Technical Package Cover Page

This file contains the following documents:

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

Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.
Hurst Creek Municipal Utility District (CN600642748) operates Hurst Creek MUD Wastewater Treatment Plant RN101614063. a municipal wastewater treatment plant. The facility is located at 2401 Lakeway Boulevard, in The Hills, Travis County, Texas 78738.

This is for a renewal and minor amendment to dispose a daily average flow not to exceed 500,000 gallons per day of treated domestic wastewater via surface irrigation with a minimum area of 181 acres. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain 5 mg/L BOD5, 10 mg/L TSS, and 2 mg/L P.Domestic wastewater is treated by *an activated sludge process plant using bar screens, aeration basins, final clarifiers, aerobic sludge digester/holding tanks, chlorine contact chambers and dual media filters*.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0012215001

APPLICATION. Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, Texas 78738, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Land Application Permit (TLAP) No. WQ0012215001 to authorize the disposal of treated wastewater at a volume not to exceed a daily average flow of 500,000 gallons per day via surface irrigation on 181 acres of golf course land. The domestic wastewater treatment facility and disposal site are located at 2401 Lakeway Boulevard, in Travis County, Texas 78738. TCEQ received this application on July 18, 2024. The permit application will be available for viewing and copying at Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, in Travis County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.983055,30.356944&level=18

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the**

Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing. A contested case hearing is a legal proceeding similar to a civil trial in state district court.

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

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

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

TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.

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

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

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at **https://www14.tceq.texas.gov/epic/eComment/**, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you

provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Hurst Creek Municipal Utility District at the address stated above or by calling Mr. Earl Wood, General Manager, at 512-261-6281.

Issuance Date: August 6, 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR WATER QUALITY LAND APPLICATION PERMIT FOR MUNICIPAL WASTEWATER

RENEWAL

PERMIT NO. WQ0012215001

APPLICATION AND PRELIMINARY DECISION. Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, Texas 78738, applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of TCEQ Permit No. WQ0012215001 which authorizes the disposal of treated domestic wastewater at a daily average flow not to exceed 500,000 gallons per day via surface irrigation of 181 acres of golf course land. This permit will not authorize a discharge of pollutants into water in the state. TCEQ received this application on July 18, 2024.

The wastewater treatment facility and disposal site are located at 2401 Lakeway Boulevard, in Travis County, Texas 78738. The wastewater treatment facility and disposal site are located in the drainage basin of Lake Travis in Segment No. 1404 of the Colorado River Basin. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.983055,30.356944&level=18

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, in Travis County, Texas. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications.

PUBLIC COMMENT / PUBLIC MEETING. **You may submit public comments or request a public meeting about this application.** The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ holds a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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

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

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, TX 78711-3087 or electronically at www.tceq.texas.gov/goto/comment **within 30 days from the date of newspaper publication of this notice.**

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

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at www.tceq.texas.gov/goto/comment, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC 105, P.O. Box 13087, Austin, Texas 78711-3087. Any personal information you submit to the TCEQ will become part of the agency's record; this includes email addresses. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Hurst Creek Municipal Utility District at the address stated above or by calling Mr. Earl Wood, General Manager, at 512-261-6281.

Issuance Date: May 1, 2025

PERMIT NO. WQ0012215001

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

This is a renewal of Permit No. WQ0012215001 issued on January 13, 2015.

PERMIT TO DISCHARGE WASTES
under provisions of Chapter 26
of the Texas Water Code

Hurst Creek Municipal Utility District

whose mailing address is

102 Trophy Drive
The Hills, Texas 78738

Nature of Business Producing Waste: Domestic wastewater treatment operation, SIC Code 4952.

General Description and Location of Waste Disposal System:

Description: The Hurst Creek Municipal Utility District Wastewater Treatment Facility consists of an activated sludge process plant using complete mix mode. Treatment units include a bar screen, two aeration basins, two final clarifiers, two sludge holding tanks, two filters and two chlorine contact chambers. The permittee is authorized to dispose of treated domestic wastewater effluent at a daily average flow not to exceed 0.50 million gallons per day (MGD) via surface irrigation of 181 acres of non-public access golf course land. The facility includes a storage pond with a total surface area of 9.0 acres and total capacity of 138 acre-feet for storage of treated effluent prior to irrigation. Application rates to the irrigated land shall not exceed 4.5 acre-feet per year per acre irrigated. The irrigated crops include bermuda grass.

Location: The wastewater treatment facility and disposal site are located at 2401 Lakeway Boulevard, in Travis County, Texas 78738. (See Attachment A.)

Drainage Area: The wastewater treatment facility and disposal site are located in the drainage basin of Lake Travis in Segment No. 1404 of the Colorado River Basin. No discharge of pollutants into water in the state is authorized by this permit.

This permit and the authorization contained herein shall expire at midnight, **ten years from the date of issuance**.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Conditions of the Permit: No discharge of pollutants into water in the state is authorized.

A. Effluent Limitations

Character: Treated Domestic Sewage Effluent

Volume: Daily Average Flow – 0.50 MGD from the treatment system

Quality: The following effluent limitations are required:

Parameter	Effluent Concentrations (Not to Exceed) Daily Average mg/l	Single Grab mg/l
Biochemical Oxygen Demand (5-day)	5	30
Total Suspended Solids	10	35
Total Phosphorus	2	15

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.

The effluent shall be chlorinated in a chlorine contact chamber to a residual of 1.0 mg/l with a minimum detention time of 20 minutes.

B. Monitoring Requirements:

Parameter	Monitoring Frequency	Sample Type
Flow	Continuous	Totalizing Meter
Biochemical Oxygen Demand (5-day)	One/week	Grab
Total Suspended Solids	One/week	Grab
Total Phosphorus	One/week	Grab
pH	Two/month	Grab
Total Chlorine Residual	Daily	Grab

The monitoring shall be done after the final treatment unit and prior to storage of the treated effluent. If the effluent is land applied directly from the treatment system, monitoring shall be done after the final treatment unit and prior to land application. These records shall be maintained on a monthly basis and be available at the plant site for inspection by authorized representatives of the Commission for at least three years.

STANDARD PERMIT CONDITIONS

This permit is granted in accordance with the Texas Water Code and the rules and other Orders of the Commission and the laws of the State of Texas.

DEFINITIONS

All definitions in Section 26.001 of the Texas Water Code and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

    a. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

    b. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with a 1 million gallons per day or greater permitted flow.

    c. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

2. Concentration Measurements

    a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

        i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

        ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

    b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

    c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

3. Sample Type

   a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

   b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids which have not been classified as hazardous waste separated from wastewater by unit processes.

6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.

7. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING REQUIREMENTS

1. Monitoring Requirements

   Monitoring results shall be collected at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling in accordance with 30 TAC §§ 319.4 - 319.12.

   As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record or other document submitted or required to be maintained under this permit, including monitoring reports, records or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

   a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 - 319.12. Measurements, tests and calculations shall be accurately accomplished in a representative manner.

b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years, monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, and records of all data used to complete the application for this permit shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, or application. This period shall be extended at the request of the Executive Director.

c. Records of monitoring activities shall include the following:

i. date, time and place of sample or measurement;
ii. identity of individual who collected the sample or made the measurement.
iii. date and time of analysis;
iv. identity of the individual and laboratory who performed the analysis;
v. the technique or method of analysis; and
vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in determining compliance with permit requirements.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

7. Noncompliance Notification

   a. In accordance with 30 TAC § 305.125(9), any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. Unauthorized discharges as defined in Permit Condition 2(g).

      ii. Any unanticipated bypass which exceeds any effluent limitation in the permit.

   c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

   All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

i. One hundred micrograms per liter (100 µg/L);
ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
iv. The level established by the TCEQ.

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. Five hundred micrograms per liter (500 µg/L);
ii. One milligram per liter (1 mg/L) for antimony;
iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

PERMIT CONDITIONS

1. General

a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

i. Violation of any terms or conditions of this permit;
ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.

e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and Texas Water Code Section 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Special Provisions section of this permit.

h. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28, and Texas Health and Safety Code Chapter 361.

b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to

public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in Texas Water Code Section 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment and/or Renewal

   a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

      i. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;

      ii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

   c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

   d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

e. In accordance with the Texas Water Code § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

5. Permit Transfer

a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal which requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

8. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

9. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

10. Notice of Bankruptcy.

a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

i. the permittee;
ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.

b. This notification must indicate:

i. the name of the permittee;
ii. the permit number(s);
iii. the bankruptcy court in which the petition for bankruptcy was filed; and
iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under Texas Water Code § 7.302(b)(6).

7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information specified as not confidential in 30 TAC § 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities which generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

   a. Whenever flow measurements for any domestic sewage treatment facility reach 75 percent of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90 percent of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75 percent of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

      If in the judgement of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

   b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

   c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any

other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. Facilities which generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:

    a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

    b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

    c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

    d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.

    e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

    f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:

        i. Volume of waste and date(s) generated from treatment process;
        ii. Volume of waste disposed of on-site or shipped off-site;
        iii. Date(s) of disposal;

iv. Identity of hauler or transporter;
v. Location of disposal site; and
vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

11. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with Chapter 361 of the Texas Health and Safety Code.

TCEQ Revision 06/2020

SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge or biosolids only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge or biosolids by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.

2. In all cases, if the person (permit holder) who prepares the sewage sludge or biosolids supplies the sewage sludge or biosolids to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge or biosolids to assure compliance with these regulations.

3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

1. Sewage sludge or biosolids shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 11) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 11) and the Enforcement Division (MC 224).

2. Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

TABLE 1

Pollutant	Ceiling Concentration (Milligrams per kilogram)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 1 - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

Alternative 2 - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

Alternative 3 - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

Alternative 4 - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.

d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

Alternative 1

i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.

ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2 - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;

iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and

v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

Alternative 3 - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;

iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;

iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and

v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 – 3, the following site restrictions must be met if Class B biosolids are land applied:

i. Food crops with harvested parts that touch the biosolids /soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.

ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain the land surface for 4 months or longer prior to incorporation into the soil.

iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.

iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.

v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.

vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.

viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.

4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

Alternative 1 - The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.

Alternative 2 - If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.

Alternative 3 - If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.

Alternative 4 - The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.

Alternative 5 - Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.

Alternative 6 - The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.

Alternative 7 - The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8 - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9 -

i. Sewage sludge shall be injected below the surface of the land.

ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

Alternative 10-

i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.

ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test	- once during the term of this permit
PCBs	- once during the term of this permit

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of biosolids (*) metric tons per 365-day period	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) *The amount of bulk biosolids applied to the land (dry wt. basis).*

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, sewage sludge or biosolids for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B BIOSOLIDS PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

Table 2

Pollutant	Cumulative Pollutant Loading Rate (pounds per acre)*
Arsenic	36
Cadmium	35
Chromium	2677
Copper	1339
Lead	268
Mercury	15
Molybdenum	Report Only
Nickel	375
Selenium	89
Zinc	2500

Table 3

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Chromium	1200
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report Only
Nickel	420
Selenium	36
Zinc	2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge or biosolids enters a wetland or other waters in the State.

2. Bulk sewage sludge not meeting Class A biosolids requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.

3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.

4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:

    a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.

    b. A statement that application of the Class A or AB biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.

    c. The annual whole sludge application rate for the sewage sludge application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

1. If bulk biosolids are applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:

    a. The location, by street address, and specific latitude and longitude, of each land application site.

    b. The approximate time period bulk biosolids will be applied to the site.

    c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.

2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the biosolids disposal practice.

E. Record Keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period

of five years. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.

2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).

3. A description of how the vector attraction reduction requirements are met.

4. A description of how the management practices listed above in Section II.C are being met.

5. The following certification statement:

   "I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative indefinitely. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:

   a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge or biosolids treatment activities.

   b. The location, by street address, and specific latitude and longitude, of each site on which sludge or biosolids are applied.

   c. The number of acres in each site on which bulk sludge or biosolids are applied.

   d. The date and time sludge or biosolids are applied to each site.

   e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.

   f. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 11) and the Enforcement Division (MC 224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.

4. The frequency of monitoring listed in Section I.C. that applies to the permittee.

5. Toxicity Characteristic Leaching Procedure (TCLP) results.

6. PCB concentration in sludge or biosolids in mg/kg.

7. Identity of hauler(s) and TCEQ transporter number.

8. Date(s) of transport.

9. Texas Commission on Environmental Quality registration number, if applicable.

10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.

11. The concentration (mg/kg) in the sludge or biosolids of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.

12. Level of pathogen reduction achieved (Class A, Class AB or Class B).

13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.

14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

15. Vector attraction reduction alternative used as listed in Section I.B.4.

16. Amount of sludge or biosolids transported in dry tons/year.

17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.

18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.

    a. The location, by street address, and specific latitude and longitude.

    b. The number of acres in each site on which bulk biosolids are applied.

    c. The date and time bulk biosolids are applied to each site.

    d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.

    e. The amount of biosolids (i.e., dry tons) applied to each site.

    The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge or biosolids meet the requirements in 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

B. If the permittee generates sewage sludge or biosolids and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.

C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge or biosolids disposal practice.

D. Sewage sludge or biosolids shall be tested once during the term of this permit in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

   Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 11) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

   The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 11) and the Enforcement Division (MC 224), by September 30$_{th}$ of each year.

E. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.

F. Record Keeping Requirements

   The permittee shall develop the following information and shall retain the information for five years.

1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.

2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 11) and the Enforcement Division (MC224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. Toxicity Characteristic Leaching Procedure (TCLP) results.

3. Annual sludge or biosolids production in dry tons/year.

4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.

5. Amount of sludge or biosolids transported interstate in dry tons/year.

6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.

7. Identity of hauler(s) and transporter registration number.

8. Owner of disposal site(s).

9. Location of disposal site(s).

10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge or biosolids that is transported to another wastewater treatment facility or facility that further processes sludge or biosolids. These provisions are intended to allow transport of sludge or biosolids to facilities that have been authorized to accept sludge or biosolids. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge or biosolids, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.

2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

1. For sludge or biosolids transported by an approved pipeline, the permittee must maintain records of the following:

   a. the amount of sludge or biosolids transported;

   b. the date of transport;

   c. the name and TCEQ permit number of the receiving facility or facilities;

   d. the location of the receiving facility or facilities;

   e. the name and TCEQ permit number of the facility that generated the waste; and

   f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.

2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.

3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall submit the following information in an annual report to the TCEQ by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through TCEQ's website. If the permittee requests and obtains an electronic reporting waiver, the annual report can be submitted in hard copy to the TCEQ Regional Office (MC Region 11) and the Enforcement Division (MC 224).

1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

2. the annual sludge or biosolids production;

3. the amount of sludge or biosolids transported;

4. the owner of each receiving facility;

5. the location of each receiving facility; and

6. the date(s) of disposal at each receiving facility.

TCEQ Revision 06/2020

SPECIAL PROVISIONS:

1. This permit is granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend this permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, if an area-wide system is developed; to require the delivery of the wastes authorized to be collected in, treated by, or discharged from the system, to an area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment, or disposal system.

2. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

   This Category C facility must be operated by a chief operator or an operator holding a Class C license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift which does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

3. The permittee shall maintain and operate the treatment facility in order to achieve optimum efficiency of treatment capability. This shall include required monitoring of effluent flow and quality as well as appropriate grounds and building maintenance.

4. Irrigation practices shall be designed and managed so as to prevent ponding of effluent or contamination of ground and surface waters and to prevent the occurrence of nuisance conditions in the area. The golf course or other ground cover shall be established and well maintained in the irrigation area throughout the year for effluent and nutrient uptake by the crop and to prevent pathways for effluent surfacing. Tailwater control facilities shall be provided as necessary to prevent the discharge of any effluent from the irrigated land.

5. Effluent shall not be applied for irrigation during rainfall events or when the ground is frozen or saturated.

6. The irrigated crops include Bermudagrass. Application rates to the irrigated land shall not exceed an agronomic rate of 4.5 acre-feet per acre per year. The permittee is responsible for providing equipment to determining application rates and maintaining accurate records of the volume of effluent applied. These records shall be made available for review by the Texas Commission on Environmental Quality and shall be maintained for least three years.

7. Holding or storage ponds shall conform to the design criteria for stabilization ponds with regard to construction and levee design and shall maintain a minimum freeboard of two feet according to 30 TAC Chapter 217, Design Criteria for Wastewater Treatment Systems.

8. The permittee shall obtain representative soil samples from the root zones of the land application area. Composite sampling techniques shall be used. Each composite sample shall represent no more than 80 acres with no less than 10 to 15 subsamples representing each composite sample. Subsamples shall be composited by like sampling depth, type of crop and soil type for analysis and reporting. Soil types are soils that have like topsoil or plow layer textures. These soils shall be sampled individually from 0 to 6 inches, 6 to 18 inches and 18 to 30 inches below ground level. The permittee shall sample soils in December to February of each year. Soil samples shall be analyzed within 30 days of sample collection.

   The permittee shall provide annual soil analyses of the land application area according to the following table:

Parameter	Method	Minimum Analytical Level (MAL)	Reporting units
pH	2:1 (v/v) water to soil mixture		Reported to 0.1 pH units after calibration of pH meter
Electrical Conductivity	2:1 (v/v) water to soil mixture	0.01	dS/m (same as mmho/cm)
Nitrate-nitrogen	From a 1 N KCl soil extract	1	mg/kg (dry weight basis)
Total Kjeldahl Nitrogen (TKN)	For determination of Organic plus Ammonium Nitrogen. Procedures that use Mercury (Hg) are not acceptable.	20	mg/kg (dry weight basis)
Total Nitrogen	= TKN + nitrate-nitrogen (same as, organic-nitrogen + ammonium-nitrogen + nitrate-nitrogen)		mg/kg (dry weight basis)
Plant-available: Phosphorus	Mehlich III with inductively coupled plasma	1	mg/kg (dry weight basis)
Plant-available: Potassium	May be determined in the same Mehlich III extract with inductively coupled plasma	5	mg/kg (dry weight basis)
Amendment addition, e.g., gypsum	Recommendation from analytical laboratory		Report in *short tons/acre* in the year effected

A copy of this soil testing plan shall be provided to the analytical laboratory prior to sample analysis. The permittee shall submit the results of the annual soil sample analyses with copies of the laboratory reports and a map depicting the areas that have received wastewater within the permanent land application fields to the TCEQ Regional Office (MC Region 11), the Water Quality Assessment Team (MC 150), and the Compliance Monitoring Team (MC 224) of the Enforcement Division, no later than September 1st of each sampling year. If wastewater is not applied in a particular year, the permittee shall notify the same TCEQ offices and indicate that wastewater has not been applied on the approved land irrigation site(s) during that year.

9. The permittee shall maintain a long term contract with the owner(s) of the land application site which is authorized for use in this permit, or own the land authorized for land application of treated effluent.

10. The permittee shall erect adequate signs stating that the irrigation water is from a non-potable water supply for any area where treated effluent is stored or where there exist hose bibs or faucets. Signs shall consist of a red slash superimposed over the international symbol for drinking water accompanied by the message "DO NOT DRINK THE WATER" in both English and Spanish. All piping transporting the effluent shall be clearly marked with these same signs.

11. Spray fixtures for the irrigation system shall be of such design that they cannot be operated by unauthorized personnel.

12. Irrigation with effluent shall be accomplished only when the area specified is not in use.

13. Permanent transmission lines shall be installed from the holding pond to each tract of land to be irrigated utilizing effluent from that pond.

14. **For the storage pond**: Facilities for the retention of treated or untreated wastewater shall be adequately lined to control seepage. The following methods of pond lining are acceptable:
    a. In-situ clay soils or placed and compacted clay soils meeting the following requirements:
        1. More than 30% passing a No. 200 mesh sieve
        2. Liquid limit greater than 30%
        3. Plasticity index greater than 15
        4. A minimum thickness of 2 feet
    b. Membrane lining with a minimum thickness of 20 mils, and an underdrain leak detection system.
    c. An alternate method of pond lining may be utilized with prior approval from the Executive Director.

    The permittee **has furnished** certification by a Texas Licensed Professional Engineer that the completed pond lining meets the appropriate criteria above.

15. The existing wastewater ponds shall be maintained and operated in a manner that prevents unauthorized discharge to water in the state and contamination of groundwater. At least once per month, the Permittee shall inspect the sides and bottom (if visible) of all

wastewater ponds for signs of damage and leakage, and any pond leak detection systems that are in service. Leaking ponds shall be removed from service, or operated in a manner to prevent discharge, until repairs are made or replacement ponds are constructed.

16. Any new or modified wastewater pond shall be adequately lined to control seepage in accordance with 30 TAC §217.203 and 30 TAC 309.13(d) since the facility overlies the recharge zone of an aquifer. The Permittee shall submit the liner certification for a newly-constructed or modified wastewater pond to the Water Quality Assessment Team (MC-150), the TCEQ Austin Regional Office (MC-Region 11), and the TCEQ Compliance Monitoring Section (MC-224) within 30 days of completion and prior to use. The certification shall be signed and sealed by a Texas-licensed professional engineer and include a description of how the liner meets the requirements of 30 TAC §217.203 and 30 TAC §309.13(d) since the facility is located on the recharge zone of an aquifer.

17. Pond liner certifications and all liner construction and repair documentation shall be maintained by the Permittee for the life of the facility and be made available for TCEQ personnel for inspection and review.

18. The permittee shall comply with buffer zone requirements of 30 TAC §309.13(c). A wastewater treatment plant unit, defined by 30 TAC Section §309.11(9), must be located a minimum horizontal distance of 250 ft from a private well and a minimum horizontal distance of 500 ft from a public water well site, spring, or other similar sources of public drinking water, as provided by §290.41(c)(1)(C) of this title.

19. The permittee shall own the property that contains the storage pond and by ownership, the permittee shall maintain a minimum buffer zone of 50 feet from the storage pond to the nearest property line.

20. The permittee shall provide facilities for the protection of its wastewater treatment facilities from a 100-year flood.

21. The economic benefits derived from operations carried out at the land disposal site shall be secondary to the proper disposal of effluent.

22. The effluent shall be chlorinated in a chlorine contact chamber to a residual of 1.0 mg/l with a minimum detention time of at least 20 minutes (based on peak flow). If the effluent is to be transferred to a holding pond or tank, re-chlorination prior to the effluent being delivered into the irrigation system will be required. A trace chlorine residual shall be maintained in the effluent at the point of irrigation application.

23. Any significant change in irrigation practices shall receive approval from the Executive Director of the Texas Natural Resource Conservation Commission.

24. The plans and specifications for the waste collection and treatment works and disposal system authorized by this permit must be approved pursuant to state law, and failure to secure approval before commencing construction of such works or making a discharge therefrom is a violation of this permit, and each day of discharge is an additional violation until approval has been secured.

