreading or causing further contamination.
2. **Preventive Maintenance:** Regular maintenance of equipment to reduce the likelihood of mechanical failures that could result in spills.
3. **Proper Storage:** Ensuring that all fuels, lubricants, and other potentially hazardous materials are stored in designated areas with appropriate labeling and containment systems.
4. **Record Keeping:** Maintaining detailed records of all spill incidents, inspections, and maintenance activities. This helps in monitoring the effectiveness of our spill prevention measures and identifying any areas for improvement.

By implementing these measures and practices, we aim to minimize the potential impact of surface spills on groundwater quality, ensuring the protection of the environment and the surrounding community.

Storm Water Control: Storm water control measures and best management practices (BMPs) are rigorously implemented to ensure that the daily operations of the land application process have minimal impact on regional groundwater resources. These control measures are designed to manage storm water runoff efficiently and prevent any potential contamination.

Storm Water Control Measures:

1. **Buffer Zones:** Vegetated buffer zones are established around the perimeter of the land application area. These zones act as natural filters, trapping sediments and absorbing nutrients from runoff before it reaches the groundwater. The vegetation in these buffer zones also helps in stabilizing the soil and preventing erosion.
2. **Grading and Contouring:** The land application area is graded and contoured to direct storm water flow towards designated collection points and away from sensitive areas. This ensures that runoff is effectively managed and directed towards retention ponds or other control structures, reducing the risk of contamination.

Best Management Practices (BMPs):

1. **Cover Crops:** Cover crops are planted in areas that are not currently being used for land application. These crops help in maintaining soil structure, enhancing infiltration, and reducing runoff. Additionally, they add organic matter to the soil, improving its overall health and water-holding capacity.
2. **Regular Maintenance:** Regular maintenance of storm water control structures such as, drainage ditches, and buffer zones is conducted to ensure their continued effectiveness. This includes removing accumulated sediments, repairing any damage, and ensuring that vegetation in buffer zones is healthy and well-maintained.
3. **Monitoring and Inspections:** Routine monitoring and inspections are carried out to assess the effectiveness of the storm water control measures. Any issues identified during inspections are promptly addressed to prevent potential impacts on groundwater quality.

Monitoring Plan

The monitoring plan for the facility has been designed to ensure comprehensive tracking and analysis of effluent parameters to maintain compliance with regulatory standards and safeguard environmental quality. The monitoring efforts encompass various critical parameters and are conducted at specified intervals to capture accurate and relevant data.

Parameters to be Monitored:

The facility will rigorously monitor the effluent for the following parameters:

- **pH:** Measures the acidity or alkalinity of the effluent.
- **Electrical Conductivity:** Indicates the level of ions present in the effluent, reflecting its overall ionic strength.
- **Nitrate-nitrogen:** Represents the concentration of nitrate nitrogen, a potential nutrient pollutant.
- **Ammonium Nitrogen:** Measures the ammonium ion concentration, which can indicate the presence of nitrogenous waste.
- **Total Kjeldahl Nitrogen (TKN):** Includes both organic nitrogen and ammonium, providing a comprehensive measure of nitrogen content.
- **Total Nitrogen:** Represents the sum of all nitrogen forms present in the effluent.
- **Phosphorus:** Indicates the concentration of phosphorus, a key nutrient that can contribute to eutrophication if present in excess.
- **Potassium:** Measures the concentration of potassium, an essential nutrient for plant growth.
- **Calcium:** Indicates the level of calcium, important for soil structure and nutrient availability.
- **Magnesium:** Measures magnesium concentration, another vital nutrient for plant health.
- **Sodium:** Represents the sodium content, which can affect soil structure and plant growth.
- **Sulfur:** Measures sulfur concentration, an essential nutrient for plants.

Sampling Schedule:

Effluent sampling will be conducted twice per year, specifically in December and February, as mandated by the current permit. This bi-annual sampling schedule is designed to capture seasonal variations and ensure consistent monitoring over time.

Operational Monitoring:

- **Daily Flow Monitoring:** The facility will conduct daily monitoring of effluent flow rates whenever the system is in operation. This continuous monitoring helps in tracking the volume of wastewater processed and ensuring compliance with flow limits.
- **Weekly pH Monitoring:** In addition to the bi-annual comprehensive sampling, pH levels will be monitored on a weekly basis. This frequent pH monitoring allows for timely detection of any deviations from acceptable ranges and facilitates prompt corrective actions.

Data Management and Record Keeping:

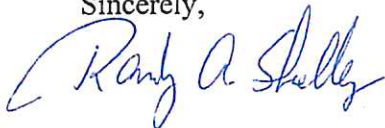
All monitoring results, including those from effluent sampling, daily flow, and weekly pH checks, will be meticulously recorded and retained on-site for a period of five years.

Attachments:

1. Topography Map
2. Well Reports
3. Texas Water Conditions Report
4. Effluent Sample Results

If you have any further questions or need additional details, please don't hesitate to contact me at (859) 885-3331 or email rshelley@hallenvironmental.net.

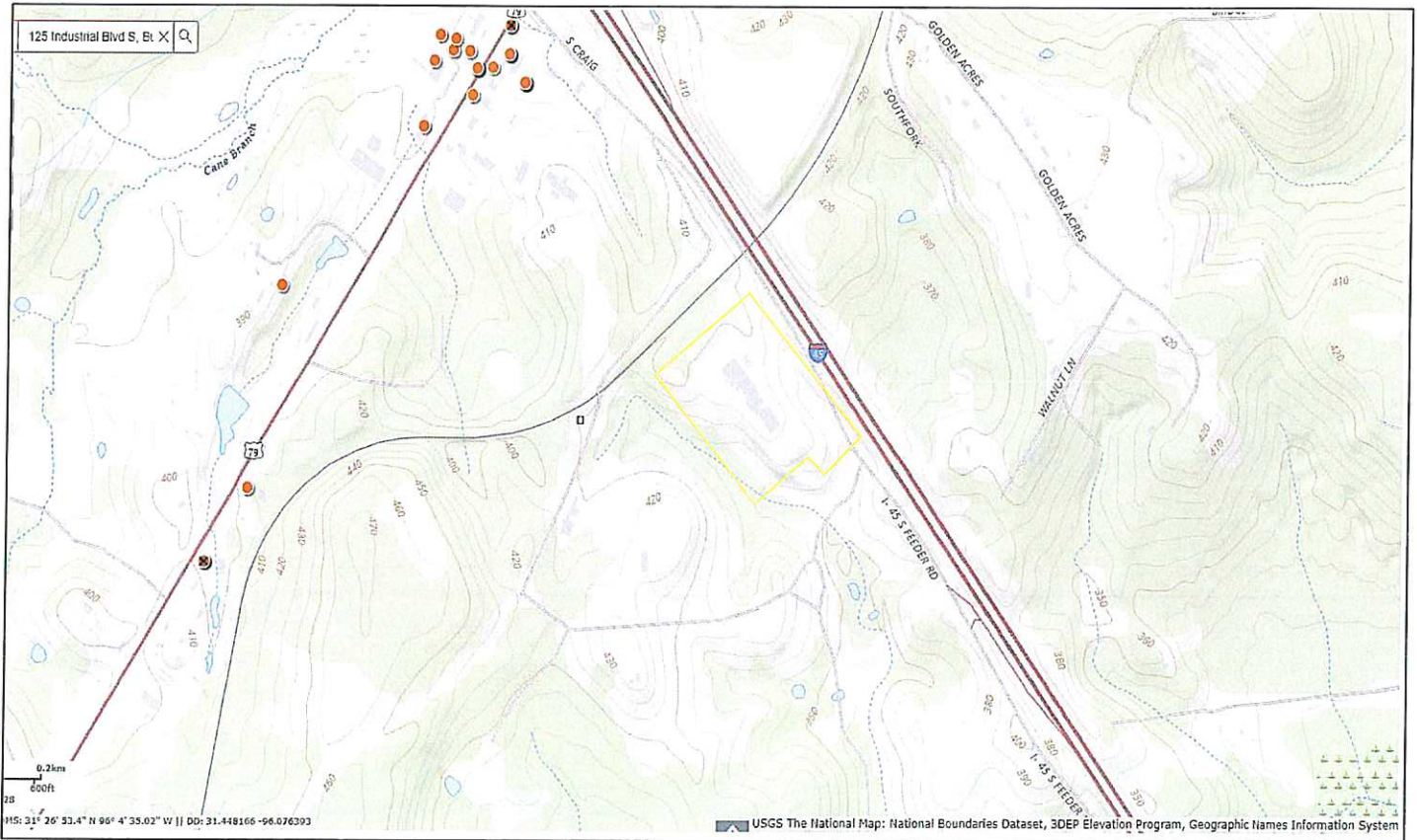
Sincerely,



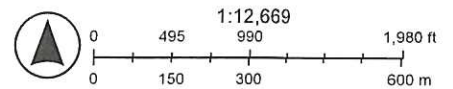
Randy A. Shelley
President

Attachment 1

Ridley USA Inc



Facility Boundary



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

Hall Environmental Consultants Inc.
1376 Danville Loop 1 Rd, Nicholasville, KY 40356

Attachment 2

Well Report Tracking

Number: 107804
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Glick Automotive
Well Street: I-45 and Highway 79
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.449445
Longitude (DD): -96.077222
Date of Well Completion: Mar 29, 2007
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking Number:

Well Report Tracking

Number: 458928
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Buffalo Travel Center
Well Street: 2430 W. Commerce Street
(Hwy 79)
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448889
Longitude (DD): -96.077222
Date of Well Completion: Aug 28, 2017
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking Number:

Well Report Tracking
Number: 504489
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Buffalo Travel Center
Well Street: 2430 W. Commerce Street
(Hwy 79)
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448333
Longitude (DD): -96.076806
Date of Well Completion: Feb 19, 2019
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 425338
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448631
Longitude (DD): -96.077661
Date of Well Completion: Jun 7, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 407784
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Travel Centers, LLC
Well Street: 2605 West Commerce
Street
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448611
Longitude (DD): -96.078056
Date of Well Completion: Oct 14, 2015
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 425339
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.4481
Longitude (DD): -96.078161
Date of Well Completion: Jun 7, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 425337
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448942
Longitude (DD): -96.078261
Date of Well Completion: Jun 7, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 425334
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448969
Longitude (DD): -96.078689
Date of Well Completion: Jun 7, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 433107
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.449174
Longitude (DD): -96.078611
Date of Well Completion: Sep 23, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 433108
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.449247
Longitude (DD): -96.079027
Date of Well Completion: Sep 23, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 433110
Well Type: New Well
Proposed Use: Monitor
County: Leon
Well Owner: Pilot Flying J #1028
Well Street: 2605 West Commerce
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.448766
Longitude (DD): -96.079173
Date of Well Completion: Sep 23, 2016
Borehole Depth (ft): 20
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 173932
Well Type: New Well
Proposed Use: Rig Supply
County: Leon
Well Owner: Blackwell Oper. Company
Well Street: Hwy 79 W
Well City: Buffalo
Well Zip Code: 76605
Latitude (DD): 31.4475
Longitude (DD): -96.079444
Date of Well Completion: May 20, 2004
Borehole Depth (ft): 160
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 156773
Well Type: New Well
Proposed Use: Domestic
County: Leon
Well Owner: BRIAN FREEMAN
Well Street: 128 HWY 79 WEST
Well City: BUFFALO
Well Zip Code: 75831
Latitude (DD): 31.444445
Longitude (DD): -96.083055
Date of Well Completion: Oct 17, 2008
Borehole Depth (ft): 840
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 461997
Well Type: New Well
Proposed Use: Domestic
County: Leon
Well Owner: Tina Rayborn
Well Street: 501 W Hwy 79
Well City: Buffalo
Well Zip Code: 75831
Latitude (DD): 31.440556
Longitude (DD): -96.083889
Date of Well Completion: Aug 5, 2017
Borehole Depth (ft): 895
Injurious Water Quality: no
Plugging Report Tracking
Number:

Well Report Tracking
Number: 112780
Well Type: New Well
Proposed Use: Industrial
County: Leon
Well Owner: CLEMENTS FLUID
Well Street: 653 HWY.79 W.
Well City: BUFFALO
Well Zip Code: 75831
Latitude (DD): 31.439167
Longitude (DD): -96.085
Date of Well Completion: Apr 26, 2007
Borehole Depth (ft): 880
Injurious Water Quality: no
Plugging Report Tracking
Number: 83157

Well Report Tracking
Number: 68843
Well Type: New Well
Proposed Use: Rig Supply
County: Leon
Well Owner: Anadarko E & P Co., LP
Well Street: South Service Rd.
Well City: Buffalo
Well Zip Code:
Latitude (DD): 31.433055
Longitude (DD): -96.062223
Date of Well Completion: Sep 23, 2005
Borehole Depth (ft): 260
Injurious Water Quality: no
Plugging Report Tracking
Number:

STATE OF TEXAS PLUGGING REPORT for Tracking #37366

Owner:	Glick Automotive	Owner Well #:	MW 10
Address:	I-45 and Highway 79 Buffalo, TX 75831	Grid #:	39-40-5
Well Location:	I-45 and Highway 79 Buffalo, TX 75831	Latitude:	31° 26' 58" N
Well County:	Leon	Longitude:	096° 04' 38" W
		Elevation:	No Data

Well Type: **Monitor**

Drilling Information

Company:	No Data	Date Drilled:	No Data
Driller:	No Data	License Number:	No Data

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	2		25

Plugging Information

Date Plugged: **3/29/2007** Plugger: **Darrin Stark**

Plug Method: **Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet**

Casing Left in Well:

No Data

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
0	2	1 Cement
2	25	2 Bentonite

Certification Data: The driller certified that the driller plugged this well (or the well was plugged 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 reports(s) being returned for completion and resubmittal.

Company Information: **SCI**
5066 Brush Creek Road
Ft. Worth, TX 76119

Driller Name: **Darrin Stark** License Number: **54891**

Comments: **No Data**

STATE OF TEXAS PLUGGING REPORT for Tracking #83157

Owner:	Clements Fluids - Guffalo	Owner Well #:	No Data
Address:	653 Hwy. 79 W Buffalo, TX 75831	Grid #:	39-40-4
Well Location:	653 Hwy 79 Buffalo, TX 75831	Latitude:	31° 26' 21" N
Well County:	Leon	Longitude:	096° 05' 06" W
		Elevation:	No Data

Well Type: **Withdrawal of Water**

Drilling Information

Company:	No Data	Date Drilled:	4/26/2007
Driller:	Womble Drilling Co.	License Number:	3123

Well Report Tracking #112780

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	6		880

Plugging Information

Date Plugged: 7/10/2011 Plugger: WilliamDennix/Clements Fluids

Plug Method: Tremmie pipe cement from bottom to top

Casing Left in Well:

Dia (in.)	Top (ft.)	Bottom (ft.)
6	0	880

Plug(s) Placed in Well:

Top (ft.)	Bottom (ft.)	Description (number of sacks & material)
0	65	18

Certification Data: The driller certified that the driller plugged this well (or the well was plugged 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 reports(s) being returned for completion and resubmittal.

