PLUMMER

1102-006-01

October 22, 2021

Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team
MC-148
PO Box 13087
Austin, TX 78711

Re: City of Houston (CN 600128995)
West District Wastewater Treatment Facility (RN 101611739)
Application for Major Amendment with Renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010495030

To Whom It May Concern:

On behalf of the City of Houston, Plummer Associates, Inc., submits one original and three copies of a major amendment with renewal application for the above-referenced permit. The application fee of $2,050.00 for the Domestic Wastewater Permit Application has been submitted to the Texas Commission on Environmental Quality Cashier's Office (MC-214) under separate cover.

For correspondence on this application, please copy me at alewis@plummer.com and Heather Maloney at Heather.Maloney@houstontx.gov.

Please feel free to contact me at alewis@plummer.com or (512) 687-2154, if you have any questions regarding this submittal.

Sincerely,

PLUMMER
TBPE Firm Registration No. F-13

Ashley Lewis
Project Manager

Enclosures: Permit Major Amendment with Renewal Application (1 original, 3 copies)

cc: Carol La Breche, City of Houston, Houston Public Works
Walid Samarneh, City of Houston, Houston Public Works
Heather Maloney, City of Houston, Houston Public Works

6300 La Calma Drive, Suite 400
Austin, Texas 78752
Phone 512.452.5905
Fax 512.452.2325
plummer.com
TBPE Firm No. 13

CITY OF HOUSTON

WEST DISTRICT WASTEWATER TREATMENT FACILITY

TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION PERMIT NO. WQ0010495030

SUBMITTED TO:
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

OCTOBER 2021

PROJECT #: 1102-006-01

PLUMMER

CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION

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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: City of Houston

PERMIT NUMBER: WQ0010495030

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

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

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

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

Section 1. Application Fees (Instructions Page 29)

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

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

Minor Amendment (for any flow) $150.00 ☐

Payment Information:

Mailed — Check/Money Order Number: 20987334

Check/Money Order Amount: $2,050.00

Name Printed on Check: City of Houston

EPAY — Voucher Number: N/A

Copy of Payment Voucher enclosed? Yes ☐ No

Section 2. Type of Application (Instructions Page 29)

☐ New TPDES

☒ Major Amendment *with* Renewal

☐ Major Amendment *without* Renewal

☐ Renewal without changes

☐ New TLAP

☐ Minor Amendment *with* Renewal

☐ Minor Amendment *without* Renewal

☐ Minor Modification of permit

For amendments or modifications, describe the proposed changes: See Attachment A

For existing permits:

Permit Number: WQ0010495030

EPA I.D. (TPDES only): TX0063002

Expiration Date: May 1, 2022

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

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

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

City of Houston

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

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

CN: 600128995

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

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

First and Last Name: Carol Ellinger Haddock

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Director of Houston Public Works

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

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

N/A

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

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

CN: N/A

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

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

First and Last Name: N/A

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: N/A

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

C. Core Data Form

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

Attachment: B

Section 4. Application Contact Information (Instructions Page 30)

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

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

First and Last Name: Carol La Breche

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Supervising Engineer

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5813 Ext.: N/A Fax No.: 832-395-5838

E-mail Address: Carol.LaBreche@houstontx.gov

Check one or both: ☒ Administrative Contact ☐ Technical Contact

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

First and Last Name: Walid Samarneh

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Managing Engineer

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5771 Ext.: N/A Fax No.: 832-395-5838

E-mail Address: Walid.Samarneh@houstontx.gov

Check one or both: ☐ Administrative Contact ☒ Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

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

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

First and Last Name: Carol Ellinger Haddock

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Director of Houston Public Works

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-2500 Ext.: N/A Fax No.: 832-395-2480

E-mail Address: PWE.Director@houstontx.gov

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

First and Last Name: Sylvester Turner

Credential (P.E, P.G., Ph.D., etc.): N/A

Title: Mayor

Organization Name: City of Houston

Mailing Address: P.O. Box 1562

City, State, Zip Code: Houston, TX 77251

Phone No.: 832-393-1011 Ext.: N/A Fax No.: 832-393-1067

E-mail Address: Sylvester.Turner@houstontx.gov

Section 6. Billing Information (Instructions Page 30)

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

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

First and Last Name: Walid Samarneh

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Managing Engineer

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5771 Ext.: N/A Fax No.: 832-395-5838

E-mail Address: Walid.Samarneh@houstontx.gov

Section 7. DMR/MER Contact Information (Instructions Page 31)

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

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

First and Last Name: Walid Samarneh

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Managing Engineer

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5771 Ext.: N/A Fax No.: 832-5838

E-mail Address: Walid.Samarneh@houstontx.gov

DMR data is required to be submitted electronically. Create an account at: https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

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

First and Last Name: Carol La Breche

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Supervising Engineer

Organization Name: City of Houston, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5813 Ext.: N/A Fax No.: 832-395-5838

E-mail Address: Carol.LaBreche@houstontx.gov

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

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

☒ E-mail Address

☐ Fax

☒ Regular Mail

C. Contact person to be listed in the Notices

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

First and Last Name: Carol La Breche

Credential (P.E, P.G., Ph.D., etc.): P.E

Title: Supervising Engineer

Organization Name: City of Houston, Houston Public Works

Phone No.: 832-395-5813 Ext.: N/A

E-mail: Carol.LaBreche@houstontx.gov

D. Public Viewing Information

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

Public building name: City of Houston, Houston Public Works, Wastewater Operations Building

Location within the building: Library

Physical Address of Building: 10500 Bellaire Boulevard

City: Houston County: Harris

Contact Name: Carol La Breche

Phone No.: 832-395-5813 Ext.: N/A

E. Bilingual Notice Requirements:

This information **is required** for **new, major amendment, and renewal applications**. It is not required for minor amendment or minor modification applications.

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

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

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

   ☐ Yes ☒ No

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

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

   ☐ Yes ☐ No N/A

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

   ☐ Yes ☐ No N/A

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? N/A

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**101611739

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

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

West District Wastewater Treatment Facility

C. Owner of treatment facility: City of Houston

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

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

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

First and Last Name: City of Houston

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5771 E-mail Address: Walid.Samarneh@houstontx.gov

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

Attachment: N/A

E. Owner of effluent disposal site:

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

First and Last Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

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

Attachment: N/A

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

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

First and Last Name: N/A

Mailing Address: N/A

City, State, Zip Code: N/A

Phone No.: N/A E-mail Address: N/A

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

Attachment: N/A

Section 10. TPDES Discharge Information (Instructions Page 34)

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

☒ Yes ☐ No

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

N/A

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

☐ Yes ☒ No

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

Please update the outfall coordinates to 29.761965, -95.561934, which better represent the existing outfall location. The discharge route is from the facility site directly to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin

City nearest the outfall(s): Houston, TX

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

Outfall Latitude: 29.761965 Longitude: -95.561934

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

☐ Yes ☒ No

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

☐ Authorization granted ☐ Authorization pending N/A

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

Attachment: N/A

D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

Harris, Galveston, and Chambers Counties

Section 11. TLAP Disposal Information (Instructions Page 36)

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

☐ Yes ☐ No N/A – Not a TLAP

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

N/A

B. City nearest the disposal site: N/A

C. County in which the disposal site is located: N/A

D. Disposal Site Latitude: N/A Longitude: N/A

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

N/A

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

N/A

Section 12. Miscellaneous Information (Instructions Page 37)

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

☐ Yes ☒ No

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

☐ Yes ☐ No ☒ Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit

application, provide an accurate location description of the sewage sludge disposal site.

N/A

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

☐ Yes ☒ No

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

N/A

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: N/A Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: N/A Amount past due: N/A

Section 13. Attachments (Instructions Page 38)

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

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

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

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

See Attachment C

☐ Attachment 1 for Individuals as co-applicants

☒ Other Attachments. Please specify: See Table of Contents

Section 14. Signature Page (Instructions Page 39)

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

Permit Number: WQ0010495030

Applicant: City of Houston

Certification:

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

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

Signatory name (typed or printed): Carol Ellinger Haddock, P.E.

Signatory title: Director of Houston Public Works

Signature: Carol Haddock Date: 10/15/2021

(Use blue ink)

Subscribed and Sworn to before me by the said Carol Haddock

on this 15th day of October, 2021.

My commission expires on the 9th day of March, 2023.

Ruth C. Bocanegra

Notary Public

RUTH C. BOCANEGRA
Notary Public, State of Texas
Comm. Expires 03-09-2023
Notary ID 12595109-5

[SEAL]

Harris

County, Texas

DOMESTIC ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Section 1. Affected Landowner Information (Instructions Page 41)

A. Indicate by a check mark that the landowners map or drawing, with scale, includes the following information, as applicable: See Attachment D

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

B. ☒ Indicate by a check mark that a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.

C. Indicate by a check mark in which format the landowners list is submitted:

☐ Readable/Writeable CD ☒ Four sets of labels

D. Provide the source of the landowners' names and mailing addresses: Harris CAD

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

Section 2. Original Photographs (Instructions Page 44)

Provide original ground level photographs. Indicate with checkmarks that the following information is provided. See Attachment E

☐ At least one original photograph of the new or expanded treatment unit location

☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☐ At least one photograph of the existing/proposed effluent disposal site

☒ A plot plan or map showing the location and direction of each photograph

Section 3. Buffer Zone Map (Instructions Page 44)

A. Buffer zone map. Provide a buffer zone map on 8.5 x 11-inch paper with all of the following information. The applicant's property line and the buffer zone line may be distinguished by using dashes or symbols and appropriate labels.

See Attachment F

- The applicant's property boundary;
- The required buffer zone; and
- Each treatment unit; and
- The distance from each treatment unit to the property boundaries.

B. Buffer zone compliance method. Indicate how the buffer zone requirements will be met. Check all that apply.

☒ Ownership

☒ Restrictive easement

☐ Nuisance odor control

☐ Variance

C. Unsuitable site characteristics. Does the facility comply with the requirements regarding unsuitable site characteristic found in 30 TAC § 309.13(a) through (d)?

☒ Yes ☐ No

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC 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)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: City of Houston

   Permit No. WQ00 10495030 EPA ID No. TX 0063002

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

   12901 Hermitage Lane, in the City of Houston, Harris County, Texas 77079

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: Walid Samarneh

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Managing Engineer, Houston Public Works

Mailing Address: 10500 Bellaire Boulevard

City, State, Zip Code: Houston, TX 77072

Phone No.: 832-395-5771 Ext.: N/A Fax No.: 832-395-5838

E-mail Address: Walid.Samarneh@houstontx.gov

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

Property owner and applicant are the same.

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.

Via Outfall 001 to Buffalo Bayou Above Tidal in Segment No. 1014 of the San Jacinto River Basin

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report). See SPIF 1 and SPIF 2

   Provide original photographs of any structures 50 years or older on the property. See SPIF 3

   Does your project involve any of the following? Check all that apply. N/A – None 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

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

N/A

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

Existing disturbances and land use are typical for a wastewater treatment plant of this size.

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

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

Original facility structures were built circa 1966, and the most recent improvements to the facility were in 1998.

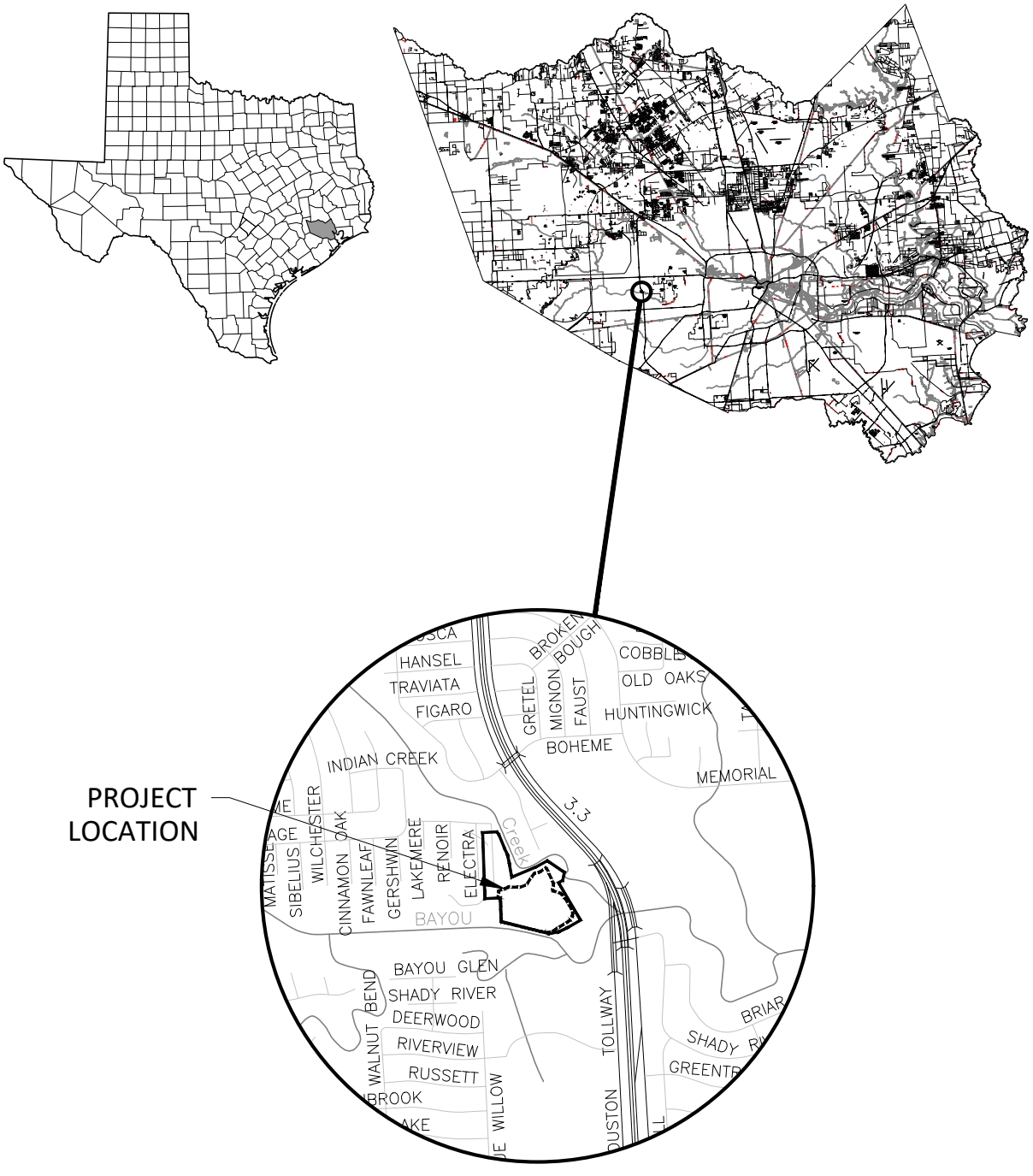
9. Provide a brief history of the property, and name of the architect/builder, if known.

Property has been the site of a wastewater treatment facility since the 1960s

PLUMMER

N.T.S.

HARRIS COUNTY



SPIF 1
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
GENERAL LOCATION MAP

TEXAS REGISTERED ENGINEERING FIRM F-13
10/7/2021 2:47 PM M:\Projects\1102\006-01\8 Drawings_Figures\8-1 ACAD\8-1-2 Figures\TPDES\ATT-SPIF-01-GEN LOC (Harris County).dwg Briand

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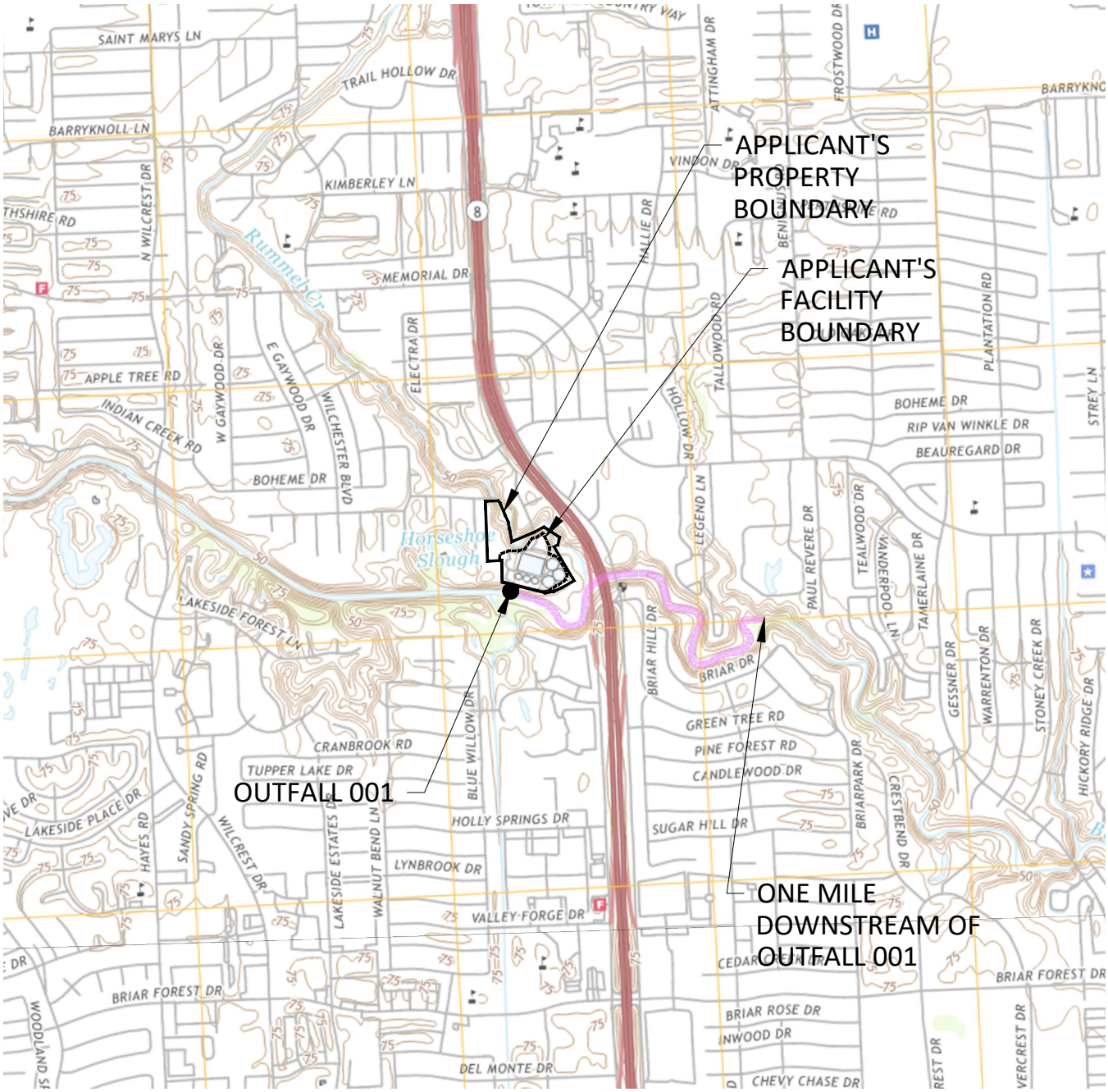


SPIF 2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
USGS MAP

SPIF 3
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PHOTOGRAPHS OF STRUCTURES OVER 50 YEARS OLD

Original facility structure, circa 1966

SPIF 3
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PHOTOGRAPHS OF STRUCTURES OVER 50 YEARS OLD

Original facility structure, circa 1966

SPIF 3
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PHOTOGRAPHS OF STRUCTURES OVER 50 YEARS OLD

Original facility structure, circa 1966

SPIF 3
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PHOTOGRAPHS OF STRUCTURES OVER 50 YEARS OLD

Original facility structure, circa 1966

SPIF 3
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PHOTOGRAPHS OF STRUCTURES OVER 50 YEARS OLD

Original facility structure, circa 1966

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications

Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): 26.4

2-Hr Peak Flow (MGD): 95.5

Estimated construction start date: N/A - Existing

Estimated waste disposal start date: N/A - Existing

B. Interim II Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): N/A

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

C. Final Phase

Design Flow (MGD): N/A

2-Hr Peak Flow (MGD): N/A

Estimated construction start date: N/A

Estimated waste disposal start date: N/A

D. Current operating phase: Existing

Provide the startup date of the facility: 1998

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. **Include the type of**

treatment plant, mode of operation, and all treatment units. Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of *each phase* must be provided**. Process description:

Influent goes through the bar screen, followed by biological treatment using activated sludge in one of nine aeration basins, followed by secondary clarification in one of six clarifiers. Effluent is disinfected by two chlorine contact chambers and dechlorinated prior to discharge via Outfall 001. Return activated sludge from the clarifiers is channeled back to the aeration basins. Waste sludge from the treatment process may be pumped via pipe to the City of Houston 69th Street WWTP, Permit No. WQ0010495090 or hauled to another City of Houston permitted wastewater treatment facility for further handling.