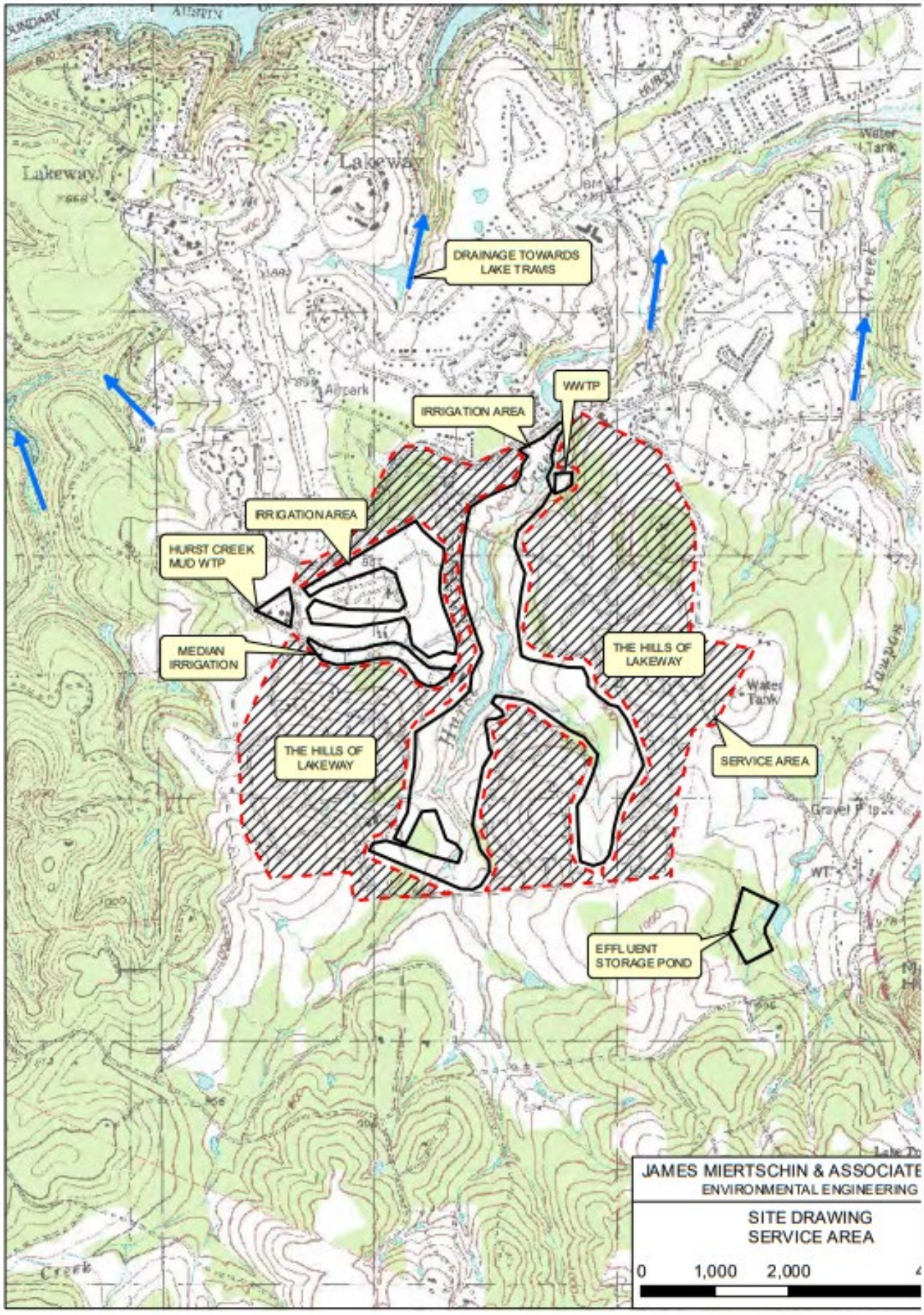
25. In accordance with the March 13, 1998 permit, the permittee's storage and disposal systems may accept up to 0.1 MGD of treated effluent, which complies with this permits effluent

limitations, from another permitted treatment facility (TCEQ Permit No. WQ0013878001) located outside of the permittee's service area, if authorized by the Commission. The permittee will acquire ownership, and will accept full responsibility for storage and disposal of such transferred effluent volume, at the point where it enters the permittee's effluent storage pond. A copy of the joint venture or partnership agreement concerning commingling of effluents, shall be filed with the Executive Director (MC 109) of the Texas Commission on Environmental Quality upon completion of the agreement and prior to commingling of the treated effluents in the storage pond. The permittee shall notify the Executive Director (MC 109) of termination of the agreement and shall file with the Executive Director a copy of within 5 days of execution of said agreement.

26. The permittee shall use cultural practices to promote and maintain the health and propagation of the Bermuda grass crops and avoid plant lodging. The permittee shall harvest the crops (cut and remove it from the field) at least one time during the year. Harvesting and mowing dates shall be recorded in a logbook kept on site to be made available to TCEQ personnel upon request.

27. The physical condition of the spray irrigation fields will be monitored on a weekly basis when the fields are being utilized for the purpose of wastewater irrigation. Any areas with problems such as surface runoff, surficial erosion, stressed or damaged vegetation will be recorded in the field log kept onsite and corrective measures will be initiated within 24 hours of discovery.

Attachment A- Site Map
TCEQ Permit No. WQ0012215001
Hurst Creek Municipal Utility District



TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant:	Hurst Creek Municipal Utility District TCEQ Permit No. WQ0012215001
Regulated Activity:	Domestic Wastewater Permit
Type of Application:	Renewal
Request:	Renewal with changes
Authority:	Texas Water Code (TWC) § 26.027; 30 Texas Administrative Code (TAC) Chapters 305, 309, 312, 319, and 30; and Commission policies.

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **ten years from the date of issuance,** according to 30 TAC Section 305.127(1)(C)(ii)(III), Conditions to be Determined for Individual Permits.

REASON FOR PROJECT PROPOSED

Hurst Creek Municipal Utility District has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Permit No. WQ0012215001 to authorize the disposal of treated domestic wastewater from a daily average flow not to exceed 0.40 million gallons per day (MGD) via surface irrigation of 181 acres of non-public access golf course land. The facility includes a storage pond with a total surface area of 9.0 acres and total capacity of 138 acre-feet for storage of treated effluent prior to irrigation. The existing wastewater treatment facility serves a residential subdivision (Village of the Hills).

PROJECT DESCRIPTION AND LOCATION

The Hurst Creek MUD Wastewater Treatment Facility consists of an activated sludge process plant using complete mix mode. Treatment units include a bar screen, two aeration basins, two final clarifiers, two sludge holding tanks, two filters and two chlorine contact chambers. The facility is in operation.

Sludge generated from the treatment facility is hauled by a registered transporter to Mico Dirt, MSW Permit No. 2361, in Travis County, for further processing. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

The wastewater treatment facility and disposal site are located at 2401 Lakeway Boulevard in Travis County, Texas 78738.

The wastewater treatment facility and disposal site are located in the drainage basin of Lake Travis in Segment No. 1404 of the Colorado River Basin. No discharge of pollutants into water in the state is authorized by this permit.

SUMMARY OF EFFLUENT DATA

The following is a summary of the applicant's effluent monitoring data for the period April 2022 through April 2024. The average of Daily Average value is computed by averaging of all 30-day average values for the reporting period for each parameter: flow, five-day biochemical oxygen demand (BOD_5), and total suspended solids (TSS) and Total Phosphorus (TP).

Parameter	Average of Daily Average
Flow, MGD	0.193
BOD_5, mg/l	1.9
TSS, mg/l	1.2
TP, mg/l	1.2

DRAFT PERMIT CONDITIONS

The draft permit authorizes the disposal of treated domestic wastewater effluent at a daily average flow not to exceed 0.50 MGD via surface irrigation of 181 acres of non-public access golf course land. The facility includes a storage pond with a total surface area of 9.0 acres and total capacity of 138 acre-feet for storage of treated effluent prior to irrigation. Application rates to the irrigated land shall not exceed 4.5 acre-feet per year per acre irrigated. The irrigated crops include bermuda grass.

The effluent limitations in the draft permit, based on a daily average, are 5 mg/l BOD_5, 10 mg/l TSS and 2 mg/l TP. The effluent shall contain a total chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes based on peak flow.

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated from the treatment facility is hauled by a registered transporter to Mico Dirt, MSW Permit No. 2361, in Travis County, for further processing. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

SUMMARY OF CHANGES FROM APPLICATION

None.

SUMMARY OF CHANGES FROM EXISTING PERMIT

The applicant has requested to increase the daily average flow from 400,000 gallons per day to 500,000 gallons per day based on a previous correspondence with the Municipal Permits Team.

The Total Suspended Solids (TSS) monitoring frequency "One/month" in the existing permit has been changed to "One/ Week" in the draft permit.

The Total Phosphorus (TP) monitoring frequency “One/month” in the existing permit has been changed to “One/ Week” in the draft permit.

Chlorine residual monitoring frequency “five/week” in the existing permit has been change to “daily” in the draft permit.

The flow Monitoring Frequency and Sample Type “Five/week” and “Instantaneous” in the existing permit have been changed to “Continuous” and “Totalizing Meter” respectively, in the draft permit.

Special Provisions (S.P.) Nos. 6, 8 and 14 of the existing permit have been revised in the draft permit.

S.P. Nos. 15, 16, 17, 18, 26 and 27 have been added in the draft permit.

S.P. Nos 15, 16, 17, 18, 19, 20 and 21 of the existing permit have been renumbered as 19, 20, 21, 22, 23, 24 and 25 respectively in the draft permit.

The wastewater treatment facility and disposal site location has been updated from 2401 Lakeway Boulevard, approximately 600 feet south of World of Tennis Boulevard and 1,200 feet west of Lohmans Ford Road in the Lakeway Development Complex in Travis County, Texas 78738 to 2401 Lakeway Boulevard, in Travis County, Texas 78738 in the draft permit.

Certain accidental discharges or spills of treated or untreated wastewater from wastewater treatment facilities or collection systems owned or operated by a local government may be reported on a monthly basis in accordance with 30 TAC § 305.132.

The draft permit includes all updates based on the 30 TAC 312 rule change effective April 23, 2020.

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on July 18, 2024, and additional information received on August 1, 2024.

2. Existing TCEQ permit: Permit No. WQ0012215001 issued on January 13, 2015.

3. Interoffice Memorandum from the Water Quality Assessment Team, Water Quality Assessment & Standards Section, Water Quality Division.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The

Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application, contact Sumitra Pokharel at (512) 239-4722.

Sumitra Pokharel — April 28, 2025

Sumitra Pokharel — Date
Municipal Permits Team
Wastewater Permitting Section (MC 148)

STEGER BIZZELL

SERVICES >>ENGINEERS >>PLANNERS >>SURVEYORS

TEXAS REGISTERED ENGINEERING FIRM F-181
TBPLS Firm No. 10003700

ADDRESS 1978 S. AUSTIN AVENUE GEORGETOWN, TX 78626

WEB STEGERBIZZELL.COM

PHONE 512.930.9412

TOLL FREE 866.678.3437

Domestic Wastewater TLAP Permit Amendment Application

For

Hurst Creek MUD Wastewater Treatment Plant

In

Travis County, Texas

Job Number 22981

Prepared for:

Hurst Creek Municipal Utility District

Prepared by:

Steger Bizzell
Consulting Engineers & Surveyors
1978 South Austin Ave.
Georgetown, Texas 78626

Domestic Wastewater TLAP Permit Amendment Application

For

HURST CREEK MUD WASTEWATER TREATMENT PLANT

HURST CREEK MUNICIPAL UTILITY DISTRICT

In

Travis County, Texas

Prepared By:

Steger Bizzell
1978 South Austin Avenue
Georgetown, Texas 78626

Job # 22981

Hurst Creek MUD Wastewater Treatment Plant
TCEQ TLAP Permit Renewal
Table of Contents

ATTACHMENTS

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: Hurst Creek Municipal Utility District

PERMIT NUMBER: WQ0012215001

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	☒	☐
Public Involvement Plan Form	☐	☒	Flow Diagram	☒	☐
Technical Report 1.0	☒	☐	Site Drawing	☒	☐
Technical Report 1.1	☐	☒	Original Photographs	☐	☒
Worksheet 2.0	☐	☒	Design Calculations	☐	☒
Worksheet 2.1	☐	☒	Solids Management Plan	☐	☒
Worksheet 3.0	☒	☐	Water Balance	☐	☒
Worksheet 3.1	☐	☒			
Worksheet 3.2	☐	☒			
Worksheet 3.3	☐	☒			
Worksheet 4.0	☐	☒			
Worksheet 5.0	☐	☒			
Worksheet 6.0	☒	☐			
Worksheet 7.0	☐	☒			

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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: 20541

Check/Money Order Amount: 1,615.00

Name Printed on Check: Steger Bizzell

EPAY Voucher Number: Click here to enter text.

Copy of Payment Voucher enclosed? Yes ☐

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: Due to a clerical error in processing the previous permit application, we are requesting to increase the total permitted irrigation flow rate from 0.4 MGD up to 0.5 MGD. See Attachment 14 for correspondence with TCEQ that confirms this amendment application can be done as a minor amendment application.

For existing permits:

Permit Number: WQ0012215001

EPA I.D. (TPDES only): TX Click here to enter text.

Expiration Date: 12/01/2024

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?

Hurst Creek Municipal Utility District

(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: **600642748**

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): Mr.

First and Last Name: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: General Manager

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?

Click here to enter text.

(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: Click here to enter text.

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): Click here to enter text.

First and Last Name: Click here to enter text.

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Click here to enter text.

Provide a brief description of the need for a co-permittee: Click here to enter text.

C. Core Data Form

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

Attachment: 1

Section 4. Application Contact Information (Instructions Page 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): Mr.

First and Last Name: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr.

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: earlwood@hurstcreekmud.org

Check one or both: ☒ Administrative Contact ☐ Technical Contact

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

First and Last Name: Aaron Laughlin

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

Title: Project Manager

Organization Name: Steger Bizzell

Mailing Address: 1978 South Austin Ave

City, State, Zip Code: Georgetown, TX, 78626

Phone No.: 512-930-9412 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: alaughlin@stegerbizzell.com

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): Mr.

First and Last Name: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr.

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: earlwood@hurstcreekmud.org

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

First and Last Name: Kurt Pendleton

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: Assistant General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: kurtpendleton@hurstcreekmud.org

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: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr.

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: earlwood@hurstcreekmud.org

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: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text Fax No.: Click here to enter text

E-mail Address: earlwood@hurstcreekmud.org

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): Mr.

First and Last Name: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 Ext.: Click here to enter text Fax No.: Click here to enter text

E-mail Address: earlwood@hurstcreekmud.org

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): Mr.

First and Last Name: Earl Wood

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: General Manager

Organization Name: Hurst Creek Municipal Utility District

Phone No.: 512-261-6281 Ext.: Click here to enter text.

E-mail: earlwood@hurstcreekmud.org

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: Hurst Creek MUD Offices

Location within the building: Ask at Front Desk

Physical Address of Building: 102 Trophy Dr

City: The Hills County: Travis

Contact Name: Angela Dimsdle

Phone No.: 512-261-6281 Ext.: Click here to enter text.

E. Bilingual Notice Requirements:

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

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

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

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

   ☐ Yes ☒ No

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

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

   ☐ Yes ☐ No

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

   ☐ Yes ☐ No

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

   ☐ Yes ☐ No

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

F. Public Involvement Plan Form

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

Attachment: N/A

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

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN101614063**

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):

Hurst Creek MUD Wastewater Treatment Facility

C. Owner of treatment facility: Hurst Creek Municipal Utility District

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

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

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

First and Last Name: Hurst Creek Municipal Utility District

Mailing Address: 102 Trophy Dr

City, State, Zip Code: The Hills, TX, 78738

Phone No.: 512-261-6281 E-mail Address: earlwood@hurstcreekmud.org

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: Click here to enter text

E. Owner of effluent disposal site:

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

First and Last Name: Clubcorp Golf of Texas, L.P.

Mailing Address: PO BOX 790830

City, State, Zip Code: San Antonio, TX, 78279

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

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: 2

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): Click here to enter text.

First and Last Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone No.: Click here to enter text. E-mail Address: Click here to enter text.

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: Click here to enter text.

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:

Click here to enter text.

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

☐ Yes ☐ No

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

Click here to enter text.

City nearest the outfall(s): Click here to enter text.

County in which the outfalls(s) is/are located: Click here to enter text.

Outfall Latitude: Click here to enter text. Longitude: Click here to enter text.

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

☐ Yes ☐ No

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

☐ Authorization granted ☐ Authorization pending

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

Attachment: Click here to enter text.

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

Click here to enter text.

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

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

Click here to enter text.

B. City nearest the disposal site: The Hills

C. County in which the disposal site is located: Travis

D. Disposal Site Latitude: 30.353463 Longitude: -97.985249

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

Pumped from the plant through 12 in pipe to a storage pond. From the storage pond, pumped through a 12 in pipe to the Hills of Lakeway Golf Course for irrigation use.

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

Hurst Creek

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.

Click here to enter text

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:

Click here to enter text

D. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

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

Account number: Click here to enter text Amount past due: Click here to enter text

E. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

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

Enforcement order number: Click here to enter text Amount past due: Click here to enter text

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.

☐ Attachment 1 for Individuals as co-applicants

☐ Other Attachments. Please specify: Click here to enter text.

Section 14. Signature Page (Instructions Page 39)

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

Permit Number: WQ0012215001

Applicant: Hurst Creek Municipal Utility District

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): Earl Wood

Signatory title: General Manager

Signature: _____ Date: 7-2-2024

(Use blue ink)

Subscribed and Sworn to before me by the said Earl Wood

on this 2nd day of July, 20 24.

My commission expires on the 20th day of April, 20 25.

_____

Notary Public

SONJA DE LA FUENTE
Notary Public, State of Texas
Comm. Expires 04-20-2025
Notary ID 133052186

[SEAL]

Travis

County, Texas

Section 15. Plain Language Summary (Instructions Page 40)

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS

DOMESTIC WASTEWATER

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.
Hurst Creek Municipal Utility District (CN600642748) operates Hurst Creek MUD Wastewater Treatment Plant RN101614063. a municipal wastewater treatment plant. The facility is located at 2401 Lakeway Boulevard, in The Hills, Travis County, Texas 78738.

This is for a renewal and minor amendment to dispose a daily average flow not to exceed 500,000 gallons per day of treated domestic wastewater via surface irrigation with a minimum area of 181 acres. This permit will not authorize a discharge of pollutants into water in the state.

Discharges from the facility are expected to contain 5 mg/L BOD5, 10 mg/L TSS, and 2 mg/L P.Domestic wastewater is treated by *an activated sludge process plant using bar screens, aeration basins, final clarifiers, aerobic sludge digester/holding tanks, chlorine contact chambers and dual media filters*.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- **Do not mail this form with the application form.**
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, Texas 78753

Fee Code: WQP **Waste Permit No:** WQ0012215-001

1. Check or Money Order Number: Click here to enter text
2. Check or Money Order Amount: $1,615.00
3. Date of Check or Money Order: Click here to enter text
4. Name on Check or Money Order: Steger Bizzell
5. APPLICATION INFORMATION

   Name of Project or Site: Hurst Creek MUD Wastewater Treatment Facility

   Physical Address of Project or Site: 2401 Lakeway Boulevard, The Hills, TX 78738

   If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

Staple Check or Money Order in This Space

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): 0.5

2-Hr Peak Flow (MGD): 1.76

Estimated construction start date: Constructed

Estimated waste disposal start date: Constructed

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): 0.5

2-Hr Peak Flow (MGD): 1.76

Estimated construction start date: Constructed

Estimated waste disposal start date: Constructed

D. Current operating phase: Existing/Final Phase

Provide the startup date of the facility: 2000

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:

The WWTP is a complete-mix activated sludge facility. The treatment plant has two parallel treatment trains. The plant processes include screening, aeration, chemical feed, clarification, chlorination, and filtration. Sewage flows into the aeration basin. After this, it flows into the clarifier. The effluent from the clarifier goes to the Cl2 contact chamber then flows through a tertiary filter. After the tertiary filter, effluent flows by gravity into an onsite effluent holding tank, from where it is pumped to the offsite effluent storage pond. The sludge from the clarifier is pumped to the aerobic digester. Sludge from the digester is sent to a belt press, then transported offsite for disposal.

Port or pipe diameter at the discharge point, in inches: N/A

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)
Aeration Basin	2	94' L x 10' L x 15' D
Clarifier	2	15' D x 40" Diameter
Chlorine Contact	2	16' L x 10' W x 15' D
Filter	2	19' L x 6' W x 5' D
Sludge Holding	2	51' H x 10' x 15' D

C. Process flow diagrams

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

Attachment: 3

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: 4

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

A residential subdivision (The Hills of Lakeway) now named Village of the Hills

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 ☐

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.

Click here to enter text

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 ☐

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

Click here to enter text

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: 1991 & 2000

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.

Click here to enter text

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.

Click here to enter text.

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*.

Click here to enter text.

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.

Click here to enter text.

3. Grit disposal

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

Yes ☐ No ☐

If No, contact the TCEQ Municipal Solid Waste team at 512-239-0000. 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.

Click here to enter text.

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.

Click here to enter text.

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 Click here to enter text. or TXRNE Click here to enter text.

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

Yes ☐ No ☒

3. Conditional exclusion

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

Yes ☐ No ☒

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

Click here to enter text.

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.

Click here to enter text.

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.

Click here to enter text.

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.

Click here to enter text.

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.

Click here to enter text.

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

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes ☐ No ☒

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

Yes ☐ No ☐

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

Yes ☐ No ☐

If yes to any of the above, provide 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.

Click here to enter text.

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.

Click here to enter text.

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).

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	2	1	Grab	3/14/2024 13:39
Total Suspended Solids, mg/l	<1	<1	1	Grab	3/14/2024 13:39
Ammonia Nitrogen, mg/l	.06	.06	1	Grab	3/14/2024 13:39
Nitrate Nitrogen, mg/l	26	26	1	Grab	3/14/2024 13:39
Total Kjeldahl Nitrogen, mg/l	<.2	<.2	1	Grab	3/14/2024 13:39
Sulfate, mg/l	79.9	79.9	1	Grab	3/14/2024 13:39
Chloride, mg/l	161	161	1	Grab	3/14/2024 13:39
Total Phosphorus, mg/l	.772	.772	1	Grab	3/14/2024 13:39
pH, standard units	7.5	7.5	1	Grab	3/14/2024 13:39
Dissolved Oxygen*, mg/l	N/A				
Chlorine Residual, mg/l	5.1	5.1	1	Grab	3/14/2024 13:39
E.coli (CFU/100ml) freshwater	<1	<1	1	Grab	3/14/2024 13:39
Entercocci (CFU/100ml)	N/A				

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
saltwater					
Total Dissolved Solids, mg/l	642	642	1	Grab	3/14/2024 13:39
Electrical Conductivity, µmohs/cm, †	1120	1120	1	Grab	3/14/2024 13:39
Oil & Grease, mg/l	<4.9	<4.9	1	Grab	3/14/2024 13:39
Alkalinity ($CaCO_3$)*, mg/l	N/A				

*TPDES permits only

†TLAP permits only

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

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A				
Total Dissolved Solids, mg/l	N/A				
pH, standard units	N/A				
Fluoride, mg/l	N/A				
Aluminum, mg/l	N/A				
Alkalinity ($CaCO_3$), mg/l	N/A				

Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: Jacob Pendleton

Facility Operator's License Classification and Level: Class B Wastewater

Facility Operator's License Number: WW0072729

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.

☐ Other: Click here to enter text.

B. Sludge disposal site

Disposal site name: Mico Dirt, 15500 Goforth Rd. Creedmoor, TX 78610

TCEQ permit or registration number: TCEQ Permit # 42016

County where disposal site is located: Travis County

C. Sludge transportation method

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

Name of the hauler: Sheridan Environmental/Wastewater Transport

Hauler registration number: 24220

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 ☐

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

Yes ☐ No ☐

B. Sludge processing authorization

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

Sludge Composting	Yes ☐	No ☒
Marketing and Distribution of 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 ☐

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: Click here to enter text.
- USDA Natural Resources Conservation Service Soil Map:

  Attachment: Click here to enter text.
- Federal Emergency Management Map:

  Attachment: Click here to enter text.
- Site map:

  Attachment: Click here to enter text.

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: Click here to enter text.

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:

Click here to enter text.

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: Click here to enter text.

Total Kjeldahl Nitrogen, mg/kg: Click here to enter text.

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: Click here to enter text.

Phosphorus, mg/kg: Click here to enter text.

Potassium, mg/kg: Click here to enter text.

pH, standard units: Click here to enter text.

Ammonia Nitrogen mg/kg: Click here to enter text.

Arsenic: Click here to enter text.

Cadmium: Click here to enter text.

Chromium: Click here to enter text.

Copper: Click here to enter text.

Lead: Click here to enter text.

Mercury: Click here to enter text.

Molybdenum: Click here to enter text.

Nickel: Click here to enter text.

Selenium: Click here to enter text.

Zinc: Click here to enter text.

Total PCBs: Click here to enter text.

Provide the following information:

Volume and frequency of sludge to the lagoon(s): Click here to enter text.

Total dry tons stored in the lagoons(s) per 365-day period: Click here to enter text.

Total dry tons stored in the lagoons(s) over the life of the unit: Click here to enter text.

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.

Click here to enter text.

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the

lagoon(s):

Click here to enter text

Attach the following documents to the application.