Company Information: **Landowner Plugged**

653 Hwy. 79 W
Buffalo, TX 75831

Driller Name: No Signature on Report

License Number: N/A

Comments: When pulling pump 3" pipe string pulled into at 65" down from surface. Plugged w/portland cement.
^EAD

STATE OF TEXAS WELL REPORT for Tracking #68843

Owner:	Anadarko E & P Co., LP	Owner Well #:	Sanders A-1
Address:	P.O. Box 1330 Houston, TX 77251	Grid #:	39-40-5
Well Location:	South Service Rd. Buffalo, TX	Latitude:	31° 25' 59" N
Well County:	Leon	Longitude:	096° 03' 44" W
		Elevation:	No Data

Type of Work: **New Well**

Proposed Use: **Rig Supply**

Drilling Start Date: **9/23/2005**

Drilling End Date: **9/23/2005**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	9.875	0	260

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

Borehole Completion: **Filter Packed; Straight Wall**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	60	260	Gravel	

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	10	7 - Cement
	50	60	7 - Bentonite

Seal Method: **Poured**

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

Sealed By: **Randy Williams/Walter Brigham**

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: **30 ft. below land surface on 2005-09-23** Measurement Method: **Unknown**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **140**

Well Tests: **Jetted** Yield: **100 GPM with 65 ft. drawdown after 1 hours**

Water Quality:

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

Chemical Analysis Made: No

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

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

Company Information: Ark-La-Tex Boring, Inc.

P.O. Box 200
Poynor, TX 75782

Driller Name: Randy Williams

License Number: 54751

Apprentice Name: Walter Nick Brigham

Apprentice Number: 1979

Comments: No Data

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	20	sand
20	40	sand, shale
40	100	shale, water sand
100	140	shale
140	160	shale, water sand
160	180	water sand
180	200	water sand, shale
200	260	shale

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
6	N	PVC	0-160
6	N	PVC Screen	160-260 .020

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 #107804

Owner:	Glick Automotive	Owner Well #:	MW 10R
Address:	I-45 and Highway 79 Buffalo, TX 75831	Grid #:	39-40-5
Well Location:	I-45 and Highway 79 Buffalo, TX 75831	Latitude:	31° 26' 58" N
Well County:	Leon	Longitude:	096° 04' 38" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 3/29/2007 Drilling End Date: 3/29/2007

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7	0	20

Drilling Method: Flight Auger

Borehole Completion: 20/40 Sand

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	2 Cement
	2	3	1 Bentonite
	3	20	5 Sand

Seal Method: Mix

Sealed By: Driller

Distance to Property Line (ft.): No Data

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

Distance to Septic Tank (ft.): No Data

Method of Verification: No Data

Surface Completion: Surface Slab Installed

Water Level:	No Data
Packers:	No Data
Type of Pump:	No Data
Well Tests:	No Test Data Specified

Water Quality:

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

Chemical Analysis Made: **Unknown**

Did the driller knowingly penetrate any strata which
contained injurious constituents?: **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: **SCI**
5066 Brush Creek Road
Ft. Worth, TX 76119

Driller Name: **Darrin Stark** License Number: **54891**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	20	Sandy Clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
2"	New	PVC Screen	20' to 5' .010
2"	New	PVC Riser	to 0 s40

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

STATE OF TEXAS WELL REPORT for Tracking #112780

Owner: CLEMENTS FLUID Owner Well #: CLEMENTS #1
Address: 653 W. HWY.79 W. Grid #: 39-40-4
BUFFALO, TX 75831
Well Location: 653 HWY.79 W. Latitude: 31° 26' 21" N
BUFFALO, TX 75831 Longitude: 096° 05' 06" W
Well County: Leon Elevation: 522 ft. above sea level

****This well has been plugged****

Plugging Report Tracking #83157

Type of Work: New Well

Proposed Use: Industrial

Drilling Start Date: 2/2/2007

Drilling End Date: 4/26/2007

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	18.5	0	40
	12.25	40	880

Drilling Method: Mud (Hydraulic) Rotary

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	775	880	Gravel	16/30

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	15	12 SACRETE
	375	775	36 BEN-SEAL

Seal Method: OUTSIDE-PRESSURE
TREMMIE

Distance to Property Line (ft.): No Data

Sealed By: WOMBLE DRILLING CO.

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: 108.6 ft. below land surface on 2007-04-26 Measurement Method: Unknown

Packers: No Data

Type of Pump: Submersible

Pump Depth (ft.): 588

Well Tests: Jetted Yield: 100 + 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: WOMBLE DRILLING CO. INC.

P.O. BOX 2517
ATHENS, TX 75751

Driller Name: CHARLIE WOMBLE

License Number: 3123

Comments: No Data

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	16	FILL DIRT
16	35	TAN SAND
35	48	GRAY SAND
48	54	GRAY CLAY
54	68	TAN-GRAY SAND
68	110	SANDY GRAY CLAY
110	125	GRAY SAND
125	188	GRAY SAND & CLAY
188	230	SANDY GRAY CLAY
230	295	GRAY CLAY
295	335	GRAY SAND
335	345	GRAY CLAY
345	520	WHITE SAND
520	566	GRAY CLAY
566	625	GRAY SAND
625	678	GRAY SAND & CLAY
678	682	LIGNITE

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
18	NEW	STEEL	0-40
6	NEW	SDR-17 PVC	+2-835
6	NEW	SDR-17 PVC	MILLSLOT 835-875 0.020
6	NEW	SDR-17 PVC	875-880

682	710	GRAY SAND & CLAY
710	715	LIGNITE
715	740	GRAY SAND & CLAY
740	748	LIGNITE
748	758	GRAY SAND & CLAY
758	770	GRAY CLAY
770	780	GRAY SAND
780	792	GRAY CLAY
792	797	LIGNITE
797	815	GRAY CLAY
815	875	GRAY SAND
875	880	GRAY CLAY

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

STATE OF TEXAS WELL REPORT for Tracking #156773

Owner:	BRIAN FREEMAN	Owner Well #:	FREEMAN #1
Address:	128 HWY 79 WEST BUFFALO, TX 75831	Grid #:	39-40-5
Well Location:	128 HWY 79 WEST BUFFALO, TX 75831	Latitude:	31° 26' 40" N
Well County:	Leon	Longitude:	096° 04' 59" W
		Elevation:	376 ft. above sea level

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **9/8/2008**

Drilling End Date: **10/17/2008**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	12.25	0	840

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

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	760	840	Gravel	16/30

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	15	12 SACRETE
	300	760	54 BEN-SEAL

Seal Method: **OUTSIDE-PRESSURE
TREMMIE**

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

Sealed By: **WOMBLE DRILLING CO.**

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:	105.8 ft. below land surface on 2008-10-17	Measurement Method:	Unknown
Packers:	No Data		
Type of Pump:	Submersible	Pump Depth (ft.):	360
Well Tests:	Pump	Yield:	25 GPM with 14.2 ft. drawdown after 4 hours

Water Quality:

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

Chemical Analysis Made: No

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

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

Company Information: WOMBLE DRILLING CO. INC.

P.O. BOX 2517
ATHENS, TX 75751

Driller Name: CHARLIE WOMBLE

License Number: 3123

Comments: No Data

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	12	TAN SANDY CLAY
12	38	GRAY CLAY-TAN SAND
38	60	SANDY GRAY CLAY
60	71	GRAY SAND
71	110	SANDY GRAY CLAY
110	184	GRAY SAND
184	272	SANDY GRAY CLAY
272	288	GRAY SAND
288	310	SANDY GRAY CLAY
310	344	WHITE SAND
344	351	GRAY CLAY
351	468	WHITE SAND
468	520	SANDY GRAY CLAY
520	654	GRAY SAND
654	720	SANDY GRAY CLAY
720	730	GRAY SAND
730	776	SANDY GRAY CLAY
776	834	GRAY SAND

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
6	NEW	SDR-17 PVC	+2-795
6	NEW	SDR-17 PVC	MILLSLOT 795-835 0.020
6	NEW	SDR-17 PVC	835-840

834	840	GRAY CLAY
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**Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540**

STATE OF TEXAS WELL REPORT for Tracking #173932

Owner:	Blackwell Oper. Company	Owner Well #:	No Data
Address:	P.O. Box 22085 Houston, TX 77098	Grid #:	39-40-5
Well Location:	Hwy 79 W Buffalo, TX 76605	Latitude:	31° 26' 51" N
Well County:	Leon	Longitude:	096° 04' 46" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Rig Supply

Drilling Start Date: 5/20/2004 Drilling End Date: 5/20/2004

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.875	0	160

Drilling Method: Mud (Hydraulic) Rotary

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	40	160	Gravel	16-30

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

Seal Method: Poured

Distance to Property Line (ft.): 500

Sealed By: Driller

Distance to Septic Field or other
concentrated contamination (ft.): n/a

Distance to Septic Tank (ft.): No Data

Method of Verification: step

Surface Completion: Surface Sleeve Installed

Water Level: 30 ft. below land surface on 2004-05-20 Measurement Method: Unknown

Packers: n/a

Type of Pump: No Data

Well Tests: Jetted Yield: 100 GPM after 2 hours, no drawdown specified

Water Quality:

Strata Depth (ft.)	Water Type
60-160	poor

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: Double J Drilling Company

151 PR 5762 B
Groesbeck, TX 76642

Driller Name: Jimmy Gordon Lenamond

License Number: 3107

Comments: \$scd

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	2	sand
2	18	red sandy clay
18	45	gray clay
45	160	sand

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
4 N		sch40	0-60
4 N		sch40 SLT	60-160 .020

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

STATE OF TEXAS WELL REPORT for Tracking #407784

Owner:	Pilot Travel Centers, LLC	Owner Well #:	MW-4
Address:	5508 Lonas Drive Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Street Buffalo, TX 75831	Latitude:	31° 26' 55" N
		Longitude:	096° 04' 41" W
Well County:	Leon	Elevation:	360 ft. above sea level
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 10/12/2015 Drilling End Date: 10/14/2015

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	3	20	Sand	12/20

Annular Seal Data: No Data

Seal Method: Hand Mixed

Sealed By: Driller

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: Alternative Procedure Used

Surface Completion by Driller

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: **Vortex Drilling Inc**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Eric Castillo**

Comments: **No Data**

Lithology:
 DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
 BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	0.25	Asphalt
0.25	2	Orange fill gravel and sand
2	4	Orange sand
4	5	Grey sand with little clay
5	6	Grey clay with some sand
6	7	Orange and grey clay with little sand
7	9	Grey sand with some clay
9	10	Orange clay with little grey sand
10	14	Orange clay with some grey sand
14	17	Orange sand
17	20	Orange sand and clay

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	5
2	Screen	New Plastic (PVC)	40 / 0.010	5	20

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

STATE OF TEXAS WELL REPORT for Tracking #425334

Owner:	Pilot Flying J #1028	Owner Well #:	MW-8
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 56.29" N
Well County:	Leon	Longitude:	096° 04' 43.28" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 6/6/2016

Drilling End Date: 6/7/2016

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	2.5	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	2.5	Bentonite 0.17 Bags/Sacks

Seal Method: Hand Mixed

Sealed By: Driller

Distance to Property Line (ft.): No Data

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

Distance to Septic Tank (ft.): No Data

Method of Verification: No Data

Surface Completion: Surface Slab Installed

Surface Completion by Driller

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: **Vortex Drilling Inc**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Beige gravel with little silt
1	4	Reddish brown clay with some silt and little sand
4	6	Brown silt and sand with little clay
6	11	Grey fine grained sand with some clay
11	14	Grey fine grained sand with some clay
14	20	Grey fine grained sand

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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STATE OF TEXAS WELL REPORT for Tracking #425337

Owner:	Pilot Flying J #1028	Owner Well #:	MW-9
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 56.19" N
Well County:	Leon	Longitude:	096° 04' 41.74" W
		Elevation:	No Data

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **6/6/2016**

Drilling End Date: **6/7/2016**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	2.5	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	2.5	Bentonite 0.17 Bags/Sacks

Seal Method: **Hand Mixed**

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**

Surface Completion by Driller

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: **Vortex Drilling Inc**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Asphalt
1	7	Orange sand with little clay
7	10	Grey fine grained sand
10	11	Orange fine grained sand with little clay
11	14	Grey fine grained sand
14	20	Grey fine grained sand

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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P.O. Box 12157
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(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #425338

Owner:	Pilot Flying J #1028	Owner Well #:	MW-10
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 55.07" N
		Longitude:	096° 04' 39.58" W
Well County:	Leon	Elevation:	No Data

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **6/6/2016**

Drilling End Date: **6/7/2016**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	2.5	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	2.5	Bentonite 0.17 Bags/Sacks

Seal Method: **Hand Mixed**

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**

Surface Completion by Driller

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: **Vortex Drilling Inc**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	0.5	Concrete
0.5	4	Orange sand and silt
4	10	Grey fine grained sand and clay
10	14	Grey fine grained sand and clay
14	15	Orange fine grained sand and clay
15	20	Grey fine grained sand and clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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

STATE OF TEXAS WELL REPORT for Tracking #425339

Owner:	Pilot Flying J #1028	Owner Well #:	MW-11
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 53.16" N
Well County:	Leon	Longitude:	096° 04' 41.38" W
		Elevation:	No Data

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **6/6/2016**

Drilling End Date: **6/7/2016**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	7.25	0	20

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Filter Material</i>	<i>Size</i>
Filter Pack Intervals:	2.5	20	Sand	12/20

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	2.5	Bentonite 0.17 Bags/Sacks

Seal Method: **Hand Mixed**

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

Sealed By: **Driller**

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

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

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed**

Surface Completion by Driller

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: **Vortex Drilling Inc**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	3	Orange-brown clay and silt with little sand
3	4	Orange medium grained sand
4	9	Orange and red fine grained sand with little clay
9	18	Grey fine grained sand and clay
18	20	Orange fine grained sand

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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P.O. Box 12157
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STATE OF TEXAS WELL REPORT for Tracking #433107

Owner:	Pilot Flying J #1028	Owner Well #:	MW-12
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 57.03" N
Well County:	Leon	Longitude:	096° 04' 43" W
		Elevation:	No Data

Type of Work: **New Well**

Proposed Use: **Monitor**

Drilling Start Date: **9/22/2016**

Drilling End Date: **9/23/2016**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: **Hollow Stem Auger**

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	3	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	3	Bentonite 0.35 Bags/Sacks

Seal Method: **Hand Mixed**

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**

Surface Completion by Driller

Water Level: **11 ft. below land surface on 2016-09-22**

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: **Vortex Drilling Inc.**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	Concrete
1	3	Orange Sand Fill w/ Little Gravel
3	5	Dark Gray Sand
5	8	Light Gray Fine Grained Sand & Clay
8	10	Orange Sand
10	15	Orange & Gray Sand w/ Some Clay
15	16	Light Gray Sand
16	19	Light Gray Sand
19	20	Orange & Gray Sand

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	3
2	Screen	New Plastic (PVC)	40 0.010	3	20

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

STATE OF TEXAS WELL REPORT for Tracking #433108

Owner:	Pilot Flying J #1028	Owner Well #:	MW-13
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 57.29" N
Well County:	Leon	Longitude:	096° 04' 44.5" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 9/22/2016 Drilling End Date: 9/23/2016

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	3	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	3	Bentonite 0.35 Bags/Sacks

Seal Method: Hand Mixed

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

Surface Completion by Driller

Water Level: 11 ft. below land surface on 2016-09-22

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: Vortex Drilling Inc.