Port or pipe diameter at the discharge point, in inches: 60"

B. Treatment Units

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

Table 1.0(1) – Treatment Units

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
Influent Channel	1	318.25' x 15' x 15.15'
Aeration Basin	9	6 - 189.33' x 30' x 15.17' 3 - 189.33' x 30' x 21.59'
Mixed Liquor Channel	1	411.17' x 15' x 15.05'
RAS Channel	1	410.3' x 10' x 15.05'
Clarifier	6	3 - 160' diameter x 10' 3 - 90' diameter x 10'
Chlorine Contact Basin	2	178,650 ft^3 combined

C. Process flow diagrams

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

Attachment: G

Section 3. Site Drawing (Instructions Page 52)

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

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

Attachment: H

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

The West District Wastewater Treatment Facility serves the area from Buffalo Bayou to Clay Road, east of Cullen Park in West Houston. The service area is in Harris County and includes residential and commercial development.

Section 4. Unbuilt Phases (Instructions Page 52)

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

Yes ☐ No ☒

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

Yes ☐ No ☐ N/A

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

N/A

Section 5. Closure Plans (Instructions Page 53)

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

Yes ☐ No ☒

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

Yes ☐ No ☐ N/A

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

N/A

Section 6. Permit Specific Requirements (Instructions Page 53)

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

A. Summary transmittal

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

Yes ☒ No ☐

If yes, provide the date(s) of approval for each phase: Pre-1997

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

The summary transmittal letter for the existing phase was submitted and approved circa 1997 prior to startup in 1998.

B. Buffer zones

Have the buffer zone requirements been met?

Yes ☒ No ☐

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

N/A

C. Other actions required by the current permit

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

Yes ☒ No ☐

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

As per Other Requirements No. 5 in the existing permit, the City of Houston keeps records of sludge transported from this facility to other wastewater treatment plants owned by the City.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

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

Yes ☐ No ☒

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

2. Grit and grease processing

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

N/A

3. Grit disposal

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

Yes ☐ No ☐ N/A

If No, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

N/A

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

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

N/A

E. Stormwater management

1. Applicability

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

Yes ☒ No ☐

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

Yes ☒ No ☐

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

2. MSGP coverage

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

Yes ☒ No ☐

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

TXR05 K073 or TXRNE

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

Yes ☐ No ☐ N/A

3. Conditional exclusion

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

Yes ☐ No ☒

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

N/A

4. Existing coverage in individual permit

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

Yes ☐ No ☒

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

N/A

5. Zero stormwater discharge

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

Yes ☐ No ☒

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

N/A

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

6. Request for coverage in individual permit

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

Yes ☐ No ☒

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

N/A

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

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?
Yes ☐ No ☒

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

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

1. Acceptance of sludge from other WWTPs

Does the facility accept or will it accept sludge from other treatment plants at the facility site?
Yes ☐ No ☒

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

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the sludge, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☒

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

Yes ☐ No ☐ N/A

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

Yes ☐ No ☐ N/A

If yes to any of the above, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD_5 concentration of the septic waste, and the design BOD_5 concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

N/A

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

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

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

Yes ☐ No ☒

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

N/A

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes ☒ No ☐

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

If yes, provide effluent analysis data for the listed pollutants. ***Wastewater treatment facilities*** complete Table 1.0(2). W***ater treatment facilities*** discharging filter backwash water, complete Table 1.0(3).

See Attachment I

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

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

Pollutant	**Average Conc.**	**Max Conc.**	**No. of Samples**	**Sample Type**	**Sample Date/Time**
$CBOD_5$, mg/l	2.85	2.85	1	Comp	6/1/2021, 8:30
Total Suspended Solids, mg/l	8.1	8.1	1	Comp	6/1/2021, 8:30
Ammonia Nitrogen, mg/l	0.077	0.077	1	Comp	6/1/2021, 8:30
Nitrate Nitrogen, mg/l	23.61	23.61	1	Comp	4/23/2021, 08:00
Total Kjeldahl Nitrogen, mg/l	1.57	1.57	1	Comp	6/1/2021, 8:30
Sulfate, mg/l	81.2	81.2	1	Comp	6/1/2021, 8:30
Chloride, mg/l	123	123	1	Comp	6/1/2021, 8:30
Total Phosphorus, mg/l	1.46	1.46	1	Comp	6/1/2021, 8:30
pH, standard units	7.2	7.2	1	Grab	6/2/2021, 08:45

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Dissolved Oxygen*, mg/l	7.42	5.40	271	Grab	Jun 1-Oct 13 2021
Chlorine Residual, mg/l	<0.1	<0.1	1	Grab	6/2/2021, 08:45
E.coli (CFU/100ml) freshwater	76	76	1	Grab	6/2/2021, 08:45
Entercocci (CFU/100ml) saltwater	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	562	562	1	Comp	6/1/2021, 8:30
Electrical Conductivity, µmohs/cm, †	N/A	N/A	N/A	N/A	N/A
Oil & Grease, mg/l	<1.16	<1.16	1	Grab	6/2/2021, 08:35
Alkalinity ($CaCO_3$)*, mg/l	108	108	1	Comp	6/1/2021, 8:30

*TPDES permits only

†TLAP permits only

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

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

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

Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: See Attachment J

Facility Operator's License Classification and Level:

Facility Operator's License Number:

Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

☐ Permitted landfill

☐ Permitted or Registered land application site for beneficial use

☐ Land application for beneficial use authorized in the wastewater permit

☐ Permitted sludge processing facility

☐ Marketing and distribution as authorized in the wastewater permit

☐ Composting as authorized in the wastewater permit

☐ Permitted surface disposal site (sludge monofill)

☐ Surface disposal site (sludge monofill) authorized in the wastewater permit

☒ Transported to another permitted wastewater treatment plant or permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.

Agreement not required: Receiving is facility owned by Applicant

☐ Other:

B. Sludge disposal site

Disposal site name: City of Houston 69th Street Wastewater Treatment Plant

TCEQ permit or registration number: WQ0010495090

County where disposal site is located: Harris

C. Sludge transportation method

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

Name of the hauler: N/A

Hauler registration number: N/A

Sludge is transported as a:

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

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

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

Yes ☐ No ☒

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

Yes ☐ No ☐ N/A

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

Yes ☐ No ☐ N/A

B. Sludge processing authorization

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

Sludge Composting	Yes ☐	No ☒
Marketing and Distribution of sludge	Yes ☐	No ☒
Sludge Surface Disposal or Sludge Monofill	Yes ☐	No ☒

Temporary storage in sludge lagoons Yes ☐ No ☒

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

Yes ☐ No ☐ N/A

Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes ☐ No ☒

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

A. Location information

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

- Original General Highway (County) Map:

  Attachment: N/A
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: N/A
- Federal Emergency Management Map:

  Attachment: N/A
- Site map:

  Attachment: N/A

Discuss in a description if any of the following exist within the lagoon area.

Check all that apply.

☐ Overlap a designated 100-year frequency flood plain

☐ Soils with flooding classification

☐ Overlap an unstable area

☐ Wetlands

☐ Located less than 60 meters from a fault

☐ None of the above

Attachment: N/A

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

N/A

B. Temporary storage information

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

Nitrate Nitrogen, mg/kg: N/A

Total Kjeldahl Nitrogen, mg/kg: N/A

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

Phosphorus, mg/kg: N/A

Potassium, mg/kg: N/A

pH, standard units: N/A

Ammonia Nitrogen mg/kg: N/A

Arsenic: N/A

Cadmium: N/A

Chromium: N/A

Copper: N/A

Lead: N/A

Mercury: N/A

Molybdenum: N/A

Nickel: N/A

Selenium: N/A

Zinc: N/A

Total PCBs: N/A

Provide the following information:

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

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

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

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of $1x10^{-7}$ cm/sec?

Yes ☐ No ☐

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

N/A

D. Site development plan

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

N/A

Attach the following documents to the application.

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

  Attachment: N/A
- Copy of the closure plan

  Attachment: N/A
- Copy of deed recordation for the site

  Attachment: N/A
- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: N/A
- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: N/A
- Procedures to prevent the occurrence of nuisance conditions

  Attachment: N/A

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells

available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

Yes ☐ No ☐

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

Attachment: N/A

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

A. Additional authorizations

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

Yes ☒ No ☐

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

Reclaimed Water Authorization No. R10495030

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes ☐ No ☒

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

Yes ☒ No ☐

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

On March 31, 2021, the U.S. District Court for the Southern District of Texas approved entry of a Consent Decree (Civil Action No. 4:18-cv-03368) embodying the agreement of the City of Houston (City) with the United States Environmental Protection Agency (EPA) and the State of Texas (State) to improve the City's Wastewater Treatment and Collection System including requirements to address sanitary sewer overflows (SSOs) and wastewater treatment plant permit exceedances. The consent decree provides formal authorization for the City to continue and build upon its prior and ongoing work for wastewater assessment and rehabilitation programs over the next 15 years. Details of the approved consent decree are posted on the City's website at https://www.publicworks.houstontx.gov/.

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

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

Yes ☐ No ☒

B. Remediation activity wastewater

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

Yes ☐ No ☒

C. Details about wastes received

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

Attachment: N/A

Section 14. Laboratory Accreditation (Instructions Page 64)

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: Carol Ellinger Haddock, P.E.

Title: Director of Houston Public Works

Signature: Carol Haddock

Date: 10/15/2021

DOMESTIC TECHNICAL REPORT 1.1

The following is required for new and amendment applications

Section 1. Justification for Permit (Instructions Page 66)

A. Justification of permit need

Provide a detailed discussion regarding the need for any phase(s) not currently permitted. Failure to provide sufficient justification may result in the Executive Director recommending denial of the proposed phase(s) or permit.

Major Amendment for Removal of WET Limits. See Attachment A.

B. Regionalization of facilities

Provide the following information concerning the potential for regionalization of domestic wastewater treatment facilities:

1. Municipally incorporated areas

If the applicant is a city, then Item 1 is not applicable. Proceed to Item 2 Utility CCN areas.

Is any portion of the proposed service area located in an incorporated city?

Yes ☐ No ☐ Not Applicable ☒

If yes, within the city limits of: N/A

If yes, attach correspondence from the city.

Attachment: N/A

If consent to provide service is available from the city, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the city versus the cost of the proposed facility or expansion attached.

Attachment: N/A

2. Utility CCN areas

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

Yes ☐ No ☐ N/A

If yes, attach a justification for the proposed facility and a cost analysis of expenditures that includes the cost of connecting to the CCN facilities versus the cost of the proposed facility or expansion.

Attachment: N/A

3. Nearby WWTPs or collection systems

Are there any domestic permitted wastewater treatment facilities or collection systems located within a three-mile radius of the proposed facility?

Yes ☐ No ☐ N/A

If yes, attach a list of these facilities that includes the permittee's name and permit number, and an area map showing the location of these facilities.

Attachment: N/A

If yes, attach copies of your certified letters to these facilities **and** their response letters concerning connection with their system.

Attachment: N/A

Does a permitted domestic wastewater treatment facility or a collection system located within three (3) miles of the proposed facility currently have the capacity to accept or is willing to expand to accept the volume of wastewater proposed in this application?

Yes ☐ No ☐ N/A

If yes, attach an analysis of expenditures required to connect to a permitted wastewater treatment facility or collection system located within 3 miles versus the cost of the proposed facility or expansion.

Attachment: N/A

Section 2. Organic Loading (Instructions Page 67)

Is this facility in operation?

Yes ☒ No ☐

If no, proceed to Item B, Proposed Organic Loading.

If yes, provide organic loading information in Item A, Current Organic Loading

A. Current organic loading

Facility Design Flow (flow being requested in application): 26.4 MGD

Average Influent Organic Strength or BOD_5 Concentration in mg/l: 130 mg/L

Average Influent Loading (lbs/day = total average flow X average BOD_5 conc. X 8.34): 165 lbs/day

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

Influent data collected from January 2017 to August 2021

B. Proposed organic loading

This table must be completed if this application is for a facility that is not in operation or if this application is to request an increased flow that will impact organic loading. N/A – Major Amendment for Removal of WET Limits

Table 1.1(1) – Design Organic Loading

Source	Total Average Flow (MGD)	Influent BOD_5 Concentration (mg/l)
Municipality	N/A	N/A
Subdivision	N/A	N/A
Trailer park – transient	N/A	N/A
Mobile home park	N/A	N/A
School with cafeteria and showers	N/A	N/A
School with cafeteria, no showers	N/A	N/A
Recreational park, overnight use	N/A	N/A

Source	Total Average Flow (MGD)	Influent BOD_5 Concentration (mg/l)
Recreational park, day use	N/A	N/A
Office building or factory	N/A	N/A
Motel	N/A	N/A
Restaurant	N/A	N/A
Hospital	N/A	N/A
Nursing home	N/A	N/A
Other	N/A	N/A
TOTAL FLOW from all sources	N/A	
AVERAGE BOD_5 from all sources		N/A

Section 3. Proposed Effluent Quality and Disinfection (Instructions Page 68)

A. Existing/Interim I Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: 15 mg/L

Ammonia Nitrogen, mg/l: 2 mg/L, June-August; 4 mg/L, September-May

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: 6.0 mg/L

Other: See Attachment A

B. Interim II Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

C. Final Phase Design Effluent Quality

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

Total Suspended Solids, mg/l: N/A

Ammonia Nitrogen, mg/l: N/A

Total Phosphorus, mg/l: N/A

Dissolved Oxygen, mg/l: N/A

Other: N/A

D. Disinfection Method

Identify the proposed method of disinfection.

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

Dechlorination process: Sodium bisulfite

☐ Ultraviolet Light: _ seconds contact time at peak flow

☐ Other:

Section 4. Design Calculations (Instructions Page 68)

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

Attachment: N/A – Major Amendment for Removal of WET Limits

Section 5. Facility Site (Instructions Page 68)

A. 100-year floodplain

Will the proposed facilities be located above the 100-year frequency flood level?

Yes ☒ No ☐

If no, describe measures used to protect the facility during a flood event. Include a site map showing the location of the treatment plant within the 100-year frequency flood level. If applicable, provide the size and types of protective structures.

N/A

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

FEMA FIRM Panel 48201C0645L, and the City of Houston's *Disaster Mitigation for Wastewater Facilities Induced by Hurricane Harvey, Project 2- Upper Brays Area WBS No. R-000536-0040-3 Preliminary Engineering Report* prepared by Parsons Water and Infrastructure in January 2021.

For a new or expansion of a facility, will a wetland or part of a wetland be filled?

Yes ☐ No ☐ N/A

If yes, has the applicant applied for a US Corps of Engineers 404 Dredge and Fill Permit?

Yes ☐ No ☐ N/A

If yes, provide the permit number: N/A

If no, provide the approximate date you anticipate submitting your application to the Corps: N/A

B. Wind rose

Attach a wind rose. **Attachment**: K

Section 6. Permit Authorization for Sewage Sludge Disposal (Instructions Page 69)

A. Beneficial use authorization

Are you requesting to include authorization to land apply sewage sludge for beneficial use on property located adjacent to the wastewater treatment facility under the wastewater permit?

Yes ☐ No ☒

If yes, attach the completed Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)

Attachment: N/A

B. Sludge processing authorization

Identify the sludge processing, storage or disposal options that will be conducted at the wastewater treatment facility:

☐ Sludge Composting

☐ Marketing and Distribution of sludge

☐ Sludge Surface Disposal or Sludge Monofill

If any of the above sludge options are selected, attach a completed DOMESTIC WASTEWATER PERMIT APPLICATION: SEWAGE SLUDGE TECHNICAL REPORT (TCEQ Form No. 10056).

Attachment: N/A

Section 7. Sewage Sludge Solids Management Plan (Instructions Page 69)

Attach a solids management plan to the application.

Attachment: N/A – Major Amendment for Removal of WET Limits

The sewage sludge solids management plan must contain the following information:

- Treatment units and processes dimensions and capacities
- Solids generated at 100, 75, 50, and 25 percent of design flow
- Mixed liquor suspended solids operating range at design and projected actual flow
- Quantity of solids to be removed and a schedule for solids removal
- Identification and ownership of the ultimate sludge disposal site
- For facultative lagoons, design life calculations, monitoring well locations and depths, and the ultimate disposal method for the sludge from the facultative lagoon

An example of a sewage sludge solids management plan has been included as Example 5 of the instructions.

DOMESTIC TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

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

Yes ☐ No ☒

If yes, provide the following:
Owner of the drinking water supply: N/A

Distance and direction to the intake: N/A

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

Attachment: N/A

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes ☐ No ☒

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

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

Yes ☐ No ☐ N/A

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

N/A

C. Sea grasses

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

Yes ☐ No ☐ N/A

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

N/A

Section 3. Classified Segments (Instructions Page 73)

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

Yes ☒ No ☐

If yes, this Worksheet is complete.

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

Section 4. Description of Immediate Receiving Waters (Instructions Page 75)

Name of the immediate receiving waters: N/A

A. Receiving water type

Identify the appropriate description of the receiving waters.

☐ Stream

☐ Freshwater Swamp or Marsh

☐ Lake or Pond

Surface area, in acres:

Average depth of the entire water body, in feet:

Average depth of water body within a 500-foot radius of discharge point, in feet:

☐ Man-made Channel or Ditch

☐ Open Bay

☐ Tidal Stream, Bayou, or Marsh

☐ Other, specify:

B. Flow characteristics

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

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

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

☐ Perennial - normally flowing

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

☐ USGS flow records

☐ Historical observation by adjacent landowners

☐ Personal observation

☐ Other, specify:

C. Downstream perennial confluences

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

N/A

D. Downstream characteristics

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

Yes ☐ No ☐

If yes, discuss how.

N/A

E. Normal dry weather characteristics

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

N/A

Date and time of observation: N/A

Was the water body influenced by stormwater runoff during observations?