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

  Attachment: Click here to enter text

- Copy of the closure plan

  Attachment: Click here to enter text

- Copy of deed recordation for the site

  Attachment: Click here to enter text

- Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

  Attachment: Click here to enter text

- Description of the method of controlling infiltration of groundwater and surface water from entering the site

  Attachment: Click here to enter text

- Procedures to prevent the occurrence of nuisance conditions

  Attachment: Click here to enter text

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: Click here to enter text

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:

Ch. 210 Reclaimed Reuse authorization No. R12215-001 = Type II reclaimed reuse for golf course irrigation, restricted landscape irrigation, and maintenance of water impoundments.

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:

Click here to enter text.

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: Click here to enter text.

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: Earl Wood

Title: General Manager

Signature: _____

Date: 7-2-2024

DOMESTIC WORKSHEET 3.0

LAND DISPOSAL OF EFFLUENT

The following is required for all permit applications

Renewal, New, and Amendments

Section 1. Type of Disposal System (Instructions Page 77)

Identify the method of land disposal:

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

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

For existing authorizations, provide Registration Number: Click here to enter text.

Section 2. Land Application Site(s) (Instructions Page 77)

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

Table 3.0(1) – Land Application Site Crops

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N
Golf Course	181	500,000	N

Crop Type & Land Use	Irrigation Area (acres)	Effluent Application (GPD)	Public Access? Y/N

Section 3. Storage and Evaporation Lagoons/Ponds (Instructions Page 77)

Table 3.0(2) – Storage and Evaporation Ponds

Pond Number	Surface Area (acres)	Storage Volume (acre-feet)	Dimensions	Liner Type
1	9.0	138	812’ x 412’ x 43’	Synthetic

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

Attachment: 6

Section 4. Flood and Runoff Protection (Instructions Page 77)

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

Yes ☒ No ☐

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

Portions of the golf course cannot be protected from 100-year flood, but irrigation will not occur if site is inundated.

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

FEMA 100-Year Flood Mapping

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

There are no physical tailwater control facilities; application rate is controlled to prevent runoff. Rainfall run on is not controlled but is generally confined to defined waterways.

Section 5. Annual Cropping Plan (Instructions Page 77)

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

Attachment: 7

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

Section 6. Well and Map Information (Instructions Page 78)

Attach a USGS map with the following information shown and labeled. If not applicable, provide a detailed explanation (on a separate page) indicating why.

Attachment: 8

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

List and cross reference all water wells shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Table 3.0(3) – Water Well Data

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

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

Attachment: 9

Section 7. Groundwater Quality (Instructions Page 79)

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

Attachment: 10

Are groundwater monitoring wells available onsite? Yes ☐ No ☒

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

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

Attachment: Click here to enter text.

Section 8. Soil Map and Soil Analyses (Instructions Page 79)

A. Soil map

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

Attachment: 11

B. Soil analyses

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

Attachment: 11

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

Table 3.0(4) – Soil Data

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Soil Series	Depth from Surface	Permeability	Available Water Capacity	Curve Number

Section 9. Effluent Monitoring Data (Instructions Page 80)

Is the facility in operation?

Yes ☒ No ☐

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

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

Table 3.0(5) – Effluent Monitoring Data

Date	30 Day Avg Flow MGD	BOD_5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated
SEE ATTACHMENT 12.						

Date	30 Day Avg Flow MGD	BOD_5 mg/l	TSS mg/l	pH	Chlorine Residual mg/l	Acres irrigated

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

None

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: 0

Average Daily Flows, in MGD: 0

Significant IUs – non-categorical:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Other IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

B. Treatment plant interference

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

Yes ☐ No ☒

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

Click here to enter text

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.

Click here to enter text.

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes ☐ No ☒

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program?

Yes ☐ No ☒

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

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

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

Click here to enter text

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.

Click here to enter text

C. Effluent parameters above the MAL

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

Table 6.0(1) – Parameters Above the MAL

Pollutant	Concentration	MAL	Units	Date

D. Industrial user interruptions

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

Yes ☐ No ☐

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

Click here to enter text

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

A. General information

Company Name: Click here to enter text

SIC Code: Click here to enter text

Telephone number: Click here to enter text Fax number: Click here to enter text

Contact name: Click here to enter text

Address: Click here to enter text

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

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).

Click here to enter text

C. Product and service information

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

Click here to enter text.

D. Flow rate information

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

Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

Discharge Type: ☐ Continuous ☐ Batch ☐ Intermittent

Non-Process Wastewater:

Discharge, in gallons/day: Click here to enter text.

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: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

Category: Click here to enter text.
Subcategories: Click here to enter text.

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.

Click here to enter text

ATTACHMENT 1

10400

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

☐ 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 **Minor Amendment & 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 600642748		**RN 101614063**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 2/15/2024

☐ 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:*

Hurst Creek Municipal Utility District

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		74-2231477	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ 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 ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

102 Trophy Dr.

City	The Hills	**State**	TX	**ZIP**	78738	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	earlwood@hurstcreekmud.org

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(512) 261-6281		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Hurst Creek MUD Wastewater Treatment Facility

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	2401 Lakeway Boulevard							
	City	The Hills	**State**	TX	**ZIP**	78738	**ZIP + 4**	
24. County	Travis							

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

25. Description to Physical Location:	.				
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.356934		**28. Longitude (W) In Decimal:**	-97.98305	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	21	24.9624	97	58	58.98

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.)*

Wastewater Treatment

34. Mailing Address:	102 Trophy Dr.							
	City	The Hills	**State**	TX	**ZIP**	78738	**ZIP + 4**	
35. E-Mail Address:	earlwood@hurstcreekmud.org							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 261-6281		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Aaron Laughlin, P.E.	**41. Title:**	Project Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 930-9412		( ) -	alaughlin@stegerbizzell.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:	Hurst Creek Munincipal Utility District	**Job Title:**	General Manager
Name *(In Print):*	Earl Wood	**Phone:**	(512) 261- **6281**
Signature:	Earl M	**Date:**	7-2-2024

ATTACHMENT 2

Lease Agreement

COPY

WASTE DISPOSAL CONTRACT
BETWEEN
HURST CREEK MUNICIPAL UTILITY DISTRICT
AND
LAKEWAY COMPANY

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This agreement (hereafter, the "Agreement") is entered into as of this 12th day of October, 1987, by and between Hurst Creek Municipal Utility District, a body politic and corporate and a governmental agency of the State of Texas organized under the provisions of Article XVI, Section 59, Texas Constitution and Chapter 54, Texas Water Code (hereafter, the "District"), and Lakeway Company, a Texas corporation (hereafter, the "Company").

RECITALS

The District has constructed, owns and operates a sewage collection, treatment and waste disposal system. The Company has constructed, owns and operates an eighteen hole golf course on land located within the boundaries of the District. The District owns Wastewater Discharge Permit No. 12215-001 from the Texas Water Commission which authorizes the District to dispose of treated wastewater from the District's wastewater treatment plant and provides that the

District should use treated wastewater for irrigation. The District has requested that the Company agree to divert and use the District's treated wastewater for irrigation of the golf course to the extent the wastewater can be lawfully and practically disposed of by irrigation of the golf course. The Company has requested that the District provide treated wastewater suitable for irrigation purposes for the golf course. The District and the Company recognize that the performance of their respective obligations as provided in this Agreement is of service and economic value to the other. Accordingly, the District and the Company desire to enter into a definitive agreement to specify the terms and conditions under which the District will supply treated wastewater to the Company and the Company will accept treated wastewater from the District to irrigate the golf course.

AGREEMENT

For and in consideration of the mutual promises, covenants, obligations and benefits of this Agreement, the District and the Company contract and agree as follows:

ARTICLE I

Definitions

Unless otherwise provided or unless the context otherwise requires, the terms defined in this Article shall have the respective meanings specified below:

Collection System: The "Collection System" shall mean the sanitary sewer system of the District including sanitary sewers, manholes, intercepting sewers, sewage pumping and other similar appurtenances, and any improvements, extensions or enlargements thereof, which the District now owns or will acquire and/or construct.

Commission: "Commission" means the Texas Water Commission or its successors.

Dam No. 1: "Dam No. 1" means that certain dam and reservoir on Hurst Creek as described on Exhibit "A" and as authorized in Permit No. 4169 issued by the Commission to the District.

Dam No. 2: "Dam No. 2" means that certain dam and reservoir on Hurst Creek as described on Exhibit "A" and as authorized in Permit No. 4169 issued by the Commission to the District.

Dams: "Dams" means Dam No. 1 and Dam No. 2, collectively.

Delivery Points: "Delivery Points" means the points designated on Exhibit "A" where the District delivers or has the right to deliver Effluent and Stored Water to the Company pursuant to this Agreement.

Discharge Permits: "Discharge Permits" means all permits, licenses, orders, other authorizations and all regulations applicable to the discharge, disposal, or use of Effluent, and the construction, maintenance or operation of the Wastewater Treatment Facilities heretofore or hereafter issued, adopted or otherwise required by any governmental entity having jurisdiction thereof, including, without limitation, Commission Discharge Permit No. 12215-001 and U.S. Environmental Protection Agency N.P.D.E.S. Permit No. TX0083615 issued to the District.

District's Engineer: The "District's Engineer" means Triad Engineering, Inc., Austin, Texas, or such other engineer as the District may designate from time to time.

Effluent: "Effluent" means the treated wastewater effluent discharged from the Wastewater Treatment Plant.

Effluent Transportation Facilities: "Effluent Transportation Facilities" means gravity sewer lines, manholes, lift stations, force mains and other facilities used to convey Effluent from the Wastewater Treatment Plant to the Delivery Points.

Irrigated Area: "Irrigated Area" means the tee areas, fairways and greens located in The Hills of Lakeway golf course, the Academy of Golf three hole course and The Hills driving range presently being irrigated with the Effluent and Stored Water, said Irrigated Area being located generally within the tract described on Exhibit "B."

Irrigation System: "Irrigation System" means the pumps, force mains, lines, pipes, irrigation pipe, sprinkler heads, control system and other related appurtenances for conveyance of Effluent and Stored Water from the Delivery Points to, and disposal of Effluent and Stored Water on, the Irrigated Area.

Stored Water: "Stored Water" means the water impounded in the Dams from whatever source, including but not limited to stream flow, run-off, Effluent, raw water, and backwash water from the District's water supply system properly discharged to the Dams.

Wastewater Treatment Facilities: "Wastewater Treatment Facilities" means the District's Collection System, Wastewater Treatment Plant and Effluent Transportation Facilities.

Wastewater Treatment Plant: "Wastewater Treatment Plant" means the plant and appurtenant facilities necessary to treat wastewater collected through the District's Collection System.

Water Permits: "Water Permits" means all permits, licenses, orders, other authorizations and all regulations applicable to the impounding, storage, diversion and use of Stored Water in the Dams heretofore or hereafter issued, adopted or otherwise required by any governmental entity having jurisdiction thereof, including, without limitation, Permit No. 4169 issued by the Commission to the District.

ARTICLE II

Supply of Effluent for Irrigation Purposes

Section 1. General. The District owns, or leases, and operates, and reserves from time to time the right to expand and add facilities to, the Wastewater Treatment Facilities and Dam No. 2. The District owns Permit No. 4169 and, pursuant to the terms of that certain "Agreement Concerning Construction and Modification of Facilities and Reimbursement for Certain Costs Thereof," dated contemporaneously herewith and executed by the District and the Company (the "Construction and Reimbursement Agreement"), will acquire from the Company Dam No. 2. The Company owns and operates, and reserves from time to time the right to expand and add facilities to, the Irrigation System and, except as otherwise provided in the Construction and Reimbursement Agreement, Dam No. 2.

Section 2. Delivery of Effluent and Raw Water. The District may, but shall not be required to, deliver up to 650,000 gallons per day of Effluent (based on a 30-day average) to the Delivery Points as authorized by and in conformity with the Discharge Permits. The District shall not, however, at any time be required or obligated to deliver any particular amount of Effluent to the Delivery Points. The District also may, but shall not be required

to, deliver Effluent to any other place, person or entity for any lawful purpose. It is specifically understood and agreed that the District has only one Delivery Point at this time but that the District intends to construct or to have constructed an additional Delivery Point as indicated on Exhibit A. The Company hereby consents to the construction of the additional Delivery Point and agrees to grant any necessary easement therefor to the District. Future additional Delivery Points may be agreed to by the parties. The District shall be the sole owner of, have exclusive dominion and control over, and be solely responsible for the Effluent within its Wastewater Treatment System until the Effluent reaches the Delivery Points.

Subject to the provisions described in this paragraph, the District agrees to deliver raw water to Dam No. 2 in sufficient quantities to maintain the reservoir levels in Dams No. 1 and 2 and to irrigate the Hills of Lakeway golf course. It is specifically provided, however, that the District's obligations to deliver raw water hereunder is subordinate and inferior to the District's obligation and right to provide water service for municipal use by the District's customers, both present and future, and within and without the boundaries of the District. It is further provided that the District may, in times of emergency or

shortage of water supply, production, storage or transportation capability in the District's system, curtail or limit raw water service under this Agreement as necessary to alleviate said emergency or shortage, or to enable the District to provide water for municipal use to the District's customers. As used in this Agreement, the term "emergency" shall include, but not be limited to, force majeure and the acts of third parties unrelated to the District which cause the District's System to be unable to provide the full amount of raw water required to maintain the reservoir levels in Dam No. 1 or 2, or to irrigate the Hills of Lakeway Golf Course.

Section 3. Disposal of Effluent. Provided that the Effluent meets the standards required by the Discharge Permits, the Company agrees to receive and dispose of the Effluent delivered by the District at the Delivery Points to the extent the Effluent can be lawfully disposed of by irrigation of the golf course without causing the irrigated area to become unacceptable as a first class golf course. Title to, exclusive dominion and control over, and responsibility for the Effluent shall pass from the District to the Company at the Delivery Points. Subject to the other provisions of this Agreement, the Company agrees to maximize its use of Effluent for irrigation purposes on the Irrigated

Area so that discharges of Effluent into Hurst Creek and/or releases of Effluent downstream from the Dams are minimized. The Company further agrees to adopt such additional and further irrigation and disposal practices as may now or hereafter be required by the Discharge Permits. It is specifically provided, however, that the Company shall not be required to dispose of Effluent by irrigation in violation of law, including any limits on the quantities of Effluent which may be disposed of on the Irrigated Area, or if to do so would render the golf course unuseable for its intended purpose.

Section 4. Operation and Maintenance by District. The District shall operate, maintain and repair and, as necessary, replace at its expense the Wastewater Treatment Facilities and Dam No. 2. The Company shall immediately notify the District's General Manager if it has reason to believe that the Effluent or the wastewater treatment operation does not meet the requirements of the Discharge Permits as to quality or quantity. Upon receipt of such notice, the District shall immediately determine if the Effluent meets the requirements of the Discharge Permits, and, if not, shall expeditiously remedy said failure. The District shall have no obligation whatsoever with respect to the quality of Stored Water.

Section 5. Operation and Maintenance by the Company. The Company shall operate, maintain, repair and, as needed, replace the Irrigation System, the Irrigated Area and, except as provided in the Construction and Reimbursement Agreement, Dam No. 1 at its expense.

Section 6. Operation and Maintenance of Dams. The Construction and Reimbursement Agreement contemplates that the District will purchase Dam No. 2 from the Company. The District has entered into that certain "Lease Agreement" dated contemporaneously with this Agreement (the "Lease Agreement") leasing (among other items) Dam No. 2 pending its purchase. The Construction and Reimbursement Agreement further contemplates that the Company will own Dam No. 1. Except as otherwise agreed to in the Construction and Reimbursement Agreement relating to the reconstruction of Dam No. 1, the District and the Company agree that whichever entity owns or controls by lease a Dam (the "Responsible Entity") shall

(1) maintain the structural integrity of the dam and berms on the Dam and the storage capacity in the Dam by such periodic actions as may be necessary including removal of trees, vegetation, silt, and recompaction and additions of dirt and other materials;

(2) not permit any filling of the reservoir impounded by the Dam without the written consent of the other party;

(3) expeditiously repair or replace the Dam as a result of storm damage or other acts of nature; and

(4) maintain said dams and reservoirs in an aesthetically pleasing condition consistent with the quality of development in The Hills of L.' way Subdivision.

If the Responsible Entity for any reason fails or refuses to properly and timely operate, maintain, repair or replace a Dam, the other party may obtain an appropriate order from a court, agency or governmental authority of appropriate jurisdiction requiring any necessary operation, maintenance, repair or replacement. In such event, the Responsible Entity shall be liable to the other party for all costs incurred by the other party in securing such order or, if appropriate, in operating, maintaining, repairing or replacing a Dam and for any fines or penalties imposed on the other party or damages incurred by the other party as a result of the Responsible Entity's failure to comply with the terms hereof.

Section 7. Operation of Irrigation System and Irrigated Area. To the extent obligated herein, the Company agrees to cooperate with the District and to use the Irrigation System and the Irrigated Area to withdraw sufficient Effluent and Stored Water from the Wastewater Treatment Facilities and apply such Effluent and Stored Water to the Irrigated Area so that the parties are in compliance with the terms and conditions of the Discharge Permits. The Company shall operate the Irrigation System and the Irrigated Area in accordance with the Discharge Permits and Water Permit and shall be responsible for such additional health precautions, if any, including the construction, installation and maintenance of signs as the Company or any other governmental entity with jurisdiction deems appropriate. The Company may at its sole risk, allow others to dispose of the Effluent so long as such is not contrary to law. If requested by the District, any such disposal outside of the Irrigated Area shall be discontinued immediately.

In the event that the Company fails to operate, maintain or replace the Irrigation System or the Irrigated Area in accordance with the Discharge and Water Permits and generally accepted practices to achieve their specified purpose and if the Company fails to correct the deficiency

within twenty-four (24) hours after notification of such deficiency by the District, the District shall have the right to request any court, agency or other governmental authority of appropriate jurisdiction to grant to the District any and all remedies which are appropriate to assure the proper flow from the Effluent Transportation Facilities, to reduce the level in Dam No. 2 and to otherwise require the Company to conform to the provisions of this Agreement. The Company shall be liable to the District for all costs actually incurred by the District in pursuing such remedies, including attorneys fees and for any penalties or fines imposed on District as a result of the Company's failure to comply with the terms hereof.

It is specifically provided, however, that nothing herein shall be construed to require the Company to irrigate any areas other than the Irrigated Area. It is further specifically provided that the Irrigated Area does not include "rough" areas located outside of the tees, fairways and greens on the golf course. Should the District desire at a later time to irrigate the "rough" areas within the boundaries of the golf course, the Company agrees to cooperate to allow the District, at the District's sole expense, to construct and operate an irrigation system to dispose of effluent in the rough areas on the golf course. The

location of such irrigation facilities and the method of construction and operation of same shall be subject to further mutual agreement by the District and the Company at that time.

Section 8. Regulation and Future Modifications. The parties recognize that the operation of the Wastewater Treatment Facilities and the disposal of the Effluent and Stored Water are subject to regulation by the Commission and other governmental entities. Accordingly, the parties agree that they will cooperate with each other as may be necessary to assure compliance with all terms and conditions of all existing Discharge Permits and Dam Permit and as they may be amended from time to time. The District and the Company agree to consult and cooperate with each other to renew the Discharge Permits and Dam Permit from time to time in such manner that efficient wastewater service may be provided by the District while the golf course continues to be operated as a first class golf course.

ARTICLE III

General

Section 1. Connection Fee. The Company shall not be obligated to pay any connection fee to the District for the provision of Effluent or Stored Water under this Agreement.

Section 2. Rates for Service. The Company shall not be obligated to pay any service fee to the District as compensation for the District's providing Effluent to the Company for irrigation under this Agreement. The District shall not be obligated to pay any service fee to the Company as compensation for the Company's disposing of the Effluent for the District. The District may, by appropriate order or orders adopted from time to time by its Board of Directors, charge and collect a reasonable rate for raw water service provided to the Company for irrigation and maintenance of the water level in Dam No. 1. Such rate shall be based on the District's cost of providing same.

Section 3. Term. Unless terminated by mutual agreement of the parties hereto, this Agreement shall continue in force and effect for a period of forty (40) years from the date of its execution and may thereafter be continuously renewed by mutual agreement of the parties; provided however, notwithstanding any of the above, at its sole option and discretion, the District may upon one (1) year written notice, terminate this Agreement at any time, except as to the obligation of the District to deliver, under the terms and conditions provided in this Agreement, raw water to Dams No. 1 and 2 for maintenance of the level of the reservoirs and irrigation of The Hills of Lakeway golf course. The

termination of this Agreement, either by the terms hereof or by the District, shall never be construed to prevent, and the Company agrees to never contest, the right of the District to discharge Effluent into Hurst Creek in conformity with the terms of the Discharge Permits as now or hereafter amended.

Section 4. Force Majeure. If either party is rendered unable, wholly or in part, by reason of force majeure to carry out any of its obligations under this Agreement, then the obligations of that party to the extent affected by such force majeure and to the extent that due diligence is being used to resume performance at the earliest practicable time, shall be suspended during the continuance of any inability so caused to the extent provided but for no longer period. Such cause, as far as possible, shall be remedied with all reasonable diligence. The term "force majeure," as used herein, shall include acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of any governmental entity or any civil or military authority, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, storms, floods, washouts, droughts, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, or

any other conditions which are not within the control of such party. It is understood and agreed that the settlement of strikes and lockouts shall be entirely within the discretion of either party hereto, and that the above requirements that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes and lockouts by acceding to the demand of the opposing party or parties when such settlement is unfavorable to it in the judgment of either party hereto.

Section 5. Indemnification. Each party shall defend, indemnify and hold harmless the other party and its respective officers, agents and employees from and against all damages, claims, losses, fines, penalties, demands, suits, judgments and costs, including reasonable attorney's fees and expenses, arising out of or resulting from its failure to comply with any of its obligations under the terms of this Agreement.

Section 6. Assignability. This Agreement shall not be assignable by either party hereto without the prior written consent of the other party which consent may not be unreasonably withheld or dela d; provided, however, the District may, without the consent of the Company, assign the Agreement in whole or in part to any other governmental entity providing wastewater service to the District.

Section 7. Modification. This Agreement shall be subject to change or modification only with the mutual written consent of the Company and the District.

Section 8. Captions. The captions appearing at the first of each numbered section or paragraph in this Agreement are inserted and included solely for convenience and shall never be considered or given any effect in construing this Agreement.

Section 9. Severability. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances shall not be affected thereby.

Section 10. Cooperation. Each party hereby agrees that it will take all actions necessary to fully carry out the purposes and intent of this Agreement.

Section 11. Addresses and Notice. Unless otherwise provided in this Agreement, any notice herein provided or permitted to be given, made, or accepted by any party must be in writing and may be given by depositing the same in the United States mail postpaid, registered or certified and

addressed to the party to be notified, with return receipt requested, or by delivering the same to an officer of such party, or by prepaid telegram addressed to the party to be notified. Notice deposited in the mail in the manner described above shall be conclusively deemed to be effective from and after the expiration of three (3) business days after it is so deposited. Notice given in any other manner shall be effective only if and when received by the party to be notified. For the purposes of notice, the addresses of the parties shall be as follows:

Hurst Creek Municipal Utility District
c/o Vinson & Elkins
First City Centre
816 Congress Avenue
Austin, Texas 78701-2496

Lakeway Company
No. 1 World of Tennis Square
Austin, Texas 78734

The parties shall have the right from time to time and at any time to change their respective addresses and each shall have the right to specify as its address any other address in the State of Texas by at least fifteen (15) business days' written notice to the other parties.

Section 12. Notice of Agreement. The District and the Company shall execute a "Notice of Agreement and Restrictive Covenant" (the "Restriction") which shall have attached a metes and bounds description of the Irrigated Area, the Dams

and the associated reservoirs, and any lands upon which any of the Irrigation System is located. The parties agree to execute and record from time to time amendments to the Restriction to evidence changes in this Agreement or more accurate descriptions of the Dams, the Irrigated Area and the lands upon which the Irrigation System is located. The Restriction shall bind future owners of the Dams, the Irrigation System and the Irrigated Area. Should either party sell, lease or otherwise transfer or encumber the Dams, the Irrigation System or the Irrigated Area, it shall deliver a copy of this Agreement to any such subsequent party prior to consummating such transaction.