4412 Bluemel Road
San Antonio, TX 78240

Driller Name: Robert Joiner

License Number: 54776

Apprentice Name: Juan Martinez

Comments: No Data

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Asphalt
1	2	Orange Sand Fill w/ Gravel
2	5	Tan Orange Sand
5	8	Gray Clay w/ Little Sand
8	10	Gray Clay w/ Little Sand
10	11	Orange & Gray Clay w/ Little Sand
11	13	Gray Sand
13	14	Orange Sand w/ Little Clay
14	17	Gray Sand
17	19	Orange & Gray Sand w/ Some Clay
19	20	Gray Sand w/ Little Clay

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	3
2	Screen	New Plastic (PVC)	40 0.010	3	20

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

STATE OF TEXAS WELL REPORT for Tracking #433110

Owner:	Pilot Flying J #1028	Owner Well #:	MW-14
Address:	5508 Lonas Road Knoxville, TN 37909	Grid #:	39-40-5
Well Location:	2605 West Commerce Buffalo, TX 75831	Latitude:	31° 26' 55.56" N
Well County:	Leon	Longitude:	096° 04' 45.02" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 9/22/2016 Drilling End Date: 9/23/2016

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Filter Packed

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	3	20	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	2	Concrete 0.881 Bags/Sacks
	2	3	Bentonite 0.35 Bags/Sacks

Seal Method: Hand Mixed

Sealed By: Driller

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: Alternative Procedure Used

Surface Completion by Driller

Water Level: 10 ft. below land surface on 2016-09-22

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: **Vortex Drilling Inc.**
4412 Bluemel Road
San Antonio, TX 78240

Driller Name: **Robert Joiner**

License Number: **54776**

Apprentice Name: **Juan Martinez**

Comments: **No Data**

Lithology:
 DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
 BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	1	Asphalt
1	2	Orange Sand Fill w/ Gravel
2	5	Orange Sand
5	9	Orange & Gray Sand w/ Little Clay
9	10	Orange & Gray Sand w/ Little Clay
10	12	Multi Colored Well-Graded Gravel
12	13	Orange & Gray Clay w/ Little Sand
13	15	Multi Colored Well-Graded Gravel
15	16	Orange & Gray Clay w/ Little Sand
16	17	Gray Sand
17	20	Orange & Gray Sand and Clay

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Top Cap (Locking)	New Plastic (PVC)	40		
2	Bottom Cap	New Plastic (PVC)	40		
2	Riser	New Plastic (PVC)	40	0	3
2	Screen	New Plastic (PVC)	40 0.010	3	20

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P.O. Box 12157
Austin, TX 78711
(512) 334-5540**

STATE OF TEXAS WELL REPORT for Tracking #458928

Owner:	Buffalo Travel Center	Owner Well #:	MW-2
Address:	2430 W. Commerce Street (Hwy 79) Buffalo, TX 75831	Grid #:	39-40-5
Well Location:	2430 W. Commerce Street (Hwy 79) Buffalo, TX 75831	Latitude:	31° 26' 56" N
		Longitude:	096° 04' 38" W
Well County:	Leon	Elevation:	No Data

Type of Work:	New Well	Proposed Use:	Monitor
---------------	----------	---------------	---------

Drilling Start Date: 8/28/2017 Drilling End Date: 8/28/2017

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	7.25	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Screened

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	0.5	Concrete
	0.5	1.5	Bentonite
	1.5	20	Sand

Seal Method: Gravity

Sealed By: Driller

Distance to Property Line (ft.): No Data

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

Distance to Septic Tank (ft.): No Data

Method of Verification: No Data

Surface Completion:	Surface Slab Installed	Surface Completion by Driller
---------------------	------------------------	-------------------------------

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: **WEST Drilling**
101 Industrial Drive
Waxahachie, TX 75165

Driller Name: **Ricardo Garcia**

License Number: **54637**

Apprentice Name: **Joseph Garcia**

Apprentice Number: **58151**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	17	brown, reddish brown and gray, silty sand
17	20	brown, silty clay

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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P.O. Box 12157
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(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #461997

Owner:	Tina Rayborn	Owner Well #:	1
Address:	501 W Hwy 79 Buffalo, TX 75831	Grid #:	39-40-4
Well Location:	501 W Hwy 79 Buffalo, TX 75831	Latitude:	31° 26' 26" N
Well County:	Leon	Longitude:	096° 05' 02" W
		Elevation:	402 ft. above sea level

Type of Work: **New Well**

Proposed Use: **Domestic**

Drilling Start Date: **8/1/2017**

Drilling End Date: **8/5/2017**

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	12.25	0	895

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

Borehole Completion: **Filter Packed**

	Top Depth (ft.)	Bottom Depth (ft.)	Filter Material	Size
Filter Pack Intervals:	820	895	Sand	12/20

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	15	Concrete 12 Bags/Sacks
	520	820	Bentonite 25 Bags/Sacks

Seal Method: **Tremie**

Sealed By: **Driller**

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

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

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

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Surface Completion by Driller

Water Level: **88 ft. below land surface on 2017-08-11** Measurement Method: **Sonic/Radar**

Packers: **No Data**

Type of Pump: **Submersible** Pump Depth (ft.): **210**

Well Tests: **Pump** Yield: **15 GPM with 35 ft. drawdown after 2 hours**

Water Quality:

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

Chemical Analysis Made: No

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

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

Company Information: Womble Drilling Services, LLC

PO Box 2517
Athens, TX 75751

Driller Name: Travis Womble

License Number: 59621

Comments: No Data

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Casing:
BLANK PIPE & WELL SCREEN DATA

Top (ft.)	Bottom (ft.)	Description
0	28	Tan Sand
28	62	Clay w/ Sand Stringers
62	218	Clay w/ Sand Stringers
218	300	Gray Clay
300	530	White Sand
530	580	Gray Clay
580	660	Gray Sand
660	820	Gray Clay
820	890	Gray Sand
890	895	Gray Clay

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
6	Blank	New Plastic (PVC)	SDR17	0	850
6	Screen	New Plastic (PVC)	SDR17 0.020	850	890
6	Blank	New Plastic (PVC)	SDR17	890	895

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

STATE OF TEXAS WELL REPORT for Tracking #504489

Owner:	Buffalo Travel Center	Owner Well #:	MW-6
Address:	2430 W. Commerce Street (Hwy 79) Buffalo, TX 75831	Grid #:	39-40-5
Well Location:	2430 W. Commerce Street (Hwy 79) Buffalo, TX 75831	Latitude:	31° 26' 54" N
Well County:	Leon	Longitude:	096° 04' 36.5" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Monitor

Drilling Start Date: 2/19/2019 Drilling End Date: 2/19/2019

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	8.25	0	20

Drilling Method: Hollow Stem Auger

Borehole Completion: Screened

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	0.5	Concrete
	0.5	1.5	Bentonite
	1.5	20	Sand

Seal Method: Gravity

Sealed By: Driller

Distance to Property Line (ft.): No Data

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

Distance to Septic Tank (ft.): No Data

Method of Verification: No Data

Surface Completion: Surface Slab Installed

Surface Completion by Driller

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: **WEST Drilling**
101 Industrial Drive
Waxahachie, TX 75165

Driller Name: **Ricardo Garcia**

License Number: **54637**

Apprentice Name: **Jose Falcon**

Apprentice Number: **59161**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	20	gray, reddish brown and light brown, silty sand

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
2	Riser	New Plastic (PVC)	40	0	2.5
2	Screen	New Plastic (PVC)	40 0.010	2.5	20

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Attachment 3

Texas Water Conditions Report

September 2024



Water News:

The Texas Water Development Board's Coastal Science staff participated in the 5th annual San Antonio Bay Partnership Shorelines Cleanup, removing plastic bottles, jugs, and old crab trap buoys from East Guadalupe Bay.

RAINFALL

In September, little to no rain [yellow, orange, and red shading, Figure 1(a)] fell in the Trans Pecos, High Plains, northern Low Rolling Plains, areas of the Edwards Plateau, portions of North Central, much of East Texas, much of South Central, northern Southern, and areas of the Upper Coast climate divisions. Rainfall of 10" or greater [light and dark blue shading, Figure 1(a)] was seen in areas of the southern High Plains, southern Low Rolling Plains, portions of eastern Trans Pecos, areas across the Edwards Plateau, western North Central, parts of northern and southeastern East Texas, southern South Central, much of the Southern, Lower Valley, and areas of central and western Upper Coast climate divisions.

Compared to historical data from 1991–2020, 0–75 percent of normal rainfall [yellow and orange shading, Figure 1(b)] was received across all climate divisions. 125–200 percent of normal rainfall [green shading, Figure 1(b)] was received in areas of the High Plains, southern Low Rolling Plains, eastern Trans Pecos, scattered areas across the Edwards Plateau, western and central North Central, southern South Central, areas of Southern, northern and southeastern East Texas, areas of the Lower Valley, and central and southwestern Upper Coast climate divisions. 200–400 percent of normal rainfall [light to dark blue shading, Figure 1(b)] was received the southern High Plains, southern Low Rolling Plains, western North Central, northern and eastern Edwards Plateau, western Southern, and Lower Valley climate divisions. 400–600 percent of normal rainfall [light purple shading, Figure 1(b)] was received in the southern High Plains, southern Low Rolling Plains, western North Central, and northern Edwards Plateaus climate division.

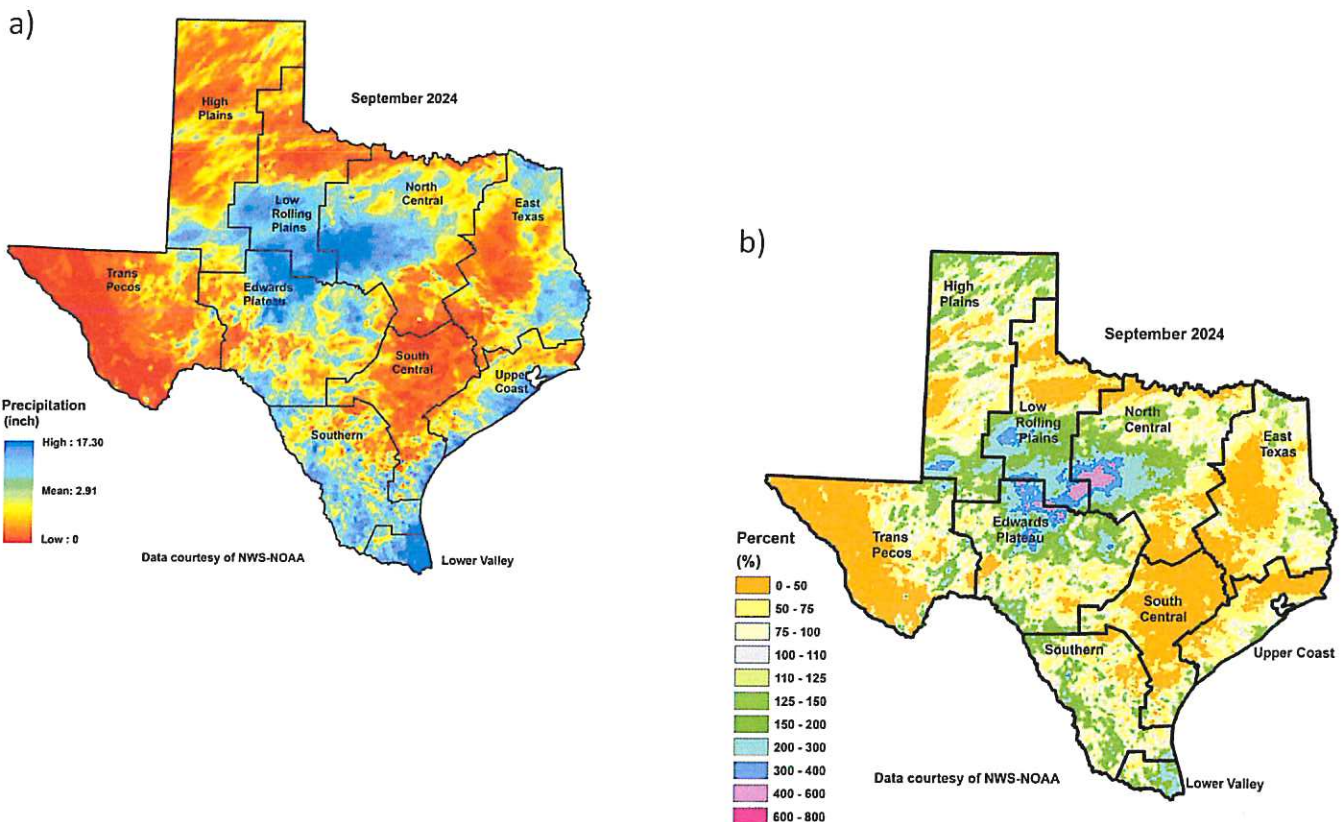


Figure 1: (a) Monthly accumulated rainfall, and (b) Percent of normal rainfall

DROUGHT

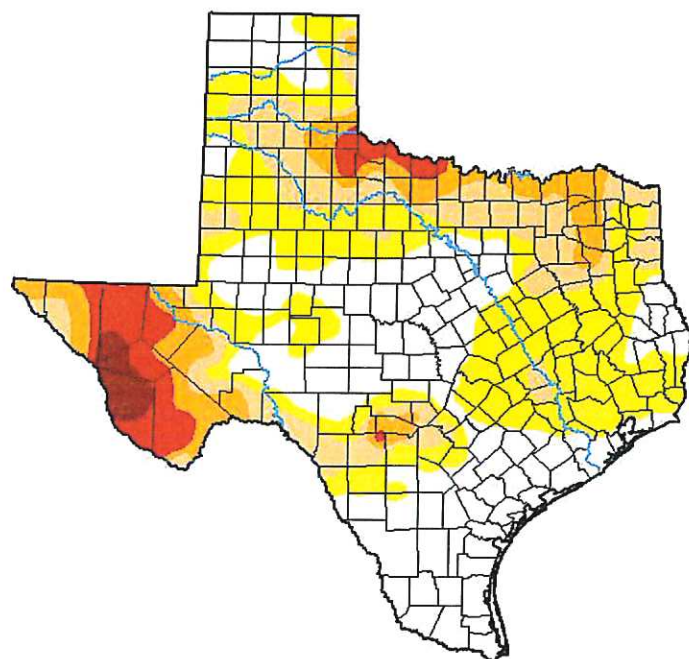
At the end of September, 62.69% of the state was in the D0 (abnormally dry) through D4 (exceptional drought) categories (**Figure 2**). This is approximately 18.29% lower than the end of August.