Yes ☐ No ☐

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

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

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

B. Waterbody uses

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

- ☐ Livestock watering
- ☐ Irrigation withdrawal
- ☐ Fishing
- ☐ Contact recreation
- ☐ Non-contact recreation
- ☐ Navigation

☐ Domestic water supply ☐ Industrial water supply

☐ Park activities ☐ Other(s), specify

C. Waterbody aesthetics

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

☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional

☐ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored

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

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

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

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

This worksheet is not required for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

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

Grab ☐ Composite ☒

Date and time sample(s) collected: See Attachment I

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<50	<50	1	50
Aldrin	<0.01	<0.01	1	0.01
Aluminum	12.7	12.7	1	2.5
Anthracene	<10	<10	1	10
Antimony	<5	<5	1	5
Arsenic	1.27	1.27	1	0.5
Barium	53.1	53.1	1	3
Benzene	<10	<10	1	10
Benzidine	<50	<50	1	50
Benzo(a)anthracene	<5	<5	1	5

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Benzo(a)pyrene	<5	<5	1	5
Bis(2-chloroethyl)ether	<10	<10	1	10
Bis(2-ethylhexyl)phthalate	<10	<10	1	10
Bromodichloromethane	24.4	24.4	1	10
Bromoform	<10	<10	1	10
Cadmium	<1	<1	1	1
Carbon Tetrachloride	<2	<2	1	2
Carbaryl	<5	<5	1	5
Chlordane*	<0.2	<0.2	1	0.2
Chlorobenzene	<10	<10	1	10
Chlorodibromomethane	<10	<10	1	10
Chloroform	42.4	42.4	1	10
Chlorpyrifos	<0.05	<0.05	1	0.05
Chromium (Total)	<3	<3	1	3
Chromium (Tri) **(*1)**	<3	<3	1	N/A
Chromium (Hex)	<3	<3	1	3
Copper	5.11	5.11	1	2
Chrysene	<5	<5	1	5
p-Chloro-m-Cresol	<10	<10	1	10
4,6-Dinitro-o-Cresol	<50	<50	1	50
p-Cresol	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Cyanide **(*2)**	<10	<10	1	10
4,4'- DDD	<0.1	<0.1	1	0.1
4,4'- DDE	<0.1	<0.1	1	0.1
4,4'- DDT	<0.02	<0.02	1	0.02
2,4-D	<0.7	<0.7	1	0.7
Demeton (O and S)	<0.2	<0.2	1	0.20
Diazinon	<0.5	<0.5	1	0.5/0.1
1,2-Dibromoethane	<10	<10	1	10
m-Dichlorobenzene	<10	<10	1	10
o-Dichlorobenzene	<10	<10	1	10
p-Dichlorobenzene	<10	<10	1	10
3,3'-Dichlorobenzidine	<5	<5	1	5
1,2-Dichloroethane	<10	<10	1	10
1,1-Dichloroethylene	<10	<10	1	10
Dichloromethane	<20	<20	1	20
1,2-Dichloropropane	<10	<10	1	10
1,3-Dichloropropene	<10	<10	1	10
Dicofol	<1	<1	1	1
Dieldrin	<0.02	<0.02	1	0.02
2,4-Dimethylphenol	<10	<10	1	10
Di-n-Butyl Phthalate	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Diuron	<0.09	<0.09	1	0.09
Endosulfan I (alpha)	<0.01	<0.01	1	0.01
Endosulfan II (beta)	<0.02	<0.02	1	0.02
Endosulfan Sulfate	<0.1	<0.1	1	0.1
Endrin	<0.02	<0.02	1	0.02
Ethylbenzene	<10	<10	1	10
Fluoride	<500	<500	1	500
Guthion	<0.1	<0.1	1	0.1
Heptachlor	<0.01	<0.01	1	0.01
Heptachlor Epoxide	<0.01	<0.01	1	0.01
Hexachlorobenzene	<5	<5	1	5
Hexachlorobutadiene	<10	<10	1	10
Hexachlorocyclohexane (alpha)	<0.05	<0.05	1	0.05
Hexachlorocyclohexane (beta)	<0.05	<0.05	1	0.05
gamma-Hexachlorocyclohexane (Lindane)	<0.05	<0.05	1	0.05
Hexachlorocyclopentadiene	<10	<10	1	10
Hexachloroethane	<20	<20	1	20
Hexachlorophene	<10	<10	1	10
Lead	<0.5	<0.5	1	0.5
Malathion	<0.1	<0.1	1	0.1

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Mercury	<0.005	<0.005	1	0.005
Methoxychlor	<2	<2	1	2
Methyl Ethyl Ketone	<50	<50	1	50
Mirex	<0.02	<0.02	1	0.02
Nickel	4.46	4.46	1	2
Nitrate-Nitrogen	23,610	23,610	1	100
Nitrobenzene	<10	<10	1	10
N-Nitrosodiethylamine	<20	<20	1	20
N-Nitroso-di-n-Butylamine	<20	<20	1	20
Nonylphenol	<333	<333	1	333
Parathion (ethyl)	<0.1	<0.1	1	0.1
Pentachlorobenzene	<20	<20	1	20
Pentachlorophenol	<5	<5	1	5
Phenanthrene	<10	<10	1	10
Polychlorinated Biphenyls (PCB's) **(*3)**	<0.2	<0.2	1	0.2
Pyridine	<20	<20	1	20
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
1,2,4,5-Tetrachlorobenzene	<20	<20	1	20
1,1,2,2-Tetrachloroethane	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Tetrachloroethylene	<10	<10	1	10
Thallium	<0.5	<0.5	1	0.5
Toluene	<10	<10	1	10
Toxaphene	<0.3	<0.3	1	0.3
2,4,5-TP (Silvex)	<0.3	<0.3	1	0.3
Tributyltin (see instructions for explanation)	N/A	N/A	N/A	0.01
1,1,1-Trichloroethane	<10	<10	1	10
1,1,2-Trichloroethane	<10	<10	1	10
Trichloroethylene	<10	<10	1	10
2,4,5-Trichlorophenol	<50	<50	1	50
TTHM (Total Trihalomethanes)	76.56	76.56	1	10
Vinyl Chloride	<10	<10	1	10
Zinc	37.2	37.2	1	5

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

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

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

Section 2. Priority Pollutants

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

Grab ☐ Composite ☒

Date and time sample(s) collected: See Attachment E

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	<5	<5	1	5
Arsenic	1.27	1.27	1	0.5
Beryllium	<0.5	<0.5	1	0.5
Cadmium	<1	<1	1	1
Chromium (Total)	<3	<3	1	3
Chromium (Hex)	<3	<3	1	3
Chromium (Tri) (*1)	<3	<3	1	N/A
Copper	5.11	5.11	1	2
Lead	<0.5	<0.5	1	0.5
Mercury	<0.005	<0.005	1	0.005
Nickel	4.46	4.46	1	2
Selenium	<5	<5	1	5
Silver	<0.5	<0.5	1	0.5
Thallium	<0.5	<0.5	1	0.5
Zinc	37.2	37.2	1	5
Cyanide (*2)	<10	<10	1	10
Phenols, Total	<20	<20	1	10

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

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

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrolein	<50	<50	1	50
Acrylonitrile	<50	<50	1	50
Benzene	<10	<10	1	10
Bromoform	<10	<10	1	10
Carbon Tetrachloride	<2	<2	1	2
Chlorobenzene	<10	<10	1	10
Chlorodibromomethane	<10	<10	1	10
Chloroethane	<50	<50	1	50
2-Chloroethylvinyl Ether	<10	<10	1	10
Chloroform	42.4	42.4	1	10
Dichlorobromomethane [Bromodichloromethane]	24.4	24.4	1	10
1,1-Dichloroethane	<10	<10	1	10
1,2-Dichloroethane	<10	<10	1	10
1,1-Dichloroethylene	<10	<10	1	10
1,2-Dichloropropane	<10	<10	1	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<10	<10	1	10
1,2-Trans-Dichloroethylene	<10	<10	1	10
Ethylbenzene	<10	<10	1	10
Methyl Bromide	<50	<50	1	50
Methyl Chloride	<50	<50	1	50
Methylene Chloride	<20	<20	1	20
1,1,2,2-Tetrachloroethane	<10	<10	1	10
Tetrachloroethylene	<10	<10	1	10

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene	<10	<10	1	10
1,1,1-Trichloroethane	<10	<10	1	10
1,1,2-Trichloroethane	<10	<10	1	10
Trichloroethylene	<10	<10	1	10
Vinyl Chloride	<10	<10	1	10

Table 4.0(2)C – Acid Compounds

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

Table 4.0(2)D – Base/Neutral Compounds

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Di-n-Butyl Phthalate	<10	<10	1	10
2,4-Dinitrotoluene	<10	<10	1	10
2,6-Dinitrotoluene	<10	<10	1	10
Di-n-Octyl Phthalate	<10	<10	1	10
1,2-Diphenylhydrazine (as Azo-benzene)	<20	<20	1	20
Fluoranthene	<10	<10	1	10
Fluorene	<10	<10	1	10
Hexachlorobenzene	<5	<5	1	5
Hexachlorobutadiene	<10	<10	1	10
Hexachlorocyclo-pentadiene	<10	<10	1	10
Hexachloroethane	<20	<20	1	20
Indeno(1,2,3-cd)pyrene	<5	<5	1	5
Isophorone	<10	<10	1	10
Naphthalene	<10	<10	1	10
Nitrobenzene	<10	<10	1	10
N-Nitrosodimethylamine	<50	<50	1	50
N-Nitrosodi-n-Propylamine	<20	<20	1	20
N-Nitrosodiphenylamine	<20	<20	1	20
Phenanthrene	<10	<10	1	10
Pyrene	<10	<10	1	10
1,2,4-Trichlorobenzene	<10	<10	1	10

Table 4.0(2)E - Pesticides

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

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248	<0.2	<0.2	1	0.2
PCB-1260	<0.2	<0.2	1	0.2
PCB-1016	<0.2	<0.2	1	0.2
Toxaphene	<0.3	<0.3	1	0.3

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

Section 3. Dioxin/Furan Compounds

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

☐ 2,4,5-trichlorophenoxy acetic acid
Common Name 2,4,5-T, CASRN 93-76-5

☐ 2-(2,4,5-trichlorophenoxy) propanoic acid
Common Name Silvex or 2,4,5-TP, CASRN 93-72-1

☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate
Common Name Erbon, CASRN 136-25-4

☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate
Common Name Ronnel, CASRN 299-84-3

☐ 2,4,5-trichlorophenol
Common Name TCP, CASRN 95-95-4

☐ hexachlorophene
Common Name HCP, CASRN 70-30-4

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

N/A

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

Yes ☐ No ☒

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

N/A

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

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

Grab ☐ Composite ☐

Date and time sample(s) collected: N/A

TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

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

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

DOMESTIC WORKSHEET 5.0

TOXICITY TESTING REQUIREMENTS

The following is required for facilities with a currently-operating design flow greater than or equal to 1.0 MGD, with an EPA-approved pretreatment program (or those that are required to have one under 40 CFR Part 403), or are required by the TCEQ to perform Whole Effluent Toxicity testing. This worksheet is not required for minor amendments without renewal.

Section 1. Required Tests (Instructions Page 97)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: See Attachment L

48-hour Acute: See Attachment L

Section 2. Toxicity Reduction Evaluations (TREs)

Has this facility completed a TRE in the past four and a half years? Or is the facility currently performing a TRE?

Yes ☐ No ☒

If yes, describe the progress to date, if applicable, in identifying and confirming the toxicant.

N/A

Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

Table 5.0(1) – Summary of WET Tests

Test Date	Test Species	NOEC Survival	NOEC Sub-lethal
See Attachment L			

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

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

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

Categorical IUs:

Number of IUs: 1

Average Daily Flows, in MGD: 0.00167

Significant IUs – non-categorical:

Number of IUs: 1

Average Daily Flows, in MGD: 0.227

Other IUs:

Number of IUs: 1

Average Daily Flows, in MGD: 0.054

B. Treatment plant interference

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

Yes ☐ No ☒

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

N/A

C. Treatment plant pass through

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

Yes ☐ No ☒

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

N/A

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☒ No ☐

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☐ N/A

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

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

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

A. Substantial modifications

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

Yes ☐ No ☒

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

N/A

B. Non-substantial modifications

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

Yes ☐ No ☒

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

N/A

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date
See Attachment M				

D. Industrial user interruptions

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

Yes ☐ No ☒

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

N/A

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

A. General information

Company Name: N/A

SIC Code: N/A

Telephone number: N/A Fax number: N/A

Contact name: N/A

Address: N/A

City, State, and Zip Code: N/A

B. Process information

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

N/A

C. Product and service information

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

N/A

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: N/A

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

E. Pretreatment standards

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

Yes ☐ No ☐

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

Yes ☐ No ☐

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

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

Category: N/A
Subcategories: N/A

F. Industrial user interruptions

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

Yes ☐ No ☐

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

N/A

CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION

TABLE OF ATTACHMENTS

ATTACHMENT A

Justification for Permit Amendment
Admin Rpt 1.0, Section 2

ATTACHMENT A
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
JUSTIFICATION FOR PERMIT AMENDMENT

The City of Houston (City) owns and operates the West District Wastewater Treatment Facility (WWTF) which is authorized by the Texas Commission on Environmental Quality (TCEQ) to treat and discharge wastewater under Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010495030. In the previous three years, the City has passed the whole effluent toxicity (WET) testing per the existing permit's provision. The City requests a major amendment of the TPDES permit to remove the sublethal WET limit from the permit.

BACKGROUND

The existing permit was issued on September 21, 2017, and expires on May 1, 2022. The existing permit includes a sublethal WET limit for the *Ceriodaphnia dubia* (*C. dubia*) with a monitoring requirement of once per quarter. Table 1 summarizes the existing WET permit conditions.

Table 1 - Effluent Limitations and Monitoring Requirements

Effluent Characteristics	Daily Average	Daily Max	Measurement Frequency	Sample Type
Sublethal WET Limit *C. dubia* 3-brood chronic IC25[1]	63%	63%	1/quarter	Composite
[1] The sublethal IC25 is defined as the statistical analyses used to determine the inhibition concentration of effluent that would cause a 25% reduction (IC25) in mean young per female.				

PROPOSED REMOVAL OF WHOLE EFFLUENT TOXICITY LIMITS

The City has tested the effluent in accordance with the provision of the permit. The testing has demonstrated three years of compliance with the WET permit limits of greater than 63% survival for *C. dubia* in 100% effluent for a 24-hour period. See Table 2 for the results of the sublethal WET testing.

Table 2 - WET Test Results

Test Initiation Date	Species	Lethal	Sublethal
4/18/2017	*C. dubia*	85	64
7/3/2017	*C. dubia*	85	85
10/23/2017	*C. dubia*	>100	>100
1/8/2018	*C. dubia*	>100	74.41
4/16/2018	*C. dubia*	>100	>100
7/31/2018	*C. dubia*	>100	>100
11/6/2018	*C. dubia*	>100	>100
2/19/2019	*C. dubia*	>100	>100
5/29/2019	*C. dubia*	>100	>100
8/13/2019	*C. dubia*	>100	>100
11/13/2019	*C. dubia*	>100	>100
2/4/2020	*C. dubia*	>100	>100

ATTACHMENT A
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
JUSTIFICATION FOR PERMIT AMENDMENT

Test Initiation Date	Species	Lethal	Sublethal
5/12/2020	*C. dubia*	>100	>100
8/18/2020	*C. dubia*	>100	>100
11/17/2020	*C. dubia*	>100	>100
2/2/2021	*C. dubia*	>100	>100
5/11/2021	*C. dubia*	>100	>100

Per a letter dated December 28, 2015, signed by L'Oreal W. Stepney, P.E., Deputy Director for the Office of Water at the Texas Commission on Environmental Quality, after a WET limit goes into effect, it can be removed from the permit through a major amendment after at least three years of compliance with the WET limit. The letter is provided as Attachment A.1. The data above demonstrate that the City has met and surpassed the minimum requirement of the three years of compliance with the limit. The City, therefore, requests the removal of the existing WET limits from the effluent limitations and monitoring requirements of the amended permit.

ATTACHMENT A.1

DECEMBER 28, 2015, LETTER FROM TEXAS COMMISSION ON ENVIRONMENTAL QUALITY ON REASONABLE POTENTIAL FOR WHOLE EFFLUENT TOXICITY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 28, 2015

Mr. William Honker, Director
U.S. Environmental Protection Agency
Water Quality Protection Division, MC-6WQ
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Dear Mr. Honker:

The Texas Commission on Environmental Quality (TCEQ) appreciates your cooperation in working towards a mutually agreeable approach to assessing reasonable potential (RP) for whole effluent toxicity (WET) and determining when WET limits are required in Texas Pollutant Discharge Elimination System (TPDES) permits. Based upon recent discussions between our agencies, the TCEQ offers the proposed RP determination process described below and requests your confirmation that the proposed process accurately reflects the agreed-upon elements of those discussions.

For permits without WET limits that are being renewed or amended, TCEQ staff will review the last three years of testing history as part of the RP determination. Permits with at least one failure within the three-year evaluation period will be subject to the following outcomes:

- One or two failures: A three-year permit will be issued stipulating that upon a test failure, the testing frequency will increase to monthly until three consecutive tests are passed, at which time the permittee will resume quarterly testing. The permit condition will also state that three or more failures within the three-year permit term will constitute a demonstration of RP and will result in a WET limit for the test species demonstrating RP in the subsequently reissued permit. A compliance period up to three years may be included in the subsequently reissued permit in accordance with state and federal regulations. If during the compliance period and prior to the effective date of the WET limit, the permittee identifies and confirms a specific chemical as the source of toxicity, the proposed WET limit will be removed, through a major amendment, and replaced by a chemical-specific limit. After the WET limit goes into effect, it can be removed from the permit through a major amendment after at least three years of compliance with the limit.

- Three or more failures: RP is demonstrated and a WET limit for the test species demonstrating RP is included in an issued permit. That species will not be eligible for the test frequency reduction. A compliance period up to three years may be included in the permit. After the WET limit goes into effect, it can be removed from the permit through a major amendment after at least three years of compliance with the limit.

Once EPA confirmation is received that the proposed process is an acceptable approach to evaluate RP in TPDES permits, the TCEQ will draft language elaborating the process for inclusion in the upcoming revision of the *Procedures to Implement the Texas Surface Water Quality Standards* and immediately will begin utilizing this approach to move permits forward.