Section 13. Merger. This Agreement, together with such descriptions, terms and conditions as may be included in the exhibits hereto, constitutes the entire agreement between the parties relative to the subject matter hereof. There have been and are no agreements, covenants, representations, or warranties between the parties other than those expressly stated or provided for herein.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple counterparts, each of which shall be deemed to be an original, as of the date and year first written herein.

ATTEST:

Thomas R. Fowler
Secretary, Board of Directors

[SEAL]

HURST CREEK MUNICIPAL UTILITY DISTRICT

By _____
President, Board of Directors

LAKEWAY COMPANY, a partnership

BY: Alpert Investment Corporation, General Partner

By: Charles P. Hansen
Charles P. Hansen
Executive Vice President and General Manager

HUR002:03

EXHIBIT LIST

WASTE DISPOSAL CONTRACT
BETWEEN
HURST CREEK MUNICIPAL UTILITY DISTRICT
AND
LAKEWAY COMPANY

1. Exhibit A - General Map of Hurst Creek MUD Wastewater Disposal Facilities

2. Exhibit B - Irrigated Area

HUR002:U

EXHIBIT "A"

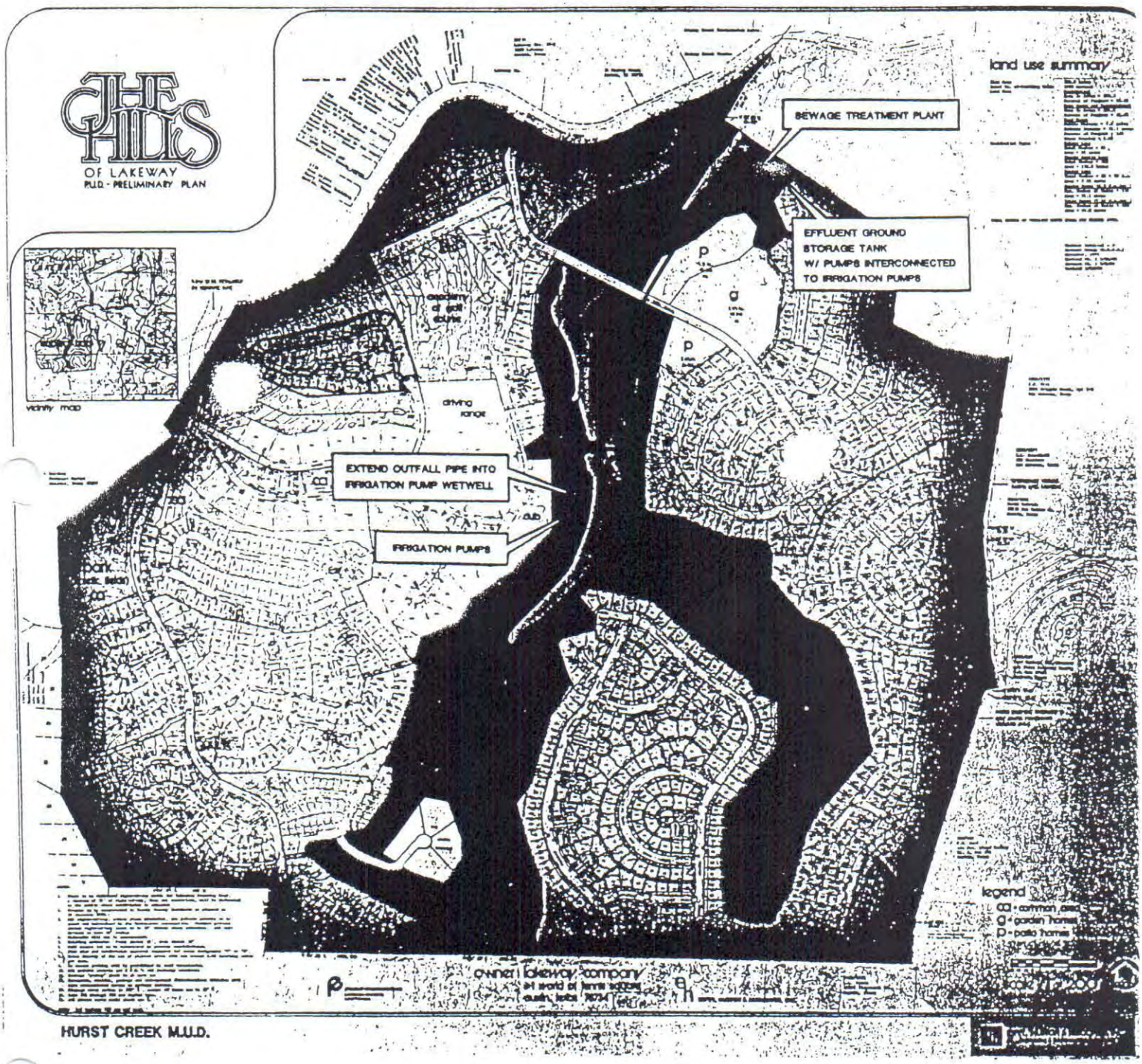

THE HILLS
OF LAKEWAY
P.U.D. - PRELIMINARY PLAN
vicinity map
land use summary
SEWAGE TREATMENT PLANT
EFFLUENT GROUND
STORAGE TANK
W/ PUMPS INTERCONNECTED
TO IRRIGATION PUMPS
EXTEND OUTFALL PIPE INTO
IRRIGATION PUMP WETWELL
IRRIGATION PUMPS
legend
owner lakeway company
HURST CREEK M.U.D.

EXHIBIT B

EASEMENT DESCRIPTION - TRACT 1

A TRACT OF LAND CONTAINING 162 ACRES, MORE OR LESS, LYING IN THE T.C.R.R.CO. SURVEY NO. 195, THE C.W. WALDRON SURVEY NO. 78, THE W. FAWCETT SURVEY NO. 426, THE W. FAWCETT SURVEY NO. 425, THE N. HOFFMEISTER SURVEY NO. 469, AND THE J.H. LOHMAN SURVEY NO. 523 SITUATED IN TRAVIS COUNTY, TEXAS AND BEING A PORTION OF A 700.26 ACRE TRACT OF LAND CONVEYED BY ALPERT INVESTMENT CORPORATION TO LAKEWAY LAND COMPANY IN VOLUME 4175, PAGES 1421 THRU 1425, TRAVIS COUNTY DEED RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Beginning at the lot corner common to Lots 324 and 325 HILLS OF LAKEWAY PHASE 4, said point also lying on the right of way of Tiburon Drive.
Thence along the boundary of said PHASE 4 the following courses:
S02°19'19"W 93.34 feet;
S72°04'02"W 227.79 feet;
S36°52'43"W 52.09 feet;
S19°41'32"E 164.91 feet;
S27°30'48"E 143.84 feet; to a corner common to the HILLS OF LAKEWAY PHASE 5;
Thence along the boundary of said PHASE 5 the following courses:
S33°46'17"W 255.94 feet;
S12°25'00"W 216.05 feet;
S12°08'06"W 254.41 feet;
S23°50'05"W 93.79 feet;
S02°39'28"W 249.81 feet;
S20°44'01"E 293.67 feet;
S25°32'56"E 137.58 feet;
S05°03'37"E 239.63 feet;
S15°50'03"W 10.45 feet to a corner common with the plat of said PHASE 4;
Thence along the boundary of PHASE 4 the following courses:
S15°32'41"W 150.66 feet
S04°15'53"E 89.19 feet to a point on the north right-of-way of Hills Drive;
Thence S86°49'46"W along the north right-of-way of said roadway 930.90 feet to a corner common to the plat of THE HILLS OF LAKEWAY PHASE 3;
Thence along the boundary of said PHASE 3 the following courses:
around a 1622.84 radius curve right 41.09 feet, (long chord bears S87°33'17"W 41.09 feet);
around a 15.18 foot radius curve right 25.83 feet (long chord bears N43°01'55"W 22.83 feet);
around a 25 foot radius curve right 21.01 feet (long chord bears N30°26'46"E 20.41 feet);
around a 50.00 foot radius curve left 42.05 feet (long chord bears N30°26'46"E 40.82 feet);
N06°21'16"E 40.00 feet;
around a 50 foot radius curve left 37.52 feet (long chord bears N15°08'44"W 36.65 feet);
N70°30'16"E 150.70 feet;
N65°11'20"W 299.97 feet;
N63°47'21"W 343.11 feet;
N50°39'16"W 239.11 feet;
S77°19'17"W 61.32 feet to a corner common to the plat of THE HILLS OF LAKEWAY PHASE 6;
Thence along the boundary of said PHASE 6 the following courses:
N09°15'13"E 85.13 feet;
N77°10'52"E 226.75 feet;
Thence leaving the boundary of said PHASE 6 and going the following courses:
around a 17.17 foot radius curve right 23.99 feet (long chord bears S68°21'07"E 22.09 feet);
around a 192.61 foot radius curve left 132.42 feet (long chord bears 48°00'30"E 129.83 feet);
around a 989.24 foot radius curve left 186.30 feet (long chord bears S73°05'57"E 186.02 feet);
S78°30'49"E 85.79 feet;
around a 90.69 foot radius curve left 99.42 feet (long chord bears N70°04'46"E 94.52 feet);
N38°40'21"E 11.93 feet;

S64°45'34"E 99.72 feet;
S80°47'41"E 199.40 feet;
N26°15'19"E 211.63 feet;
N08°16'52"W 131.01 feet;
N26°32'54"W 305.14 feet;
N85°05'35"W 153.20 feet;
S22°57'58"W 216.92 feet;
S24°05'58"W 165.60 feet;
S27°52'17"W 129.23 feet;
S64°45'50"E 103.27 feet;
around a 40.69 foot radius curve right 44.61 feet (long chord bears S70°04'46"W 42.41 feet);
N78°30'49"W 85.77 feet;
around a 939.24 foot radius curve right 176.88 feet (long chord bears N73°06'00"W 176.62 feet);
around a 142.61 foot radius curve right 87.20 feet (long chord bears N50°11'10"W 85.84 feet);
around a 15.00 foot radius curve right 21.60 feet (long chord bears N08°34'56"E 19.78 feet) to the boundary of the plat of said PHASE 6;

Thence along the boundary of said PHASE 6 the following courses:
around an 80.00 foot radius curve left 68.10 feet (long chord bears N25°26'55"E 66.06 feet);
around a 278.49 foot radius curve left 42.42 feet (long chord bears S03°33'52"E 42.38 feet);
N62°33'31"E 111.44 feet;
N27°56'53"E 287.34 feet;
N11°19'12"E 113.73 feet;
N02°34'00"W 92.24 feet;
N82°22'23"W 73.24 feet; to a corner common to the plat of THE HILLS OF LAKEWAY PHASE 2;

Thence along the boundary of said PHASE 2 the following course:
N19°26'06"E 209.09 feet;
N15°16'44"E 306.90 feet;
N07°46'44"E 215.59 feet;
N40°21'49"W 21.73 feet; to a corner common to the plat of THE HILLS OF LAKEWAY PHASE 1

Thence along the boundary of said PHASE 1 the following courses:
N10°26'30"E 186.90 feet;
N60°30'30"E 284.94 feet;
N26°51'01"E 170.12 feet;
N51°51'01"E 336.97 feet;
N40°41'49"E 395.63 feet;
S83°29'46"W 165.52 feet;
around a 565.99 foot radius curve left 53.18 feet (long chord bears N15°50'53"W 53.16 feet);
N18°32'21"W 32.92 feet;
N48°35'17"E 164.51 feet;
N00°03'34"E 228.45 feet;
N19°37'06"W 351.19 feet;
N01°02'01"E 476.67 feet;
N25°38'08"E 234.54 feet;
N22°52'08"E 60.00 feet;
N67°07'52"W 80.23 feet to a corner common with the MASTERS AT THE HILLS OF LAKEWAY:

Thence along the boundary of said MASTERS AT THE HILLS OF LAKEWAY the following courses:
N23°01'03"E 116.88 feet;
N39°36'52"E 174.27 feet;
N56°47'23"E 203.58 feet;
N69°05'58"E 314.12 feet;
N67°20'08"E 106.13 feet;
N43°48'09"E 146.71 feet;
N08°51'55"W 83.78 feet;
N21°09'15"E 157.53 feet;
N30°10'46"W 176.41 feet to the easterly right-of-way of THE WORLD OF TENNIS BOULEVARD;

Thence along the easterly right-of-way of said WORLD OF TENNIS BOULEVARD the following courses:
N59°47'53"E 400.22 feet;
around a 632.96 foot radius curve to the left 149.87 feet (long chord bears N53°00'53"E 149.52 feet);
N46°13'53"E 271.10 feet to the corner of the WIMBLEDON

TOWNHOUSE PROPERTY recorded in Volume 5257 Page 1762 in the Travis County Deed Records;
Thence along the boundary of said property, the following courses:
S34°14'50"W 287.88 feet;
S23°44'00"W 201.60 feet;
S22°43'26"W 106.02 feet;
S58°23'48"E 630.49 feet to a corner common with the plat of THE HILLS OF LAKEWAY PHASE 9;
Thence along the boundary of said PHASE 9 the following courses:
S56°36'30"W 160.12 feet;
S31°36'30"W 130.00 feet;
S27°23'30"E 220.00 feet;
S68°41'09"E 93.56 feet;
S24°15'01"W 20.00 feet;
S68°32'30"E 126.47 feet;
around a 1028.94 foot radius curve left 30.00 feet (long chord bears S21°02'42"W 30.00 feet);
N68°32'30"W 208.90 feet;
S43°36'30"W 127.62 feet to an angle point on lot 771 of said PHASE 9:
Thence leaving the boundary of PHASE 9 and going the following courses:
N46°05'47"W 295.48 feet;
S63°41'27"W 137.91 feet;
S43°51'21"W 225.70 feet;
S57°12'13"W 219.97 feet;
S26°00'04"W 260.84 feet;
N67°04'30"W 166.96 feet;
S37°11'10"W 339.47 feet;
S20°32'28"E 87.81 feet;
S24°24'03"E 151.36 feet;
S02°32'37"W 163.16 feet;
S17°08'04"E 193.02 feet;
N89°06'34"E 95.00 feet;
N08°46'21"W 163.16 feet;
N06°21'31"E 172.95 feet;
N15°53'34"E 396.15 feet;
S67°04'30"E 241.51 feet;
S13°53'12"W 356.82 to a corner on the plat of THE HILLS OF LAKEWAY PHASE 9;
Thence along the boundary of said PHASE 9;
S04°58'30"W 92.13 feet;
S02°21'53"W 65.81 feet;
S07°02'26"W 403.01 feet;
S01°30'56"E 139.32 feet;
N89°01'56"E 166.29 feet;
around a 338.00 foot radius curve left 30.75 feet (long chord bears S13°33'55"E 30.74 feet);
S89°01'56"W 172.70 feet;
S01°30'56"E 48.17 feet;
S04°10'14"E 246.81 feet;
S72°14'19"E 74.87 feet;
S85°26'54"E 61.30 feet;
S88°07'00"E 90.54 feet;
S70°05'39"E 356.76 feet;
S86°30'36"E 273.24 feet;
S26°28'20"E 98.89 feet to a corner common with the plat of THE HILLS OF LAKEWAY PHASE 8;
Thence along the boundary of the plat of said PHASE 8 the following courses:
S00°28'44"E 167.47 feet;
S46°08'12"E 332.52 feet;
S71°27'33'E 165.97 feet;
S40°38'45"E 185.97 feet;
S21°28'39"E 321.92 feet;
S14°28'33"E 182.15 feet;
S15°06'20"E 221.50 feet;
S33°52'52"W 582.08 feet;
S21°37'58"W 173.55 feet;
S10°32'01"W 207.03 feet;
S09°30'46"W 210.59 feet;
S23°41'35"W 279.27 feet;

S85°03'14"W 152.[illegible] feet; to a corner common with the plat of THE HILLS OF LAKEWAY PHASE 4;

Thence along the boundary of the plat of said PHASE 4 the following courses:

N73°35'56"W 183.71 feet;
N06°28'29"W 433.22 feet;
N00°21'37"E 342.41 feet;
N32°05'57"E 286.02 feet;
N35°39'11"E 212.70 feet;
N31°00'06"E 98.51 feet;
N02°21'58"W 294.24 feet;
N75°55'51"W 167.82 feet;
N25°44'50"W 107.80 feet;
N59°29'10"W 332.70 feet;
N50°46'23"W 504.44 feet;
N84°09'47"W 111.28 feet;
N83°55'08"W 320.44 feet;
S46°56'03"W 83.41 feet
S43°18'25"E 177.86 feet to the point of beginning.

EXEMPT THEREFROM: The Hurst Creek M.U.D. wastewater treatment facilities as described on attached EXHIBIT A.

EXHIBIT B

LAKEWAY SEWER TREATMENT PLANT
00.14 ACRES

F.N. 0004 (WH)
MAY 8, 1985
EH&A JOB NO. 6395-01

EXHIBIT A

FIELD NOTE DESCRIPTION OF A 0.14 ACRE TRACT OF LAND BEING A PORTION OF THE T.C.R.R. CO. SURVEY NO. 195, BEING ALSO A PORTION OF THAT CERTAIN 700.26 ACRE TRACT OF LAND AS DESCRIBED IN A DEED TO LAKEWAY LAND CO. OF RECORD IN VOLUME 4175 PAGE 1424 OF THE DEED RECORDS OF TRAVIS COUNTY, TEXAS AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;

COMMENCING at an iron rod found being the most northerly corner of the said 700.26 acre tract and being the southwest corner of a tract of land as described in a deed to Wimbleton Townhouse Properties, LTD. of record in Volume 5257 Page 1782 of the Deed Records of Travis County, Texas;

THENCE with the northeast line of the said 700.26 acre tract, and the southwest line of the said Wimbleton Townhouse Properties, LTD., S 58°-23'-48" E a distance of 422.45 feet to a point,

THENCE departing the southwest line of the said Wimbleton Townhouse Properties, LTD., and the northeast line of the said 700.26 acre tract and over and across the said 700.26 acre tract S 31°-36'-12" W a distance of 82.92 feet to a found chain link fence post being the POINT OF BEGINNING and being the northeast corner hereof;

THENCE continuing over and across the said 700.26 acre tract the following five (5) courses and distances;

(1) S 09°-15'-52" E a distance of 90.30 feet to a found chain link fence post being the southeast corner hereof,
(2) S 41°-26'-23" W a distance of 10.79 feet to a found chain link fence post,
(3) S 82°-05'-04" W a distance of 56.30 feet to a found chain link fence post being the southwest corner hereof,
(4) N 07°-54'-56" W a distance of 95.83 feet to a found chain link fence post being the northwest corner hereof, and
(5) N 80°-44'-08" E a distance of 62.38 feet to the POINT OF BEGINNING and containing 0.14 acres of land.

THE STATE OF TEXAS:

: KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF TRAVIS :

That I, R. David Strutton, a Registered Public Surveyor, do hereby certify that the above description was prepared from an on the ground survey under my direction and supervision and is true and correct to the best of my knowledge.

WITNESS MY HAND AND SEAL AT Round Rock, Williamson County, Texas this the 8TH day of May, 1985, A.D.

R. David Strutton
Registered Public Surveyor
No. 4312-State of Texas

EXHIBIT B

EASEMENT DESCRIPTION TRACT 2

A TRACT OF LAND CONTAINING 8.34 ACRES LYING IN THE H. HOFFMEISTER SURVEY NO. 469 SITUATED IN TRAVIS COUNTY, TEXAS AND BEING A PORTION OF A 700.26 ACRE TRACT OF LAND CONVEYED BY THE ALPERT INVESTMENT CORPORATION TO LAKEWAY LAND COMPANY IN VOLUME 4175, PAGES 1421 THRU 1425 TRAVIS COUNTY DEED RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Beginning at a corner common to Lot 1 THE GOLF COTTAGES OF ACADEMY PLACE, Lot 1-B, ACADEMY PLACE SECTION ONE-B & Lot G.C. 768 HILLS OF LAKEWAY PHASE 1:
Thence along the north line of said GOLF COTTAGES OF ACADEMY PLACE the following courses:
N78°21'06"W 158.15 feet;
S58°49'29"W 216.46 feet;
S75°33'20"W 551.28 feet;
S50°50'21"W 126.01 feet;
Thence leaving the boundary of said plat & going S50°50'21"W 11.06 feet to a corner on Lot G.C. 777 HILLS OF LAKEWAY PHASE 1;
Thence along the boundary of said lot G.C. 777 N16°39'32"W 326.59 feet to the south right-of-way of WORLD OF TENNIS BOULEVARD:
Thence easterly along the south right-of-way of WORLD OF TENNIS BOULEVARD the following courses:
around a 442.11 foot radius curve left 218.54 feet (long chord bears N73°53'45"E 216.32 feet);
N59°44'20"E 326.82 feet;
around a 581.09 foot radius curve left 330.35 feet (long chord bears N43°27'09"E 325.92 feet);
N27°09'58"E 59.96 feet to a corner common to Lot G.C. 768 HILLS OF LAKEWAY PHASE 1;
Thence along the boundary of said Lot 768 the following courses:
S62°49'58"E 111.21 feet;
S26°16'21"E 526.99 feet to the point of beginning.

ALSO: Lot G.C. 768 and Lot G.C. 777 located in the plat of THE HILLS OF LAKEWAY PHASE 1.

FIRST AMENDMENT TO WASTE DISPOSAL CONTRACT

This First Amendment to Waste Disposal Contract (the "First Amendment") is entered into by and between Hurst Creek Municipal Utility District (the "District") and ~~Cobblestone Golf Group ("Cobblestone")~~ Lakeway Golf Clubs, Inc. ("LGC") as follows:

WHEREAS, the District has heretofore entered into that certain "Waste Disposal Contract" dated October 12, 1987, with the Lakeway Company (the "Waste Disposal Contract");

WHEREAS, ~~Cobblestone~~ LGC has succeeded to all rights and obligations of Lakeway Company under the Waste Disposal Contract; and

WHEREAS, the parties desire to amend the Waste Disposal Contract as herein provided;

NOW, THEREFORE, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

Section 1. Except as otherwise provided in Section 2 of this First Amendment, (i) all capitalized terms have the same meanings as said terms have in the Waste Disposal Contract, and (ii) all terms and provisions of the Waste Disposal Contract continue in effect.

Section 2. The definition of the term "Effluent" in Article I, Definitions of the Waste Disposal Contract, is hereby changed to read as follows:

> Effluent: "Effluent" means the treated wastewater effluent discharged from the Wastewater Treatment Plant or other treated wastewater effluent of substantially the same quality as that discharged from the District's Wastewater Treatment Plant, including that treated wastewater effluent received by the District pursuant to that certain "Agreement Concerning Wastewater Disposal" between the District and Lynnwood, a Texas limited partnership, dated effective June 9, 1995.

Section 3. The effective date of this First Amendment is June 9, 1995.