U.S. Drought Monitor Texas

September 24, 2024

(Released Thursday, Sep. 26, 2024)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.31	62.69	33.15	16.17	7.10	1.65
Last Week 09-17-2024	42.75	57.25	34.06	16.05	7.18	1.65
3 Months Ago 06-25-2024	61.31	38.69	25.06	11.95	2.32	0.00
Start of Calendar Year 01-02-2024	39.60	60.40	39.47	17.78	5.68	0.68
Start of Water Year 09-26-2023	3.03	95.97	80.64	59.66	38.06	12.68
One Year Ago 09-26-2023	3.03	95.97	80.64	59.66	38.06	12.68

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

Figure 2. The percentage of drought in Texas according to the U.S. Drought Monitor map as of September 24, 2024.

RESERVOIR STORAGE

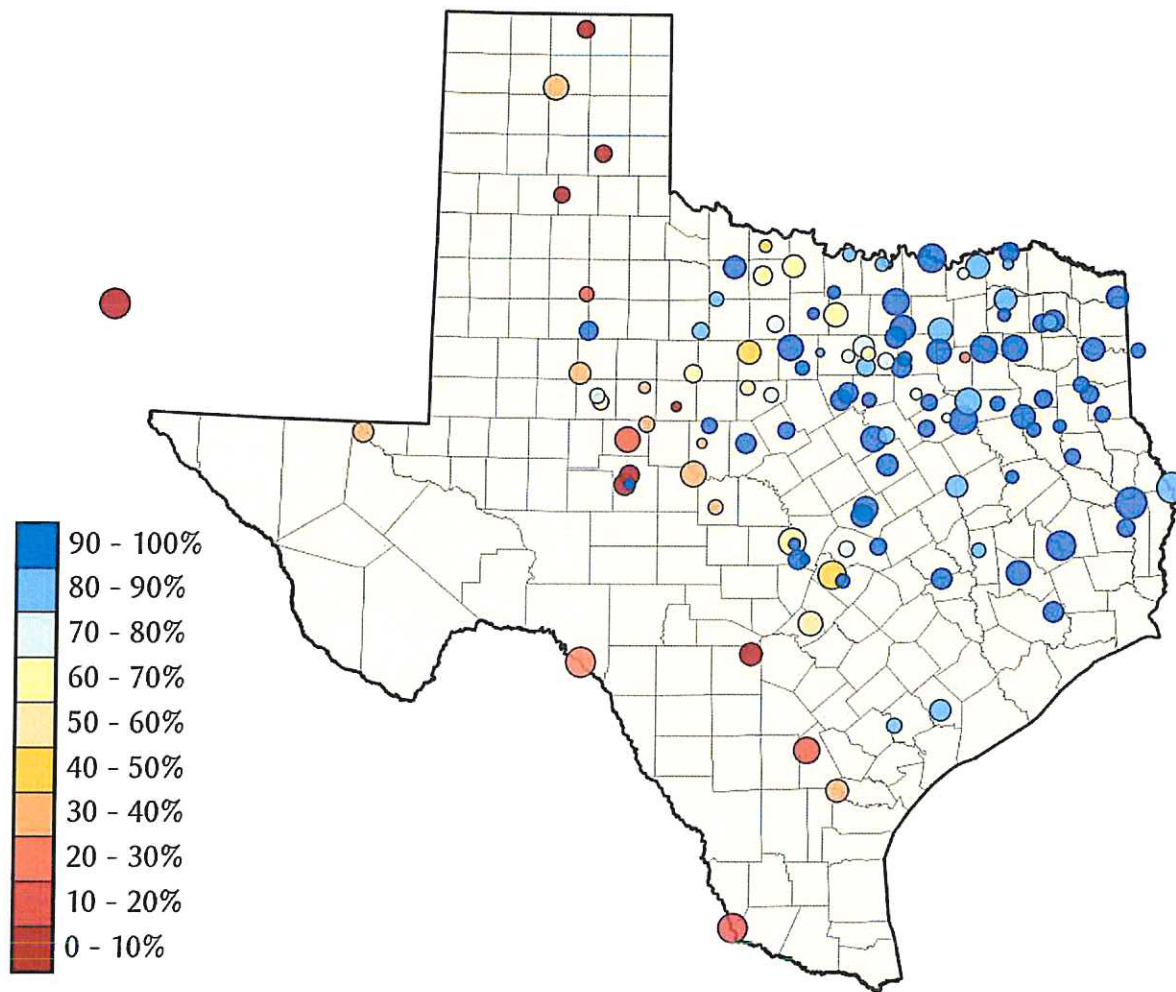


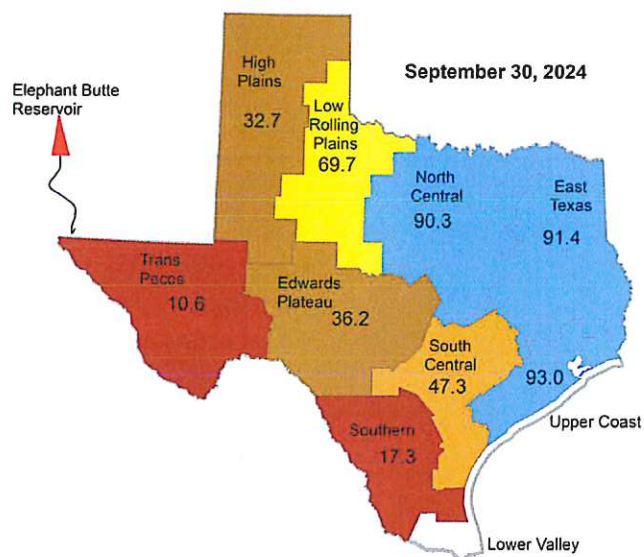
Figure 3. Reservoir conservation storage at end-August expressed as percent full (%)

Out of 119 monitored reservoirs in the state, eight reservoirs held 100 percent conservation storage capacity, and 50 reservoirs were at or above 90 percent full this month. Thirteen reservoirs remained at or below 30 percent full: Abilene (7.2 percent full), Amistad (27.0 percent full), Choke Canyon (19.0 percent full), E.V. Spence (17.7 percent full), Falcon (13.7 percent full), Greenbelt (8.7 percent full), Mackenzie (8.5 percent full), Medina Lake (3.1 percent full), New Terrell City (23.9 percent full), O.C. Fisher (7.2 percent full), Palo Duro Reservoir (1.6 percent full), Twin Buttes (9.7 percent full), and the White River Lake (16.6 percent full). Elephant Butte Reservoir (New Mexico) was 5.7 percent full (Figure 3).

Reservoir conservation storage was at or above normal [Figure 4(a)] for East Texas (91.4 percent full), North Central (90.3 percent full), and the Upper Coast (93.0 percent full) climate divisions. The Low Rolling Plains (69.7 percent full) climate division had abnormally low conservation storage. Conservation storage was moderately low [Figure 4(a)] for the South Central (47.3 percent full) climate division. The High Plains (32.7 percent full) and Edwards Plateau (36.2 percent full) climate divisions had severely low conservation storage and the Trans Pecos (10.6 percent full) and the Southern (17.3 percent full) climate divisions had extremely low conservation storage [Figure 4(a)].

Combined conservation storage by river basin or sub-basin was exceptionally low [<10 percent full, red shading, Figure 4(b)] in the San Antonio river basin. Severely low conservation storage [20–40 percent full, brown shading, Figure 4(b)] was seen in the Canadian, Nueces, Lower Rio Grande, and Upper Colorado river basins. The Lower Colorado and Guadalupe river basins had moderately low conservation storage [40–60 percent full, orange shading, Figure 4(b)]. Abnormally low conservation storage [60–70 percent full, yellow shading, Figure 4(b)] was seen in the Upper Red river basin. Normal to high conservation storage [>70 percent full, blue shading, Figure 4(b)] was observed in the Lower Red, Sulphur, Cypress, Upper and Lower Sabine, Upper and Lower Trinity, Upper and Lower Brazos, Neches, Lavaca, and San Jacinto river basins.

a) **Regional Reservoir Storage Index***



b) **Reservoir Storage Index* (by Basins/Sub-basins)**

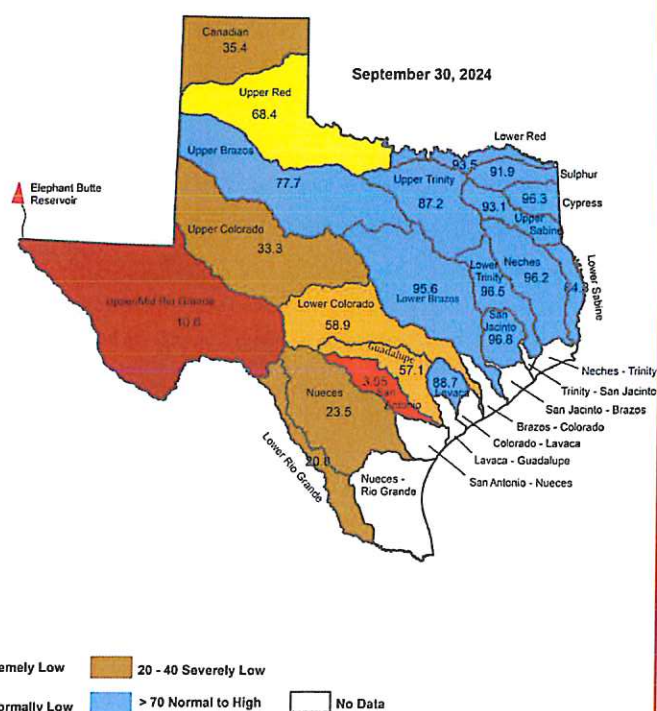


Figure 4: Reservoir Storage Index by a) climate division, and b) basin/sub-basin.

*Reservoir Storage Index is defined as the percent full of conservation storage capacity.

Percent full is calculated as the combined conservation storage of all reservoirs in a climate region or a basin/subbasin, excluding dead pool storage.

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of lake or reservoir	Storage capacity	Storage at end-September 2024		Storage change from end-Aug 2024		Storage change from end-Sep 2023	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
Abilene, Lake	7,900	566	7.2	48	0.6	-1,027	-13.0
Alan Henry Reservoir	96,207	96,207	100.0	6,649	6.9	11,413	11.9
*Amistad Reservoir (Texas & Mexico)	3,275,532	675,661	20.6	51,201	1.6	-349,039	-10.7
*Amistad Reservoir (Texas)	1,813,408	489,366	27.0	37,537	2.1	-129,306	-7.1
Amon G Carter, Lake	19,266	17,945	93.1	28	0.1	2,097	10.9
Aquilla Lake	43,243	37,892	87.6	-1,236	-2.9	3,731	8.6
Arlington, Lake	40,157	29,691	73.9	992	2.5	-1,654	-4.1
Arrowhead, Lake	230,359	151,129	65.6	-6,201	-2.7	23,505	10.2
Athens, Lake	29,503	28,412	96.3	-687	-2.3	2,100	7.1
*Austin, Lake	23,972	23,267	97.1	109	0.5	264	1.1
B A Steinhagen Lake	69,186	64,675	93.5	-2,584	-3.7	-2,283	-3.3
Bardwell Lake	43,856	41,744	95.2	-870	-2.0	2,990	6.8
Belton Lake	432,631	415,345	96.0	-8,027	-1.9	174,193	40.3
Benbrook Lake	85,648	76,153	88.9	714	0.8	31,720	37.0
Bob Sandlin, Lake	192,417	186,418	96.9	-3,253	-1.7	7,114	3.7
Bois d'Arc Lake	367,609	327,571	89.1	-11,913	-3.2	58,922	16.0
Bonham, Lake	11,027	8,456	76.7	-587	-5.3	-548	-5.0
Brady Creek Reservoir	28,808	10,857	37.7	-67	0.0	155	0.5
Bridgeport, Lake	372,183	243,519	65.4	-5,799	-1.6	24,297	6.5
*Brownwood, Lake	130,868	130,868	100.0	27,624	21.1	49,064	37.5
Buchanan, Lake	822,207	565,879	68.8	-1,791	0.0	194,662	23.7
Caddo, Lake	29,898	29,178	97.6	-180	0.0	-180	0
Canyon Lake	378,781	207,103	54.7	-5,140	-1.4	-40,275	-10.6
Cedar Creek Reservoir in Trinity	644,686	574,054	89.0	-25,292	-3.9	42,438	6.6
Champion Creek Reservoir	41,580	21,339	51.3	-162	0.0	-2,052	-4.9
Cherokee, Lake	40,094	38,084	95.0	-387	0.0	6,487	16.2
Choke Canyon Reservoir	662,820	125,900	19.0	-6,482	0.0	-50,279	-7.6
*Cisco, Lake	29,003	16,181	55.8	330	1.1	-2,127	-7.3
Coleman, Lake	38,075	37,805	99.3	6,760	17.8	13,269	34.8
Colorado City, Lake	31,040	26,986	86.9	-1,779	-5.7	3,225	10.4
*Coleta Creek Reservoir	30,758	23,800	77.4	11,584	37.7	8,562	27.8
Conroe, Lake	417,577	401,835	96.2	-8,222	-2.0	25,594	6.1
Corpus Christi, Lake	256,062	90,687	35.4	-1,858	0.0	-47,316	-18.5
Crook, Lake	9,195	7,668	83.4	-261	-2.8	-332	-3.6
Cypress Springs, Lake	66,756	64,479	96.6	-797	-1.2	1,958	2.9
E. V. Spence Reservoir	517,272	91,395	17.7	24,328	4.7	6,651	1.3
Eagle Mountain Lake	185,087	140,171	75.7	-5,193	-2.8	23,899	12.9
Elephant Butte Reservoir (Texas)	852,491	48,797	5.7	-18,998	-2.2	-100,547	-11.8
Elephant Butte Reservoir (Total Storage)	1,960,900	112,957	5.8	-43,977	-2.2	-232,747	-11.9
*Falcon Reservoir (Texas & Mexico)	2,646,817	327,336	12.4	55,464	2.1	-41,105	-1.6
*Falcon Reservoir (Texas)	1,562,367	213,890	13.7	33,590	2.1	73,173	4.7
Fork Reservoir, Lake	605,061	559,924	92.5	-11,539	-1.9	17,530	2.9
Fort Phantom Hill, Lake	70,030	44,656	63.8	1,470	2.1	-4,135	-5.9
Georgetown, Lake	38,005	26,785	70.5	-1,659	-4.4	9,473	24.9
Gibbons Creek Reservoir	25,721	21,655	84.2	-882	-3.4	2,912	11.3
Graham, Lake	45,288	35,072	77.4	-1,485	-3.3	2,385	5.3
Granbury, Lake	132,949	128,749	96.8	4,413	3.3	8,560	6.4