Thank you again for your cooperative efforts to reach agreement on this longstanding issue. We look forward to your response. If you have any questions or concerns, please contact Mr. David Galindo at (512) 239-0951 or by email at david.galindo@tceq.texas.gov

Sincerely,

L'Oreal Stepney

L'Oreal W. Stepney, P.E., Deputy Director
Office of Water
Texas Commission on Environmental Quality

LWS/MP

ccs: Ms. Caroline Sweeney, Deputy Director, Office of Legal Services, MC 218
Mr. David W. Galindo, Division Director, Water Quality Division, MC 145
Mr. Kelly Q. Holligan, Division Director, Water Quality Planning, MC 203

ATTACHMENT B

Core Data Form
Admin Rpt 1.0, Section 3.C

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☒ Other **Major Amendment with Renewal**

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 **600128995**		RN **101611739**

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	11/2/2021

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*	*If new Customer, enter previous Customer below:*
City of Houston	N/A

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

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☒ City ☐ County ☐ Federal ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher

13. Independently Owned and Operated?
☐ Yes ☒ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:	10500 Bellaire Boulevard						
	City	Houston	State	TX	ZIP	77072	ZIP + 4	5212

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
N/A	Walid.Samarneh@houstontx.gov

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(832) 395-5771		(832) 395-5838

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ 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 Agency 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.)*

West District Wastewater Treatment Facility

23. Street Address of the Regulated Entity: *(No PO Boxes)*	12901 Hermitage Lane							
	City	Houston	**State**	TX	**ZIP**	77079	**ZIP + 4**	
24. County	Harris							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	N/A				
26. Nearest City			**State**	**Nearest ZIP Code**	
Houston			TX	77079	
27. Latitude (N) In Decimal:		**28. Longitude (W) In Decimal:**			
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29°	45'	46.65"	95°	33'	42.58"

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4952		22132	

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

This facility primarily treats domestic wastewater

34. Mailing Address:	**10500 Bellaire Boulevard**							
	City	**Houston**	**State**	**TX**	**ZIP**	**77072**	**ZIP + 4**	**5212**
35. E-Mail Address:	**Walid.Samarneh@houstontx.gov**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(832) 395-5771		**(832) 395-5838**

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

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☒ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
	TXR05K073			
☐ Voluntary Cleanup	☒ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☒ Other:
	WQ0010495030			R10495030

SECTION IV: Preparer Information

40. Name:	Jenni English	**41. Title:**	Enginner in Training II, Plummer

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 687-2193		( ) -	jenglish@plummer.com

SECTION V: Authorized Signature

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

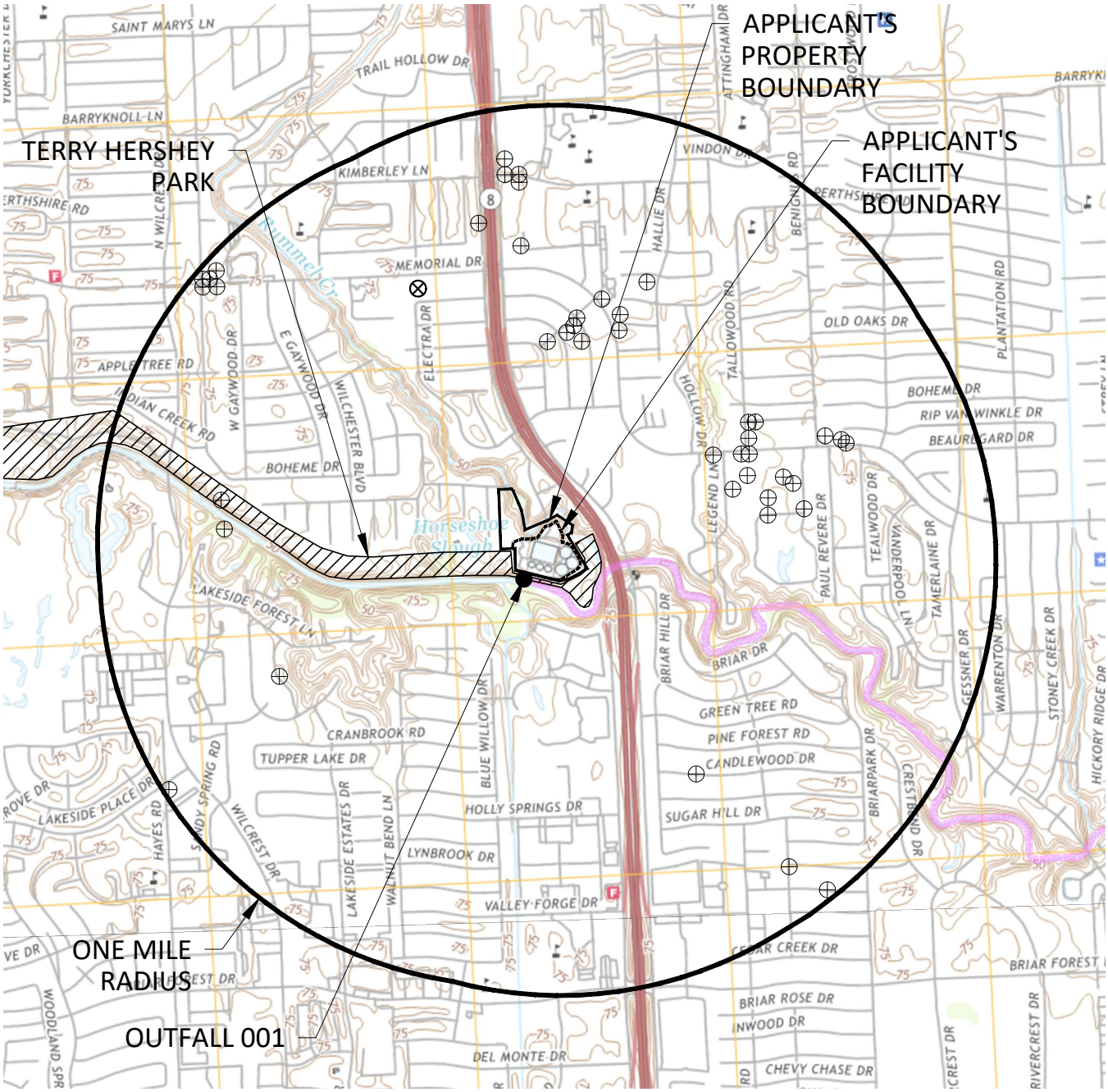
Company:	City of Houston	**Job Title:**	Director of Houston Public Works
Name *(In Print):*	Carol Ellinger Haddock, P.E.	**Phone:**	(832) 395- **2500**
Signature:	Carol Haddock	**Date:**	10/15/2021

ATTACHMENT C

USGS Map
Admin Rpt 1.0, Section 13

PLUMMER

FEET
0 2000



LEGEND

⊗ PUBLIC SUPPLY WELL

⊕ MONITOR WELL

ATTACHMENT C.1
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
USGS MAP

TEXAS REGISTERED ENGINEERING FIRM F-13
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PLUMMER

FEET
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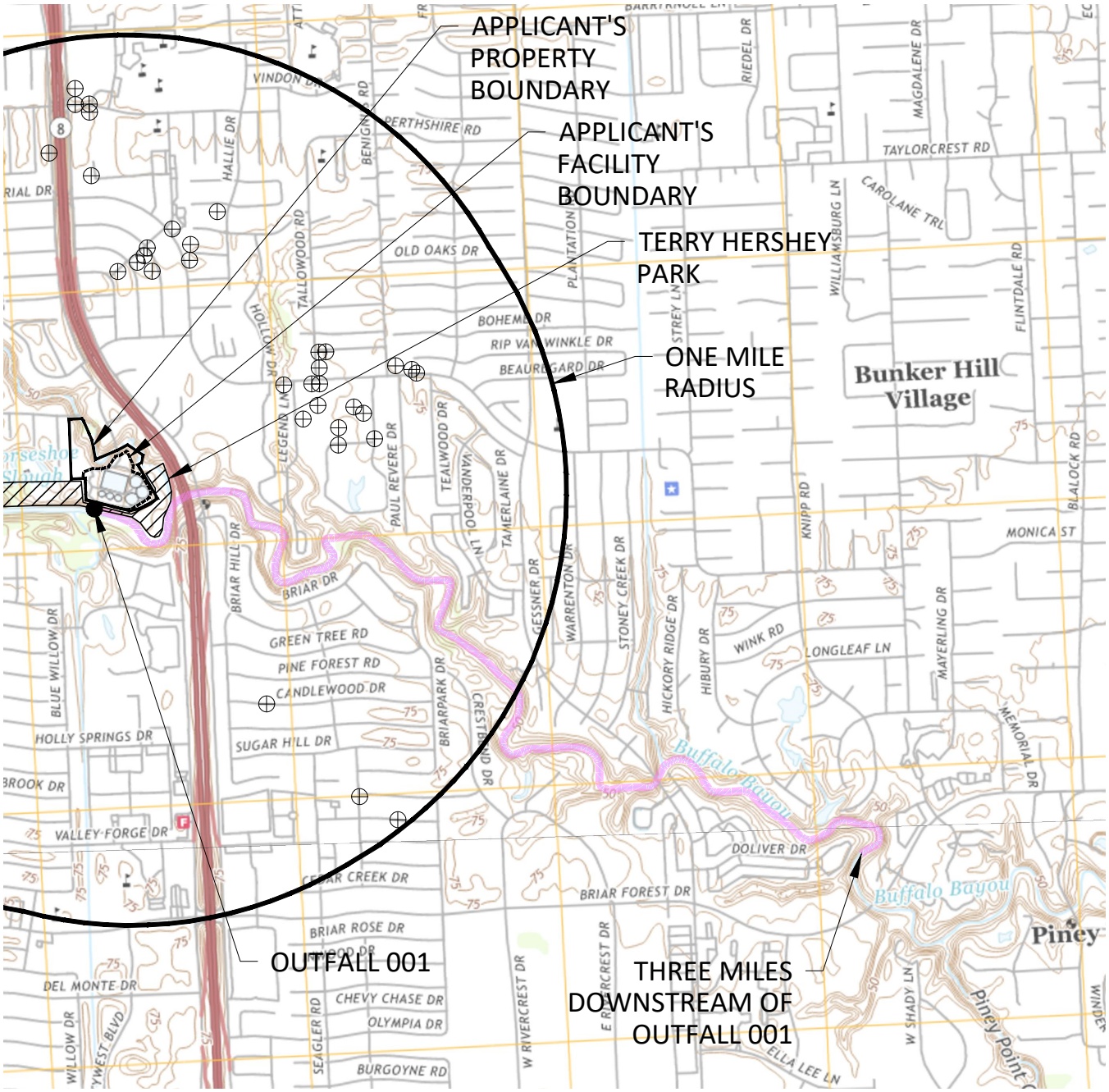

LEGEND

⊗ PUBLIC SUPPLY WELL

⊕ MONITOR WELL

ATTACHMENT C.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
USGS MAP

TEXAS REGISTERED ENGINEERING FIRM F-13
10/22/2021 2:45 PM M:\Projects\1102\006-01\8 Drawings_Figures\8-1 ACAD\8-1-2 Figures\TPDES\ATT-USGS MAP.dwg Briand

ATTACHMENT D

Affected Landowner Map and Information
Admin Rpt 1.1, Section 1

PLUMMER

Feet

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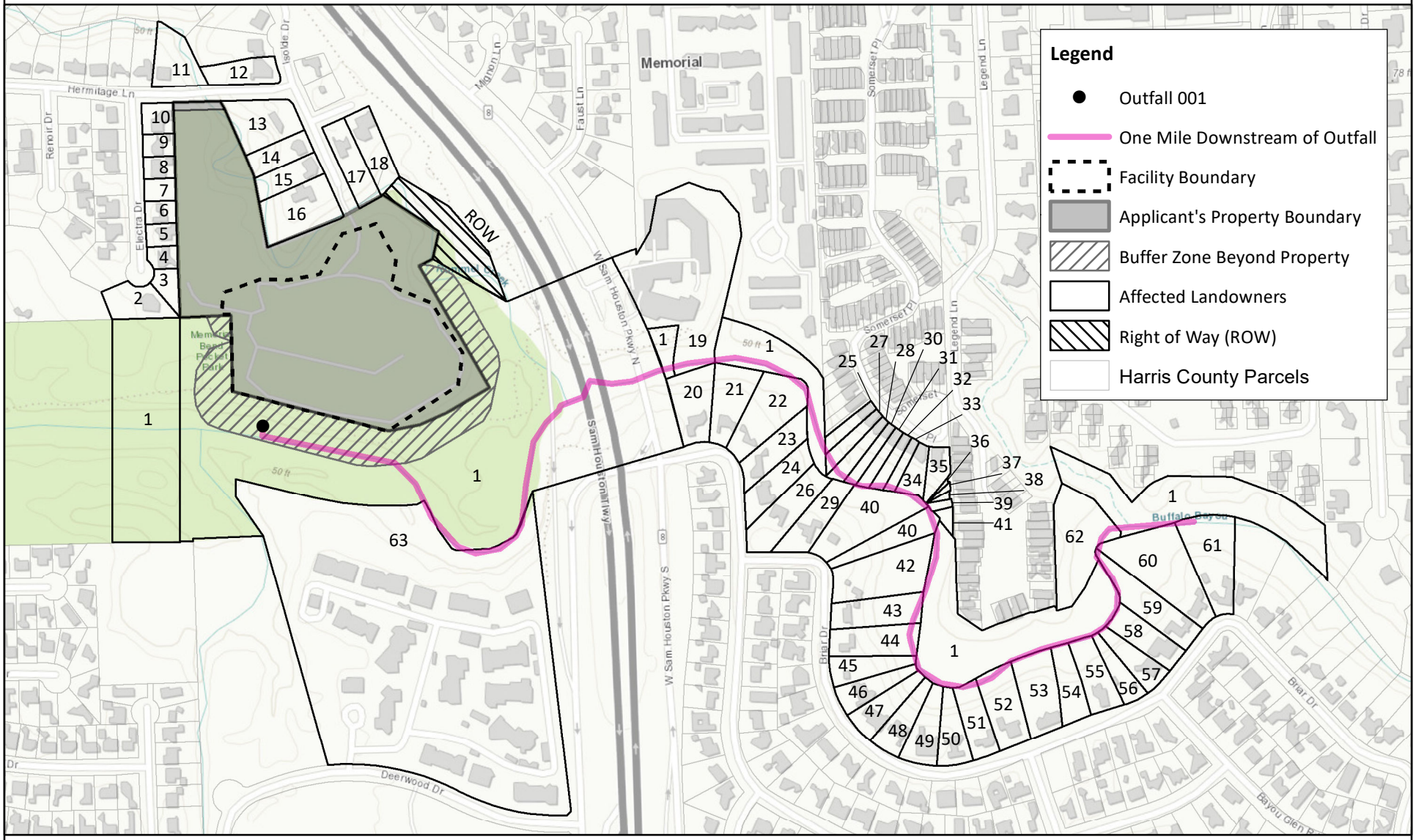

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ATTACHMENT D.1
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
AFFECTED LANDOWNERS MAP

ATTACHMENT D.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF AFFECTED LANDOWNERS

MAP ID	LANDOWNER NAME AND ADDRESS
1	HARRIS COUNTY FLOOD CONTROL DISTRICT BUFFALO BAYOU 9900 NORTHWEST FWY HOUSTON TX 77092-8601
2	POHIL RICHARD J & LINDA R 102 ELECTRA DR HOUSTON TX 77079-7307
3	CURRENT OWNER 106 ELECTRA DR HOUSTON TX 77079-7307
4	AGNEW WALKER S & LISA 110 ELECTRA DR HOUSTON TX 77079-7307
5	CURRENT OWNER 114 ELECTRA DR HOUSTON TX 77079-7307
6	SODOLAK MICHAEL E & SARAH 118 ELECTRA DR HOUSTON TX 77079-7307
7	CURRENT OWNER 202 ELECTRA DR HOUSTON TX 77079-7307
8	CURRENT OWNER 206 ELECTRA DR HOUSTON TX 77079-7307
9	MOSES ROBERT L & PATRICIA 210 ELECTRA DR HOUSTON TX 77079-7308
10	HAWKINS ROBERT A & SHANE R 214 ELECTRA DR HOUSTON TX 77079-7308
11	GREEN KIMBERLY M & J T JR 12902 HERMITAGE LN HOUSTON TX 77079-7313
12	ANWAR VIQAR & NELSON MORGAN 323 ISOLDE DR HOUSTON TX 77024-4722
13	TRAN PHILIP & LE TOAI T 235 MALONE ST HOUSTON TX 77007-8116

ATTACHMENT D.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF AFFECTED LANDOWNERS

MAP ID	LANDOWNER NAME AND ADDRESS
14	KOLOS SERGEY & KATHARINA 311 ISOLDE DR HOUSTON TX 77024-4722
15	MORE EUGENIO R 307 ISOLDE DR HOUSTON TX 77024-4722
16	THOMPSON SUSAN L 12110 ELLA LEE LN HOUSTON TX 77077-6007
17	RAHMAN HISHAM 102 MIGNON LN HOUSTON TX 77024-4724
18	HAKIM SEYED K & NASRIN G 106 MIGNON LN HOUSTON TX 77024-4724
19	ASCENSION PROPERTY OWNER LP 7887 SAN FELIPE STE 237 HOUSTON TX 77063-1621
20	HAGNER ROBERT C JR & HAGNER PATRICIA L 3 BRIAR HILL DR HOUSTON TX 77042-1214
21	COOPER DIANA GENE 7 BRIAR HILL DR HOUSTON TX 77042-1214
22	CURRENT OWNER 3501 LINK VALLEY DR UNIT 303 HOUSTON TX 77025-5107
23	TSO MUN LAM 9618 MEADOWVALE DR HOUSTON TX 77063-5104
24	REESE BRIAN D & DEBORAH C 19 BRIAR HILL DR HOUSTON TX 77042-1214
25	GALIMBERTI CLAUDIO SEVERIN-GALIMBERTI LEIGH 12625 MEMORIAL DR APT 179 HOUSTON TX 77024-8814
26	TIPPS JAMES M 10354 BRIAR DR HOUSTON TX 77042-1213

ATTACHMENT D.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF AFFECTED LANDOWNERS

MAP ID	LANDOWNER NAME AND ADDRESS
27	JIMENEZ JOE J & BURGESS KRISTEN L 12625 MEMORIAL DR UNIT 178 HOUSTON TX 77024-8814
28	RICHARDS DAVID P & JONI K 12625 MEMORIAL DR APT 177 HOUSTON TX 77024-8814
29	POTNIS SHIRISH R & TAPARIA SHVETA S 10350 BRIAR DR HOUSTON TX 77042-1213
30	PATTERSON EDWIN W & SUSAN H 12625 MEMORIAL DR APT 176 HOUSTON TX 77024-8814
31	BELTRAN JOSE D & CECILIA N 12625 MEMORIAL DR APT 175 HOUSTON TX 77024-8814
32	SALMANOV RUFAT 5950 N COURSE DR HOUSTON TX 77072-1626
33	GRIFFITH DAVID P 104 RIVER PT BOERNE TX 78006-3819
34	JOHNSON GREGORY L 12625 MEMORIAL DR APT 172 HOUSTON TX 77024-8814
35	WEAVER OLENA O & NIKOLAI I 12625 MEMORIAL DR APT 171 HOUSTON TX 77024-8814
36	NGUYEN KRISTEN QUYNH GLAO 8722 BRIDGE PARK DR HOUSTON TX 77064-8851
37	LELOUP RAYMOND C & ANNETTE PO BOX 79426 HOUSTON TX 77279-9426
38	SWARTZ JOHN A & VIRGINIA L 60 LEGEND LN HOUSTON TX 77024-2400
39	HEWITT CHRISTOPHER 62 LEGEND LN HOUSTON TX 77024-2400
40	BAKER MARK D & MARGARET R 10346 BRIAR DR HOUSTON TX 77042-1213

ATTACHMENT D.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF AFFECTED LANDOWNERS

MAP ID	LANDOWNER NAME AND ADDRESS
41	HUGHES WILLIAM H & ELA I 1042 BLOSSOM FIELD LN PINEHURST TX 77362-1510
42	FORD R VINCENT JR & CHERYL M 10338 BRIAR DR HOUSTON TX 77042-1213
43	ALLFORD DANIEL W & KATHRYN T 10334 BRIAR DR HOUSTON TX 77042-1213
44	AMLING COLLEEN 10330 BRIAR DR HOUSTON TX 77042-1213
45	HAGAMAN SHEILA R 10322 BRIAR DR HOUSTON TX 77042-1213
46	RICHARDS GEORGE W & CHARLOTTE P 10318 BRIAR DR HOUSTON TX 77042-1213
47	KITCHELL JAMES R & SHARON 10310 BRIAR DR HOUSTON TX 77042-1213
48	BURKE EDMUND T JR & JANET W 10302 BRIAR DR HOUSTON TX 77042-1213
49	MIRZAKHANI MAHMOUD & FARAJI AZAR 10218 BRIAR DR HOUSTON TX 77042-1211
50	CAREY CHAD & MELISSA 10214 BRIAR DR HOUSTON TX 77042-1211
51	KING WILLIAM B & NATASHA T 10206 BRIAR DR HOUSTON TX 77042-1211
52	EDWARDS OWEN B & CATHERINE A 10202 BRIAR DR HOUSTON TX 77042-1211
53	LEE KATHERYN L % ROY & KATHRYN L JR MANAGEMENT TRUST 10134 BRIAR DR HOUSTON TX 77042-1209

ATTACHMENT D.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF AFFECTED LANDOWNERS

MAP ID	LANDOWNER NAME AND ADDRESS
54	ANDERSEN STEVEN C & MIMI V % THE ANDERSEN REVOCABLE TRUST 10022 CANDLE WOOD DR HOUSTON TX 77042-1516
55	ELWOOD CHARLOTTE S & SCOTT A 10126 BRIAR DR HOUSTON TX 77042-1209
56	MARKS JAMES G JR 10122 BRIAR DR HOUSTON TX 77042-1209
57	TRUONG TRANG & MAI THANH 16645 HOLLAND PEARLAND TX 77584-5079
58	BASS WILLIAM C THREE RIVERWAY STE 940 HOUSTON TX 77056-1941
59	GRIGORIAN VAZRIC & STELLA 10110 BRIAR DR HOUSTON TX 77042-1209
60	BURKE DAVID T 10113 VALLEY FORGE DR #23 HOUSTON TX 77042-2037
61	RIVERWAY DEVELOPMENT INC 11645 ARROWWOOD CIR HOUSTON TX 77063-1400
62	ETHANS GLEN COMM ASSOC INC 1800 AUGUSTA DR STE 200 HOUSTON TX 77057-3130
63	ATLANTIC MULTIFAMILY - CREEKSTONE LLC 9045 VISTA WAY POMPANO BEACH FL 33076-2865