HURST CREEK MUNICIPAL UTILITY DISTRICT

By: _____
Haskell Wotkyns, Jr.
President Board of Directors

ATTEST:

_____
Thomas R. Fowler
Secretary, Board of Directors

LAKEWAY GOLF CLUBS, INC.
~~COBBLESTONE GOLF GROUP~~

By: _____
Name: Andrew Crosson
Title: Vice President

hurst\1stamnd.wdc

01-9902 0214 - JC - CO

1999005104 23 PGS

23
23

AFTER RECORDING RETURN TO:
ATTN. JIM GARRISON
STEWART TITLE
P. O. BOX 1806
AUSTIN, TEXAS 78767

~~After recordation return to~~

~~Glenn B. Calhoon, Esq.~~
Munsch Hardt Kopf & Harr, P C
4000 Fountain Place
1445 Ross Avenue
Dallas, Texas 75202

GENERAL WARRANTY DEED

to be effective as of
April 1, 1999,

This General Warranty Deed (this "**Deed**") is made as of March 30, 1999, by LAKEWAY GOLF CLUBS ACQUISITION, L.L.C., a Texas limited liability company (successor by merger to Lakeway Golf Clubs, Inc , as described on Exhibit "B" attached hereto) (the "Grantor") to CLUBCORP GOLF OF TEXAS, L.P., a Texas limited partnership (the "Grantee")

For and in consideration of the sum of Ten and No/100 Dollars ($10 00) and other valuable consideration to Grantor paid by the Grantee, the receipt of which are acknowledged, Grantor and Grantee agree as follows

1-3477-0104

1 Conveyance and Warranty of Title

Grantor GRANTS, SELLS, and CONVEYS to Grantee all of the real property, together with all the rights, expressed or implied in and to the reservation of all oil, gas and other minerals as set out in deeds (the "**Property**") situated in Travis County, Texas more particularly described on Exhibit "A" attached hereto and made a part hereof for all purposes, together with all improvements, structures and fixtures located thereon as well as all of Grantor's rights to appurtenances, easements, rights of way, adjacent streets and alleys, strips and gores,

TO HAVE AND TO HOLD the Property together with all and singular the rights and appurtenances thereto in anywise belonging, to Grantee, its successors and assigns, forever, and Grantor binds itself, its successors and assigns, to WARRANT AND FOREVER DEFEND all and singular the Property to Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof

EXECUTED as of the date first above written

GRANTOR:

LAKEWAY GOLF CLUBS ACQUISITION, L.L.C., a Texas limited liability company, successor by merger to Lakeway Golf Clubs, Inc

By _____
Mary Cowser, Senior Vice President

GRANTEE'S ADDRESS:

3030 LBJ Freeway, Suite 700
Dallas, Texas 75234
Attn Ms Mary Cowser

AFTER RECORDING RETURN TO:
ATTN: JIM GARRISON
STEWART TITLE
P. O. BOX 1806
AUSTIN, TEXAS 78767

STATE OF NY §
§
COUNTY OF NY § §

On this 27 day of March, 1999, before me personally appeared Mary Cowser, Senior Vice President of Lakeway Golf Clubs Acquisition, L L C , a Texas limited liability company, successor by merger to Lakeway Golf Clubs, Inc , who is personally known to me, this day appeared before me personally and in my presence did acknowledge that he did sign, seal and deliver the foregoing instrument of his own free will and accord, for the purposes therein named and expressed

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at March 27, 1999, the day and year first above written

Kim Muncan
Notary Public, State of NY

My Commission Expires
1 2 2001

[Stamped Notary Seal]

KIM MUNCAN
Notary Public, State of New York
No 41-4960923
Qualified in Queens County
Commission Expires Jan 2, 2001

P \2372\95\TITLE\TEXAS\HILLS-DE WPD
3 Tdb rm 3/24/99

EXHIBIT "A"
(Legal Description)

TRACT 1: 162.12 acres of land, more or less, out of the T.C. RR Co. Survey No. 95, the J. H. Lohman Survey No. 523, the H. Hoffmeister Survey No. 469, the W. Fawcett Surveys Nos. 425 and 426, and the C. W. Waldron Survey No. 78, in Travis County, Texas, including all of Lot 773, of the Hills of Lakeway Phase One, a subdivision in Travis County, Texas, according to the map or plat, of record in Volume 79, Pages 324-328, of the Plat Records of Travis County, Texas, and being the same property more fully described by metes and bounds in the field notes attached hereto as Exhibit "A-5".

TRACT 2: Six tracts of land as described in Correction and Supplement to Special Warranty Deed of record in Vol. 12580, Page 893, of the Real Property Records of Travis County, Texas, and being the same property more fully described by metes and bounds in the field notes attached hereto as Exhibit "A-5", Tract 2.

TRACT 3: Easement rights over and across Lots 762, 763, 764, 765, and 766, of the Hills of Lakeway Phase One, a subdivision in Travis County, Texas, according to the map or plat, of record in Volume 79, Pages 324-328, of the Plat Records of Travis County, Texas, as reserved in deed of record in Vol. 10035, Page 131, of the Real Property Records of Travis County, Texas. and being the same property more fully described in the attached Exhibit "A-5", Easement Tract 1.

TRACT 4: Easement rights over and across Lots 829 and 830, of the Hills of Lakeway Phase Three, a subdivision in Travis County, Texas, according to the map or plat, of record in Volume 80, Page 230-232, of the Plat Records of Travis County, Texas, and being the same property more fully described in the attached Exhibit "A-5", Easement Tract 2.

TRACT 5: Golf Cart Easements over and across 2 tracts of land, as created and defined in Golf Cart Easement Agreement dated March 31, 1995, of record in Vol. 12406, Page 2796, of the Real Property Records of Travis County, Texas.

Exhibit A-5

A DESCRIPTION OF A 162.12 NET ACRE TRACT OF LAND OUT OF THE TEXAS CENTRAL RAILROAD COMPANY SURVEY NO 195, J.H LOHMAN SURVEY NO 523, H HOFFMEISTER SURVEY NO 469, W FAUCETT SURVEYS NO. 425 AND 426, AND THE C.W WALDRON SURVEY NO. 78, ALL IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT 188.621 TRACT OF LAND AS DESCRIBED IN THAT SPECIAL WARRANTY DEED FROM FEDERAL DEPOSIT INSURANCE CORPORATION TO THE HILLWOOD PROPERTY COMPANY AS EXHIBIT A-5, AND RECORDED IN VOLUME 12364, PAGE 1915 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 162.12 NET ACRE TRACT, AS SHOWN ON SURVEY RESOURCES, INC DRAWING NO. C077-249501-01, AS TRACT 1, SAVE AND EXCEPT THAT CERTAIN 0.14 ACRE TRACT OF LAND AS DESCRIBED IN THAT DEED TO THE HURST CREEK MUNICIPAL UTILITY DISTRICT AS RECORDED IN VOLUME 9228, PAGE 248, THAT CERTAIN 0 732 ACRE TRACT OF LAND DESCRIBED IN THAT SPECIAL WARRANTY DEED TO THE HURST CREEK MUNICIPAL UTILITY DISTRICT, AS RECORDED IN VOLUME 11375, PAGE 79, BOTH OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, AND THAT 0.70 ACRE TRACT OF LAND DESCRIBED BELOW; SAID 162.12 NET ACRE TRACT AS SHOWN ON SRI DRAWING NO C077 249501 01 BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS

Tract 1 - 163.69 Acres:

BEGINNING at a 1/2-inch iron rod found at the southwest corner of Lot 260, The Hills of Lakeway Phase Four, a subdivision of record in Travis County, Texas and recorded in Book 81 Page 123 of the Plat Records of Travis County, Texas, said iron rod being on the north right-of way line of The Hills Drive (60 foot R O W), a private road, as shown on said recorded plat of The Hills of Lakeway Phase Four,

THENCE with the north right-of-way line of the said Hills Drive, THE BEARING BASIS FOR THIS SURVEY, S 86° 49' 10" W, a distance of 930 90 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the right, said iron rod being at the northwesterly corner of The Hills Drive as shown on the subdivision plat of The Hills of Lakeway Phase Three, a subdivision of record in Travis County, Texas and recorded in Book 80, Page 230, of the Plat Records of Travis County, Texas,

THENCE continuing along the north right-of-way line of The Hills Drive with said curve to the right a distance of 40 95 feet along the arc, having a radius of 1622 84 feet, a central angle of 01° 26' 45" and a subchord which bears S 87° 12' 26" W, a distance of 40 95 feet to a 1/2-inch iron rod found at a point of non-tangent, compound curvature of a curve to the right

THENCE with said curve to the right a distance of 26 07 feet along the arc, having a radius of 15 31 feet, a central angle of 97° 33' 47" and a chord which bears N 43° 07' 53" W a distance of 23 03 feet to a 1/2-inch iron rod found at a non-tangent point of compound curvature of a curve to the right, said iron rod being in the east right-of-way line of Silktassel Lane a private street, as shown on said subdivision plat of The Hills of Lakeway Phase Three,

THENCE with the east right-of-way of said Silktassel Lane the following four (4) courses

1. a distance of 21 02 feet along the arc of said curve to the right, having a radius of 25 00 feet, a central angle of 48° 09' 55" and a chord which bears N 30° 44' 02" E, a distance of 20 40 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left,

2. a distance of 42.17 feet along the arc of said curve to the left, having a radius of 50.00 feet, a central angle of 48° 19' 31" and a chord which bears N 30° 36' 52" E, a distance of 40 93 feet to a 1/2-inch iron rod found at the point of termination of said curve,

3. N 06° 27' 58" E, a distance of 40 14 feet to a 1/2-inch iron rod found at a non-tangent point of a curve to the left, and

4. a distance of 37 73 feet along the arc of said curve to the left, having a radius of 50 00 feet, a central angle of 43° 13' 48" and a chord which bears N 15° 12' 21" W, a distance of 36 84 feet to a 1/2-inch iron rod found at the southeast corner of Lot 803 of said Hills of Lakeway Phase Three;

THENCE leaving the right-of-way of Silktassel Lane, with the southeast line of said Lot 803, N 70° 31' 13" E, a distance of 150.40 feet to a 1/2-inch iron rod found at the most easterly corner of said Lot 803,

THENCE with the northeast line of The Hills of Lakeway Phase Three and of the Amended Plat of Lots 805 and 806 The Hills of Lakeway Phase Three, as recorded in Book 90, Page 52 of the Plat Records of Travis County, Texas, the following four (4) courses,

1. N 65° 11' 58" W, a distance of 299.97 feet to a 1/2-inch iron rod in concrete found,

2. N 63° 47' 57" W, a distance of 343 11 feet to a 1/2-inch iron rod found,

3. N 50° 39' 51" W, a distance of 239.11 feet to a 1/2-inch iron rod found, and

4. S 77° 18' 41" W, a distance of 61 32 feet to a 1/2-inch iron rod found at the southeast corner of Common Area 782, The Hills of Lakeway Phase Six, a subdivision of record in Travis County, Texas, and recorded in Book 81, Page 373 Plat Records of Travis County, Texas,

THENCE with the east line of said Hills of Lakeway Phase Six the following two (2) courses

1. N 09° 14' 37" E, a distance of 85 13 feet to a 1/2-inch iron rod found in the south right-of-way line of Treehaven Lane (60 foot R O W), a private street as shown on said subdivision plat of The Hills of Lakeway Phase Six, and

2. N 77° 10' 16" E, with said right-of-way line, a distance of 226 75 feet to a 1/2-inch iron rod found at a point of a non-tangent point of curvature to the right for the west corner of a called 5.213 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd as Exhibit A-5-A, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas,

THENCE leaving the east right-of-way of Treehaven Lane, with south line of the said 5 213 acre tract, being a north line of said 188 621 acre tract, the following two (2) courses

1. a distance of 23 99 feet along the arc of said curve to the right, having a radius of 17 17 feet, a central angle of 80° 04' 30" and a chord which bears S 68° 21' 43" E, a distance of 22 09 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left, and

2. a distance of 106 42 feet along the arc of said curve to the left, having a radius of 192.61 feet, a central angle of 31° 39' 28" and a chord which bears S 44° 09' 05" E, a distance of 105 07 feet to a point of a non-tangent compound curve,

THENCE leaving said line, over and across said 188 621 acre tract, a distance of 280 73 feet along the arc of said curve to the left, having a radius of 346.00 feet, a central angle of 46° 29' 14" and a chord which bears S 73° 27' 11" E, a distance of 273 09 feet to a non-tangent point in said south line of the 5.213 acre tract, being a north line of said 188 621 acre tract,

THENCE continuing with said south line of the 5 213 acre tract, being a north line of said 188 621 acre tract, the following four (4) courses,

1. S 78° 31' 24" E, a distance of 24.09 feet to a 1/2-inch iron rod found, at a point of curvature to the left,

2. a distance of 99.42 feet along the arc of said curve to the left, having a radius of 90.69 feet, a central angle of 62° 48' 50" and a chord which bears N 70° 04' 11" E, a distance of 94 52 feet to a 1/2-inch iron rod found at the point of termination of said curve,

3. N 38° 39' 46" E, a distance of 11.93 feet to a point, and

4 S 64° 46' 10" E, a distance of 99.72 feet to a 1/2-inch iron rod found for a south corner of said 5.213 acre tract, being an interior north corner of said 188.621 acre tract;

THENCE leaving the south line of said 5 213 acre tract, being a north line of said 188.621 acre tract, over and across said 188.621 acre tract, the following four (4) courses and distances.

1. S 62° 21' 17" E, a distance of 229 39 feet to a 1/2-inch iron rod set.

2. S 70° 25' 47" E, a distance of 123 39 feet to a 1/2-inch iron rod set.

3. N 26° 51' 54" E, a distance of 213 42 feet to a 1/2-inch iron rod set, and

4 N 47° 24' 50" W, a distance of 170 43 feet to a 1/2-inch iron rod found for a northeast corner of said 5.213 acre tract, being an interior southwest corner of said 188.621 acre tract;

THENCE with the north and west lines of said 5.213 acre tract, being interior south and east lines of said 188.621 acre tract, the following seven (7) courses.

1. N 08° 17' 28" W, a distance of 131 01 feet to a 1/2-inch iron rod found,

2. N 26° 33' 30" W, a distance of 305 14 feet to a 1/2-inch iron rod found,

3 N 85° 06' 11" W, a distance of 153 20 feet to a 1/2-inch iron rod found,

4 S 22° 57' 23" W, a distance of 216 92 feet to a 1/2-inch iron rod found,

5. S 24° 05' 23" W, a distance of 165 60 feet to a 1/2 inch iron rod found,

6 S 27° 51' 42" W, a distance of 129 23 feet to a 1/2 inch iron rod found, and

7 S 64° 46' 25" E, a distance of 88 19 feet to a 1/2-inch iron rod set for a non-tangent point of curvature to the right in a south line of said 5 213 acre tract, being a north line of said 188 621 acre tract,

THENCE leaving said line, over and across said 188 621 acre tract, a distance of 59 85 feet along the arc of said curve to the right, having a radius of 296 00 feet, a central angle of 11° 35' 04" and a chord which bears S 76° 01' 18" W, a distance of 59 75 feet to a point in a north line of said 5 213 acre tract, being a south line of said 188 621 acre tract,

THENCE continuing with said north line of the 5 213 acre tract being a south line of said 188 621 acre tract, the following three (3) courses

1 N 78° 31' 24" W, a distance of 53 36 feet to a 1/2 inch iron rod found at a point of curvature to the right

2 a distance of 176.88 feet along the arc of said curve to the right, having a radius of 939 24 feet, a central angle of 10° 47' 25" and a chord which bears N 73° 06' 35" W a distance of 176 62 feet to a 1/2-inch iron rod found at a point of compound curvature, and

3 a distance of 15 12 feet along the arc of said curve to the right, having a radius of 142.61 feet, a central angle of 06° 04' 22" and a chord which bears N 64° 40' 32" W, a distance of 15 11 feet to a non-tangent point of compound curvature,

THENCE leaving said line, over and across said 188 621 acre tract, the following two (2) courses.

1. a distance of 70.25 feet along the arc of said curve to the right, having a radius of 296 00 feet, a central angle of 13° 35' 56" and a chord which bears N 42° 33' 15" W, a distance of 70 09 feet to a point of compound curvature, and

2. a distance of 21.52 feet along the arc of said curve to the right, having a radius of 15 00 feet, a central angle of 82° 11' 48" and a chord which bears N 05° 20' 36" E, a distance of 19.72 feet to a 1/2-inch iron rod found in said south right-of-way line of Treehaven Lane, for a west corner of said 188 621 acre tract, being the most westerly corner of that certain 0 0072 acre tract of land described in a deed from Lakeway Company to J. Clark Nowlin and recorded in Volume 8452, Page 330 Deed Records of Travis County, Texas;

THENCE leaving said right-of-way of Treehaven Lane, with the southeast line of said 0.0072 acre tract and the southeast line of Lot A of the Amended Plat of Lots 480 and 481, The Hills of Lakeway, Phase Six P U.D., a subdivision of record in Travis County, Texas, and recorded in Book 90, Page 154, Plat Records of Travis County, Texas, N 62° 32' 56" E, a distance of 142.14 feet to a 1/2-inch iron rod found,

THENCE with the east line of said Amended Plat of Lots 480 and 481, The Hills of Lakeway, Phase Six P.U.D., and Hills of Lakeway Phase Six, N 27° 56' 18" E, a distance of 287 34 feet to a 1/2-inch iron rod found at the southeast corner of Lot 487-A, Amended plat of Lots 487 and 488, The Hills of Lakeway Phase Six, P U.D., a subdivision of record in Travis County, Texas and recorded in Book 87, Page 1298, Plat Records of Travis County, Texas;

THENCE with the east line of said amended plat the following three (3) courses.

1. N 11° 18' 37" E, a distance of 113.73 feet to a 1/2-inch iron rod found,

2. N 02° 34' 35" W, a distance of 92.24 feet to a 1/2-inch iron rod found,

3 N 82° 22' 58" W, a distance of 73 24 feet to a 1/2-inch iron rod found at the northwest corner of Lot 488A of said amended plat, said iron rod being in the east line of common area Lot 773, The Hills of Lakeway Phase Two, a subdivision of record in Travis County, Texas, and recorded in Book 79, Page 388, Plat Records of Travis County, Texas

THENCE with the east line of said Hills of Lakeway Phase Two the following four (4) courses

1 N 19° 25' 30" E, a distance of 209 09 feet to a 1/2-inch iron rod found,

2. N 15° 16' 09" E, a distance of 306 90 feet to a 1/2-inch iron rod found,

3 N 07° 46' 08" E, a distance of 215 59 feet to a 1/2-inch iron rod found, and

4 N 40° 09' 55" W, a distance of 21 85 feet to a 1/2-inch iron rod found at the southeast corner of common area Lot 758, The Hills of Lakeway Phase One, a subdivision of record in Travis County, Texas and recorded in Book 79, Page 324, Plat Records of Travis County, Texas,

THENCE with the east line of said Hills of Lakeway Phase One the following four (4) courses

1 N 10° 26' 45" E, a distance of 186 76 feet to a 1/2 inch iron rod found,

2 N 60° 29' 55" E, a distance of 284 94 feet to a 1/2-inch iron rod found,

3 N 26° 50' 26" E, a distance of 170 12 feet to a 1/2-inch iron rod found, and

4 N 51° 46' 38" E, a distance of 336 93 feet to a 1/2-inch iron rod found at the most easterly common corner of Lots 253 and 773, The Hills of Lakeway Phase One,

THENCE with the common line of said Lots 252 and 773, N 38° 25' 56" W, a distance of 201.53 feet to a 1/2-inch iron rod found at a non-tangent point in a curve to the left in the east right-of-way line of Club Estates Parkway (a ROW of varying width), as shown on the plat of said Hills of Lakeway Phase One, for the most northerly common corner of Lots 252 and 773,

THENCE with the east right-of-way of said Club Estates Parkway the following four (4) courses:

1. a distance of 85.07 feet along the arc of said curve to the left, having a radius of 320.00 feet, a central angel of 15° 13' 54" and a chord which bears N 35° 26' 15" E, a distance of 84.82 feet to a 1/2-inch iron rod found at the point of termination of said curve,

2. N 27° 44' 53" E, a distance of 163.68 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

3. a distance of 458.21 feet along the arc of said curve to the left, having a radius of 565.99 feet, a central angle of 46° 23' 07" and a chord which bears N 04° 33' 20" E, a distance of 445.80 feet to a 1/2-inch iron rod found for the termination of said curve,

4 N 18° 37' 29" W, a distance of 32 85 feet to a 1/2-inch iron rod found for the southwest corner of Lot 729;

THENCE leaving the east right-of-way of Club Estates Parkway with the south line of Lot 729, N 48° 41' 00" E, a distance of 164 37 feet to a 5/8-inch iron rod found at the southeast corner of Lot 729;

THENCE with the east line of The Hills of Lakeway Phase One the following six (6) courses

1. N 00° 21' 31" E, a distance of 228 03 feet to a 1/2-inch iron rod found,

2. N 19° 37' 01" W, a distance of 351.17 feet to a 1/2-inch iron rod found,

3. N 01° 00' 55" E, a distance of 476 67 feet to a 1/2-inch iron rod found,

4. N 25° 38' 55" E, a distance of 234.54 feet to a 1/2-inch iron rod found on the south right-of-way of The Hills Drive, as shown on said Hills of Lakeway Phase One,

5 with the southeast line of said The Hills Drive as shown on said Hills of Lakeway Phase One, N 22° 52' 55" E a distance of 60 00 feet to a point in a concrete golf cart path, and

6 with the north right-of way of said The Hills Drive, N 67° 03' 22" W, a distance of 80 10 feet to a railroad spike found at the southeast corner of "The Masters" at The Hills of Lakeway, a subdivision of record in Travis County, Texas and recorded in Book 85, Page 82A, Plat Records of Travis County, Texas,

THENCE with the east line of "The Masters" at The Hills of Lakeway the following nine (9) courses

1 N 22° 53' 09" E, a distance of 116 76 feet to a 1/2-inch iron rod found,

2 N 39° 36' 17" E, a distance of 174 27 feet to a PK nail found

3 N 56° 46' 48" E, a distance of 203 58 feet to a 1/2 inch iron rod found

4 N 69° 05' 22" E, a distance of 314 12 feet to a 1/2-inch iron rod found,

5 N 67° 19' 33" E, a distance of 106 13 feet to a 1/2 inch iron rod found

6 N 43° 47' 34" E, a distance of 146 71 feet to a 1/2-inch iron rod found,

7 N 08° 52' 31" W, a distance of 83.78 feet to a 1/2-inch iron rod found

8. N 21° 08' 39" E, a distance of 157 53 feet to a 1/2-inch iron rod found, and

9. N 30° 11' 21" W, a distance of 176 41 feet to a 1/2-inch iron rod found in the south right-of-way of Lakeway Boulevard (120 foot ROW) as dedicated by Lakeway Section 16-A, a subdivision of record in Travis County, Texas and recorded in Book 59, Page 19, Plat Records of Travis County, Texas,

THENCE with the said south right-of-way of Lakeway Boulevard, the following three (3) courses:

1 N 59° 54' 00" E, a distance of 400.27 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

2. a distance of 149.84 feet along the arc of said curve to the left, having a radius of 832.98 feet, a central angle of 13° 33' 48" and a chord which bears N 52° 45' 49" E, a distance of 149 49 feet to a 1/2-inch iron rod found for the termination of said curve, and

3. N 46° 01' 46" E, a distance of 209.87 feet to a 1/2-inch iron rod found in the west line of a tract of land described in a deed to M&S Properties and recorded in Volume 11228, Page 212, Deed Records of Travis County, Texas; from which a 1/2-inch iron rod found in the south right-of-way of World of Tennis Boulevard at a point of curvature to the right bears, N 46° 01' 46" E, a distance of 61.23 feet,

THENCE with said west line of the M&S Tract of land S 24° 09' 35" W, a distance of 119.32 feet to a 1/2-inch iron rod found in the west line of a called 25 006 acre tract of land described in a deed from David H. Meck to M&S Properties and recorded in Volume 11040, Page 761, Deed Records of Travis County, Texas; from which iron rod found a 1/2-inch iron rod found at the northwest corner of said 25.006 acre tract of land bears N 33° 47' 00" E, a distance of 170.46 feet,

THENCE with the west and south lines of said 25.006 acre tract of land the following four (4) courses:

1. S 33° 49' 47" W, a distance of 116.39 feet to a 1/2 inch iron rod found,

2. S 23° 56' 44" W, a distance of 202 47 feet to a 1/2-inch iron rod found,

3. S 22° 21' 28" W, a distance of 105 19 feet to a 1/2-inch iron rod found in an asphalt golf cart path at the southwest corner of said 25.006 acre tract of land, and,

4 S 58° 23' 03" E, a distance of 630 23 feet to a 1/2-inch iron rod found at the most northerly corner of Lot 763 The Hills of Lakeway Phase Nine P U D , a subdivision of record in Travis County, Texas, and recorded in Book 85 Page 190, Plat Records of Travis County, Texas,

THENCE with the west line of said Hills of Lakeway Phase Nine the following nine (9) courses