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS

Name of lake or reservoir	Storage capacity	Storage at end-September 2024		Storage change from end-Aug 2024		Storage change from end-Sep 2023	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
<i>Continued</i>							
Granger Lake	51,822	51,331	99.1	-491	0.0	12,033	23.2
Grapevine Lake	163,064	156,272	95.8	-3,654	-2.2	21,835	13.4
Greenbelt Lake	59,968	5,212	8.7	-210	0.0	-1,513	-2.5
*Halbert, Lake	6,033	4,734	78.5	-84	-1.4	325	5.4
Hords Creek Lake	8,109	3,038	37.5	832	10.3	1,107	13.7
Houston County Lake	17,113	17,023	99.5	-90	0.0	2,718	15.9
Houston, Lake	132,318	130,039	98.3	-2,279	-1.7	-909	0.0
Hubbard Creek Reservoir	313,298	138,434	44.2	-919	0.0	-30,123	-9.6
Hubert H Moss Lake	24,058	21,546	89.6	-535	-2.2	122	0.5
Inks, Lake	13,729	12,998	94.7	-189	-1.4	-70	0.0
J. B. Thomas, Lake	199,931	75,659	37.8	42,680	21.3	38,561	19.3
Jacksonville, Lake	25,670	25,519	99.4	69	0.3	2,121	8.3
Jim Chapman Lake (Cooper)	258,723	219,349	84.8	-13,367	-5.2	-3,687	-1.4
Joe Pool Lake	149,629	148,696	99.4	-666	0.0	12,643	8.4
Kemp, Lake	245,307	242,409	98.8	-2,898	-1.2	91,329	37.2
Kickapoo, Lake	86,345	59,207	68.6	-2,425	-2.8	13,783	16.0
Lavon Lake	409,757	352,206	86.0	-22,300	-5.4	44,657	10.9
Leon, Lake	27,762	21,752	78.4	9,366	33.7	7,547	27.2
Lewisville Lake	563,228	523,726	93.0	-24,486	-4.3	84,051	14.9
Limestone, Lake	203,780	180,586	88.6	-7,234	-3.5	20,824	10.2
*Livingston, Lake	1,603,504	1,547,681	96.5	-31,141	-1.9	234,230	14.6
*Lost Creek Reservoir	11,950	10,963	91.7	-100	0.0	261	2.2
Lyndon B Johnson, Lake	112,778	111,365	98.7	448	0.4	-257	0.0
Mackenzie Reservoir	46,450	3,946	8.5	-69	0.0	-606	-1.3
Marble Falls, Lake	7,597	7,233	95.2	-24	0.0	54	0.7
Martin, Lake	75,726	68,266	90.1	-2,979	-3.9	8,851	11.7
Medina Lake	254,823	7,794	3.1	-600	0.0	-2,455	0.0
Meredith, Lake	500,000	198,602	39.7	-3,567	0.0	-30,953	-6.2
Millers Creek Reservoir	26,768	23,220	86.7	-670	-2.5	10,877	40.6
*Mineral Wells, Lake	5,273	4,528	85.9	-114	-2.2	1,198	22.7
Monticello, Lake	34,740	28,425	81.8	-632	-1.8	1,429	4.1
Mountain Creek, Lake	22,850	22,850	100.0	0	0.0	0	0.0
Murvaul, Lake	38,285	35,777	93.4	-941	-2.5	3,060	8.0
Nacogdoches, Lake	39,522	36,617	92.6	-893	-2.3	3,478	8.8
Nasworthy	9,615	8,871	92.3	51	0.5	-64	0.0
Navarro Mills Lake	49,827	47,914	96.2	-1,913	-3.8	7,821	15.7
New Terrell City Lake	8,583	2,051	23.9	-93	-1.1	511	6.0
Nocona, Lake (Farmers Crk)	21,444	17,450	81.4	-718	-3.3	2,353	11.0
North Fork Buffalo Creek Reservoir	15,400	6,172	40.1	-370	-2.4	1,554	10.1
O' the Pines, Lake	268,566	262,085	97.6	-368	0.0	7,127	2.7
O. C. Fisher Lake	115,742	8,298	7.2	7,391	6.4	5,759	5.0
*O. H. Ivie Reservoir	554,340	192,653	34.8	52,638	9.5	23,535	4.2
Oak Creek Reservoir	39,210	11,913	30.4	1,311	3.3	-2,203	-5.6

CONSERVATION STORAGE DATA FOR SELECTED MAJOR TEXAS RESERVOIRS							
Name of lake or reservoir	Storage capacity	Storage at end-September 2024		Storage change from end-Aug 2024		Storage change from end-Sep 2023	
	(acre-feet)	(acre-feet)	(%)	(acre-feet)	(%)	(acre-feet)**	(%)
<i>Continued</i>							
Palestine, Lake	367,303	345,083	94.0	-11,230	-3.1	27,517	7.5
Palo Duro Reservoir	61,066	954	1.6	-137	0.0	-3,267	-5.3
Palo Pinto, Lake	26,766	25,986	97.1	3,489	13.0	17,920	67.0
Pat Cleburne, Lake	26,008	23,452	90.2	-364	-1.4	6,216	23.9
*Pat Mayse Lake	113,683	104,747	92.1	-3,353	-2.9	-2,635	-2.3
Possum Kingdom Lake	538,139	508,517	94.5	-3,265	0.0	26,482	4.9
Proctor Lake	54,762	54,762	100.0	17,763	32.4	40,766	74.4
Ray Hubbard, Lake	439,559	398,268	90.6	-13,963	-3.2	45,005	10.2
Ray Roberts, Lake	788,167	769,590	97.6	-9,815	-1.2	40,146	5.1
Red Bluff Reservoir	151,110	58,293	38.6	1,618	1.1	-10,990	-7.3
Richland-Chambers Reservoir	1,099,417	1,050,349	95.5	-29,841	-2.7	62,304	5.7
Sam Rayburn Reservoir	2,857,077	2,761,944	96.7	-95,133	-3.3	452,158	15.8
Somerville Lake	150,293	140,682	93.6	-9,611	-6.4	43,290	28.8
Squaw Creek, Lake	151,250	151,250	100.0	0	0.0	758	0.5
Stamford, Lake	51,570	45,886	89.0	377	0.7	7,669	14.9
Stillhouse Hollow Lake	229,796	229,796	100.0	0	0.0	97,194	42.3
Striker, Lake	16,878	16,878	100.0	20	0.1	3,760	22.3
Sweetwater, Lake	12,267	4,647	37.9	61	0.5	-1,337	-10.9
*Sulphur Springs, Lake	17,747	16,252	91.6	-583	-3.3	-36	0.0
Tawakoni, Lake	871,685	817,730	93.8	-19,308	-2.2	4,965	0.6
Texana, Lake	158,975	141,138	88.8	-9,948	-6.3	30,809	21.8
Texoma, Lake (Texas & Oklahoma)	2,487,601	2,377,286	95.6	-56,695	-2.3	131,165	5.3
Texoma, Lake (Texas)	1,243,801	1,188,642	95.6	-28,348	-2.3	65,582	5.3
Toledo Bend Reservoir (Texas & Louisiana)	4,472,900	3,798,568	84.9	-85,015	-1.9	-23,978	0
Toledo Bend Reservoir (Texas)	2,236,450	1,897,234	84.8	-42,508	-1.9	-11,989	0.0
Travis, Lake	1,098,044	510,414	46.5	-967	0.0	117,133	10.7
Twin Buttes Reservoir	182,454	17,713	9.7	2,171	1.2	-13,799	-7.6
Tyler, Lake	72,073	68,147	94.6	-1,597	-2.2	7,217	10.0
Waco, Lake	189,418	182,680	96.4	-4,477	-2.4	73,581	38.8
Waxahachie, Lake	11,060	8,670	78.4	-248	-2.2	1,737	15.7
Weatherford, Lake	17,812	14,004	78.6	-448	-2.5	4,564	25.6
White River Lake	29,880	4,954	16.6	-305	-1.0	-1,501	-5.0
Whitney, Lake	564,808	560,182	99.2	8,459	1.5	157,387	27.9
Worth, Lake	24,419	15,275	62.6	-551	-2.3	1,018	4.2
Wright Patman Lake	231,496	231,496	100.0	0	0.0	4,919	2.1
STATEWIDE TOTAL							
STATEWIDE TOTAL	32,478,921	23,342,178	71.9	-241,430	0	2,307,110	7.1

*Total volume below elevation of conservation pool top is used as the conservation storage capacity, because the dead pool storage is unknown.

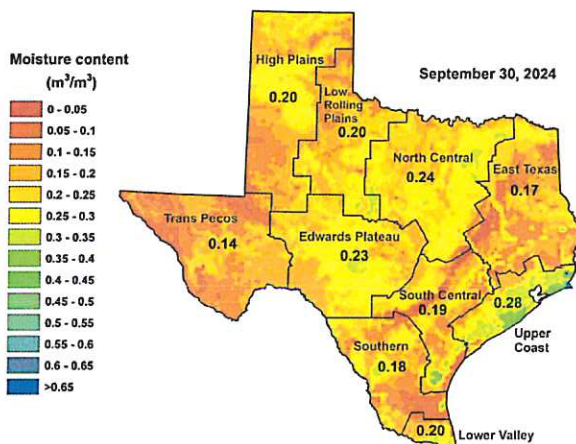
**Monthly and yearly changes do not include reservoirs that did not have data in the last month or last year, respectively.

SOIL MOISTURE

At the end of September 2024, root zone soil moisture was low [yellow, orange shading, Figure 5(a)] in the Panhandle, West, Central, East, and South Texas. Areas of more severe dryness [brown shading, Figure 5(a)] were seen in the Trans Pecos, northern and southern High Plains, areas of the Low Rolling Plains, western North Central, areas of northern and southern South Central, Southern, northern Lower Valley, and East Texas climate divisions. Average soil moisture [green shading, Figure 5(a)] was seen in the central Edwards Plateau, southern South Central, central Southern, areas of central and northeastern North Central, southern Lower Valley, and much of the Upper Coast climate divisions.

Compared to conditions at the end of August 2024, soil moisture increased [blue shading in Figure 5(b)] in the High Plains, southern Low Rolling Plains, northeastern Trans Pecos, northern and western Edwards Plateau, northern and western North Central, northern Southern, southern South Central, and portions of the Lower Valley climate divisions. Soil moisture decreased [red shading in Figure 5(b)] in the eastern and southern North Central, northeastern and northwestern Southern, much of South Central, Upper Coast, and much of East Texas climate divisions.

a)



Data from NASA Soil Moisture Active Passive (SMAP) Level 4 - Model - Value Added Version 7.
Soil moisture content is shown as volume of water per unit volume of bulk soil. Root zone: 0 to 1 meter depth.

b)

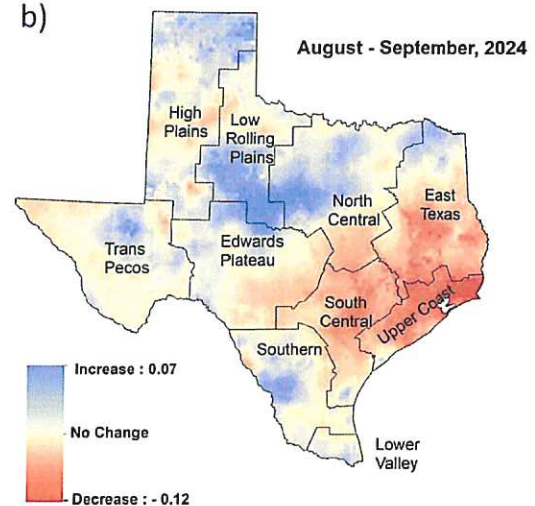


Figure 5: (a) Root zone soil moisture conditions in September 2024 and (b) the difference in root zone soil moisture between end-August 2024 and end-September 2024.

STREAMFLOW CONDITIONS

Normal streamflow (25–75th percentile, green shading, Figure 6) was recorded in portions of the northern Panhandle, Eastern, Central, and Southern regions of Texas this month. Above normal streamflow (76–90th percentile, light blue shading, Figure 6) was seen the Canadian (Lower Beaver watershed), Cypress (Lake O' the Pines), Lower Trinity, Upper Brazos (Running Water Draw, Double Mountain Fork Brazos, and Hubbard watersheds), Middle Colorado, and Nueces (West Nueces watershed) river basins. Much above normal streamflow (>90th percentile, dark blue shading, Figure 6) was seen in the Upper Colorado and Middle Colorado (Pecan Bayou watershed) river basin. Record high streamflow (black shading, Figure 6) was seen in the Middle Colorado (Jim Ned watershed) river basin.

Below normal streamflow (10–24th percentile, orange shading, Figure 6) was seen in the Upper Red (Upper North Fork Red, Upper Salt Fork Red, North Wichita, South Wichita, Wichita, and Little Wichita watersheds), Lower Red (Lake Texoma and Pecan-Waterhole watersheds), Middle and Lower Brazos, Lower Colorado (Lower Colorado-Cummins watershed), Pecos, Guadalupe (San Marcos, and Middle and Lower Guadalupe watersheds), Trinity-San Jacinto, Colorado-Lavaca, San Antonio-Nueces (Mission watershed), Nueces (Turkey, Hondo, San Miguel, Lower Frio, Lower Nueces watersheds) river basins. Much below normal streamflow (<10th percentile, dark red shading, Figure 6) was seen in the Upper Red, Lower Red (Farmers Mud and Bois d'Arc-Island watersheds), Lower Colorado, Brazos-Colorado (San Bernard watershed), Nueces (Upper Frio watershed), Lavaca (Navidad watershed), and Pecos (Lower Pecos-Red Bluff Reservoir watershed) river basins.