ATTACHMENT E

Original Photographs
Admin Rpt 1.1, Section 2

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ATTACHMENT E.1
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
ORIGINAL PHOTOGRAPH MAP

ATTACHMENT E.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
ORIGINAL PHOTOGRAPHS

Photo 1: Outfall 001 at point of discharge, facing south

ATTACHMENT E.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
ORIGINAL PHOTOGRAPHS

Photo 2: Bayou access downstream of outfall, facing west upstream

ATTACHMENT E.2
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
ORIGINAL PHOTOGRAPHS

Photo 3: Bayou access downstream of outfall, facing east downstream

ATTACHMENT F

Buffer Zone Map
Admin Rpt 1.1, Section 3

PLUMMER

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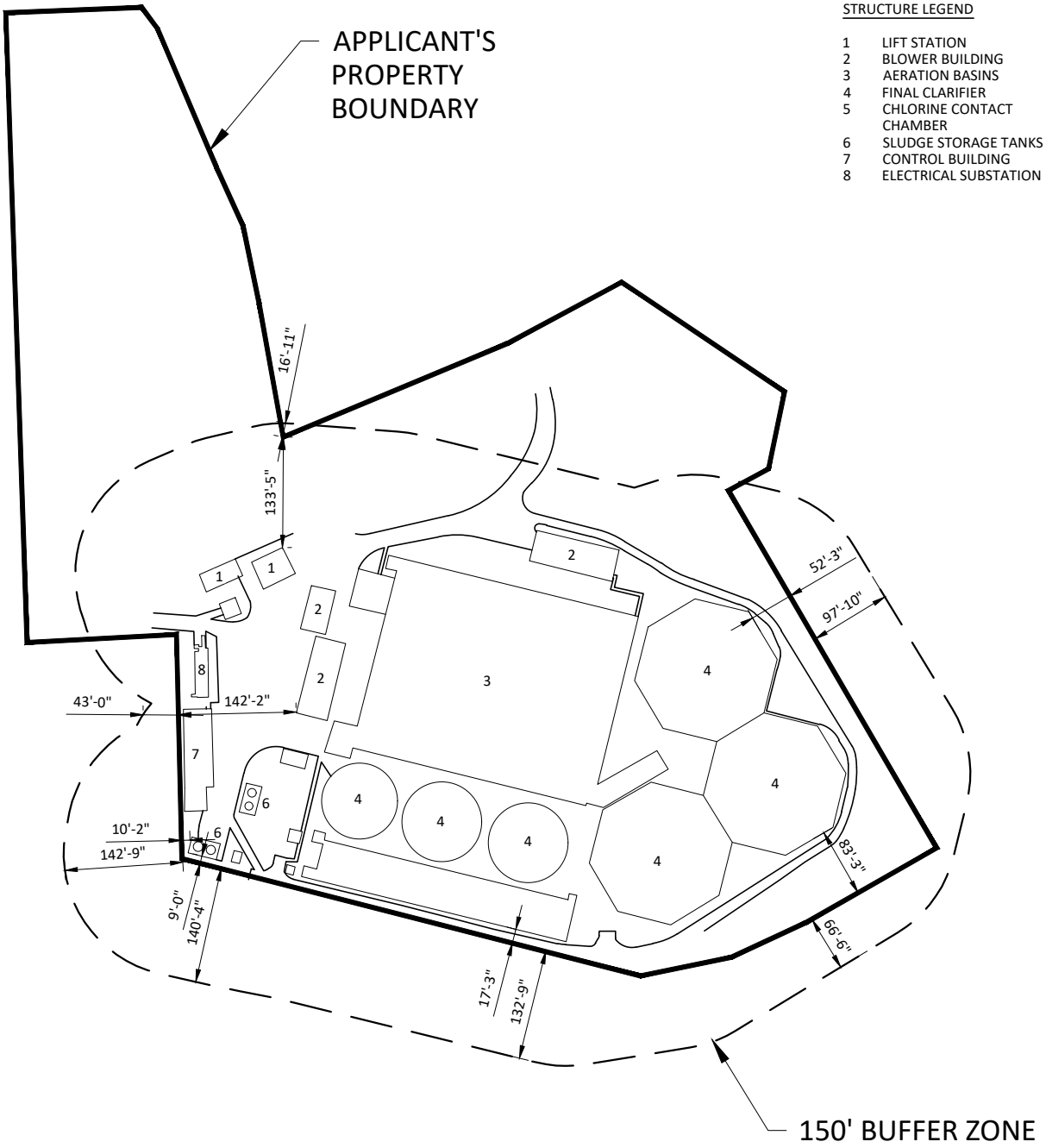
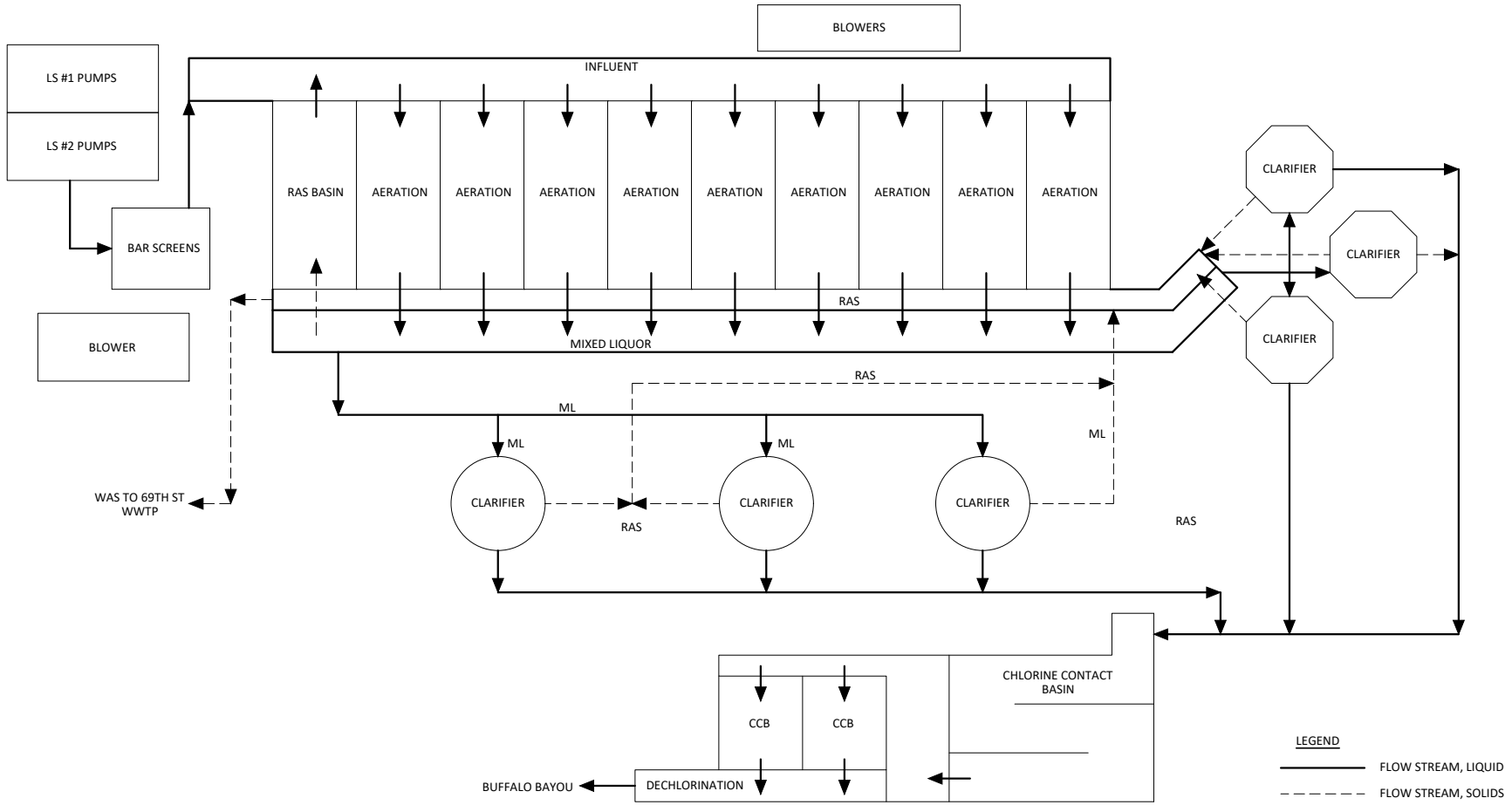


ATTACHMENT F
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
BUFFER ZONE MAP

ATTACHMENT G

Process Flow Diagram
Tech Rpt 1.0, Section 2.C

PLUMMER



ATTACHMENT G
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
PROCESS FLOW DIAGRAM

ATTACHMENT H

Site Drawing
Tech Rpt 1.0, Section 3

PLUMMER

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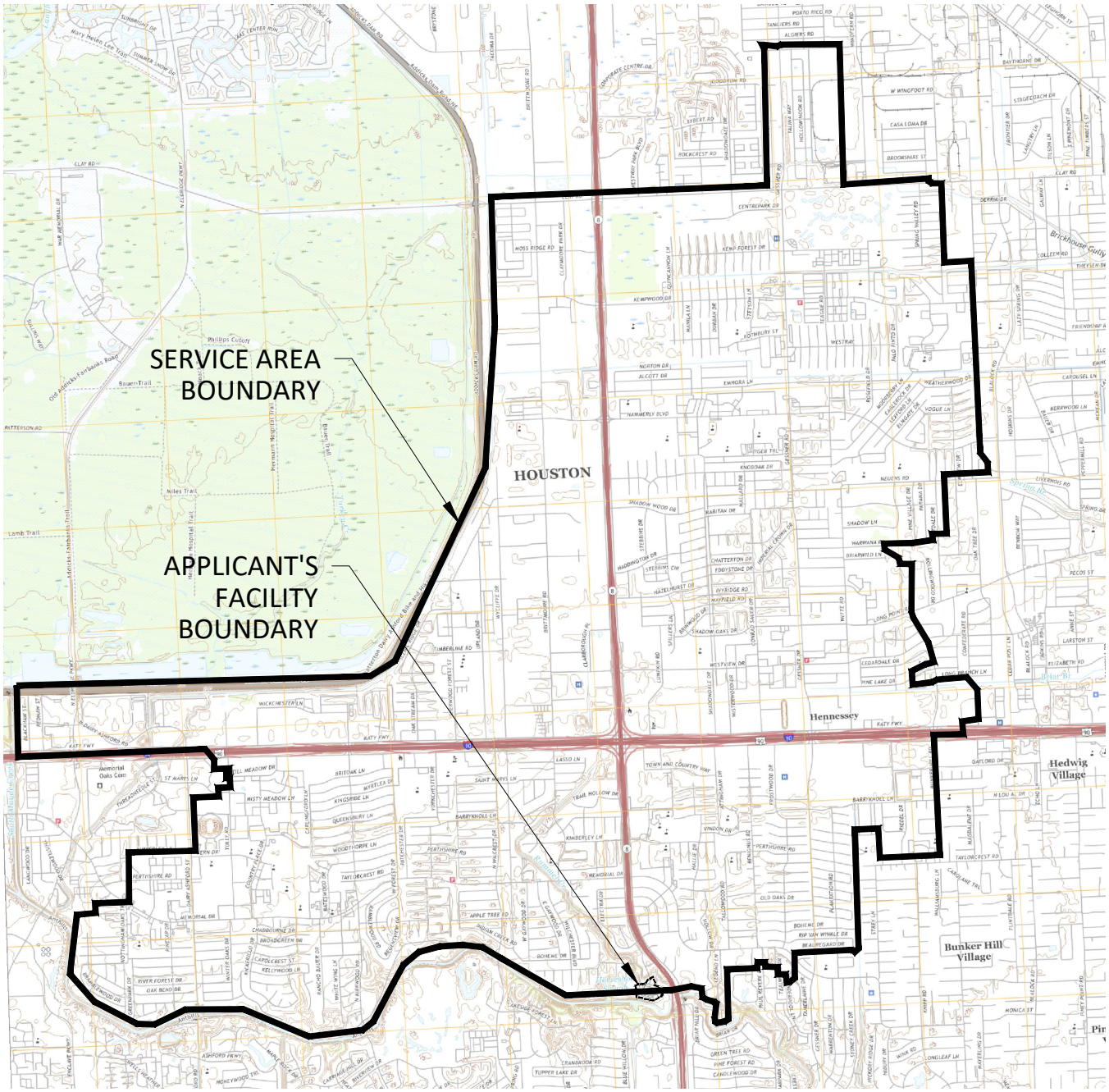


ATTACHMENT H
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
SITE DRAWING

TEXAS REGISTERED ENGINEERING FIRM F-13
10/7/2021 8:20 AM M:\Projects\1102\006-01\8 Drawings_Figures\8-1 ACAD\8-1-2 Figures\TPDES\ATT-SITE DRAWING.dwg Briand

ATTACHMENT I

Pollutant Analysis of Treated Effluent
Tech Rpt 1.0, Section 7;
Wks 4.0 Section 1 & 2

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302962** Permit No. **5005** Outfall: **2** Scheduled Date: 4/23/2021

Sample Type: COMP Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:	**SAMPLE DETAILS:** Temp: 5.9	**GRAB TIME/DATE:**	**FIELD TESTS:**
Begin: 8 :00	Split Sample: ____ Yes ✓ No	Time: ____:____	pH: ____.____
End: 8 :00	# of Bottles: (1) 2 3 4 5 ___	Date: ___/___/___	☐ Paper, Lot #____
Begin Date: 04/22/21	Sample Volume: Flow 800 ml	TRC ____, Lot #84032C	☐ Meter, S/N ____
End Date: 04/23/21	Sample Interval: ____ min.	Temperature ____ °C, S/N ____	

Autosampler Secured/Locked? ✓ **Yes** ____ **No** ____ **NA** **Sampler (Print):** [illegible]

Comments: ____

*	Bottle #	Tests/Method (Analysis Requested)	Sample Size/Container	Preservation	# of containers
✓	5302962-007	Fluoride, Total (F) (EPA 300.0); Nitrate as N (EPA 300.0)	1 L Polyethylene	Cool <6°C	1
	LIMS Comments				

CHAIN OF CUSTODY

Lab Delivered To: ____ COH Wastewater Lab X City Contract Lab: A&B

Seals Intact: ____ **Yes** ____ **No** 568 IR Thermometer S/N # 27910254 ___ S/N # 29650075 ___ Temp ____ °C Initial ___

pH Strip Manufacturer: ____ Lot #: ____ Initial: ____

Relinquished By: [signature] Date: 04/23/21 Time: 14.03

Received By: [signature] Date: 4/23/21 Time: 14.03

Relinquished By: ____ Date: ___/___/___ Time: ____.____

Received By: ____ Date: ___/___/___ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ___/___/___ Time: ____.____

* Deliverd to Lab if Box is Checked

LABORATORY TEST RESULTS

Job ID : 21041864

Date 4/30/2021

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID:	5302962	Job Sample ID:	21041864.01
Date Collected:	04/23/21	Sample Matrix	Water
Time Collected:	08:00	% Moisture	
Other Information:			

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
EPA 300.0	Anions								
	Fluoride	0.35136	mg/L	1.00	0.01	0.1		04/23/21 23:27	RR
	Nitrate-N	23.61	mg/L	5.00	0.05	0.5		04/24/21 01:57	RR

ab-q212-0321

Industrial Wastewater Service

Analysis Request and Chain of Custody

RC

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302962** Permit No. **5005** Outfall: **2** Scheduled Date: 4/23/2021

Sample Type: COMP Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:
Begin: 8:00 RL
End: 8:00
Begin Date: 04/22/21
End Date: 04/23/21

SAMPLE DETAILS: Temp: 5.9
Split Sample: ____ Yes ✓ No
# of Bottles: 1 2 3 4 5 10
Sample Volume: Flow 800 ml
Sample Interval: ____ min.

GRAB TIME/DATE:
Time: ____:____
Date: ____/____/____
TRC ____, Lot #84032C
Temperature ____ °C, S/N ____

FIELD TESTS:
pH: ____.____
☐ Paper, Lot #____
☐ Meter, S/N ____

Autosampler Secured/Locked? ✓ **Yes** ____ **No** ____ **NA** **Sampler (Print):** JEFFREY A FARRELL

Comments: ____

*	Bottle #	Tests/Method	Sample Size/Container	Preservation	# of containers
		Analysis Requested			
✓	5302962-001	Bisphenol A (ASTM D7065-11 or 625)	1 L Amber Glass, PTFE lined cap	Cool <6°C	2
✓	5302962-002	Carbaryl (EPA 632); Diuron (EPA 632)	1 L Amber Glass, PTFE lined cap	Cool <6°C	2
✓	5302962-003	Herbicides (EPA 615 or SM 6640B)	1 L Amber Glass, PTFE lined cap	Cool <6°C	2
✓	5302962-004	Hexachlorophene (EPA 604.1 or 625.1)	1 L Amber Glass, PTFE lined cap	Cool <6°C	2
✓	5302962-008	Nonylphenol (1625 or ASTM D7065)	1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	2
	LIMS Comments				

CHAIN OF CUSTODY

Lab Delivered To: ____ COH Wastewater Lab X City Contract Lab: Eurofins Xenco

Seals Intact: ____ **Yes** ____ **No** 568 IR Thermometer S/N # 27910254 ___ S/N # 29650075 ___ Temp ____ °C Initial ___

pH Strip Manufacturer: ____ Lot #: ____ Initial: ____

Relinquished By: [signature] Date: 04/23/21 Time: 14.50

Received By: [signature] Date: 4/23/21 Time: 2.50

Relinquished By: ____ Date: ____/____/____ Time: ____.____

Received By: ____ Date: ____/____/____ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ___/___/___ Time: ____.____

* Deliverd to Lab if Box is Checked

Client Sample ID: 5302962-001 — **Lab Sample ID: 860-2549-1**
Date Collected: 04/23/21 08:00 — **Matrix: Water**
Date Received: 04/23/21 15:28

Method: D7065-11 - Determination of Nonylphenols

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bisphenol-A	<1040		2120	1040	ng/L		05/12/21 16:38	05/14/21 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-nonylphenol (Surr)	*66*		*58 - 115*	*05/12/21 16:38*	*05/14/21 22:34*	*1*
4-nonylphenol monoethoxylate (Surr)	*30*	*S1-*	*54 - 139*	*05/12/21 16:38*	*05/14/21 22:34*	*1*

Client Sample ID: 5302962-003 — **Lab Sample ID: 860-2549-3**
Date Collected: 04/23/21 08:00 — **Matrix: Water**
Date Received: 04/23/21 15:28

Method: 615 - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-TP	<0.0000940		0.000250	0.0000940	mg/L		04/30/21 14:08	04/30/21 23:38	1
2,4-D	<0.0000450		0.000250	0.0000450	mg/L		04/30/21 14:08	04/30/21 23:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*144*	*S1+*	*44 - 131*	*04/30/21 14:08*	*04/30/21 23:38*	*1*

Client Sample ID: 5302962-008 — **Lab Sample ID: 860-2549-5**
Date Collected: 04/23/21 08:00 — **Matrix: Water**
Date Received: 04/23/21 15:28

Method: D7065-11 - Determination of Nonylphenols

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	<1.15		5.04	1.15	ug/L		05/12/21 16:38	05/14/21 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-nonylphenol (Surr)	*66*		*58 - 115*	*05/12/21 16:38*	*05/14/21 22:56*	*1*
4-nonylphenol monoethoxylate (Surr)	*32*	*S1-*	*54 - 139*	*05/12/21 16:38*	*05/14/21 22:56*	*1*

2600 Dudley Rd. Kilgore, Texas 75662
R: 3306 State Highway 135 N, Kilgore, TX 75662
Office: 903-984-0551 * Fax: 903-984-5914

ANALAB
Testing the Limits of Science and Service

NCO1-G

Project
962935

Eurofins Xenco
Debbie Simmons
4145 Greenbriar Dr
Stafford, TX 77477

Printed: 05/04/2021

5302962 WEST DISTRICT EFFLUENT

RESULTS

Sample Results

1981985 **5302962-002(860-2549-2)** *Received:* 04/27/2021

Non-Potable Water *Collected by:* Client Eurofins Xenco *PO:* US1311009623
Taken: 04/23/2021 08:00:00

EPA 632 *Prepared:* 949516 04/27/2021 13:00:00 *Analyzed* 950523 04/30/2021 15:41:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
NELAC	**Carbaryl (Sevin)**	**<2.52**	**ug/L**	2.52		**63-25-2**	03
z	**Diuron**	**<0.0453**	**ug/L**	0.0453		**330-54-1**	03

1981986 **5302962-004(860-2549-4)** *Received:* 04/27/2021

Non-Potable Water *Collected by:* Client Eurofins Xenco *PO:* US1311009623
Taken: 04/23/2021 08:00:00

EPA 604.1 *Prepared:* 949703 04/28/2021 14:00:00 *Analyzed* 950621 05/04/2021 15:42:00 BRU

	Parameter	Results	Units	RL	Flags	CAS	Bottle
z	**Hexachlorophene**	**<5.18**	**ug/L**	5.18		**70-30-4**	03

Sample Preparation

1981985 **5302962-002(860-2549-2)** *Received:* 04/27/2021

US1311009623

04/23/2021

Prepared: 04/28/2021 15:14:53 *Calculated* 04/28/2021 15:14:53 CAL

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

NELAP-accredited #T104704201-21-18

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302952** Permit No. **5005** Outfall: **2** Scheduled Date: 4/22/2021

Sample Type: CMAN Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:
Begin: 6:06
End: 17:28 PC
Begin Date: 04/22/21
End Date: 04/22/21

SAMPLE DETAILS: Temp: ____
Split Sample: ____ Yes ✓ No
# of Bottles: 1 2 3 4 5 24
Sample Volume: 240 ml
Sample Interval: 240 min.