1 S 56° 37' 53" W, a distance of 159 97 feet to a 1/2 inch iron rod found,

2. S 31° 36' 08" W, a distance of 130 01 feet to a 60-D nail found,

3. S 27° 20' 56" E, a distance of 220 19 feet to a 1/2-inch iron rod found,

4. S 68° 46' 05" E, a distance of 93 46 feet to a 1/2-inch iron rod found,

5. S 24° 10' 41" W, a distance of 20 01 feet to a 1/2-inch iron rod found,

6 S 68° 32' 15" E, a distance of 126 49 feet to a 1/2-inch iron rod found, at the southeast corner of Lot 768, in the west right-of-way line of Falling Oaks Trail (60 foot ROW), a private street as shown on said plat of The Hills of Lakeway Phase Nine, at a non-tangent point of curvature to the left,

7 with the west right-of-way line of said Falling Oaks Trail, a distance of 30 01 feet along the arc of said curve to the left, having a radius of 1028 94 feet, a central angle of 01° 40' 16" and a subchord which bears S 21° 03' 53" W, a distance of 30.01 feet to a 1/2-inch iron rod found at the northeast corner of Lot 769,

8 N 68° 32' 42" W, a distance of 208.94 feet to a 1/2-inch iron rod found, and

9. S 43° 36' 34" W, a distance of 127 56 feet to a PK nail found for a northeast corner of a called 18.508 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd. as Exhibit A-5-B, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas,

THENCE leaving the west line of said Hills of Lakeway Phase Nine, continuing with the interior south and east lines of the said 188.621 acre tract, being the north and west lines of the said 18.508 acre tract, the following seven (7) courses:

1. N 46° 07' 54" W, a distance of 295.53 feet to a 1/2-inch iron rod found,

2. S 63° 39' 25" W, a distance of 137 95 feet to a 1/2-inch iron rod found,

3. S 43° 49' 30" W, a distance of 225.77 feet to a 1/2-inch iron rod found,

4. S 57° 10' 15" W, a distance of 220.04 feet to a 1/2-inch iron rod found,

5 S 25° 52' 58" W, a distance of 261 09 feet to a 1/2-inch iron rod set,

6. N 67° 06' 18" W, a distance of 166.93 feet to a 1/2-inch iron rod set, and

7 S 37° 10' 34" W, a distance of 61 91 feet to a 1/2-inch iron rod set in a west line of said 18.508 acre tract, being an east line of said 188.621 acre tract;

THENCE leaving said line, over and across said 188 621 acre tract, the following eight (8) courses,

1 N 67° 06' 18" W, a distance of 43 40 feet to a 1/2-inch iron rod set,

2. S 37° 12' 35" W, a distance of 256 80 feet to a 1/2-inch iron rod set,

3. S 15° 12' 12" E, a distance of 172.73 feet to a 1/2-inch iron rod set,

4. S 07° 18' 47" E, a distance of 175 56 feet to a 1/2-inch iron rod set,

5 S 00° 42' 44" E, a distance of 120 91 feet to a 1/2-inch iron rod set,

6 S 20° 51' 18" E, a distance of 176 32 feet to a 1/2 inch iron rod set,

7 N 86° 26' 12" E, a distance of 59 71 feet to a 1/2 inch iron rod set, and

8 N 48° 00' 13" E, a distance of 33 99 feet to a 1/2 inch iron rod set in a south line of said 18 508 acre tract, being a north line of said 188 621 acre tract,

THENCE with the east, south and west lines of said 18 508 acre tract, being the west, north and east lines of said 188 621 acre tract, the following six (6) courses

1. N 89° 09' 34" E, a distance of 48 75 feet to a 1/2-inch iron rod found,

2 N 08° 49' 21" W, a distance of 163 21 feet to a 1/2-inch iron rod found,

3 N 06° 20' 05" E, a distance of 172 98 feet to a 1/2-inch iron rod found,

4 N 15° 55' 01" E, a distance of 395 93 feet to a 1/2 inch iron rod set,

5 S 67° 06' 18" E, a distance of 241.49 feet to a 1/2-inch iron rod set, and

6 S 13° 51' 35" W, a distance of 356 78 feet to a 1/2-inch iron rod found at a west corner of said 18 508 acre tract, being a east corner of said 188 621 acre tract, and being the north corner of Lot 880 of said Hills of Lakeway Phase Nine,

THENCE continuing with the west line of said Hills of Lakeway Phase Nine and south line of the Amended Plats of Lots 865 and 867 Hills of Lakeway P U D Phase 9 as recorded in Book 87, Page 788, Plat Records of Travis County, Texas, the following fifteen (15) courses:

1 S 04° 56' 30" W, a distance of 92 15 feet to a 1/2-inch iron rod found,

2. S 02° 19' 02" W, a distance of 65 81 feet to a 1/2-inch iron rod found,

3. S 07° 00' 57" W, a distance of 402.74 feet to a 1/2-inch iron rod found,

4. S 01° 30' 46" E, a distance of 139 65 feet to a 1/2-inch iron rod found,

5. N 89° 00' 40" E, a distance of 166.23 feet to a 1/2-inch iron rod found at the southeast corner of Lot 874, in the west right-of-way line of Hedgebrook Way (60 foot ROW), a private street as shown on said recorded plat of The Hills of Lakeway Phase Nine, at a non-tangent point of curvature to the left,

6. with the west right-of-way of said Hedgebrook Way, a distance of 30.78 feet along the arc of said curve to the left, having a radius of 338 00 feet, a central angle of 05° 12' 53" and a subchord which bears S 13° 34' 20" E, a distance of 30.75 feet to a 1/2-inch iron rod found at the northeast corner of Lot 873,

7. leaving Hedgebrook Way, S 89° 00' 11" W, a distance of 172.64 feet to a 1/2-inch iron rod found,

8. S 01° 31' 05" E, a distance of 48.17 feet to a 1/2-inch iron rod found,

9. S 04° 10' 23" E, a distance of 246 81 feet to a 1/2-inch iron rod set,

10. S 72° 14' 28" E, a distance of 74 87 feet to a 1/2-inch iron rod found,

11 S 85° 35' 26" E, a distance of 61 52 feet to a 1/2-inch iron rod found,

12 S 88° 25' 56" E, a distance of 90 56 feet to a 1/2-inch iron rod found,

13. S 70° 04' 05" E, a distance of 356.76 feet to a 1/2-inch iron rod found,

14. S 86° 29' 02" E, a distance of 273.35 feet to a 1/2-inch iron rod found, and

15. S 26° 28' 23" E, a distance of 98 85 feet to a 1/2-inch iron rod found, at the common rear lot corner of Lots 860, The Hills of Lakeway Phase Nine and Lot 596, The Hills of Lakeway Phase Eight, a subdivision of record in Travis County, Texas, and recorded in Book 82, Page 1, Plat Records of Travis County Texas,

THENCE with the west line of said Hills of Lakeway Phase Eight, and with the west line of the Amended Plat of Lots 561 and 562, The Hills of Lakeway Phase Eight as recorded in Book 89, Page 367, Plat Records of Travis County, Texas, and with the west line of the Amended Plat of Lots 551 and 550, The Hills of Lakeway Phase Eight as recorded in Book 90, Page 153, Plat Records of Travis County, Texas the following thirteen (13) courses

1 S 00° 26' 07" E, a distance of 168 12 feet to a 1/2 inch iron rod found

2 S 46° 08' 47" E a distance of 332 52 feet to a 1/2-inch iron rod found,

3 S 71° 28' 09" E, a distance of 165 97 feet to a 1/2 inch iron rod found,

4 S 40° 39' 20" E, a distance of 185 97 feet to a 1/2-inch iron rod found,

5 S 21° 24' 47" E, a distance of 321 87 feet to a 1/2-inch iron rod found,

6 S 14° 37' 05" E, a distance of 182 15 feet to a 1/2 inch iron rod found,

7 S 15° 06' 55" E, a distance of 221 50 feet to a 1/2-inch iron rod found

8 S 33° 52' 16" W, a distance of 582 08 feet to a 1/2-inch iron rod found

9 S 21° 37' 23" W, a distance of 173 55 feet to a 1/2 inch iron rod found

10 S 10° 31' 26" W, a distance of 207 03 feet to a 1/2-inch iron rod found,

11 S 09° 30' 10" W, a distance of 210 59 feet to a 1/2-inch iron rod found,

12. S 23° 41' 00" W, a distance of 279 27 feet to a 1/2-inch iron rod found, and

13. S 85° 02' 38" W, a distance of 152.88 feet to a 1/2-inch iron rod found at the common rear lot corner of Lots 520 of said The Hills of Lakeway Phase Eight and 286, The Hills of Lakeway Phase Four, a subdivision of record in Book 81, Page 123, Plat Records of Travis County, Texas,

THENCE with the east line of said The Hills of Lakeway Phase Four the following seven (7) courses:

1. N 73° 36' 32" W, a distance of 183.71 feet to a 1/2-inch iron rod found,

2. N 06° 29' 04" W, a distance of 433.22 feet to a 1/2-inch iron rod found,

3. N 00° 21' 02" E, a distance of 342 41 feet to a 1/2-inch iron rod found,

4 N 32° 05' 22" E, a distance of 286.02 feet to a 1/2-inch iron rod found,

5 N 35° 33' 16" E, a distance of 212.22 feet to a 1/2-inch iron rod found,

6. N 31° 12' 02" E, a distance of 99 05 feet to a 1/2-inch iron rod found, and

7 N 02° 22' 59" W, a distance of 294 17 feet to a 1/2-inch iron rod found at the common rear lot corner of Lots 307 and 308 of said Hills of Lakeway Phase Four,

THENCE with the north line of said Hills of Lakeway Phase Four the following six (6) courses

1 N 75° 56' 26" W, a distance of 167 82 feet to a 1/2-inch iron rod found,

2. N 25° 45' 25" W, a distance of 107 80 feet to a 1/2 inch iron rod found,

3. N 59° 29' 45" W, a distance of 332 70 feet to a 1/2-inch iron rod found,

4. N 50° 46' 58" W, a distance of 504.44 feet to a 1/2-inch iron rod found,

5. N 84° 10' 23" W, a distance of 111 28 feet to a 1/2-inch iron rod found, and

6. N 83° 55' 43" W, a distance of 320 44 feet to a 1/2-inch iron rod found at the most northerly rear lot corner in Lot 324, of said The Hills of Lakeway Phase Four, from which a 1/2-inch iron rod found at the common rear lot corner of Lots 324 and 323 bears S 83° 55' 43" E, a distance of 45 68 feet,

THENCE with the west line of said The Hills of Lakeway Phase Four and with the west line of the Amended Plat of Lots 328 and 329, The Hills of Lakeway Phase Four as recorded in Book 88 Page 155, Plat Records of Travis County, Texas, the following seven (7) courses

1 S 46° 55' 28" W, a distance of 83 41 feet to a 1/2 inch iron rod found,

2 S 43° 19' 01" E a distance of 177 86 feet to a 1/2-inch iron rod found,

3 S 02° 18' 43" W, a distance of 93 34 feet to a 1/2 inch iron rod found,

4 S 72° 03' 27" W, a distance of 227 79 feet to a 1/2-inch iron rod found,

5 S 36° 52' 08" W, a distance of 52 09 feet to a 1/2-inch iron rod found,

6 S 19° 42' 08" E, a distance of 164 90 feet to a 1/2-inch iron rod found, and

7 S 27° 31' 23" E, a distance of 143 84 feet to a 1/2-inch iron rod found at the most westerly common rear lot corner of Lots 332 The Hills of Lakeway Phase Four, and common area 781, The Hills of Lakeway Phase Five-Amended a subdivision of record in Travis County Texas, and recorded in Book 81, Page 399 Plat Records of Travis County, Texas,

THENCE with the west line of said The Hills of Lakeway Phase Five-Amended the following nine (9) courses.

1 S 33° 45' 41" W, a distance of 255 94 feet to a 1/2-inch iron rod found,

2. S 12° 24' 25" W, a distance of 216 05 feet to a 1/2-inch iron rod found,

3. S 12° 07' 31" W, a distance of 254 41 feet to a 1/2-inch iron rod found,

4. S 23° 49' 29" W, a distance of 93.79 feet to a 1/2-inch iron rod found,

5. S 02° 38' 53" W, a distance of 249 81 feet to a 1/2-inch iron rod found,

6. S 20° 44' 36" E, a distance of 293 67 feet to a 1/2-inch iron rod found,

7 S 25° 33' 32" E, a distance of 137 58 feet to a 1/2-inch iron rod found,

8. S 05° 04' 12" E, a distance of 239 63 feet to a 1/2-inch iron rod found, and

9 S 15° 49' 28" W, a distance of 10 45 feet to a 1/2-inch iron rod found at the common rear lot corner of common area 780, The Hills of Lakeway Phase Five-Amended and Lot 261, The Hills of Lakeway Phase Four,

THENCE with the west line of Lots 261 and 260, The Hills of Lakeway Phase Four the following two (2) courses.

1. S 15° 32' 05" W, a distance of 150 66 feet to a 1/2-inch iron rod found, and

2. S 04° 16' 29" E, a distance of 89 19 feet to the **POINT OF BEGINNING** and containing 163 69 acres of land

Save and Except 0.14 Acres:

COMMENCING at a 1/2-inch iron rod found in the southwest line of that certain 25.006 acre tract described in the deed to M&S Properties as recorded in Volume 11040, Page 781 of the Travis County, Texas Real Property Records, being the most northerly corner of Lot 763 of The Hills of Lakeway Phase Nine, a subdivision of record in Book 85, Page 190 of the Travis County, Texas Plat Records;

THENCE leaving said Phase Nine P.U.D., with the south line of said 25.006 acre tract, being a north line of said 188.621 acre tract, N 58° 23' 03" W, a distance of 207.78 feet;

THENCE leaving said 25.006 acre tract and crossing said 188.621 acre tract, S 31° 36' 57" W, a distance of 82.92 feet to a found chain link fence corner post being the POINT OF BEGINNING and being the northeast corner hereof,

THENCE continuing to cross said 188.621 acre tract the following five (5) courses

1. S 09° 15' 03" E, a distance of 90.30 feet to a found chain link fence post being the southeast corner hereof,
2. S 41° 27' 12" W, a distance of 10.79 feet to a found chain link fence post,
3. S 82° 05' 53" W a distance of 56.30 feet to a found chain link fence post being the southwest corner hereof
4. N 07° 54' 07" W, a distance of 95.83 feet to a found chain link fence post being the northwest corner hereof and
5. N 80° 44' 57" E, a distance of 62.38 feet to the POINT OF BEGINNING and containing 0.14 acres of land

Save and Except 0.732 Acres:

BEGINNING at a chain link fence corner found at the northwest corner of a 0.14 acre tract of land conveyed to Hurst Creek Municipal Utility District by deed recorded in Volume 9228, Page 248, Travis County Deed Records, same being the most northerly northeast corner hereof,

THENCE S 07° 54' 07" E, a distance of 95.83 feet, along the west line of the said 0.14 acre tract of land, to a point for the southwest corner of the said 0.14 acre tract of land;

THENCE N 82° 05' 53" E, a distance of 56.30 feet, along the south line of the said 0.14 acre tract of land, to a chain link fence corner found at a southeast corner of said 0.14 acre tract of land, same being the most easterly northeast corner hereof,

THENCE over and across a portion of the said 189.493 acre tract of land, the following eight (8) courses:

1. S 03° 48' 16" E, a distance of 59.72 feet to an iron rod found,
2. S 47° 32' 53" W, a distance of 161.61 feet to an iron rod found, same being the most southerly corner hereof;
3. N 47° 29' 24" W, a distance of 29.46 feet to an iron rod found,
4. N 33° 30' 51" W, a distance of 85.52 feet to an iron rod found,
5. N 02° 38' 44" E, a distance of 91.66 feet to an iron rod found,
6. N 11° 28' 11" E, a distance of 77.94 feet to an iron rod found, same being the northwest corner hereof,

7 N 87° 40' 52" E, a distance of 41 76 feet to an angle point, and

8. S 84° 42' 07" E, a distance of 54 05 feet to the **POINT OF BEGINNING** and containing 0.732 acres of land

Save and Except 0.70 Acres:

BEGINNING at a 1/2-inch iron rod found at the northeast corner of Lot 713, The Hills of Lakeway Phase One, a subdivision of record in Travis County, Texas and recorded in Book 79, Page 324 of the Plat Records of Travis County, Texas, said iron rod being on the south right-of-way line of The Hills Drive (60 foot R.O.W.), a private road, Lot 774, as shown on said recorded plat of The Hills of Lakeway Phase One, and being on the west line of said 188.621 acre tract, for the west corner of the herein described 0.70 acre tract;

THENCE with the east line of said The Hills Drive, Lot 774, as shown on said Hills of Lakeway Phase One, being the west line of said 188 621 acre tract, N 22° 52' 55" E, a distance of 60 00 feet to a point in a concrete golf cart path, for the north corner of the herein described 0 70 acre tract;

THENCE leaving the east line of said The Hills of Lakeway, Phase One, over and across said 188.621 acre tract, S 67° 06' 18" E, a distance of 516 18 feet to a 1/2-inch iron rod set for a northwest corner of a called 18 508 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd as Exhibit A-5-B, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas, being a southeast corner of said 188.621 acre tract and the northeast corner of the herein described 0 70 acre tract,

THENCE with a west line of said 18 508 acre tract, being an east line of said 188 621 acre tract S 37° 10' 34" W, a distance of 61 91 feet to a 1/2 inch iron rod set,

THENCE leaving said line and crossing said 188 621 acres tract, N 67° 06' 18" W, a distance of 500 89 feet to the **POINT OF BEGINNING** and containing 0 70 acres of land

Together with the following easements:

Easement Tract 1: A Blanket Easement reserved in a deed recorded in Volume 10033, Page 131, Real Property Records of Travis County, Texas, for the flowage of water for irrigation of Golf Course over and across Lots 762, 763, 764, 765 and 766, The Hills of Lakeway Phase One, a subdivision recorded in Book 79, Pages 324-328, Plat Records, Travis County, Texas.

Easement Tract 2: A Golf Course Appurtenant Easement over and across Lots 829 and 830, The Hills of Lakeway Phase Three, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Book 80, Page 330, Plat Records of Travis County, Texas, located as shown on such recorded plat.

EXHIBIT "A-5" - TRACT 2

A DESCRIPTION OF 5 TRACTS OF LAND CONTAINING 0.60 ACRES OF LAND OUT OF THE H HOFFMEISTER SURVEY NO 469, AND THE W FAUCETT SURVEYS NO 425 AND 426, ALL IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF A 5.213 ACRE TRACT AND A 18.508 ACRE TRACT OF LAND AS DESCRIBED IN THAT SPECIAL WARRANTY DEED FROM FEDERAL DEPOSIT INSURANCE CORPORATION TO LAKEWAY PROPERTY COMPANY, LTD AS EXHIBIT A-5-A, AND EXHIBIT A-5-B, AS RECORDED IN VOLUME 12364, PAGE 2021 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS. SAID 5 TRACTS, AS SHOWN ON SURVEY RESOURCES, INC. DRAWING NO. C077-249501-01, BEING THE TOTAL OF TRACTS 2 THROUGH 6 AS SHOWN ON SRI DRAWING NO. C077-249501-01, AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS.

Tract 2 - 0.01 Acres:

COMMENCING at a 1/2-inch iron rod found at the northeast corner of Common Area 782, being in the south right-of-way line of Treehaven Lane (60 foot R.O.W.), a private street, as shown on The Hills of Lakeway Phase Six, a subdivision of record in Travis County, Texas, and recorded in Book 81, Page 373 Plat Records of Travis County, Texas, and being a west corner of that certain 188.621 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Hillwood Property Company as Exhibit A-5, and recorded in Volume 12364, Page 1915, of the Deed Records of Travis County, Texas;

THENCE with said right-of-way line, being a northwest line of said 188.621 acre tract, N 77° 10' 16" E, a distance of 226.75 feet 1/2-inch iron rod found for the west corner of said 5.213 acre tract and the POINT OF BEGINNING of the herein described 0.01 acre tract of land;

THENCE continuing with said right-of-way line of Treehaven Lane, being a northwest line of said 5.213 acre tract, N 77° 10' 16" E, a distance of 8.30 feet 1/2-inch iron rod set at a non-tangent point of curvature to the right;

THENCE leaving the south right-of-way of said Treehaven Lane, over and across said 5.213 acre tract, the following two (2) courses and distances:

1. a distance of 18.36 feet along the arc of said curve to the right, having a radius of 15.00 feet, a central angle of 70° 06' 47" and a chord which bears S 67° 46' 20" E, a distance of 17.23 feet to a 1/2-inch iron rod set at a point of reverse curvature, and

2. a distance of 105.64 feet along the arc of said curve to the left, having a radius of 346.00 feet, a central angle of 17° 29' 38" and a chord which bears S 41° 27' 46" E, a distance of 105.23 feet to a non-tangent point of reverse curvature in a south line of the said 5.213 acre tract, being a north line of said 188.621 acre tract;

THENCE with the south line of said 5.213 acre tract, being a north line of said 188.621 acre tract, the following two (2) courses and distances.

1. a distance of 106.42 feet along the arc of said curve to the right, having a radius of 192.61 feet, a central angle of 31° 39' 28" and a chord which bears N 44° 09' 05" W, a distance of 105.07 feet to a point of reverse curvature, and

2. a distance of 23.99 feet along the arc of said curve to the left, having a radius of 17.17 feet, a central angle of 80° 04' 30" and a chord which bears N 68° 21' 43" W, a distance of 22.09 feet to the POINT OF BEGINNING and containing 0.01 acres of land.