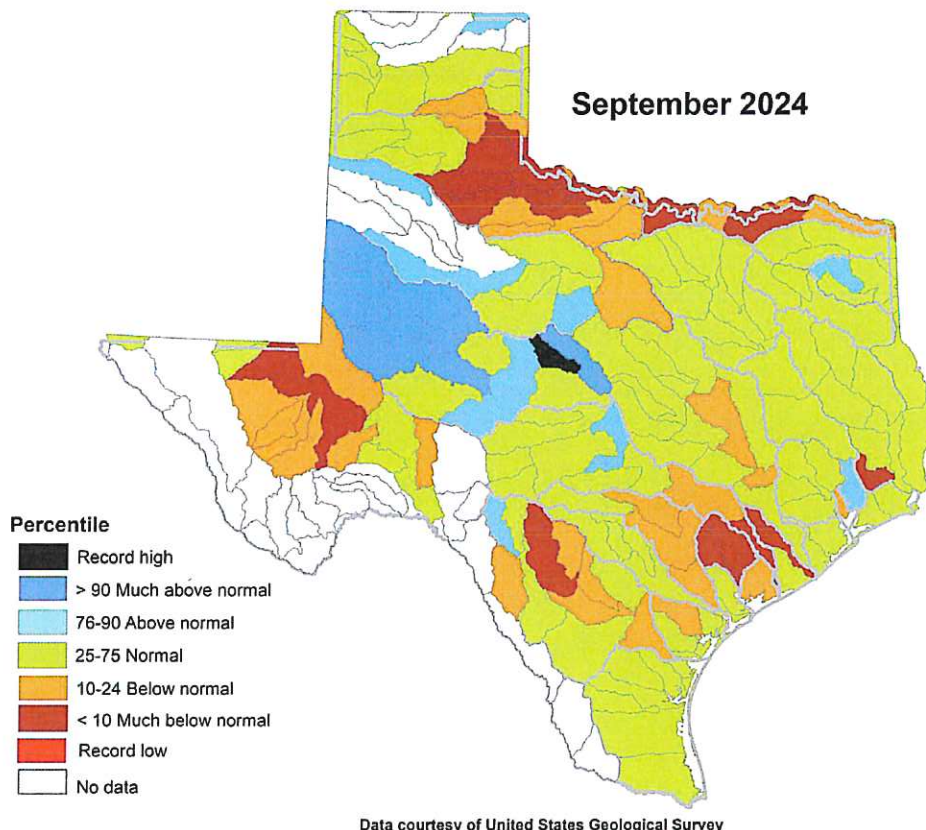
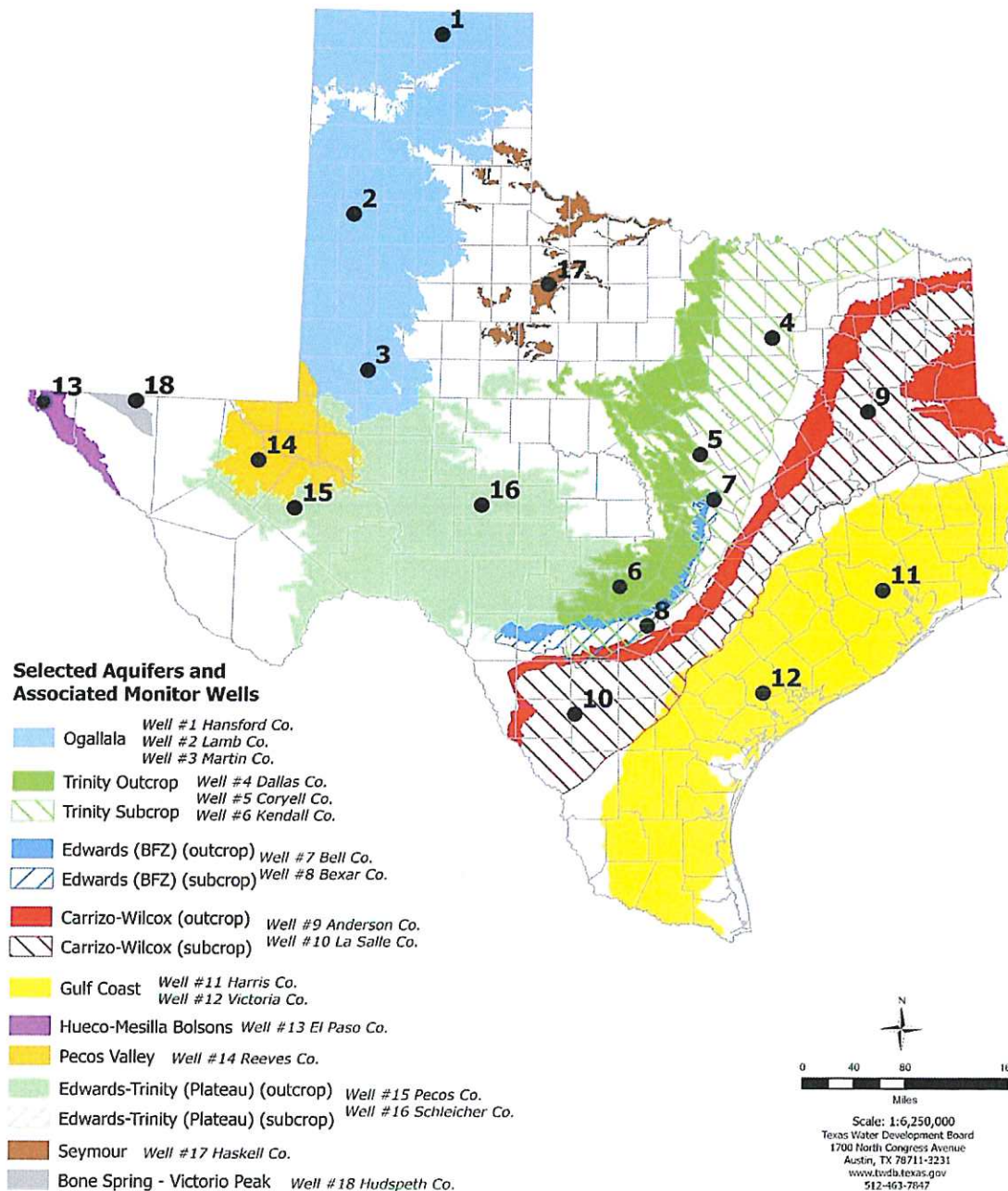


Figure 6: Runoff percentiles by the U.S. Geological Survey's Hydrologic Unit Code

RECORDER WELL NETWORK AND WATER DATA FOR TEXAS

The TWDB, in partnership with its cooperators, continues to install and monitor automatic water level recorders in monitoring wells throughout the state. An automatic groundwater level recorder well, or recorder well, refers to a water well installed with water level recording equipment, a datalogger, and satellite or cellular transmitter. The selection and distribution of the 18 wells shown in this report are based on several considerations: key areas of drawdown and recovery, areas where local conditions are affected by recurring pumping cycles or seasonal activities, wells with a means of triggering drought conditions, and site availability. The spatial distribution of recorder wells attempts to capture broader conditions and trends representative of each aquifer while also highlighting areas of particular interest. The hydrographs provided in this report show a five-year history. For more information and to view full periods of record for available hydrographs, please visit [Water Data for Texas](#).



* Well numbers used in this publication on the aquifer map to indicate the monitoring well locations (numbers 1 to 18) are different than the TWDB's seven-digit state well number.

SEPTEMBER 2024 GROUNDWATER LEVELS IN MONITORING WELLS

Water level measurements were available for 18 key monitoring wells in the state. Water levels rose in ten monitoring wells since the beginning of September, with an increase of 0.08 feet in the Martin County Ogallala Aquifer well (#3 on map) to 4.95 feet in the Dallas County Trinity Aquifer well (#4 on map). Water levels declined in eight monitoring wells, ranging from a decline of -0.04 feet in the Hansford County Ogallala Aquifer well (#1 on map) to -1.90 feet in the Kendall County Trinity Aquifer well (#6 on map). The J-17 well (#8 on map) in San Antonio recorded a water level of 101.40 feet below land surface or 629.60 feet above mean sea level. Water levels are 0.40 feet below the Stage 4 critical management levels for the San Antonio portion of the Edwards (Balcones Fault Zone) Aquifer. The Edwards Aquifer Authority declared Stage 3 Critical Period Management permit reduction requirements, effective September 16, 2024, and shortly thereafter, declared a return to Stage 4 permit reductions effective September 18, 2024, as a result of well J-17 water levels and area spring flow levels.

Monitoring Well	September (depth to water, feet)	August (depth to water, feet)	Month Change	Year Change	Historical Change*	First Measured (year)
(1) Hansford 0354301	165.71	165.67	-0.04	-0.94	-95.59	1951
(2) Lamb 1053602	154.91	155.01	0.10	-0.56	-126.74	1951
(3) Martin 2739903	145.15	145.23	0.08	0.57	-40.26	1964
(4) Dallas 3319101	487.26	492.21	4.95	15.17	-265.26	1954
(5) Coryell 4035404	546.95	546.71	-0.24	0.12	-254.95	1955
(6) Kendall 6802609	174.75	172.85	-1.90	-1.52	-114.75	1975
(7) Bell 5804816	123.07	122.29	-0.78	5.84	0.44	2008
(8) Bexar 6837203	101.40	101.70	0.30	0.00	-54.76	1932
(9) Anderson 3813106	240.21	239.49	-0.72	0.02	-95.21	1965
(10) La Salle 7738103	536.04	536.90	0.86	7.30	-282.97	2003
(11) Harris 6514409	197.76	196.56	-1.20	-0.88	-62.26	1947
(12) Victoria 8017502	34.36	33.35	-1.01	-1.02	-0.36	1958
(13) El Paso 4913301	296.95	297.54	0.59	1.70	-65.05	1964
(14) Reeves 4644501	155.62	159.37	3.75	NA **	-63.53	1952
(15) Pecos 5216802	224.43	228.69	4.26	-3.63	22.45	1976
(16) Schleicher 5512134	321.25	322.74	1.49	0.19	-19.35	2003
(17) Haskell 2135748	47.07	47.79	0.72	0.79	-4.07	2002
(18) Hudspeth 4807516	158.62	158.10	-0.52	2.68	-54.7	1966

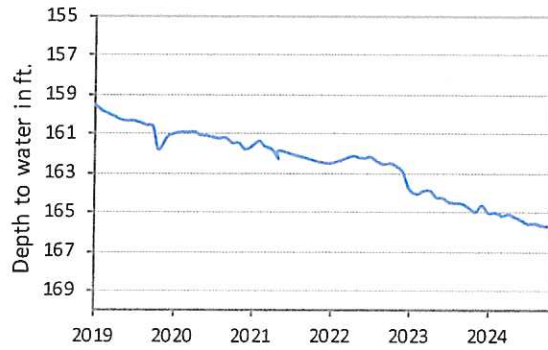
* Change since the original measurement taken on the date indicated in the last column.

**Year Change not available due to data collection issues in September 2023.

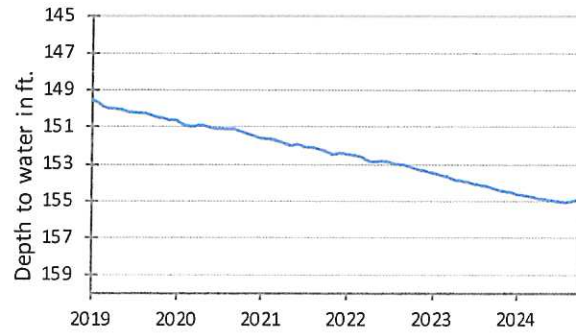
NA (not available). All data are provisional and subject to revision.

SEPTEMBER 2024 MONITORING WELL HYDROGRAPHS

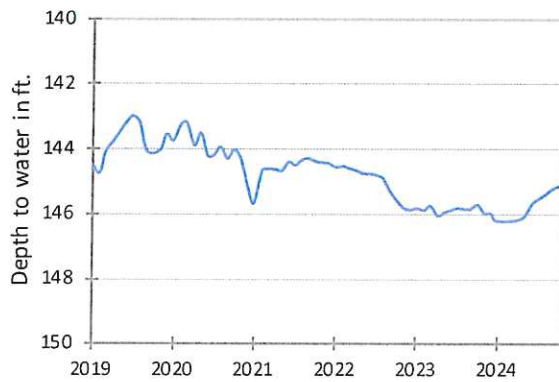
(1) State Well [#03-54-301](#)
Near Spearman, Hansford County
Ogallala Aquifer



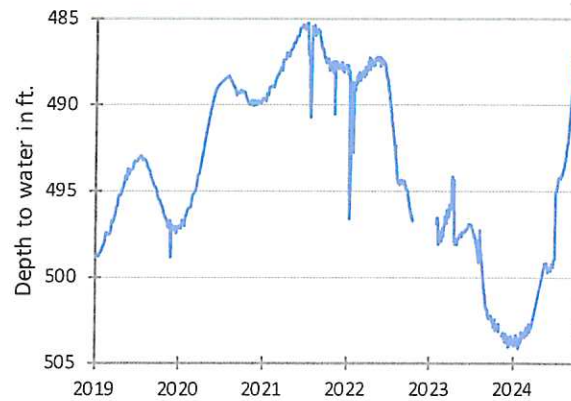
(2) State Well [#10-53-602](#)
Near Earth, Lamb County
Ogallala Aquifer



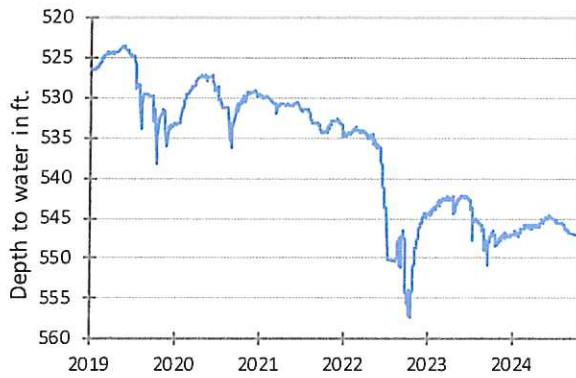
(3) State Well [#27-39-903](#)
Northwest Martin County
Ogallala Aquifer



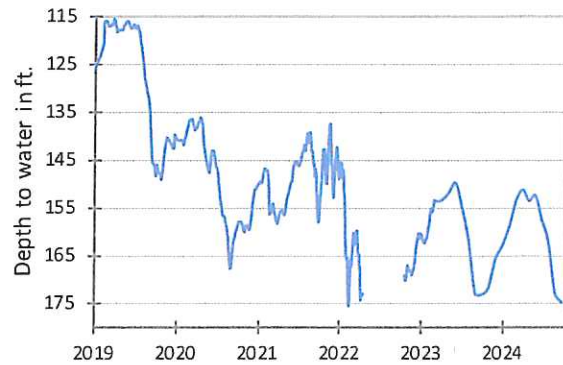
(4) State Well [#33-19-101](#)
Southeast Dallas, Dallas County
Twin Mountains Formation-Trinity Aquifer



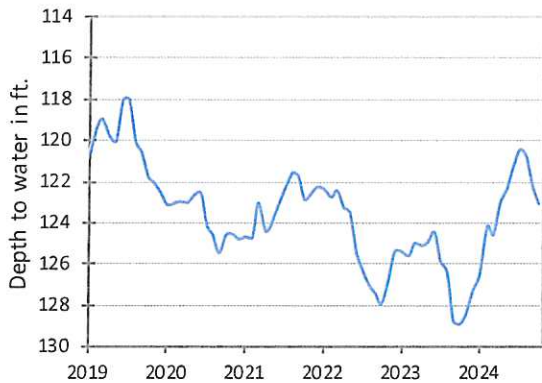
(5) State Well [#40-35-404](#)
Gatesville, Coryell County
Hosston Formation-Trinity Aquifer