GRAB TIME/DATE:
Time: ____:____
Date: ____/____/____
TRC ____, Lot #84032C
Temperature ____ °C, S/N ____

FIELD TESTS:
pH: ____.____
☐ Paper, Lot #____
☐ Meter, S/N ____

Autosampler Secured/Locked? ____ Yes ____ No ✓ NA **Sampler (Print):** JEFFREY A FARLEY

Comments: SAMPLE COLLECTED AT 6:06, 9:59, 13:56, 17:28

*	Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
✓	5302952-001	Mercury (Low) (EPA 1631E or 245.7)		40 mL Glass, PTFE lined septum	Cool <6°C, HCl to pH <2	12
✓	5302952-002	VOC - POTW (EPA 624.1)		40 mL Glass, PTFE lined septum	Cool <6°C, HCl to pH <2	12
	LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: X COH Wastewater Lab ____ City Contract Lab:

Seals Intact: ____ Yes ✓ No 568 IR Thermometer S/N # 27910254 ✓ S/N # 29650075 ____ Temp 2.4 °C Initial AF

pH Strip Manufacturer: W AF 4/23/21 Lot #: ____ Initial: ____

Relinquished By: [signature] Date: 04/23/21 Time: 11.42

Received By: A.F Date: 4/23/21 Time: 11.42

Relinquished By: ____ Date: ____/____/____ Time: ____.____

Received By: ____ Date: ____/____/____ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ____/____/____ Time: ____.____

* Deliverd to Lab if Box is Checked

Industrial Wastewater Service

Analysis Request and Chain of Custody

RL

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302942** Permit No. **5005** Outfall: **2** Scheduled Date: 4/22/2021

Sample Type: CMAN Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:
Begin: 6:06
End: 17:28 RL
Begin Date: 04/22/21
End Date: 04/22/21

SAMPLE DETAILS: Temp: ____
Split Sample: ____ Yes ✓ No
# of Bottles: (1) 2 3 4 5 ___
Sample Volume: 250 ml
Sample Interval: 240 min.

GRAB TIME/DATE:
Time: ____:____
Date: ____/____/____
TRC ____, Lot #84032C
Temperature ____ °C, S/N ____

FIELD TESTS:
pH: ____.____
☐ Paper, Lot #____
☐ Meter, S/N ____

Autosampler Secured/Locked? ____ Yes ____ No ✓ NA **Sampler (Print):** JEFFREY A FARRELL

Comments: SAMPLE COLLECTED AT 6:06, 9:59, 13:56, 17:28

Analysis Requested

*	Bottle #	Tests/Method	Sample Size/Container	Preservation	# of containers
✓	5302942-001	Cyanide Total and Amenable ()	1 L Amber Glass, PTFE lined cap	Cool <6°C, NaOH to pH >10, NaAsO2 if TRC present	1
	LIMS Comments				

CHAIN OF CUSTODY

Lab Delivered To: X COH Wastewater Lab ____ City Contract Lab:

Seals Intact: ____ Yes ✓ No 568 IR Thermometer S/N # 27910254 ✓ S/N # 29650075 ___ Temp 2.4 °C Initial AF

pH Strip Manufacturer: WBB0033 Lot #: ____ Initial: AF

Relinquished By: [signature] Date: 04/23/21 Time: 11.42

Received By: AF Date: 4/23/21 Time: 11.42

Relinquished By: ____ Date: ____/____/____ Time: ____.____

Received By: ____ Date: ____/____/____ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ___/___/___ Time: ____.____

* Deliverd to Lab if Box is Checked

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_CompMan

21D1088-03 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Mercury	**2.01**		0.0703	0.500	ng/L	04/27/2021 15:20	04/28/2021 13:34	HZ	EPA 1631E
Volatile Organics									
1,1,1-Trichloroethane	ND		1.24	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,1,2,2-Tetrachloroethane	ND		1.21	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,1,2-Trichloroethane	ND		0.885	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,1-Dichloroethane	ND		1.89	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,1-Dichloroethene	ND		0.939	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,2-Dibromoethane	ND		1.14	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,2-Dichlorobenzene	ND		1.85	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,2-Dichloroethane	ND		1.94	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,2-Dichloropropane	ND		1.47	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,3-Dichlorobenzene	ND		1.87	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
1,4-Dichlorobenzene	ND		1.88	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
2-Butanone	ND		4.64	10.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
2-Chloroethyl vinyl ether	ND		2.00	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
2-Hexanone	ND		3.35	10.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
4-Methyl-2-pentanone	ND		3.97	10.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Acetone	**8.60**	J, B	3.00	10.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Acrolein	ND		2.20	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Acrylonitrile	ND		1.97	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Benzene	ND		1.33	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Bromodichloromethane	**24.4**		1.13	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Bromoform	ND		1.61	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Bromomethane	ND		1.12	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Carbon Disulfide	ND		1.15	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Carbon Tetrachloride	ND		1.53	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Chlorobenzene	ND		0.924	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Chloroethane	ND		0.939	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Chloroform	**42.4**		1.24	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
chloromethane	ND		1.10	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
cis-1,3-Dichloropropene	ND		1.69	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Dibromochloromethane	**9.76**		1.11	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Epichlorohydrin	ND		13.3	25.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Ethylbenzene	ND		0.806	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
m+p-Xylene	ND		1.48	10.0	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Methylene Chloride	ND		2.04	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Methyl-tert-butyl ether (MTBE)	ND		1.93	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
o-Xylene	ND		1.87	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Styrene	ND		1.76	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_CompMan (Continued)

21D1088-03 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Volatile Organics (Continued)									
Tetrachloroethene	ND		1.18	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Toluene	ND		1.32	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
trans-1,2-Dichloroethene	ND		2.09	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
trans-1,3-Dichloropropene	ND		0.917	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Trichloroethene	ND		0.864	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Vinyl acetate	ND		1.42	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Vinyl chloride	ND		1.19	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Xylenes, Total	ND		1.48	5.00	ug/L	04/28/2021 07:54	04/28/2021 13:17	SRB	EPA 624.1
Wet Chemistry									
Cyanide, Amenable	**8.65**		0.946	2.00	ug/L	04/26/2021 08:37	04/27/2021 13:22	SBL	OIA 1677
Cyanide, Total	**3.29**	J	3.14	10.0	ug/L	04/26/2021 08:37	04/27/2021 13:22	SBL	ASTM D7511

Industrial Wastewater Service RL

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302962** Permit No. **5005** Outfall: **2** Scheduled Date: 4/23/2021

Sample Type: COMP Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:
Begin: 8:00
End: 8:00 RL
Begin Date: 04/22/21
End Date: 04/23/21

SAMPLE DETAILS: Temp: 5.9
Split Sample: ____ Yes ✓ No
# of Bottles: 1 2 3 4 5 11
Sample Volume: FLOW 800 ml
Sample Interval: ____ min.

GRAB TIME/DATE:
Time: ____:____
Date: ____/____/____
TRC ____, Lot #84032C
Temperature ____ °C, S/N ____

FIELD TESTS:
pH: ____.____
☐ Paper, Lot #____
☐ Meter, S/N ____

Autosampler Secured/Locked? ✓ **Yes** ____ **No** ____ **NA** **Sampler (Print):** JEFFREY A FARRELL

Comments: ____

*	Bottle #	Analysis Requested: Tests/Method	Sample Size/Container	Preservation	# of containers
✓	5302962-005	Hexavalent Chromium (EPA 218.6)	1 L Polyethylene	Cool <6°C, (NH4)2SO4 buffer, NaOH to pH 9.3-9.7	1
✓	5302962-006	Metals POTW Effluent (EPA 200.8)	1 L Polyethylene	Cool <6°C, HNO3 to pH <2	1
	~~5302962-007~~	~~Fluoride, Total (F) (EPA 300.0); Nitrate as N (EPA 300.0)~~	~~1 L Polyethylene~~	~~Cool <6°C~~	~~1~~
✓	5302962-009	BNAs - POTW (EPA 625.1)	1 L Amber Glass, PTFE lined cap	Cool <6°C, 0.008% Na2S2O3	3
✓	5302962-010	Organochlorine and PCBs (EPA 608.3)	1 L Amber Glass, PTFE lined cap	Cool <6°C, 0.008% Na2S2O3	3
✓	5302962-011	Organophosphorous Pesticides (EPA 1657)	1 L Amber Glass, PTFE lined cap	Cool <6°C, 0.008% Na2S2O3	3
	LIMS Comments				

CHAIN OF CUSTODY

Lab Delivered To: X COH Wastewater Lab ____ City Contract Lab:

Seals Intact: ____ **Yes** ✓ **No** 568 IR Thermometer S/N # 27910254 ✓ S/N # 29650075 ____ Temp 2.4 °C Initial AF

pH Strip Manufacturer: WBB0033 Lot #: ____ Initial: AF

Relinquished By: [signature] Date: 04/23/21 Time: 11.42

Received By: AF Date: 4/23/21 Time: 11.42

Relinquished By: ____ Date: ____/____/____ Time: ____.____

Received By: ____ Date: ____/____/____ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ____/____/____ Time: ____.____

* Deliverd to Lab if Box is Checked

Macherey-Nagel pH strips
Lot# 70A5042
Initials: AF **Date:** 4/23/21

21D1088

Company Name:	West District
Address:	255 Isolde Dr Houston, TX 77024
Permit Number:	5005

Sampler: Jeffrey Farrell

IWS Sample Reason

[✓] Permit Requirement [ ] Compliance Verification
[ ] Special Report [ ] POTW Permit Application
[ ] Other

Composite Info		
Sample ID:	21D1088-01 02	21D1088-04
Split Samples:	Yes (No)	Yes (No)
Number of bottles:	1 2 3 4 5 9	1 2 3 4 5 11
Sample Volume:	200 mL	Flow mL 800
Sample Interval:	30 min	— min
Autosampler secured/locked:	(Yes) No N/A	(Yes) No N/A
Comp Temp(°C)	5.8	5.9

Field Test Traceability Info	
TRC ID:	
Temperature ID:	
pH Measured By:	Paper Meter
pH ID:	
Eff Sampler temp(°C)	
Inf Sampler temp(°C)	

Sample comments key:

ND - No Discharge
IQ - Insufficient Quantity
CC - Company Closed
EF - Equipment Failure
Other (write in description)

*Matrix: W - Water, S - Solid, C - Chemical

Sample Identification	# Cont	Grab/ Comp	Matrix*	Location	Begin Sampled Date/Time	(End) Sampled Date/Time	Container with Preservation	Test Method	Field Test	Comments
21D1088-01	13	CMan	W	SP 1_CompMan	621 4/22/21	1748 4/22/21	(1) 1 L Amber Glass, PTFE Lined Cap Cool <6°C, NaOH to pH >10, NaAsO2 if TRC present	Cyanide OIA 1677 Cyanide D7511		5302972, 5302982 4pt grab: 621, 1021, 1415, 1748
							(12) 40 mL Glass, PTFE lined septum Cool <6°C, HCl to pH <2	VOA 624.1		
21D1088-02	9	C	W	SP 1_Comp	4/22/21 400	4/23/21 600	(6) 1 L Amber Glass, PTFE Lined Cap Cool <6°C, 0.008% Na2S2O3	Pesticides 608.3 Pesticides 1657 BNA 625.1		5302992
							(1) 1 L PE or G Cool <6°C, (NH4)2SO4 buffer, NaOH to pH 9.3-9.7	Cr(VI), Cr(III)		
							(2) 1 L PE or Glass Cool <6°C, HNO3 to pH <2	Metals WWTP Inf Mercury 245.1 Cr(VI), Cr(III)		
21D1088-03	25	CMan	W	SP 2_CompMan	4/22/21 606	4/22/21 1728	(1) 1 L Amber Glass, PTFE Lined Cap Cool <6°C, NaOH to pH >10, NaAsO2 if TRC present	Cyanide OIA 1677 Cyanide D7511		5302942, 5302952 4pt grab: 606, 959, 1356, 1728
							(24) 40 mL Glass, PTFE lined septum Cool <6°C, HCl to pH <2	VOA 624.1 Mercury 1631E		
21D1088-04	11	C	W	SP 2_Comp	4/22/21 800	4/23/21 800	(9) 1 L Amber Glass, PTFE Lined Cap Cool <6°C, 0.008% Na2S2O3	Pesticides 608.3 Pesticides 1657 BNA 625.1		5302962
							(1) 1 L PE or G Cool <6°C, (NH4)2SO4 buffer, NaOH to pH 9.3-9.7	Cr(VI), Cr(III)		
							(1) 1 L PE or Glass Cool <6°C, HNO3 to pH <2	Metals WWTP Eff Cr(VI), Cr(III)		

Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location
	04/23/21 11:42			4/23/21 - 1142	COH
Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp

21D1088-04 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Silver	ND		0.0376	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Aluminum	**12.7**		0.544	2.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Arsenic	**1.27**		0.197	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Barium	**53.1**		0.0276	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Beryllium	ND		0.0188	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Cadmium	ND		0.0292	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Chromium	**0.579**	J	0.506	2.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Copper	**5.11**		0.103	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Nickel	**4.46**		0.0319	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Lead	**0.182**	J	0.0190	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Antimony	**0.415**	J	0.0860	1.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Selenium	**0.634**	J	0.276	2.50	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Thallium	ND		0.0915	0.500	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Vanadium	**1.66**		0.136	1.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Zinc	**37.2**		0.497	2.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	HZ	EPA 200.8
Chromium Trivalent	**0.579**	J	0.506	2.00	ug/L	05/04/2021 09:35	05/05/2021 10:32	LMB	[CALC]
Semivolatile Organics									
Chlorpyrifos (2)	ND		0.00900	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
Demeton-o (2)	ND		0.0190	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
Demeton-s (2)	ND		0.0160	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
Diazinon (2)	ND		0.0130	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
ethyl-Parathion (2)	ND		0.0120	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
Malathion (2)	ND		0.0120	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
methyl Azinphos (Guthion) (2)	ND		0.0150	0.250	ug/L	04/27/2021 08:20	04/29/2021 17:14	RD	EPA 1657
4,4'-DDD	ND		0.00382	0.0250	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
4,4'-DDE	ND		0.00153	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
4,4'-DDT	ND		0.00509	0.0250	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Aldrin	ND		0.00153	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Alpha-BHC	ND		0.00119	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Beta-BHC	ND		0.00238	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Chlordane	ND		0.0430	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Delta-BHC	ND		0.00168	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Dicofol	ND		0.0117	0.0500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Dieldrin	ND		0.00181	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Endosulfan I	ND		0.00119	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Endosulfan II	ND		0.00336	0.0250	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Endosulfan Sulfate	ND		0.00423	0.0250	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Endrin	ND		0.0131	0.0250	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Endrin-Aldehyde	ND		0.00217	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp (Continued)

21D1088-04 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Semivolatile Organics (Continued)									
Gamma-BHC	ND		0.00119	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Heptachlor	ND		0.00217	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Heptachlor epoxide	ND		0.00153	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Methoxychlor	ND		0.00247	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Mirex	ND		0.00153	0.00500	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1016	ND		0.0762	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1221	ND		0.0119	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1232	ND		0.120	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1242	ND		0.116	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1248	ND		0.0934	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1254	ND		0.0732	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
PCB-1260	ND		0.162	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
Toxaphene	ND		0.101	0.200	ug/L	04/26/2021 09:17	04/28/2021 10:07	SRB	EPA 608.3
1,2,4,5-Tetrachlorobenzene	ND		0.944	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
1,2,4-Trichlorobenzene	ND		0.500	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4,5-Trichlorophenol	ND		1.63	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4,6-Trichlorophenol	ND		1.15	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4-Dichlorophenol	ND		1.02	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4-Dimethylphenol	ND		0.706	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4-Dinitrophenol	ND		3.11	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,4-Dinitrotoluene	ND		1.36	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2,6-Dinitrotoluene	ND		1.34	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Chloronaphthalene	ND		0.959	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Chlorophenol	ND		1.05	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Methylnaphthalene	ND		0.488	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Methylphenol	ND		1.07	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Nitroaniline	ND		1.22	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
2-Nitrophenol	ND		0.706	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
3,3'-Dichlorobenzidine	ND		1.47	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
3-Nitroaniline	ND		1.66	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4,6-Dinitro-2-methylphenol	ND		2.27	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Bromophenyl phenyl ether	ND		0.815	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Chloro-3-methylphenol	ND		1.18	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Chloroaniline	ND		1.36	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Chlorophenyl phenyl Ether	ND		1.18	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Methylphenol	ND		1.38	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Nitroaniline	ND		1.01	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
4-Nitrophenol	ND		0.968	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Acenaphthene	ND		1.05	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Acenaphthylene	ND		0.871	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp (Continued)

21D1088-04 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Semivolatile Organics (Continued)									
Aniline	ND		1.22	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Anthracene	ND		0.856	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Azobenzene	ND		0.977	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzidine	ND		1.61	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzo(a)pyrene	ND		1.54	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzo(b)fluoranthene	ND		1.43	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzo(k)Fluoranthene	ND		1.02	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzo(g,h,i)perylene	ND		1.13	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzo[a]anthracene	ND		1.12	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzoic acid	**4.42**	J	2.50	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Benzyl alcohol	ND		1.33	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Bis(2-chloroethoxy) methane	ND		0.831	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Bis(2-chloroethyl) ether	ND		1.08	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Bis(2-chloroisopropyl) ether	ND		0.965	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Bis(2-ethylhexyl) phthalate	**9.83**		2.66	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Butyl benzyl phthalate	ND		1.28	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Carbazole	ND		1.55	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Chrysene	ND		1.30	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Dibenzo(a,h)anthracene	ND		1.32	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Dibenzofuran	ND		1.07	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Diethyl phthalate	ND		1.28	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Dimethyl phthalate	ND		0.911	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Di-n-butyl phthalate	**2.20**	J, B	1.33	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Di-n-octyl phthalate	ND		2.07	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Fluoranthene	ND		1.27	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Fluorene	ND		1.03	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Hexachlorobenzene	ND		0.947	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Hexachlorobutadiene	ND		0.520	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Hexachlorocyclopentadiene	ND		0.740	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Hexachloroethane	ND		0.746	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Indeno(1,2,3-cd)pyrene	ND		1.71	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Isophorone	ND		0.485	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Naphthalene	ND		0.640	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
n-Decane	ND		0.520	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Nitrobenzene	ND		0.759	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
N-Nitosodi-n-butylamine	ND		0.962	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
N-Nitrosodiethylamine	ND		1.06	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
N-Nitrosodimethylamine	ND		0.758	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
N-Nitrosodi-n-propylamine	ND		1.50	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
N-Nitrosodiphenylamine	ND		0.852	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1