Tract 3 - 0.07 Acres:

COMMENCING at a 1/2-inch iron rod found for the most westerly corner of that certain 0.0072 acre tract of land described in a deed from Lakeway Company to J. Clark Nowlin and recorded in Volume 8452, Page 330 Deed Records of Travis County, Texas, being in the curving south right-of-way line of said Treehaven Lane for a north corner of said 5 213 acre tract, being a west corner of said 188.621 acre tract;

THENCE with said south right-of-way of Treehaven Lane, a distance of 4 96 feet along the arc of said curve to the right, having a radius of 80 00 feet, a central angle of 03° 33' 12" and a chord which bears S 49° 38' 27" W, a distance of 4 96 feet to a 1/2-inch iron rod found at a point of reverse curvature,

THENCE leaving said right-of-way line, with a north line of said 5.213 acre tract, being a south line of said 188.621 acre tract the following two (2) courses and distances:

1. a distance of 21 60 feet along the arc of said curve to the left, having a radius of 15.00 feet, a central angle of 82° 30' 28" and a chord which bears S 08° 34' 20" W, a distance of 19.78 feet to a 1/2-inch iron rod found at a point of compound curvature, and

2. a distance of 72.08 feet along the arc of said curve to the left, having a radius of 142.61 feet, a central angle of 28° 57' 32" and a chord which bears S 47° 09' 35" E, a distance of 71.32 feet to a point of compound curvature, and the POINT OF BEGINNING of the herein described 0.07 acre tract;

THENCE continuing with the north line of said 5 213 acre tract, being a south line of said 188.621 acre tract the following three (3) courses and distances,

1. a distance of 15.12 feet along the arc of said curve to the left, having a radius of 142.61 feet, a central angle of 06° 04' 22" and a chord which bears S 64° 40' 32" E, a distance of 15 11 feet to a 1/2-inch iron rod found at a point compound curvature,

2. a distance of 176.88 feet along the arc of said curve to the left, having a radius of 939 24 feet, a central angle of 10° 47' 25" and a chord which bears S 73° 06' 35" E, a distance of 176 62 feet to a 1/2 inch iron rod found at the point of termination of said curve, and

3. S 78° 31' 24" E, a distance of 53 36 feet to a non-tangent point of curvature to the right,

THENCE leaving said line, over and across said 5 213 acre tract, a distance of 252.28 feet along the arc of said curve to the right, having a radius of 296 00 feet, a central angle of 48° 49' 56" and a chord which bears N 73° 46' 11" W a distance of 244 71 feet to the POINT OF BEGINNING and containing 0 07 acres of land

Tract 4 - 0.03 Acres:

COMMENCING at a 1/2-inch iron rod found at the northeast corner of Common Area 782, being in the south right-of-way line of Treehaven Lane (60 foot R O.W), a private street, as shown on The Hills of Lakeway Phase Six, a subdivision of record in Travis County, Texas, and recorded in Book 81, Page 373 Plat Records of Travis County, Texas, and being a west corner of that certain 188.621 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Hillwood Property Company as Exhibit A-5, and recorded in Volume 12364, Page 1915, of the Deed Records of Travis County, Texas;

THENCE with said right-of-way line, being a northwest line of said 188.621 acre tract, N 77° 10' 16" E, a distance of 226.75 feet 1/2-inch iron rod found at a point of a non-tangent point of curvature to the right, for the west corner of said 5.213 acre tract, being a northwest corner of said 188.621 acre tract,

THENCE leaving the south right-of-way of said Treehaven Lane, with a south line of said 5.213 acre tract, being a north line of said 188.621 acre tract, the following four (4) courses and distances:

1 a distance of 23.99 feet along the arc of said curve to the right, having a radius of 17.17 feet, a central angle of 80° 04' 30" and a chord which bears S 68° 21' 43" E, a distance of 22.09 feet to a 1/2-inch iron rod found at a point of reverse curvature,

2. a distance of 132.42 feet along the arc of said curve to the left, having a radius of 192.61 feet, a central angle of 39° 23' 29" and a chord which bears S 48° 01' 05" E, a distance of 129.83 feet to a 1/2-inch iron rod found at a point of compound curvature,

3. a distance of 186.30 feet along the arc of said curve to the left, having a radius of 989.24 feet, a central angle of 10° 47' 25" and a chord which bears S 73° 06' 32" E, a distance of 186.02 feet to a 1/2-inch iron rod found at the point of termination of said curve, and

4. S 78° 31' 24" E, a distance of 61.70 feet to a non-tangent point of curvature to the left and the POINT OF BEGINNING of the herein described 0.03 acre tract of land;

THENCE leaving said line, over and across said 5.213 acre tract, the following two (2) courses and distances:

1 a distance of 125.91 feet along the arc of said curve to the left, having a radius of 346.00 feet, a central angle of 20° 51' 00" and a chord which bears N 72° 52' 41" E, a distance of 125.22 feet to a 1/2-inch iron rod set, and

2. S 64° 46' 10" E, a distance of 0.28 feet to a south corner of said 5.213 acre tract, being a north corner of said 188.621 acre tract;

THENCE with a south line of said 5.213 acre tract, being a north line of said 188.621 acre tract the following three (3) courses and distances,

1 S 38° 39' 46" W a distance of 11.93 feet to a 1/2-inch iron rod found at a point of curvature to the right,

2. a distance of 99.42 feet along the arc of said curve to the right, having a radius of 90.69 feet, a central angle of 62° 48' 50" and a chord which bears S 70° 04' 11" W, a distance of 94.52 feet to a 1/2-inch iron rod found at the point of termination of said curve, and

3 N 78° 31' 24" W, a distance of 24.09 feet to the POINT OF BEGINNING and containing 0.03 acres of land

Tract 9 - 0.40 Acres:

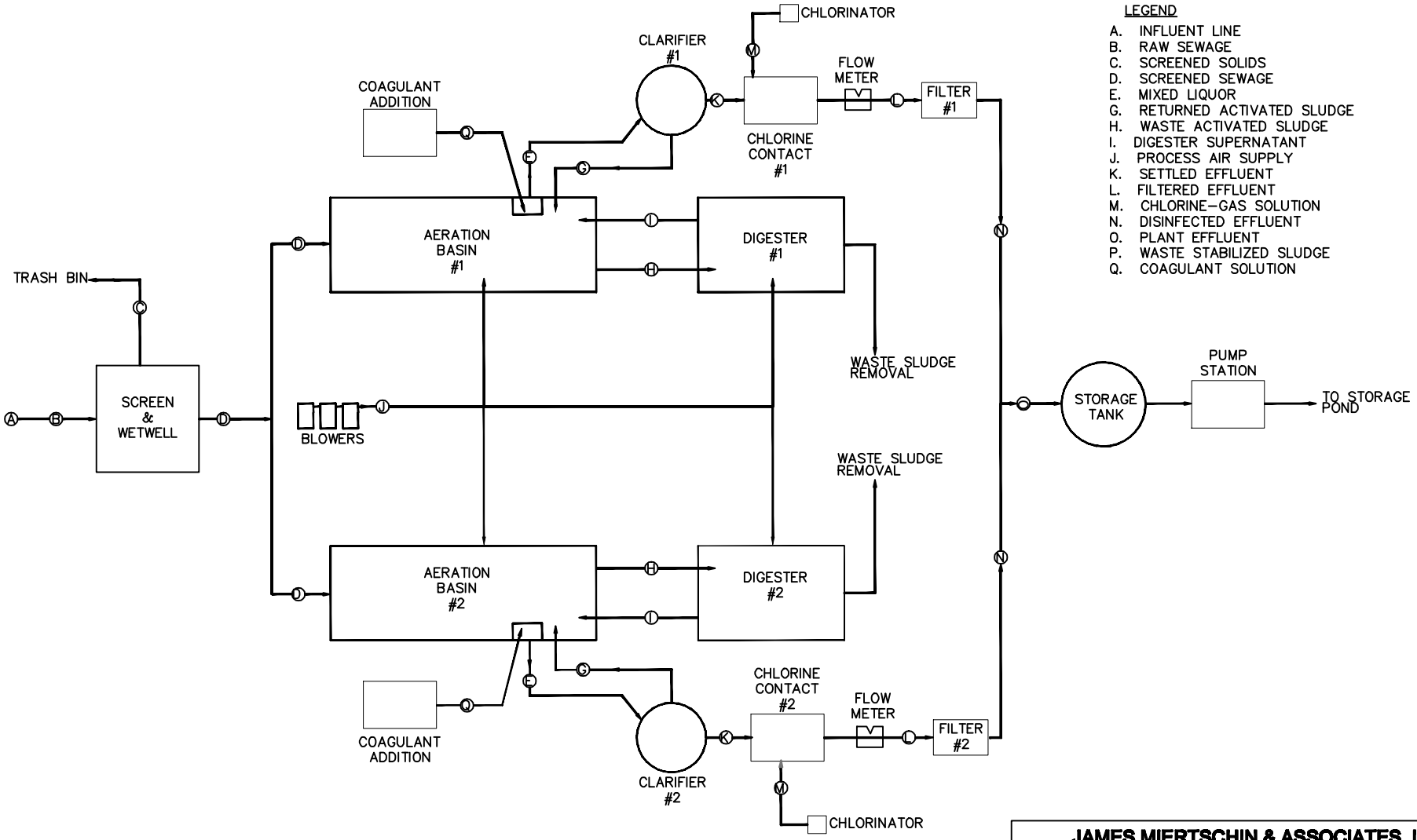
BEGINNING at a 1/2-inch iron rod found in a golf course sand trap for the most northwest corner of said 5.213 acre tract, being an interior corner of said 188.621 acre tract, and being the northwest corner of the herein described 0.40 acre tract;

EXHIBIT "B"

(Certificate of Merger attached hereto)

ATTACHMENT 3

Flow Diagram

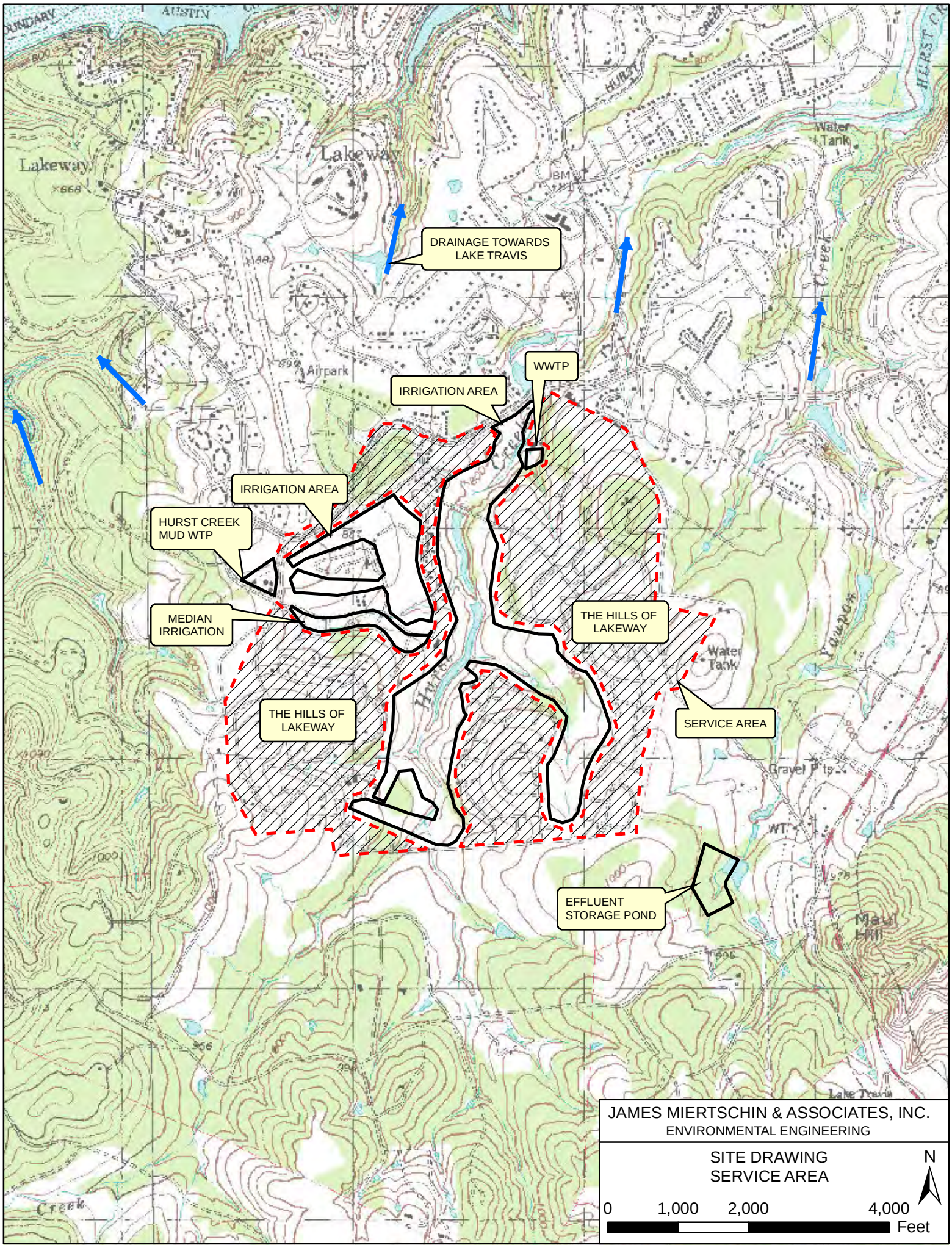


JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING (TX REG. #F-2458)

TREATMENT PROCESS SCHEMATIC
HURST CREEK MUD WWTP

ATTACHMENT 4

Site Drawing


DRAINAGE TOWARDS LAKE TRAVIS
WWTP
IRRIGATION AREA
IRRIGATION AREA
HURST CREEK MUD WTP
MEDIAN IRRIGATION
THE HILLS OF LAKEWAY
THE HILLS OF LAKEWAY
SERVICE AREA
EFFLUENT STORAGE POND
Lakeway
Airpark
Water Tank
Gravel Pits
Maud Hill
JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
SITE DRAWING
SERVICE AREA
N
0
1,000
2,000
4,000
Feet

ATTACHMENT 5

Pollutant Analysis of Effluent

email information for report date:
4/10/24 14:36

H008587

HURST CREEK MUD

Attn: BOBBY GOMEZ
bgomez@ev1.net

102 TROPHY DRIVE
AUSTIN, TX 78738

Please contact us for your sampling needs or if you have any questions. Some convenient contacts are listed below. You can also access your results and reports through our ClientConnect ™ portal on our website (www.aqua-techlabs.com).

For sampling questions:

samplingbryan@aqua-techlabs.com (Bryan area)
samplingaustin@aqua-techlabs.com (Austin area)

reporting@aqua-techlabs.com (report questions)

Aqua-Tech values you as a customer and encourages you to speak with our staff at 979-778-3707 or the above emails if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

Certificate: T104704371-23-27

TCEQ Lab ID T104704371

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

Hurst Creek MUD WWTP Short Permit

Collected: 03/13/24 12:25 by Bryce Jones
Received: 03/13/24 13:45 by Bryce Jones

Type: Grab
Matrix: Non Potable
C-O-C #: N/A

Lab ID# H008587-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
Field Parameters											
Field pH	**7.5**	pH Units		0.01	0.01	0.1	*Austin*	At Collection	SM4500-H+ B 2011	M174452	ANR
Total Residual Chlorine	**5.1**	mg Cl as CL2/L			0.20	0.20	*Calc*	At Collection	SM4500-Cl F 2011	[CALC]	ANR
General Chemistry											
Carbonaceous BOD (5 day)	**2**	mg/L		1	1	1	*Austin*	03/14/24 07:00 MSA	SM5210 B 2016	M174646	NEL
Total Suspended Solids	**<1**	mg/L	RPD-04	1	1	1	*Austin*	03/14/24 09:54 KHA	SM2540 D 2015	M174665	NEL
Total Dissolved Solids	**642**	mg/L		25.0	50.0	50.0	*Austin*	03/18/24 10:43 SR	SM2540 C 2015	M174805	NEL
Ammonia as N	**0.06**	mg/L		0.05	0.05	0.05	*Bryan*	03/19/24 14:21 KMA	SM4500-NH3 G 2011	M174863	NEL
Total Kjeldahl Nitrogen as N	**<0.20**	mg/L		0.13	0.13	0.20	*Bryan*	03/21/24 12:56 KMA	EPA 351.2 R2.0	M174809	NEL
Nitrate as N	**26**	mg/L			0.43	0.50	*Calc*	03/27/24 11:50 BEB	SM4500-NO3-F 2011	[CALC]	NEL
Nitrite as N	**<0.01**	mg/L		0.002	0.002	0.01	*Austin*	03/14/24 13:30 BEB	SM4500 NO2- B 2011	M174699	NEL
Nitrate/Nitrite as N	**26**	mg/L		0.02	0.43	0.50	*Bryan*	03/27/24 11:50 KMA	SM4500-NO3-F 2011	M175207	ANR
Chloride	**161**	mg/L		0.60	2.41	20.0	*Austin*	03/18/24 09:00 MSA	SM4500-Cl- B 2011	M174781	NEL
Sulfate as SO4(2-)	**79.9**	mg/L		2.63	10.5	20.0	*Austin*	03/19/24 08:54 KFB	ASTM D0516-16	M174854	NEL
Specific Conductance (adjusted to 25.0°C)	**1120**	uS/cm		2.00	2.00	2.00	*Austin*	03/18/24 08:15 MSA	SM2510 B 2011	M174776	NEL
Microbiological Analyses											
E. Coli	**<1.0**	MPN/100 mL		1.0	1.0	1.0	*Austin*	03/13/24 15:08 ACG	SM9223 B 2004	M174635	NEL

Results run by SM 9223B are reported as MPN (Most Probable Number). MPN is comparable to CFU (Colony Forming Units). Both MPN and CFU are allowed in most permits.

Metals (Total)											
Phosphorus-Total	**0.772**	mg/L		0.082	0.041	0.050	*Austin*	03/20/24 17:50 KT	EPA 200.7 R4.4	M174708	NEL

O&G Analysis cancelled due to improper preservation.

Explanation of Notes

BOD-07	Optional second BOD/CBOD GG was outside expected range. Results accepted on one required passing GG.
RPD-04	Visual evaluation of the Duplicate sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix. Acceptance of run is not based on matrix QC.

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

Field Parameters - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Chlorine Residual, Total - SM4500-Cl F 2011														*Austin*
Duplicate	1.5	mg/L		0.1	0.1	03/13/24 10:20 BLJ		1.5			0.00	10.2	M174452	
Field pH - SM4500-H+ B 2011														*Austin*
Duplicate	7.4	pH Units		0.01	0.1	03/13/24 10:20 BLJ		7.4			0.00	0.551	M174452	

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Ammonia as N - SM4500-NH3 G 2011														*Bryan*
Initial Cal Check	1.04	mg/L				03/19/24 14:21 KMA	1.00		104	90 - 110			2403211	
Low Cal Check	0.05	mg/L				03/19/24 14:21 KMA	0.0500		94.0	70 - 130			2403211	
Blank	<0.05	mg/L		0.05	0.05	03/19/24 14:21 KMA							M174863	
LCS	0.48	mg/L		0.05	0.05	03/19/24 14:21 KMA	0.500		95.2	85 - 115			M174863	
LCS Dup	0.48	mg/L		0.05	0.05	03/19/24 14:21 KMA	0.500		96.0	85 - 115	0.837	20	M174863	
Matrix Spike	0.56	mg/L		0.05	0.05	03/19/24 14:21 KMA	0.500	0.07	97.8	70 - 130			M174863	
Matrix Spike Dup	0.56	mg/L		0.05	0.05	03/19/24 14:21 KMA	0.500	0.07	97.4	70 - 130	0.410	20	M174863	
Carbonaceous BOD (5 day) - SM5210 B 2016														*Austin*
Diln Water Blk	<0.20	mg/L		1	1	03/14/24 07:00 MSA		0.1		< or = 0.2 mg/L			2403147	
GGA	193	mg/L		1	1	03/14/24 07:00 MSA	198		97.5	84.6 - 115.4			2403147	
GGA	160	mg/L	*BOD-07*	1	1	03/14/24 07:00 MSA	198		*80.8*	84.6 - 115.4			2403147	
GGA	168	mg/L		1	1	03/14/24 07:00 MSA	198		84.8	84.6 - 115.4			2403147	
Seed Blank	<1	mg/L		1	1	03/14/24 07:00 MSA							2403147	
Seed Blank	<1	mg/L		1	1	03/14/24 07:00 MSA							2403147	
Seed Blank	<1	mg/L		1	1	03/14/24 07:00 MSA							2403147	
Duplicate	2	mg/L		1	1	03/14/24 07:00 MSA		2			13.2	47.7	M174646	
Chloride - SM4500-Cl- B 2011														*Austin*
Initial Cal Check	50.2	mg/L				03/18/24 09:00 MSA	50.0		100	90 - 110			2403190	
Blank	<5.00	mg/L		0.60	5.00	03/18/24 09:00 MSA							M174781	
LCS	20.4	mg/L		0.60	5.00	03/18/24 09:00 MSA	19.8		103	90 - 110			M174781	
LCS Dup	20.4	mg/L		0.60	5.00	03/18/24 09:00 MSA	19.8		103	90 - 110	0.00	5.86	M174781	
Matrix Spike	296	mg/L		2.41	20.0	03/18/24 09:00 MSA	79.2	216	101	83.4 - 113			M174781	
Matrix Spike Dup	299	mg/L		2.41	20.0	03/18/24 09:00 MSA	79.2	216	105	83.4 - 113	4.65	10.7	M174781	
MRL Check	5.21	mg/L		0.60	5.00	03/18/24 09:00 MSA	4.95		105	70 - 130			M174781	

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Mn Interference - SM4500-Cl F 2011														*Austin*
Duplicate	0.2	mg/L		0.1	0.1	03/18/24 13:50 BAL		0.2			0.00	7.47	M174832	
Nitrate/Nitrite as N - SM4500-NO3-F 2011														*Bryan*
Initial Cal Check	1.0	mg/L				03/27/24 11:50 KMA	0.959		104	90 - 110			2403316	
Low Cal Check	0.02	mg/L				03/27/24 11:50 KMA	0.0200		100	70 - 130			2403316	
Blank	<0.02	mg/L		0.02	0.02	03/27/24 11:50 KMA							M175207	
LCS	0.53	mg/L		0.02	0.02	03/27/24 11:50 KMA	0.500		106	89.5 - 111			M175207	
LCS Dup	0.53	mg/L		0.02	0.02	03/27/24 11:50 KMA	0.500		106	89.5 - 111	0.188	10	M175207	
Matrix Spike	7.8	mg/L		0.10	0.12	03/27/24 11:50 KMA	5.00	2.9	96.7	80.1 - 118			M175207	
Matrix Spike Dup	7.8	mg/L		0.10	0.12	03/27/24 11:50 KMA	5.00	2.9	96.9	80.1 - 118	0.186	10	M175207	
Nitrite as N - SM4500 NO2- B 2011														*Austin*
Initial Cal Check	0.07	mg/L				03/14/24 13:30 BEB	0.0736		100	90 - 110			2403164	
Blank	<0.01	mg/L		0.002	0.01	03/14/24 13:30 BEB							M174699	
Filtered Blank	<0.01	mg/L		0.002	0.01	03/14/24 13:30 BEB							M174699	
LCS	0.08	mg/L		0.002	0.01	03/14/24 13:30 BEB	0.0800		106	90 - 110			M174699	
LCS Dup	0.09	mg/L		0.002	0.01	03/14/24 13:30 BEB	0.0800		109	90 - 110	3.34	10	M174699	
Matrix Spike	0.08	mg/L		0.002	0.01	03/14/24 13:30 BEB	0.0800	0.01	87.9	57 - 116			M174699	
Matrix Spike Dup	0.09	mg/L		0.002	0.01	03/14/24 13:30 BEB	0.0800	0.01	89.2	57 - 116	1.52	10	M174699	
MRL Check	0.01	mg/L		0.002	0.01	03/14/24 13:30 BEB	0.0100		98.8	70 - 130			M174699	
Initial Cal Check	0.08	mg/L				10/06/23 11:00 MSA	0.0800		106	90 - 110			2310075	
Specific Conductance (adjusted to 25.0°C) - SM2510 B 2011														*Austin*
Initial Cal Check	520	uS/cm				03/18/24 08:15 MSA	545		95.4	90 - 110			2403187	
Blank	<2.00	uS/cm		2.00	2.00	03/18/24 08:15 MSA							M174776	
Duplicate	1120	uS/cm		2.00	2.00	03/18/24 08:15 MSA		1120			0.267	10	M174776	
LCS	1400	uS/cm		2.00	2.00	03/18/24 08:15 MSA	1410		99.5	90 - 110			M174776	

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Sulfate as SO4(2-) - ASTM D0516-16														*Austin*
Initial Cal Check	31.9	mg/L				03/19/24 08:54 KFB	30.0		106	90 - 110			2403208	
Low Cal Check	4.85	mg/L				03/19/24 08:54 KFB	5.00		97.0	70 - 130			2403208	
Blank	<5.00	mg/L		2.63	5.00	03/19/24 08:54 KFB							M174854	
Duplicate	65.1	mg/L		10.5	20.0	03/19/24 08:54 KFB		71.7			9.69	11.8	M174854	
LCS	11.0	mg/L		2.63	5.00	03/19/24 08:54 KFB	10.0		110	85 - 115			M174854	
LCS Dup	9.99	mg/L		2.63	5.00	03/19/24 08:54 KFB	10.0		99.9	85 - 115	9.58	13.5	M174854	
Matrix Spike	113	mg/L		10.5	20.0	03/19/24 08:54 KFB	40.0	71.7	104	67.7 - 129			M174854	
Matrix Spike Dup	111	mg/L		10.5	20.0	03/19/24 08:54 KFB	40.0	71.7	99.4	67.7 - 129	4.49	15	M174854	
Initial Cal Check	28.9	mg/L				05/19/23 13:33 BEB	30.0		96.4	85 - 115			2305280	
Total Dissolved Solids - SM2540 C 2015														*Austin*
Blank	<25.0	mg/L		25.0	25.0	03/18/24 10:43 SR							M174805	
Duplicate	812	mg/L		100	100	03/18/24 10:43 SR		808			0.494	10	M174805	
Reference	464	mg/L		100	100	03/18/24 10:43 SR	507		91.5	66 - 140			M174805	
Total Kjeldahl Nitrogen as N - EPA 351.2 R2.0														*Bryan*
Initial Cal Check	4.66	mg/L				03/21/24 12:56 KMA	4.56		102	90 - 110			2403217	
Low Cal Check	0.22	mg/L				03/21/24 12:56 KMA	0.200		109	70 - 130			2403217	
Blank	<0.20	mg/L		0.13	0.20	03/21/24 12:56 KMA							M174809	
LCS	4.41	mg/L		0.13	0.20	03/21/24 12:56 KMA	4.00		110	80 - 120			M174809	
LCS Dup	4.36	mg/L		0.13	0.20	03/21/24 12:56 KMA	4.00		109	80 - 120	1.00	10	M174809	
Matrix Spike	4.34	mg/L		0.13	0.20	03/21/24 12:56 KMA	4.00	<0.20	108	70 - 130			M174809	
Matrix Spike Dup	4.34	mg/L		0.13	0.20	03/21/24 12:56 KMA	4.00	<0.20	108	70 - 130	0.115	17.5	M174809	
Total Suspended Solids - SM2540 D 2015														*Austin*
Blank	<1	mg/L		1	1	03/14/24 09:54 KHA							M174665	
Duplicate	3	mg/L	*RPD-04*	1	1	03/14/24 09:54 KHA		2			*64.9*	20	M174665	
Reference	98	mg/L		10	10	03/14/24 09:54 KHA	102		96.1	80 - 120			M174665	