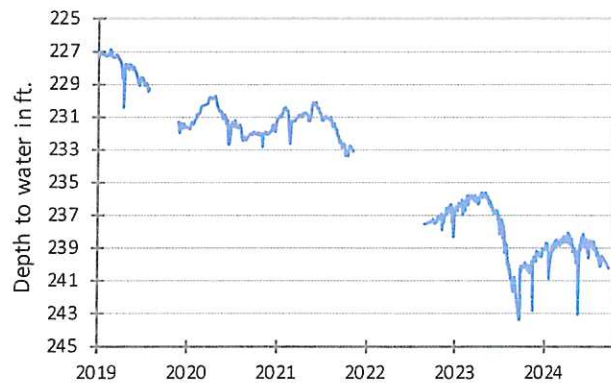
(6) State Well [#68-02-609](#)
Waring, Kendall County
Travis Peak Formation-Trinity Aquifer



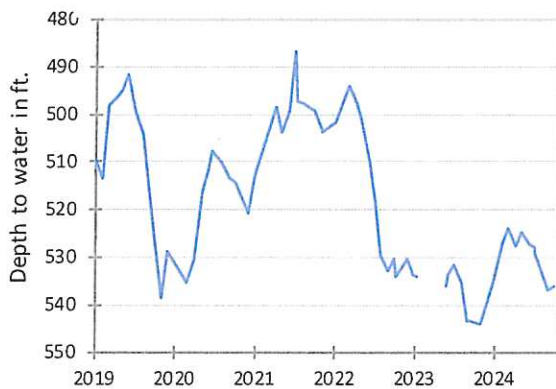
(7) State Well [#58-04-816](#)
Near Salado, Bell County
Edwards (Balcones Fault Zone) Aquifer



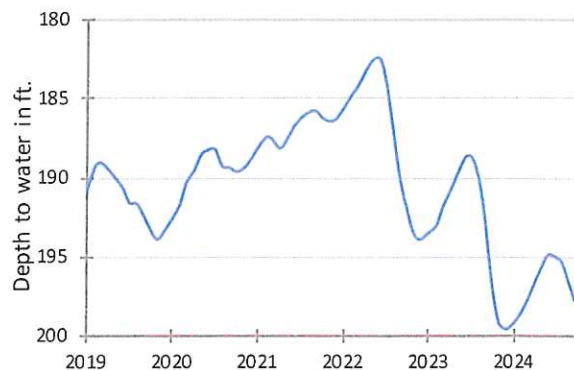
(9) State Well [#38-13-106](#)
Neches, Anderson County
Carrizo-Wilcox Aquifer



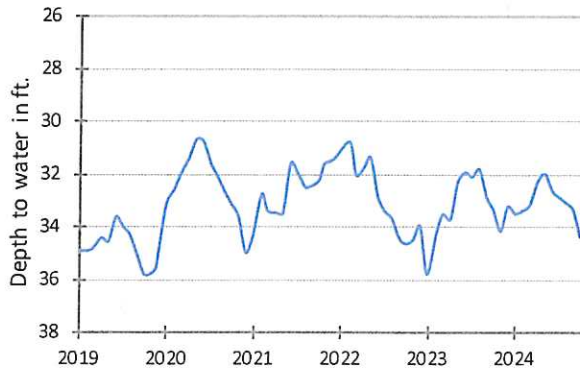
(10) State Well [#77-38-103](#)
Near Cotulla, La Salle County
Carrizo-Wilcox Aquifer



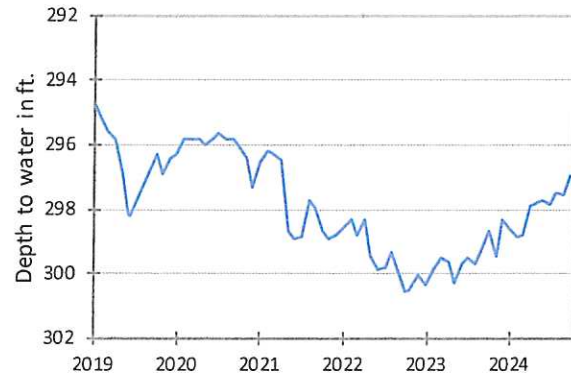
(11) State Well [#65-14-409](#)
North Houston, Harris County
Evangeline Formation-Gulf Coast Aquifer



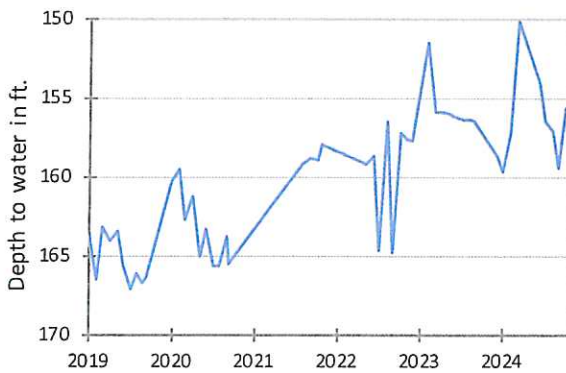
(12) State Well [#80-17-502](#)
Near Bloomington, Victoria County
Lissie Formation-Gulf Coast Aquifer



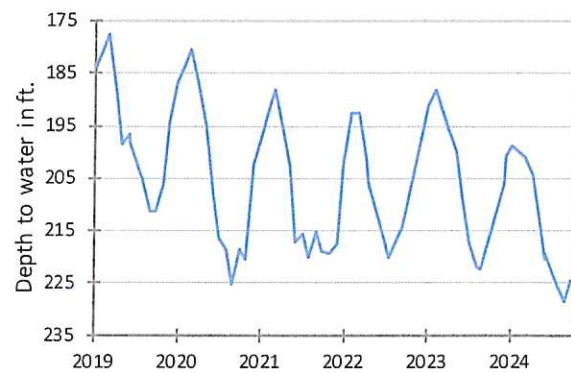
(13) State Well [#49-13-301](#)
El Paso, El Paso County
Hueco-Mesilla Bolsons Aquifer



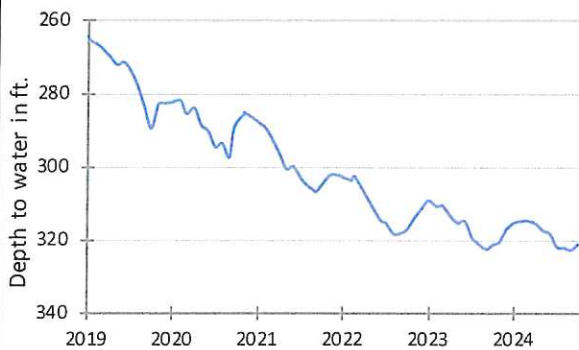
(14) State Well [#46-44-501](#)
Near Pecos, Reeves County
Pecos Valley Aquifer



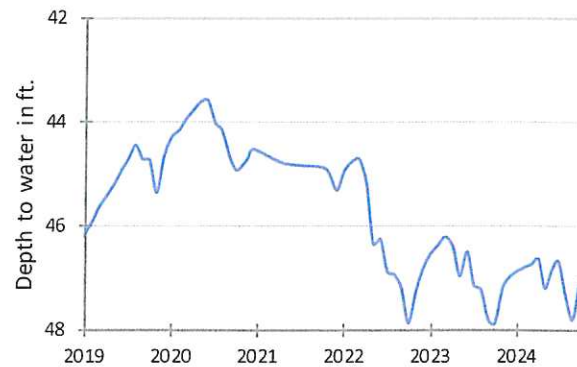
(15) State Well [#52-16-802](#)
Fort Stockton, Pecos County
Edwards-Trinity (Plateau) Aquifer



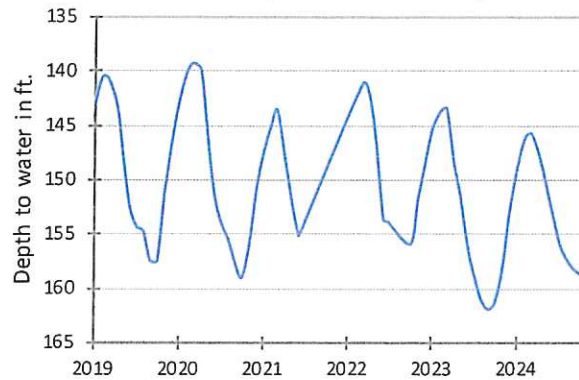
(16) State Well [#55-12-134](#)
Eldorado, Schleicher County
Edwards-Trinity (Plateau) Aquifer



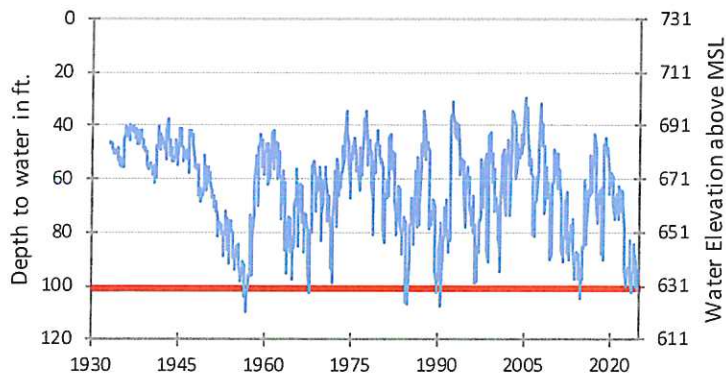
(17) State Well [#21-35-748](#)
Near O'Brien, Haskell County
Seymour Aquifer



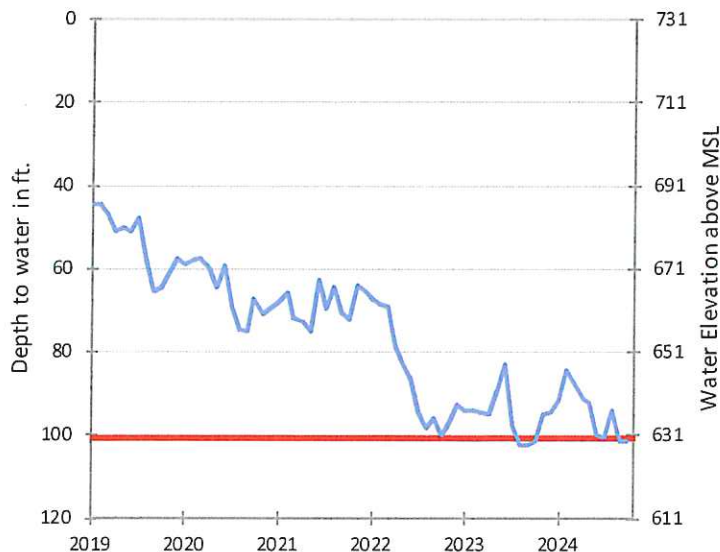
**(18) State Well [#48-07-516](#)
Dell City, Hudspeth County
Bone Spring-Victorio Peak Aquifer**



**(8) State Well [#68-37-203](#) (J-17)
San Antonio, Bexar County
Edwards (Balcones Fault Zone) Aquifer**



The late September water level measurement in this Edwards (Balcones Fault Zone) Aquifer well, located at an elevation of 731 feet above mean sea level, was 101.40 feet below land surface, or 629.60 feet above mean sea level. This was 0.30 feet above last month's measurement, equal to last year's measurement, and 54.76 feet below the initial measurement recorded in 1932.



Water levels below the red line indicate periods in which Edwards Aquifer Authority Stage 4 drought restrictions are in effect. The Edwards Aquifer Authority declared Stage 3 Critical Period Management permit reduction requirements, effective September 16, 2024, and shortly thereafter, declared a return to Stage 4 permit reductions effective September 18, 2024, as a result of well J-17 water levels and area spring flow levels.

Attachment 4



ANALYTICAL REPORT

July 30, 2024

Hall Environmental Consultants, LLC

Sample Delivery Group: L1756787
Samples Received: 07/16/2024
Project Number: Ridley Block
Description: Buffalo, TX-wastewater
Site: BUFFALO 446
Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in black ink that reads "Linda Cashman".

Linda Cashman
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1756787

DATE/TIME:
07/30/24 08:29

PAGE:
1 of 7

SAMPLE SUMMARY

			Collected by	Collected date/time	Received date/time		
WASTEWATER DISCHARGE L1756787-01 WW			Tommy Davis	07/15/24 11:00	07/16/24 09:00		
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Calculated Results	WG2323818	1	07/28/24 19:56	07/28/24 19:56	LDT	Mt. Juliet, TN	
Gravimetric Analysis by Method 2540 D-2015	WG2323991	1	07/16/24 18:01	07/16/24 19:23	MMF	Mt. Juliet, TN	
Wet Chemistry by Method 1664A	WG2326610	1	07/19/24 16:53	07/19/24 23:01	DAL	Mt. Juliet, TN	
Wet Chemistry by Method 300.0	WG2328530	100	07/24/24 22:16	07/24/24 22:16	DLH	Mt. Juliet, TN	
Wet Chemistry by Method 350.1	WG2325366	200	07/20/24 15:26	07/20/24 15:26	LAS	Mt. Juliet, TN	
Wet Chemistry by Method 351.2	WG2329779	20	07/26/24 12:00	07/28/24 19:56	LDT	Mt. Juliet, TN	
Wet Chemistry by Method 353.2	WG2323818	20	07/16/24 19:10	07/16/24 19:10	RTW	Mt. Juliet, TN	
Wet Chemistry by Method 4500H+ B-2011	WG2324146	1	07/16/24 18:30	07/16/24 18:30	KRB	Mt. Juliet, TN	
Wet Chemistry by Method 5210 B-2016	WG2323643	100	07/16/24 12:48	07/21/24 11:01	EAO	Mt. Juliet, TN	
Metals (ICP) by Method 200.7	WG2325727	10	07/21/24 10:22	07/22/24 12:57	DJS	Mt. Juliet, TN	

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Linda Cashman
Project Manager

Sample Delivery Group (SDG) Narrative

The following analysis were performed from an unpreserved, insufficiently or inadequately preserved sample.