HOUSTON PUBLIC WORKS

West District	Project: WD Full Scan	
255 Isolde Dr	Project Number: 5005	**Reported:**
Houston, TX 77024	Project Manager: Regulatory Compliance	07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp (Continued)

21D1088-04 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Semivolatile Organics (Continued)									
n-Octadecane	ND		0.887	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Pentachlorobenzene	ND		0.643	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Pentachlorophenol	ND		1.74	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Phenanthrene	ND		0.928	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Phenol	ND		1.06	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Pyrene	ND		1.06	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1
Pyridine	ND		0.977	5.00	ug/L	04/26/2021 10:27	04/29/2021 16:10	SRB	EPA 625.1

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp

21D1088-04 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Chromium Trivalent (Reshot)	ND	U	0.0200	0.0500	ug/L	05/07/2021 14:00	05/10/2021 18:31	LMB	[CALC]

Company Name:	Park Ten
Address:	16500 Park Row Houston, TX 77084
Permit Number:	5094

Sampler: D. PARLEY A. TABLER

IWS Sample Reason

[x] Permit Requirement [ ] Compliance Verification
[ ] Special Report [ ] POTW Permit Application
[ ] Other

21F0185

Composite Info		
Sample ID:	21F0185-01	
Split Samples:	(Yes) No	Yes No
Number of bottles:	1 2 3 4 5 7	1 2 3 4 5 __
Sample Volume:	Flow mL 800	mL
Sample Interval:	— min	min
Autosampler secured/locked:	(Yes) No N/A	Yes No N/A
Comp Temp(°C)	5.8	

Field Test Traceability Info	
TRC ID:	
Temperature ID:	
pH Measured By:	Paper (Meter)
pH ID:	482146
Eff Sampler temp(°C)	
Inf Sampler temp(°C)	

Sample comments key:
ND - No Discharge IQ - Insufficient Quantity CC - Company Closed EF - Equipment Failure Other (write in description)

*Matrix: W - Water, S - Solid, C - Chemical

Sample Identification	# Cont	Grab/ Comp	Matrix*	Location	Begin Sampled Date/Time	(End) Sampled Date/Time	Container with Preservation	Test Method	Field Test	Comments
21F0185-01	7	C	W	SP 2_Comp	8:30 06/01/21	8:30 06/02/21	(1) 1 Gallon Plastic Cool <6°C	TSS 2540 D		5305972
							(1) 1 L PE Cool <6°C	Sulfate 300.0 Chloride 300.0		
							(2) 1 L PE or Glass Cool <6°C	TDS 2540 C CBOD 5210 B Alkalinity 2320 B		
							(3) 1 L PE or Glass Cool <6°C, H2SO4 to pH <2	TKN 4500-NH3 D Phosphorus 200.7 NH3 as N 350.1		
21F0185-02	2	G	W	SP 2_Grab		8:45 06/02/21	(1) 290 mL Sterile Plastic Cool <10°C, 0.000% Na2S2O3	Total Coliform and E.coli by Colilert	TRC 0.07	5305961
							(1) N/A None	pH 4500-H+ B Dissolved Oxygen 4500-O G Chlorine 4500 G	pH 7.2 DO 5.4	

Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location
	06/02/21-1034		A.T	6/2/21-1034	WH
Relinquished by: (Signature)	Date/Time	Location	Received by: (Signature)	Date/Time	Location

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5305972** Permit No. **5005** Outfall: **2** Scheduled Date: 6/2/2021

Sample Type: COMP Sample Matrix: Liquid

SAMPLE COLLECTED ✓ Yes ___ No If No: ___ No Discharge ___ Quantity Not Sufficient ___ Company Closed ___ Equipment Failure: ___

COMPOSITE TIME/DATE:
Begin: 8:30
End: 8:30
Begin Date: 06/01/24
End Date: 06/02/24

SAMPLE DETAILS: Temp: 5.8
Split Sample: ___ Yes ✓ No
# of Bottles: 1 2 3 4 5 7
Sample Volume: Flow 800 ml
Sample Interval: — min.

GRAB TIME/DATE:
Time: ___:___
Date: ___/___/___
TRC ___, Lot #84032C
Temperature ___ °C, S/N ___

FIELD TESTS:
pH: ___.___
☐ Paper, Lot #___
☐ Meter, S/N ___

Autosampler Secured/Locked? ✓ Yes ___ No ___ NA Sampler (Print): JEFFREY A FARRELL

Comments: ___

*	Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
✓	5305972-001	Alkalinity and TDS (SM 2540 C)		1 L Polyethylene	Cool <6°C	1
✓	5305972-002	Ammonia (as Nitrogen) (EPA 350.1, Rev 2.0)		1 L Polyethylene or Glass	Cool <6°C, H2SO4 to pH <2	1
✓	5305972-003	BOD 5 day test (SM 5210 B)		1 L Polyethylene or Glass	Cool <6°C	1
✓	5305972-004	Phosphorus, Total (SM 4500-P-B)		1 L Polyethylene or Glass	Cool <6°C, H2SO4 to pH <2	1
✓	5305972-005	Total Kjeldahl Nitrogen (SM 4500-NH3)		1 L Polyethylene	Cool <6°C	1
✓	5305972-006	TSS (Total Suspended Solids- Residue Non-filterable) (SM 2540 D)		1 L Polyethylene or Glass	Cool <6°C	1
✓	5305972-007	Chloride, Sulfate (EPA 300.0)		1 L Polyethylene	Cool <6°C	1
	LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: X COH Wastewater Lab ___ City Contract Lab:

Seals Intact: ___ Yes ✓ No 568 IR Thermometer S/N # 27910254 ✓ S/N # 29650075 ___ Temp 4.5 °C Initial AF

pH Strip Manufacturer: WBB0033 Lot #: ___ Initial: AF

Relinquished By: [signature] Date: 06/02/24 Time: 10.34

Received By: [signature] Date: 6/2/24 Time: 10 34

Relinquished By: ___ Date: ___/___/___ Time: ___.___

Received By: ___ Date: ___/___/___ Time: ___.___

Relinquished By: ___ Received By: ___ Date: ___/___/___ Time: ___.___

* Deliverd to Lab if Box is Checked

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5305961** Permit No. **5005** Outfall: **2** Scheduled Date: 6/2/2021

Sample Type: Grab Sample Matrix: Liquid

SAMPLE COLLECTED ✓ Yes ___ No If No: ___ No Discharge ___ Quantity Not Sufficient ___ Company Closed ___ Equipment Failure: ___

COMPOSITE TIME/DATE:	SAMPLE DETAILS: Temp: ___	GRAB TIME/DATE:	FIELD TESTS:
Begin: ___:___	Split Sample: ___ Yes ✓ No	Time: 8:45	pH: 7.2
End: ___:___	# of Bottles: (1) 2 3 4 5 ___	Date: 06/02/21	☐ Paper, Lot #___
Begin Date: ___/___/___	Sample Volume: 300 ml	TRC 0.07, Lot #84032C	☑ Meter, S/N 482146
End Date: ___/___/___	Sample Interval: 0 min.	Temperature ___ °C, S/N ___	

Autosampler Secured/Locked? ___Yes ___ No ✓ NA Sampler (Print): JEFFREY A BARNES

Comments: D.O IS 5.4 mg/L, D.O. DUP. IS 5.5 mg/L, pH DUP. IS 7.1, TRC DUP. IS

*	Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
✓	5305961-001	Chlorine, Total Residual (Hach 8167); Dissolved Oxygen (360.1); pH (EPA 150.1)		Field Test		1
✓	5305961-002	E-Coli or Enterococci (SM 9222 D)		300 mL Glass or Polyethylene	Cool =10°C, 0.008% Na2S2O3	1
	LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: X COH Wastewater Lab ___ City Contract Lab:

Seals Intact: ___Yes ✓ No 568 IR Thermometer S/N # 27910254 ✓ S/N # 29650075 ___ Temp 4.5 °C Initial AF

pH Strip Manufacturer: ___ Lot #: ___ Initial: ___

Relinquished By: [signature] Date: 06/02/21 Time: 10.34

Received By: [signature] Date: 6/2/21 Time: 10.34

Relinquished By: ___ Date: ___/___/___ Time: ___.___

Received By: ___ Date: ___/___/___ Time: ___.___

Relinquished By: ___ Received By: ___ Date: ___/___/___ Time: ___.___

* Deliverd to Lab if Box is Checked

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp

21F0185-01 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Total Metals									
Phosphorous, Total	**1460**		19.4	100	ug/L	06/03/2021 08:27	06/04/2021 09:51	KEN	EPA 200.7
Wet Chemistry									
Total Alkalinity as CaCO3	**108**		10.0	10.0	mg/L	06/02/2021 12:26	06/02/2021 12:26	KEN	SM 2320 B
Total Dissolved Solids	**562**		20.0	20.0	mg/L	06/03/2021 10:56	06/03/2021 11:15	VP	SM 2540 C
Total Suspended Solids	**8.1**		2.0	2.0	mg/L	06/03/2021 12:47	06/03/2021 14:55	JT	SM 2540 D
Ammonia as N	**0.0770**		0.0204	0.0500	mg/L	06/03/2021 12:55	06/03/2021 12:55	ZS	EPA 350.1
Total Kjeldahl Nitrogen	**1.57**		0.100	0.500	mg/L	06/07/2021 13:58	06/08/2021 00:00	VP	SM 4500-NH3 D
Biochemical Oxygen Demand, Carbonaceous	**2.85**		0.200	1.93	mg/L	06/02/2021 10:50	06/07/2021 09:58	CML	SM 5210 B

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Comp

21F0185-01 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Wet Chemistry									
Chloride (Reshot)	**123**		0.0769	1.00	mg/L	06/08/2021 22:08	06/08/2021 22:08	LMB	EPA 300.0
Sulfate (Reshot)	**81.2**		0.0877	1.00	mg/L	06/08/2021 22:08	06/08/2021 22:08	LMB	EPA 300.0

HOUSTON PUBLIC WORKS

West District 255 Isolde Dr Houston, TX 77024	Project: WD Full Scan Project Number: 5005 Project Manager: Regulatory Compliance	**Reported:** 07/29/2021 13:19

Sample Results
(Continued)

Sample: SP 2_Grab

21F0185-02 (Water)

Analyte	Result	Qual	DL	RL	Units	Date Prepared	Date Analyzed	Analyst Initials	Method
Wet Chemistry									
Chlorine, total residual	ND		0.100	0.100	mg/L	06/02/2021 08:45	06/02/2021 08:45	AF	SM 4500-Cl D
Microbiology									
E.coli	**76**		1	1	MPN/100 mL	06/02/2021 10:51	06/03/2021 11:36	MVP	Colilert
Field									
Oxygen, dissolved	**5.40**		1.00	1.00	mg/L	06/02/2021 08:45	06/02/2021 08:45	AF	SM 4500-O G
pH	**7.20**		0.0100	2.00	SU	06/02/2021 08:45	06/02/2021 08:45	AF	SM 4500-H+ B

Industrial Wastewater Service

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5305961** Permit No. **5005** Outfall: **2** Scheduled Date: 6/2/2021

Sample Type: Grab ✓ Sample Matrix: Liquid

SAMPLE COLLECTED ✓ Yes ___ No If No: ___ No Discharge ___ Quantity Not Sufficient ___ Company Closed ___ Equipment Failure: ___

COMPOSITE TIME/DATE:	SAMPLE DETAILS: Temp: ___	GRAB TIME/DATE:	FIELD TESTS:
Begin: ___:___	Split Sample: ___ Yes ✓ No	Time: 8:35	pH: ___.___
End: ___:___	# of Bottles: (1) 2 3 4 5 ___	Date: 06/04/21	☐ Paper, Lot #___
Begin Date: ___/___/___	Sample Volume: 1000 ml	TRC ___, Lot #84032C	☐ Meter, S/N ___
End Date: ___/___/___	Sample Interval: 0 min.	Temperature ___ °C, S/N ___	

Autosampler Secured/Locked? ___Yes ___ No ✓ NA Sampler (Print): JEFFREY A FONTENOT

Comments: ___

*	Bottle #	Tests/Method	Analysis Requested	Sample Size/Container	Preservation	# of containers
✓	5305961-003 03A	Oil and Grease (Total) / HEM (EPA 1664)		1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	1
	LIMS Comments					

CHAIN OF CUSTODY

Lab Delivered To: ___ COH Wastewater Lab X City Contract Lab: A&B

Seals Intact: ___ Yes ___ No 568 IR Thermometer S/N # 27910254 ___ S/N # 29650075 ___ Temp ___ °C Initial ___

pH Strip Manufacturer: ___ Lot #: 01 Initial: ___

Relinquished By: Jeffrey Fontenot Date: 06/04/21 Time: 15.00

Received By: [signature] Date: 6/4/21 Time: 15.00

Relinquished By: [signature] Date: 6/4/21 Time: 16.25

Received By: Carey Kendrix Date: 6/4/21 Time: 16.25

Relinquished By: ___ Received By: ___ Date: ___/___/___ Time: ___.___

* Deliverd to Lab if Box is Checked

Temp. 2.6-.01=2.5°C
1709629 JD

Job ID:21060504

LABORATORY TEST RESULTS

Job ID : 21060504

Date 6/15/2021

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID:	5305961	Job Sample ID:	21060504.03
Date Collected:	06/02/21	Sample Matrix	Water
Time Collected:	08:35	% Moisture	
Other Information:			

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
EPA 1664B	Oil & Grease, Hexane Extractables								
	Oil & Grease	< 1.16	mg/L	1.16	1.16	2.32		06/10/21 06:14	SG

ab-q212-0321

Industrial Wastewater Service

RC

Analysis Request and Chain of Custody

Company Name: **West District**
12901 Hermitage Street, Houston, TX

Location: **EFFLUENT**

Sample No. **5302942** Permit No. **5005** Outfall: **2** Scheduled Date: 4/22/2021

Sample Type: CMAN Sample Matrix: Liquid

SAMPLE COLLECTED ✓ **Yes** ____ **No** If No: ____ No Discharge ____ Quantity Not Sufficient ____ Company Closed ____ Equipment Failure: ____

COMPOSITE TIME/DATE:
Begin: 6:06 NC
End: 17:28
Begin Date: 04/22/21
End Date: 04/22/21

SAMPLE DETAILS: Temp: ____
Split Sample: ____ Yes ✓ No
# of Bottles: (1) 2 3 4 5 ____
Sample Volume: 250 ml
Sample Interval: 240 min.

GRAB TIME/DATE:
Time: ____:____
Date: ____/____/____
TRC ____, Lot #84032C
Temperature ____ °C, S/N ____

FIELD TESTS:
pH: ____.____
☐ Paper, Lot #____
☐ Meter, S/N ____

Autosampler Secured/Locked? ✓ **Yes** ____ **No** ____ **NA** **Sampler (Print):** JEFFREY A FARRELL

Comments: SAMPLE COLLECTED AT 6:06, 9:59, 13:56, 17:28

Analysis Requested

*	Bottle #	Tests/Method	Sample Size/Container	Preservation	# of containers
✓	5302942-002	Phenol, Total (EPA 420.1)	1 L Amber Glass, PTFE lined cap	Cool <6°C, H2SO4 to pH <2	1
	LIMS Comments				

CHAIN OF CUSTODY

Lab Delivered To: ____ COH Wastewater Lab X City Contract Lab: A&B

Seals Intact: ____ **Yes** ____ **No** 568 IR Thermometer S/N # 27910254 ___ S/N # 29650075 ___ Temp ____ °C Initial ___

pH Strip Manufacturer: ____ Lot #: ____ Initial: ____

Relinquished By: [signature] Date: 04/23/21 Time: 14.03

Received By: [signature] Date: 4/23/21 Time: 14.03

Relinquished By: ____ Date: ____/____/____ Time: ____.____

Received By: ____ Date: ____/____/____ Time: ____.____

Relinquished By: ____ Received By: ____ Date: ___/___/___ Time: ____.____

* Deliverd to Lab if Box is Checked

LABORATORY TEST RESULTS

Job ID : 21041864

Date 4/30/2021

Client Name: Houston, City of

Attn: James Nguyen

Project Name:

Client Sample ID:	5302942	Job Sample ID:	21041864.10
Date Collected:	04/22/21	Sample Matrix	Water
Time Collected:	17:28	% Moisture	
Other Information:			

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
EPA 420.1	Phenolics (Total Phenols)								
	Phenols	<0.02	mg/L	1	0.02	0.02		04/29/21 13:05	SG

ab-q212-0321

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: June 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
1	6:35	99.7%	6:50	6:55	6:51	6:56	7.9	7.9		
2	7:15	99.7%	7:30	7:35	7:31	7:36	7.64	7.64		
3	6:45	99.7%	7:00	7:04	7:03	7:07	7.68	7.68		Dan Green
4	6:45	99.7%	7:00	7:05	7:01	7:06	8.0	8.0		
5	11:15	99.7%	11:30	11:35	11:31	11:36	7.93	7.93		
6	6:35	99.7%	6:50	6:55	6:51	6:56	7.8	7.8		
7	7:00	99.7%	7:15	7:20	7:16	7:21	7.36	7.36		
8	6:45	99.7%	7:00	7:05	7:01	7:06	7.22	7.22		
9	6:50	99.7%	7:05	7:10	7:06	7:11	7.0	7.0		
10	6:45	99.7%	7:00	7:05	7:05	7:07	7.4	7.4		
11	6:55	99.7%	7:10	7:15	7:11	7:16	8.0	8.0		
12	7:45	99.7%	8:00	8:04	8:02	8:06	7.67	7.68		
13	7:25	99.7%	7:40	7:44	7:42	7:46	6.25	6.23		
14	6:35	99.7%	6:50	6:55	6:51	6:56	8.2	8.2		
15	6:30	99.7%	6:45	6:50	6:46	6:51	7.84	7.84		

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: June 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
16	7:05	99.7%	7:20	7:25	7:21	7:26	7.0	7.0		
17	6:46	99.7%	6:55	7:00	6:56	7:02	7.4	7.4		
18	6:45	99.7%	7:00	7:05	7:01	7:07	7.72	7.7		
19	6:40	99.7%	6:55	7:00	6:56	7:01	7.86	7.80		
20	8:50	99.7%	9:05	9:10	9:06	9:11	7.32	7.30		
21	6:50	99.7%	7:05	7:10	7:06	7:11	7.48	7.45		
22	6:40	99.7%	6:55	7:00	6:56	7:01	8.1	8.1		
23	7:05	99.7%	7:20	7:25	7:21	7:26	8.1	8.1		
24	6:35	99.7%	6:50	6:55	6:51	6:56	8.3	8.3		
25	6:30	99.7%	6:45	6:50	6:46	6:51	7.4	7.4		Janay Smith
26	6:45	99.7%	7:00	7:05	7:01	7:06	8.2	8.2		
27	6:45	99.7%	7:00	7:05	7:01	7:06	8.3	8.3		J Smith
28	7:29	99.7%	7:44	7:47	7:50	7:53	7.54	7.54		
29	6:32	99.7%	6:47	6:50	6:53	6:56	7.75	7.75		
30	6:54	99.7%	7:09	7:12	7:15	7:18	6.97	6.97		
31										