<u>Lab Sample ID</u>	<u>Project Sample ID</u>	<u>Method</u>
L1756787-01	WASTEWATER DISCHARGE	1664A

WASTEWATER DISCHARGE

Collected date/time: 07/15/24 11:00

SAMPLE RESULTS - 01

L1756787

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Total Nitrogen	310		2.00	1	07/28/2024 19:56	WG2323818

Gravimetric Analysis by Method 2540 D-2015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	770		125	1	07/16/2024 19:23	WG2323991

Wet Chemistry by Method 1664A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Oil & Grease (Hexane Extr)	20.9		6.25	1	07/19/2024 23:01	WG2326610

Wet Chemistry by Method 300.0

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfate	ND		500	100	07/24/2024 22:16	WG2328530

Sample Narrative:

L1756787-01 WG2328530: dilution due to oily sample matrix

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	152		50.0	200	07/20/2024 15:26	WG2325366

Sample Narrative:

L1756787-01 WG2325366: dilution due to sample matrix

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	310		5.00	20	07/28/2024 19:56	WG2329779

Sample Narrative:

L1756787-01 WG2329779: dilution due to sample matrix

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	ND		2.00	20	07/16/2024 19:10	WG2323818

Sample Narrative:

L1756787-01 WG2323818: dilution due to sample matrix

WASTEWATER DISCHARGE

SAMPLE RESULTS - 01

Collected date/time: 07/15/24 11:00

L1756787

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	su			date / time	
pH	8.22	T8	1	07/16/2024 18:30	WG2324146

Sample Narrative:

L1756787-01 WG2324146: 8.22 at 22.4C

Wet Chemistry by Method 5210 B-2016

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
BOD	1460	B1 J-	1000	100	07/21/2024 11:01	WG2323643

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Calcium	149		10.0	10	07/22/2024 12:57	WG2325727
Magnesium	169		10.0	10	07/22/2024 12:57	WG2325727
Phosphorus	29.3		1.00	10	07/22/2024 12:57	WG2325727
Potassium	1180		10.0	10	07/22/2024 12:57	WG2325727
Sodium	359		10.0	10	07/22/2024 12:57	WG2325727

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B1	The blank depletion was greater than the recommended maximum depletion of 0.2mg/L.
J-	The associated batch QC was outside the lower control limits; associated data has a potential negative bias.
T8	Sample(s) received past/too close to holding time expiration.

Company Name/Address: Hall Environmental Consultants, LLC 1376 Danville Road Loop 1 Nicholasville, KY 40356				Billing Information: Ms. Cynthia M. Leasor 1376 Danville Road Loop 1 Nicholasville, KY 40356 Email To: cleasor@hallenvironmental.net;				Analysis / Container / Preservative										Chain of Custody Page ____ of ____ MT JULIET, TN <small>12065 Lebanon Rd Mount Juliet, TN 37122 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pac-standards-terms.pdf</small>																																																																								
Report to: Ms. Cynthia Leasor				Project Description: Buffalo, TX-wastewater				City/State Collected:				Please Circle: PT MT CT ET				Pres Chk																																																																										
Phone: 859-885-3331				Client Project # Ridley Block				Lab Project # HALLKY-RIDLEY BTX WW																																																																																		
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BOD (48 hr hold) 500mlHDPE-NoPres	Metals, Phos 250mlHDPE-HNO3	NH3 250mlHDPE-HNO3	NO2NO3,TKN 250mlHDPE-H2SO4	OGHEX 1L-Clr-WT-HCl	PH, Sulfate 125mlHDPE-NoPres	TSS 1L-HDPE NoPres																																																																																				
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other				Remarks: PH-108DH9021 TRC-4072A1026				Temp _____ Other _____				Sample Receipt Checklist COC Seal Present/Intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N COC Signed/Accurate: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Bottles arrive intact: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Correct bottles used: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Sufficient volume sent: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If Applicable VOA Zero Headspace: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Preservation Correct/Checked: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N RAD Screen <0.5 mR/hr: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N																																																																														
Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier				Tracking #				Relinquished by: (Signature)				Date:				Time:				Received by: (Signature)				Trip Blank Received: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> HCL / MeOH TBR				Temp: 50M9C 28+3-3-1				Bottles Received:				If preservation required by Login: Date/Time																																																						
Relinquished by: (Signature)				Date:				Time:				Received by: (Signature)				Date:				Time:				Hold:				Condition: NCF / OK																																																														



ANALYTICAL REPORT

March 30, 2021

Hall Environmental Consultants, LLC

Sample Delivery Group: L1329108
Samples Received: 03/20/2021
Project Number: Ridley Block
Description: Buffalo, TX-wastewater

Report To: Randy Shelley
1376 Danville Road Loop 1
Nicholasville, KY 40356

Entire Report Reviewed By:

A handwritten signature in cursive script that reads "Linda Cashman".

Linda Cashman
Project Manager

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Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

ACCOUNT:
Hall Environmental Consultants, LLC

PROJECT:
Ridley Block

SDG:
L1329108

DATE/TIME:
03/30/21 18:56

PAGE:
1 of 7

SAMPLE SUMMARY

WW L1329108-01 WW

Collected by
Collected date/time
03/19/21 09:00
Received date/time
03/20/21 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Calculated Results	WG1639546	1	03/26/21 06:25	03/26/21 06:25	SDL	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 D-2011	WG1640647	1	03/25/21 20:09	03/25/21 21:35	CAT	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG1639326	5	03/25/21 11:34	03/25/21 11:34	SL	Mt. Juliet, TN
Wet Chemistry by Method 351.2	WG1639794	50	03/24/21 20:29	03/26/21 06:25	SDL	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1639546	1	03/24/21 12:59	03/24/21 12:59	KEG	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG1640857	20	03/24/21 20:29	03/26/21 04:43	SDL	Mt. Juliet, TN
Wet Chemistry by Method 410.4	WG1639840	50	03/24/21 16:14	03/24/21 18:42	BJD	Mt. Juliet, TN
Wet Chemistry by Method 4500H+ B-2011	WG1639262	1	03/25/21 05:53	03/25/21 05:53	AMH	Mt. Juliet, TN
Wet Chemistry by Method 5210 B-2011	WG1637786	100	03/20/21 14:49	03/25/21 10:21	MJG	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1638775	1	03/23/21 07:00	03/25/21 15:54	KMG	Mt. Juliet, TN
Metals (ICP) by Method 200.7	WG1638775	5	03/23/21 07:00	03/25/21 23:11	CCE	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Linda Cashman
Project Manager

WW

Collected date/time: 03/19/21 09:00

SAMPLE RESULTS - 01

L1329108

Calculated Results

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Total Nitrogen	228		0.100	1	03/26/2021 06:25	WG1639546

Gravimetric Analysis by Method 2540 D-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Suspended Solids	375		125	1	03/25/2021 21:35	WG1640647

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	25.1		1.25	5	03/25/2021 11:34	WG1639326

Wet Chemistry by Method 351.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Kjeldahl Nitrogen, TKN	228		12.5	50	03/26/2021 06:25	WG1639794

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	0.201		0.100	1	03/24/2021 12:59	WG1639546

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus, Total	52.8		2.00	20	03/26/2021 04:43	WG1640857

Wet Chemistry by Method 410.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
COD	15000		1000	50	03/24/2021 18:42	WG1639840

Wet Chemistry by Method 4500H+ B-2011

Analyte	Result su	Qualifier	Dilution	Analysis date / time	Batch
pH	4.90	T8	1	03/25/2021 05:53	WG1639262

Sample Narrative:

L1329108-01 WG1639262: 4.9 at 19.2C

Wet Chemistry by Method 5210 B-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
BOD	5720		3330	100	03/25/2021 10:21	WG1637786

WW

SAMPLE RESULTS - 01

Collected date/time: 03/19/21 09:00

L1329108

Metals (ICP) by Method 200.7

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	03/25/2021 15:54	WG1638775
Cadmium	ND		0.00200	1	03/25/2021 15:54	WG1638775
Chromium	0.0367		0.0100	1	03/25/2021 15:54	WG1638775
Copper	0.585		0.0100	1	03/25/2021 15:54	WG1638775
Lead	0.00671		0.00500	1	03/25/2021 15:54	WG1638775
Molybdenum	0.00887		0.00500	1	03/25/2021 15:54	WG1638775
Nickel	0.0787		0.0100	1	03/25/2021 15:54	WG1638775
Potassium	1130		5.00	5	03/25/2021 23:11	WG1638775
Selenium	0.0438		0.0100	1	03/25/2021 15:54	WG1638775
Silver	ND		0.00500	1	03/25/2021 15:54	WG1638775
Zinc	3.19		0.0500	1	03/25/2021 15:54	WG1638775

GLOSSARY OF TERMS

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Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
T8	Sample(s) received past/too close to holding time expiration.

Hall Environmental Consultants, LLC 1376 Danville Road Loop 1 Nicholasville, KY 40356		Billing Information:		Pres Chk		Analysis / Container / Preservative										Chain of Custody		Page <u> </u> of <u> </u>	
		Report to:		Email To:		BOD 500mlHDPE-NoPres COD, PT 250mlHDPE-H2SO4 Metals 250mlHDPE-HNO3 NH3 250mlHDPENaThioH2SO4 Nitrogen, NO2NO3,TKN 250mlHDPE-H2SO4 PH 125mlHDPE-NoPres TSS 1L-HDPE NoPres										SDG # <u>432910</u> Table <u>E250</u>		Acctnum: HALLKY Template: T177070 Prelogin: P807568 PM: 650 - Linda Cashman PB: <u>161029/2020</u> Shipped Via: FedEX Ground	
Project Description:		City/State Collected:		Please Circle:															
Randy Shelley		rshelley@hallenvironmental.net; cleasor@hallen		PT MT CT ET		Buffalo, TX-wastewater		Ridley Block		HALLKY-RIDLEY BTX WW		Rush? (Lab MUST Be Notified)		Date Results Needed		No. of Cntrs			
Phone: 859-885-3331		Site/Facility ID #		P.O. #		Same Day		Five Day		Next Day		5 Day (Rad Only)		Two Day		10 Day (Rad Only)			
Collected by (print):		Collected by (signature):		Immediately		Packed on Ice N Y		Sample ID		Comp/Grab		Matrix *		Depth		Date			
Time		Time		Time		Time		Time		Time		Time		Time		Time			
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Time																			

Attachment 10

Engineering Report

Buffalo Texas Storage Volume and Nitrogen Balance		
Date	11/12/2024	
Engineer	Benjamin Shelley	

Summary

Below is the engineer's review of the water balance analysis, storage volume calculations, and nitrogen balance. It is my understanding that a water balance analysis is not applicable in this case, as the water in question is industrial wash water rather than stormwater.

Inflow

The influent source is molasses wash water resulting from production processes. The average daily inflow is 7,500 gallons per day with a peak inflow of 8,000 gallons per day

Outflow

The effluent discharge may be either land-applied or directed to the city sewer system. The system's average daily inflow is 7,500 gallons, with a peak inflow of 8,000 gallons per day. Water loss between inflow and outflow is minimal and considered negligible.

Storage Volume

The holding tanks each have a capacity of 18,000 gallons, and with four tanks in use, the total maximum storage volume is 72,000 gallons.

Nitrogen Balance

The nitrogen source in this process is the molasses wash water. The influent nitrogen concentration is 310 mg/L, while the effluent nitrogen concentration is reduced to 57 mg/L. This results in a net nitrogen removal efficiency of 82% with the current aeration treatment system.

Attachment 11

Plain Language Summary



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

PLAIN LANGUAGE SUMMARY FOR TPDES OR TLAP PERMIT APPLICATIONS

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

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

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

If you are subject to the alternative language notice requirements in [30 TAC Section 39.426](#), **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL 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.

Ridley USA Inc (CN604674556) operates Ridley Block Operations (RN106364409), an animal feed supplement manufacturing plant. The facility is located at 125 Industrial Blvd, in Buffalo, Leon County, Texas 75831. We are applying to renew the current permit and modify it to reflect the correct landfarming location. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain BOD, TSS, Nitrogen, Ammonia Nitrogen, and Oil and Grease. Wash water and cooling water is pumped to tanks outside the facility where it is aerated before being land applied.

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

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

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

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

Se espera que las descargas de la instalación contengan 14. Liste todos los contaminantes esperados aquí. 15. Introduzca los tipos de aguas residuales descargadas aquí. 16. Elija del menú desplegable tratado por 17. Introduzca una descripción del tratamiento de aguas residuales utilizado en la instalación aquí.

INSTRUCTIONS

1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
6. Choose the appropriate article (a or an) to complete the sentence.
7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
8. Choose "is" for an existing facility or "will be" for a new facility.
9. Enter the location of the facility in this section.
10. Enter the City nearest the facility in this section.
11. Enter the County nearest the facility in this section.
12. Enter the zip code for the facility address in this section.
13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.
14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
16. Choose the appropriate verb tense to complete the sentence.
17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WO-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

Example

Individual Industrial Wastewater Application

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 are not federal enforceable representations of the permit application.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a two-unit gas-fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred to as “previously monitored effluents” (low-volume wastewater, metal-cleaning waste, and stormwater (from diked oil storage area yards and storm drains)) via Outfall 001. Low-volume waste sources, metal-cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low-volume waste and metal-cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility’s potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam.

Low-volume wastewater from blowdown of boiler Units 1 and 2 and metal-cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal-cleaning waste from equipment cleaning is generally disposed of off-site.

Attachment 12

Public Involvement Plan



Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

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

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

Section 1. Preliminary Screening

- ☐ New Permit or Registration Application
☒ New Activity - modification, registration, amendment, facility, etc. (see instructions)

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

Section 2. Secondary Screening

- ☒ Requires public notice,
☐ Considered to have significant public interest, **and**
☐ Located within any of the following geographical locations:

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

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

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

Section 3. Application Information

Type of Application (check all that apply):

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

Water Quality

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

Water Rights New Permit

- ☐ New Appropriation of Water
☐ New or existing reservoir

Amendment to an Existing Water Right

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

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Ridley is an animal feed supplement manufacturing plant. The facility is located at 125 Industrial Blvd, in Buffalo, Leon County, Texas 75831. We are applying to renew the current permit and modify it to reflect the correct landfarming location. This permit will not authorize a discharge of pollutants into water in the state.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

Buffalo

(City)

Leon

(County)

Census Tract Reference Map: Leon County, Tx

(Census Tract)

Please indicate which of these three is the level used for gathering the following information.



City




County



Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

High school or equivalent degree - 43.3%


https://data.census.gov/profile/Buffalo_city,_Texasg=160XX00US4811116#education 

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

\$14,246 in August 2024

\$47,428 Median Household Income

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

White (Non-Hispanic) 67.7%, White (Hispanic) 9.25%, Multiracial (Hispanic) 7.18%, Black or AA (Non-Hispanic) 10%, Multiracial (Non-Hispanic) 2.45%, Other (Hispanic) 3.37% 

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

Unknown

(e) Languages commonly spoken in area by percentage

English only - 80.6%

Spanish - 19.4%

(f) Community and/or Stakeholder Groups

Unknown

(g) Historic public interest or involvement

Unknown

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☒ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☒ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

- ☐ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☒ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☒ No

(f) Hard copies of the application will be available at the following (check all that apply):

- ☐ TCEQ Regional Office ☐ TCEQ Central Office
- ☒ Public Place (specify) Buffalo Public Library

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☒ No

What types of notice will be provided?

- ☐ Publish in alternative language newspaper
- ☐ Posted on Commissioner's Integrated Database Website
- ☐ Mailed by TCEQ's Office of the Chief Clerk
- ☒ Other (specify) Buffalo Public Library