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

Plant DO Measurement 2021

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition
Treatment Plant Name: West District

DO Meter S. Number: _____

Facility Number: 237

Month / Year: 7-2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
1	6:44	99.7%	6:59	7:02	7:05	7:08	7.04	7.04		
2	6:45	99.7%	7:00	7:02	7:05	7:07	7.84	7.84		J Smith
3	9:30	99.7%	9:45	9:49	9:48	9:52	7.68	7.68		Dave Green
4	8:45	99.7%	9:01	9:05	9:04	9:08	7.76	7.76		Dave Green
5	9:36	99.7%	9:52	9:56	9:55	10:00	7.58	7.58		Dave Green
6	7:15	99.7%	7:30	7:35	7:33	7:39	8.4	8.4		J Smith
7	6:30	99.7%	6:45	6:50	6:46	6:51	8.3	8.3		
8	6:50	99.7%	7:05	7:10	7:06	7:11	7.7	7.7		
9	7:00	99.7%	7:15	7:20	7:16	7:21	7.47	7.47		
10	8:00	99.7%	8:15	8:20	8:16	8:21	8.16	8.16		
11	6:45	99.7%	7:00	7:05	7:01	7:06	7.8	7.8		
12	6:55	99.7%	7:16	7:15	7:11	7:16	7.4	7.4		
13	6:35	99.7%	6:50	6:55	6:51	6:56	7.6	7.6		
14	6:45	99.7%	7:00	7:05	7:01	7:06	7.4	7.4		
15	6:55	99.7%	7:16	7:15	7:11	7:16	7.4	7.4		

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

Plant DO Measurement 2021

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: _____ Facility Number: _____ Month / Year: _____

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
16	7:05	99.7%	7:20	7:25	7:21	7:26	7.4	7.4		JSmith
17	6:45	99.7%	7:00	7:05	7:02	7:07	7.4	7.4		JSmith
18	6:40	99.7%	6:55	7:00	6:58	7:03	7.4	7.4		JSmith
19	6:40	99.7%	6:55	7:00	6:59	7:04	7.4	7.4		JSmith
20	6:40	99.7%	6:55	7:00	6:58	7:03	7.4	7.4		JSmith
21	6:45	99.7%	7:00	7:05	7:03	7:08	7.6	7.6		JSmith
22	7:00	99.7%	7:15	7:20	7:16	7:21	7.6	7.6		
23	6:40	99.7%	6:55	7:00	6:58	7:04	7.81	7.81		JSmith
24	7:10	99.6%	7:25	7:29	7:27	7:31	6.55	6.55		
25	7:20	99.5%	7:35	7:39	7:37	7:41	6.76	6.76		
26	6:45	99.7%	7:00	7:05	7:01	7:06	7.63	7.60		
27	6:50	99.7%	7:05	7:10	7:06	7:11	7.3	7.3		
28	6:50	99.7%	7:05	7:10	7:06	7:11	7.3	7.3		
29	6:30	99.7%	6:50	6:55	6:51	6:56	8.3	8.3		
30	6:55	99.7%	7:10	7:15	7:11	7:16	7.3	7.3		
31	6:35	99.7%	6:40	6:45	6:41	6:46	7.48	7.48		

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: Aug. 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
1	7:15	99.7%	7:30	7:35	7:31	7:36	7.53	7.53		
2	6:55	99.7%	7:16	7:15	7:11	7:16	7.6	7.6		
3	6:40	99.7%	6:55	7:00	6:56	7:01	7.4	7.4		
4	7:00	99.7%	7:15	7:22	7:17	7:24	7.48	7.48		David Green
5	6:50	99.8%	7:10	7:15	7:13	7:18	7.32	7.32		David Green
6	8:20	99.7%	8:40	8:44	8:43	8:47	7.1	7.1		David Green
7	6:55	99.7%	7:10	7:14	7:13	7:17	7.26	7.26		David Green
8	6:58	99.7%	7:13	7:18	7:16	7:21	7.34	7.34		David Green
9	6:45	99.7	6:54	7:16	7:01	7:14	6.85	6.84		JC
10	6:45	99.7	7.00	7:22	7:16	7:25	7.12	7.13		JC
11	6:40	99.6	6:49	7:06	6:59	7:08	7.28	7.29		JC
12	6:41	99.7	6:48	7:00	6:52	7:04	7.02	7.01		JC
13	6:30	99.7	6:40	6:53	6:48	6:56	7.07	7.06		JC
14	6:35	99.7%	6:40	6:48	6:41	6:49	7.32	7.31		
15	6:40	99.7	7:00	7:05	7:01	7:06	7.33	7.33		

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: Aug 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
16	1:20	99.7%	1:35	1:50	1:44	1:53	7.83	7.82		JC
17	6:30	99.7%	7:05	7:20	7:13	7:23	7.48	7.49		JC
18	6:31	99.7%	6:39	6:57	6:47	7:06	7.41	7.40		JC
19	7:05	99.7%	7:20	7:25	7:24	7:28	7.48	7.48		David Green
20	12:45	99.7%	1:00 pm	1:05	1:03	1:08	7.28	7.28		David Green
21	6:33	99.7%	6:48	6:52	6:51	6:56	7.42	7.42		David Green
22	6:40	99.7%	6:57	7:02	7:00	7:05	7.48	7.48		David Green
23	7:00	99.7%	7:15	7:30	7:22	7:33	7.52	7.54		JC
24	7:50	99.7%	8:05	8:20	8:12	8:23	7.22	7.23		JC
25	6:34	99.7%	6:44	6:58	6:51	7:03	6.96	6.95		JC
26	6:36	99.7 %	6:46	6:59	6:52	7:05	7.52	7.53		JC
27	6:31	99.7%	6:39	6:57	6:47	7:00	7.09	7.08		JC
28	7:15	99.7	7:30	7:35	7:31	7:36	7.3	7.3		J.S
29	7:30	99.7%	7:45	7:50	7:46	7:51	7.7	7.7		J.S
30	6:50	99.7	7:06	7:21	7:14	7:25	7.02	7.01		JC
31	7:55	99.7%	8:10	8:14	8:13	8:17	7.12	7.12		David Green

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

Plant DO Measurement 2021

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: Sept. 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
1	7:20	99.7%	7:36	7:45	7:42	7:52	7.41	7.42		JC
2	6:30	99.7%	6:36	6:52	6:48	6:58	7.32	7.33		JC
3	6:31	99.7%	6:40	6:55	6:57	7:01	7.47	7.48		JC
4	6:32	99.7%	6:55	6:59	6:58	7:04	7.42	7.42		David Green
5	8:10	99.7%	8:25	8:32	8:28	8:35	7.46	7.46		David Green
6	7:10	99.7%	7:26	7:32	7:29	7:35	7.38	7.38		David Green
7	9:50	99.7%	10:00	10:15	10:09	10:21	7.10	7.11		JC
8	6:36	99.7%	6:45	7:00	6:58	7:06	7.07	7.08		JC
9	6:29	99.7%	6:37	6:54	6:49	7:02	7.71	7.72		JC
10	6:38	99.7%	6:49	7:04	7:00	7:11	7.74	7.73		JC
11	6:50	99.7%	7:05	7:09	7:08	7:12	7.64	7.64		David Green
12	7:00	99.7%	7:15	7:19	7:17	7:21	7.54	7.54		
13	9:35	99.7%	9:50	10:05	9:57	10:08	6.68	6.67		JC
14	5:40	99.7%	5:45	6:00	5:50	6:05	6.22	6.23		JC
15	10:00	99.7%	10:15	10:30	10:22	10:34	6.73	6.72		JC

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

Plant DO Measurement 2021

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition
Treatment Plant Name: West District

DO Meter S. Number: _____

Facility Number: 0237

Month / Year: Sept. 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
16	6:30	99.7%	6:45	7:00	6:57	7:07	6.88	6.87		JC
17	6:30	99.7%	6:48	6:55	6:52	7:04	7.05	7.03		JC
18	8:05	99.6%	8:20	8:25	8:23	8:28	7.00	7.05		
19	9:20	99.7%	9:35	9:40	9:37	9:42	6.99	6.97		
20	6:33	99.7%	6:42	6:58	6:53	7:04	6.89	6.88		JC
21	6:35	99.7%	6:45	7:02	6:57	7:08	6.94	6.93		JC
22	6:34	99.7%	6:44	7:01	6:56	7:07	7.29	7.28		JC
23	6:58	99.7%	7:07	7:22	7:18	7:29	7.01	7.00		JC
24	7:05	99.7%	7:14	7:29	7:25	7:36	7.05	7.04		JC
25	7:10	99.7%	7:25	7:30	7:26	7:31	7.7	7.6		
26	6:55	99.7%	7:05	7:10	7:06	7:11	7.8	7.8		
27	7:00	99.7%	7:15	7:20	7:16	7:21	7.7	7.7		
28	7:07	99.7%	7:15	7:30	7:23	7:34	7.26	7.27		JC
29	7:10	99.7%	7:20	7:35	7:27	7:38	7.29	7.28		JC
30	7:10	99.7%	7:20	7:35	7:27	7:38	7.17	7.18		JC
31										

Note: : Second Column of each date is for field duplicate analysis. Duplicate sample shall be analyzed on 10 % basis or at least one per day.
: Rinse and clean the probe with DI water every time before and after measurement. Store the probe with wet sponge.

Plant DO Measurement 2021

HOUSTON PUBLIC WORKS

Wastewater operation Division
DO Analysis by Standard Method 4500-O G (Membrane Electrode) 20th. Edition

DO Meter S. Number: _____

Treatment Plant Name: West District Facility Number: 0237 Month / Year: Oct 2021

Date	DO Meter Calibration		DO MEASUREMENT						COMMENTS	OPERATOR'S SIGNATURE
	TIME	Calibration in Water Saturated Air %	Sample Collection Time		Effluent Measurement Time		Effluent Measurement Reading mg/L			
			A	B	A	B	A	B		
1	6:50	99.7%	7:05	7:10	7:06	7:11	8.1	8.1		
2	6:40	99.7%	6:55	6:59	6:58	7:02	7.86	7.86		Dave Green
3	6:50	99.8%	7:05	7:09	7:08	7:13	7.65	7.65		Dave Green
4	6:38	99.7%	6:47	7:04	6:55	7:09	6.87	6.86		JC
5	6:31	99.7%	7:06	7:19	7:09	7:22	7.23	7:22		JC
6	9:45	99.7%	9:54	10:13	10:03	10:18	7.07	7:06		JC
7	6:33	99.7%	6:42	7:02	6:52	7:05	6.92	6.93		JC
8	6:45	99.7%	7:00	7:04	7:03	7:07	7.23	7.22		JSmith
9	9:15	99.7%	9:30	9:35	9:31	9:36	7.7	7.7		
10	10:05	99.7%	10:20	10:25	10:21	10:26	7.6	7.6		
11	6:46	99.7%	6:54	7:10	7:01	7:14	7.15	7.14		JC
12	6:30	99.7%	6:39	6:56	6:48	7:06	6.77	6.75		JC
13	7:00	99.7%	7:09	7:26	7:18	7:30	6.83	6.84		JC
14										

ATTACHMENT J

List of Facility Operators
Tech Rpt 1.0, Section 8

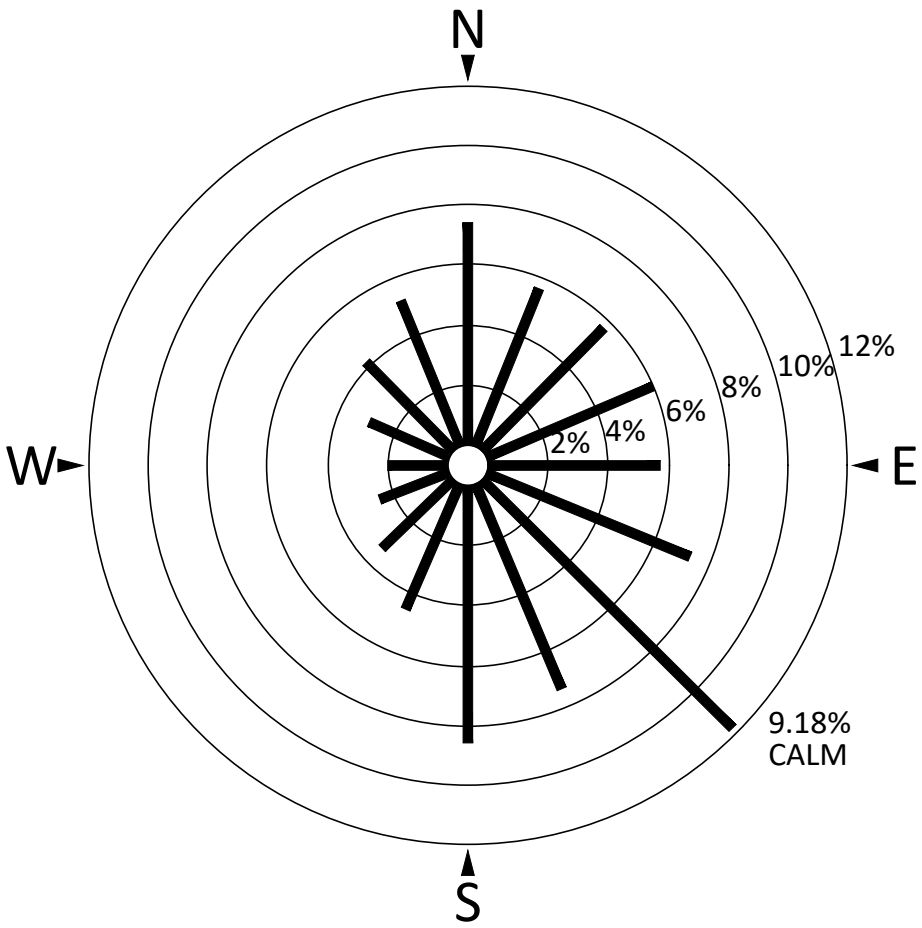
ATTACHMENT J
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
LIST OF FACILITY OPERATORS

Position	Name	Classification	Number
Deputy Assistant Director	Sidney Bomer	Class A	WW0012493
Operations Manager	LeAndrea Scott	Class A	WW0012577
Assistant Operations Manager	Thomas Alikah	Class A	WW0000797
Operations Section Chief	Michael Myers	Class A	WW0046413
Plant Operator Supervisor	Lashandra Hall	Class B	WW0065314
Plant Operator	Joseph Samarneh	Class C	WW0064959

ATTACHMENT K

Wind Rose
Tech Rpt 1.1, Section 5.B

PLUMMER



FREQUENCY OF
WIND DIRECTION

PREVAILING WINDS FOR HOUSTON, TEXAS

SOURCE: TCEQ

ATTACHMENT K
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
WIND ROSE

ATTACHMENT L

Summary of WET Test Results
Wks 5.0 Section 3

ATTACHMENT L
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
SUMMARY OF WET TEST RESULTS

Test Initiation Date	Species	Lethal Endpoint	Sublethal Endpoint
4/18/2017	*Ceriodaphnia dubia*	85	64
4/18/2017	*Pimephales promelas*	85	85
7/3/2017	*Ceriodaphnia dubia*	85	85
10/23/2017	*Ceriodaphnia dubia*	>100	>100
10/23/2017	*Pimephales promelas*	>100	>100
1/8/2018	*Ceriodaphnia dubia*	>100	74.41
1/8/2018	*Pimephales promelas*	>100	>100
4/16/2018	*Ceriodaphnia dubia*	>100	>100
4/16/2018	*Pimephales promelas*	>100	>100
7/31/2018	*Ceriodaphnia dubia*	>100	>100
7/31/2018	*Pimephales promelas*	>100	>100
11/6/2018	*Ceriodaphnia dubia*	>100	>100
2/19/2019	*Ceriodaphnia dubia*	>100	>100
2/19/2019	*Pimephales promelas*	>100	>100
5/29/2019	*Ceriodaphnia dubia*	>100	>100
8/13/2019	*Ceriodaphnia dubia*	>100	>100
11/13/2019	*Ceriodaphnia dubia*	>100	>100
2/4/2020	*Ceriodaphnia dubia*	>100	>100
2/4/2020	*Pimephales promelas*	>100	>100
5/12/2020	*Ceriodaphnia dubia*	>100	>100
8/18/2020	*Ceriodaphnia dubia*	>100	>100
11/17/2020	*Ceriodaphnia dubia*	>100	>100
2/2/2021	*Ceriodaphnia dubia*	>100	>100
2/2/2021	*Pimephales promelas*	>100	>100
5/11/2021	*Ceriodaphnia dubia*	>100	>100

ATTACHMENT M

Effluent Parameters Above the MAL
Wks 6.0 Section 2.C

ATTACHMENT M
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
EFFLUENT PARAMETERS ABOVE THE MAL

Pollutant	Concentration	MAL	Units	Date
Aluminum	12.7	2.5	ug/L	4/22/2021
Arsenic	1.27	0.5	ug/L	4/22/2021
Barium	53.1	3	ug/L	4/22/2021
Copper	5.11	2	ug/L	4/22/2021
Nickel	4.46	2	ug/L	4/22/2021
Zinc	37.2	5	ug/L	4/22/2021
Mercury	0.0021	0.0005	ug/L	4/22/2021
Bromodichloromethane	24.4	10	ug/L	4/22/2021
Chloroform	42.4	10	ug/L	4/22/2021
Total Trihalomethane	76.6	10	ug/L	4/22/2021
Nitrate-nitrogen	23610	100	ug/L	4/22/2021
Aluminum	18.7	2.5	ug/L	7/23/2020
Arsenic	2.25	0.5	ug/L	7/23/2020
Barium	42.2	3	ug/L	7/23/2020
Copper	9.35	2	ug/L	7/23/2020
Nickel	2.99	2	ug/L	7/23/2020
Zinc	36.0	5	ug/L	7/23/2020
Mercury	0.00101	0.0005	ug/L	7/23/2020
Bromodichloromethane	22.5	10	ug/L	7/23/2020
Chloroform	44.9	10	ug/L	7/23/2020
Total Trihalomethane	73.9	10	ug/L	7/23/2020
Nitrate-nitrogen	19600	100	ug/L	7/23/2020
Phenol	85.9	10	ug/L	7/23/2020
Aluminum	83.6	2.5	ug/L	9/19/2019
Arsenic	2.41	0.5	ug/L	9/19/2019
Barium	42.8	3	ug/L	9/19/2019
Copper	10.5	2	ug/L	9/19/2019
Nickel	2.43	2	ug/L	9/19/2019
Zinc	51.7	5	ug/L	9/19/2019
Mercury	0.00603	0.0005	ug/L	9/19/2019
Chloroform	16.1	10	ug/L	9/19/2019
Total Trihalomethane	25.5	10	ug/L	9/19/2019
Nitrate-nitrogen	10200	100	ug/L	9/19/2019
Aluminum	23.9	2.5	ug/L	9/13/2018
Arsenic	2.35	0.5	ug/L	9/13/2018
Barium	45.3	3	ug/L	9/13/2018
Copper	5.78	2	ug/L	9/13/2018
Nickel	2.79	2	ug/L	9/13/2018
Zinc	53.0	5	ug/L	9/13/2018
Mercury	0.00220	0.0005	ug/L	9/13/2018
Bromodichloromethane	22.4	10	ug/L	9/13/2018

ATTACHMENT M
CITY OF HOUSTON
WEST DISTRICT WASTEWATER TREATMENT FACILITY
TPDES PERMIT MAJOR AMENDMENT WITH RENEWAL APPLICATION
EFFLUENT PARAMETERS ABOVE THE MAL

Pollutant	Concentration	MAL	Units	Date
Chloroform	23.5	10	ug/L	9/13/2018
Total Trihalomethane	55.4	10	ug/L	9/13/2018
Nitrate-nitrogen	13000	100	ug/L	9/13/2018