Metals (Total) - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

Metals (Total) - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Phosphorus-Total - EPA 200.7 R4.4														*Austin*
Blank	<0.050	mg/L		0.041	0.050	03/20/24 15:43 KT							M174708	
LCS	2.45	mg/L		0.041	0.050	03/20/24 15:45 KT	2.50		97.9	84.5 - 115.4			M174708	
LCS Dup	2.47	mg/L		0.041	0.050	03/20/24 15:48 KT	2.50		98.7	84.5 - 115.4	0.813	20	M174708	
Duplicate	1.70	mg/L		0.041	0.050	03/20/24 15:50 KT		1.72			0.585	20	M174708	
Matrix Spike	4.64	mg/L		0.041	0.050	03/20/24 15:53 KT	2.50	1.72	117	69.5 - 130.4			M174708	

Microbiological Analyses - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	Log10 Comparison Range	Log10 Comparison Control Limit	Batch	
E. Coli - SM9223 B 2004														*Austin*
Blank	<1.0	MPN/100 mL		1.0	1.0	03/13/24 15:08 ACG							M174635	
Dup Log10 Range		MPN/100 mL		1.0	1.0	03/13/24 15:08 ACG					0.000		M174635	
Duplicate	<1.0	MPN/100 mL		1.0	1.0	03/13/24 15:08 ACG		<1.0				0.5	M174635	

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H008587-01										
Ammonia as N	SM4500-NH3 G 2011	3/19/24 11:45 KMA	Bryan	A	10.0	mL	10.0	mL	1	M174863
Carbonaceous BOD (5 day)	SM5210 B 2016	3/14/24 7:00 MSA	Austin	B	300	mL	300	mL	1	M174646
Chloride	SM4500-Cl- B 2011	3/18/24 9:00 MSA	Austin	C	25.0	mL	100	mL	1	M174781
E. Coli	SM9223 B 2004	3/13/24 15:00 ACG	Austin	D	100	N/A	100	N/A	1	M174635
Nitrate/Nitrite as N	SM4500-NO3-F 2011	3/27/24 10:01 KMA	Bryan	A	1.00	mL	25.0	mL	1	M175207
Nitrite as N	SM4500 NO2- B 2011	3/14/24 13:30 BEB	Austin	F	25.0	mL	25.0	mL	1	M174699
Phosphorus-Total	EPA 200.7 R4.4	3/14/24 14:42 KT	Austin	J	50.0	mL	25.0	mL	1	M174708
Specific Conductance (adjusted to 25.0°C)	SM2510 B 2011	3/18/24 8:15 MSA	Austin	C	25.0	mL	25.0	mL	1	M174776
Sulfate as SO4(2-)	ASTM D0516-16	3/19/24 8:54 KFB	Austin	C	25.0	mL	100	mL	1	M174854
Total Dissolved Solids	SM2540 C 2015	3/18/24 10:43 SR	Austin	C	50.0	mL	100	mL	1	M174805
Total Kjeldahl Nitrogen as N	EPA 351.2 R2.0	3/18/24 11:05 CTG	Bryan	A	25.0	mL	25.0	mL	1	M174809
Total Suspended Solids	SM2540 D 2015	3/14/24 9:54 KHA	Austin	D	1000	mL	1000	mL	1	M174665

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **4/10/24** **14:36**

H008587

Chain-of-Custody Summary

The following record summarizes custody for work orders sampled by Aqua-Tech Laboratories, Inc. personnel on route.

Original signatures are kept on file by Aqua-Tech Laboratories, Inc. and are available upon request.

WORK ORDER H008587

Cooler ID	Temperature °C	Condition Good?	On Ice?	Preservation Correct?	Custody Maintained by ATL?	See comments below or comments and qualifiers with analytical results explaining any "No" answers.
901	1.6	Yes	Yes	Yes	Yes	

H008587-01 Grab Sampling Begun: 3/13/24 12:25 Sampling Ended: 3/13/24 12:25

Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments
A AMM NO3 TKN 0.25LP H2SO4	pH <2	B CBOD 1LP		C Cl Cond SO4 TDS 1LP	
D Ecoli 0.1L StP Na2S2O3		E Mn Corr 0.25 LP		F NO2 0.25LP	pH <2
G OG - 1LG Amber HCl	pH <2	H OG - 1LG Amber HCl	pH <2	I OG pH Chk - 1LP HCl	pH <2
J P 0.25LP H2SO4	pH <2				

Sampled & Submitted to Lab by: Bryce Jones (Route Driver) Received: 3/13/24 13:45 By Bryce Jones (Austin)

email information for report date:
3/22/24 10:14

H009260

HURST CREEK MUD

Attn: BOBBY GOMEZ
bgomez@ev1.net

102 TROPHY DRIVE
AUSTIN, TX 78738

Please contact us for your sampling needs or if you have any questions. Some convenient contacts are listed below. You can also access your results and reports through our ClientConnect ™ portal on our website (www.aqua-techlabs.com).

For sampling questions:

samplingbryan@aqua-techlabs.com (Bryan area)
samplingaustin@aqua-techlabs.com (Austin area)

reporting@aqua-techlabs.com (report questions)

Aqua-Tech values you as a customer and encourages you to speak with our staff at 979-778-3707 or the above emails if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

Certificate: T104704371-23-27

TCEQ Lab ID T104704371

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/22/24** **10:14**

H009260

Hurst Creek MUD WWTP Short Permit

Collected: 03/14/24 13:39 by Katherine Borta
Received: 03/14/24 15:05 by Katherine Borta

Type: Grab
Matrix: Non Potable
C-O-C #: N/A

Lab ID# H009260-01	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
Oil & Grease (HEM)	**<4.9**	mg/L	O&G-1	2.1	2.1	4.9	*Bryan*	03/21/24 09:54 HDH	EPA 1664B	M174964	NEL

Explanation of Notes

O&G-1	ICV and/or LCS failed. Due to sample volume or hold time constraints the sample could not be re-analyzed.

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch	
Oil & Grease (HEM) - EPA 1664B														*Bryan*
Blank	<4.9	mg/L		2.1	4.9	03/21/24 09:54 HDH							M174964	
LCS	30.1	mg/L	*O&G-1*	2.1	4.9	03/21/24 09:54 HDH	39.4		*76.4*	78 - 114			M174964	
Matrix Spike	30.9	mg/L		2.1	4.9	03/21/24 09:54 HDH	39.6	<4.9	78.2	78 - 114			M174964	
Reference	36.1	mg/L		2.1	4.9	03/21/24 09:54 HDH	39.5		91.5	84 - 99			M174964	

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H009260-01										
Oil & Grease (HEM)	EPA 1664B	3/21/24 9:54 HDH	Bryan	A	1020	mL	1000	mL	1	M174964

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/22/24** **10:14**

H009260

Chain-of-Custody Summary

The following record summarizes custody for work orders sampled by Aqua-Tech Laboratories, Inc. personnel on route.

Original signatures are kept on file by Aqua-Tech Laboratories, Inc. and are available upon request.

WORK ORDER H009260

Cooler ID	Temperature °C	Condition Good?	On Ice?	Preservation Correct?	Custody Maintained by ATL?	See comments below or comments and qualifiers with analytical results explaining any "No" answers.
Y011	1.3	Yes	Yes	Yes	Yes	

H009260-01 Grab Sampling Begun: 3/14/24 13:39 Sampling Ended: 3/14/24 13:39

Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments	Container & Description	pH Checks / Comments
A OG - 1LG Amber HCl		B OG - 1LG Amber HCl		C OG pH Chk - 1LP HCl	pH<2

Sampled & Submitted to Lab by: Katherine Borta (Route Driver) Received: 3/14/24 15:05 By Katherine Borta (Austin)

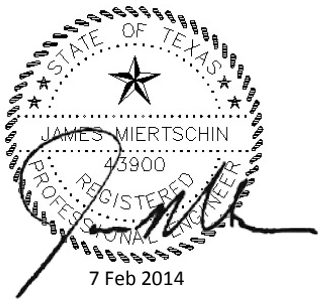
ATTACHMENT 6

Pond Liner Certification

Pond Liner Certification

It is my opinion that the synthetic liner used for the effluent storage pond at Hurst Creek Municipal Utility District, readily meets all requirements and applicable rules including Title 30 of Texas Administrative Code, Chapters 217.203 - Design Criteria for Natural Treatment Facilities, 309.13(d) - Unsuitable Site Characteristics, and 210.23 - Storage Requirements for Reclaimed Water .

I hereby certify that the liner used in construction of the effluent storage pond is constructed in a manner that is protective of human health, groundwater and the environment.



7 Feb 2014

ATTACHMENT 7

Cropping Plan

CROPPING PLAN
HURST CREEK MUNICIPAL UTILITY DISTRICT

COVER CROP

The cover crop for the existing irrigation system is bermudagrass. Irrigation with treated effluent takes place on the Hills Country Club golf course, the Academy of Golf, and the adjacent roadway median. The total existing irrigation area is 181 acres.

NUTRIENTS

The nitrogen application rate for bermuda is recommended at 100 lbs N/acre per cutting, according to the Texas Agricultural Extension Service. The proposed design utilized a target nitrogen application rate of 70 lbs N/acre.

The nitrogen requirements for the cover crop will be provided by the nitrogen content of the effluent and by fertilizer addition, similar to that practiced on other golf courses.

WATERING

Treated effluent will be applied to the golf course. The effluent application rate for the cover crop is 4.5 feet/year or less. Additional irrigation water will be secured from Lake Travis as needed.

HARVESTING

The golf courses and the irrigation distribution system are meticulously maintained by the owner, the Club Corporation of America.

SOILS

The general soil groups on the irrigation tract are Brackett-Rock Outcroppings, Tarrant Soils, and Volente Silty Clay Loam. These are typically moderately impermeable soils that have textural classifications as Lean and Fat Clay. Soil textural classifications on the irrigation sites are shown in Figure 1 and are described in more detail in a separate soils report. It should also be noted that substantial quantities of sandy loam were imported and placed on the golf course during construction.

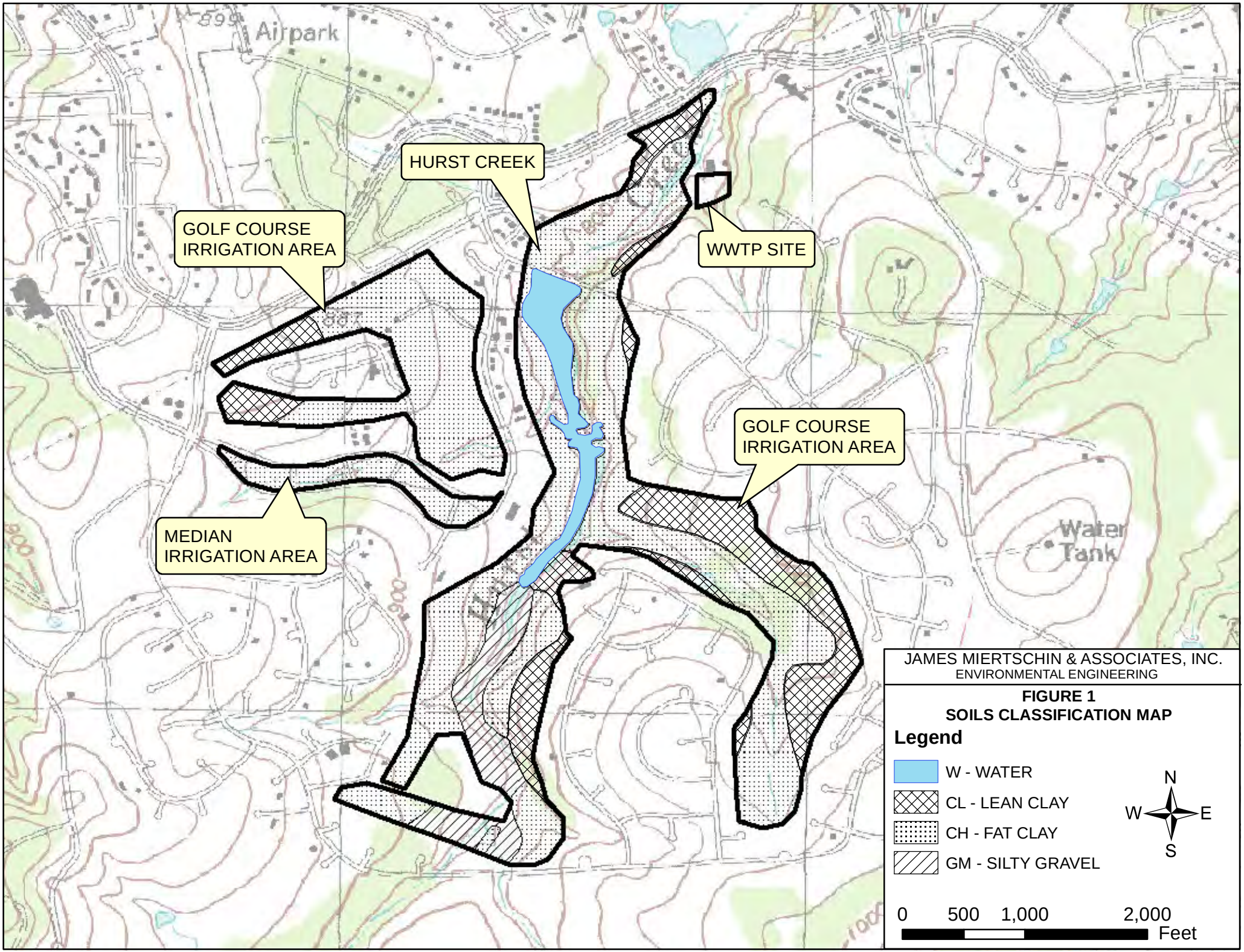
SALT TOLERANCES

Bermudagrass is relatively tolerant of high salt loadings. The salt concentration in the root zone is controlled by leaching.

APPLICATION METHOD

The golf course irrigation system consists of fixed sprinkler heads and buried lines, with a computerized control center. The irrigation efficiency is estimated at 85%.

Irrigation with effluent has been practiced at the golf course since 1982 without problems.


Airpark
HURST CREEK
GOLF COURSE
IRRIGATION AREA
WWTP SITE
GOLF COURSE
IRRIGATION AREA
MEDIAN
IRRIGATION AREA
Water
Tank
JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
FIGURE 1
SOILS CLASSIFICATION MAP
Legend
W - WATER
CL - LEAN CLAY
CH - FAT CLAY
GM - SILTY GRAVEL
N
W
E
S
0
500
1,000
2,000
Feet

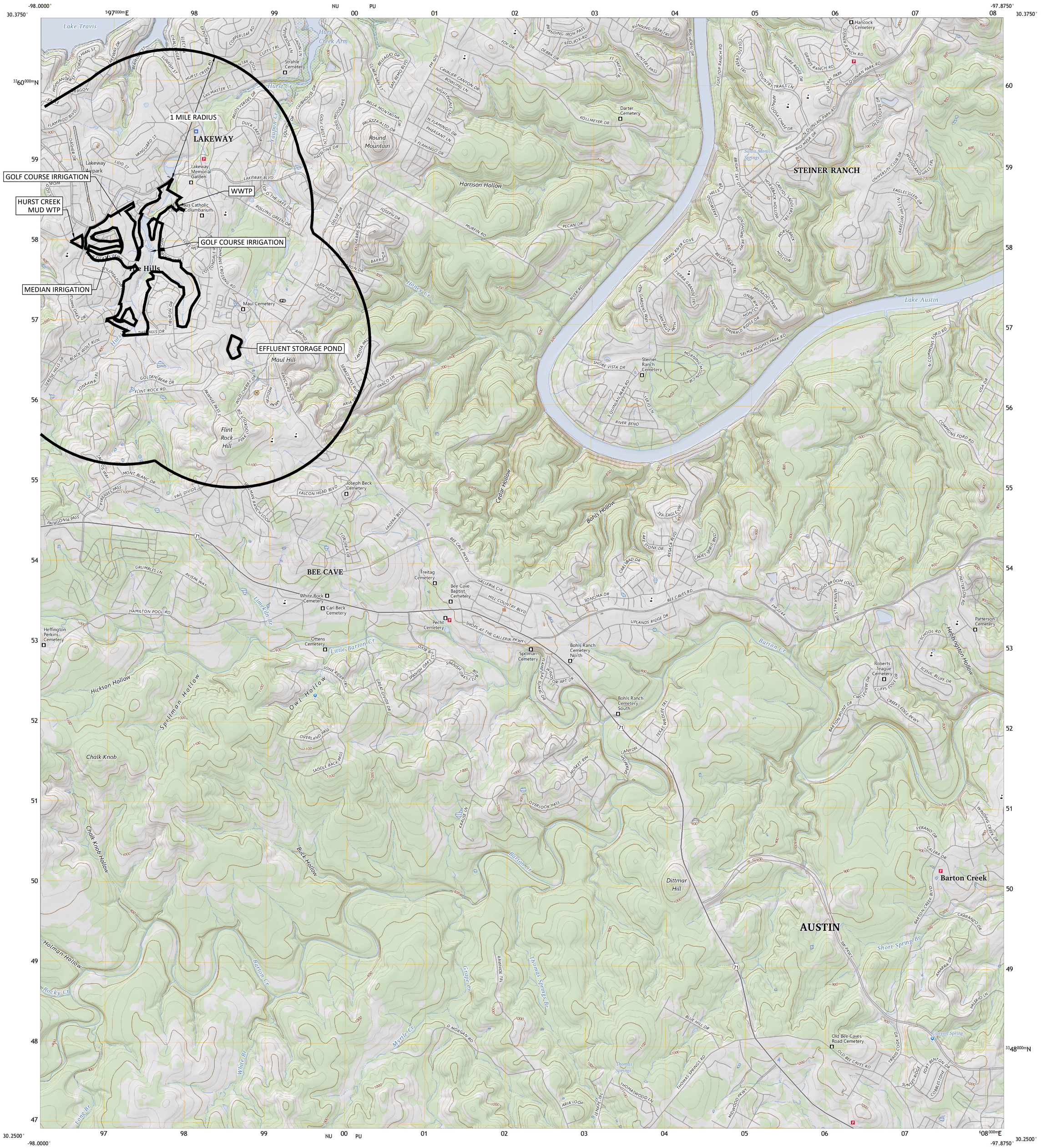
ATTACHMENT 8

USGS Map

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map
OnDemand Topo

BEE CAVE QUADRANGLE
TEXAS - TRAVIS COUNTY
7.5-MINUTE TOPO

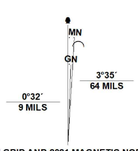


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

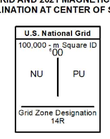
Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov



UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 1
MILES
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000
FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

USER DEFINED CONTENT

QUADRANGLE LOCATION

Pace Bend	Mansfield Dam	Jollyville
Shingle Hills	Bee Cave	Austin West
Dripping Springs	Signal Hill	Oak Hill

ADJOINING QUADRANGLES

ROAD CLASSIFICATION

Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

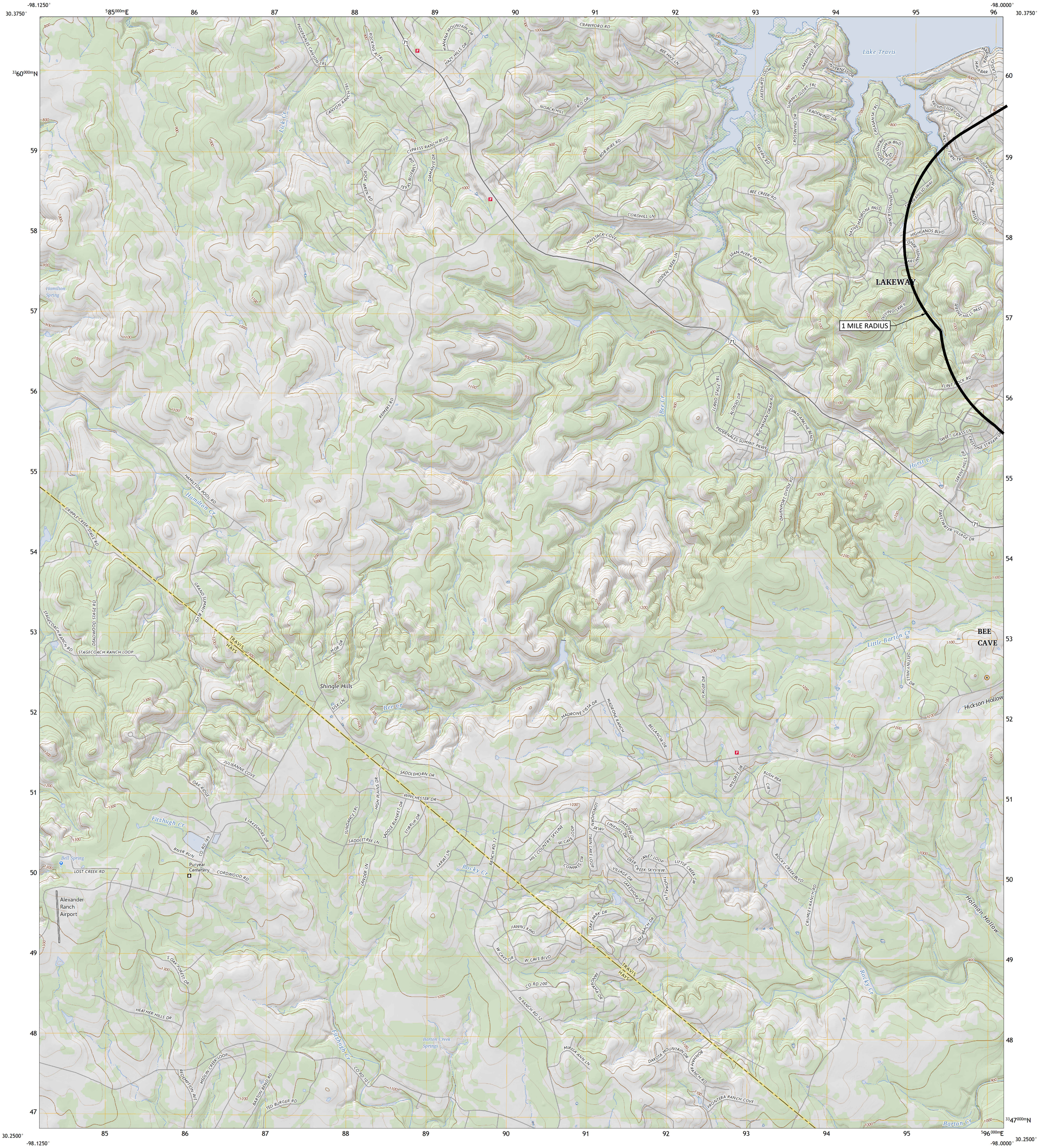
BEE CAVE, TX
2024

USGS science for a changing world

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

The National Map OnDemand Topo

SHINGLE HILLS QUADRANGLE
TEXAS
7.5-MINUTE TOPO

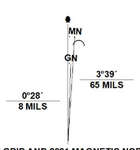


Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid:Universal Transverse Mercator, Zone 14R

Data is provided by The National Map (TNM), is the best available at the time of map generation, and includes data content from supporting themes of Elevation, Hydrography, Geographic Names, Boundaries, Transportation, Structures, Land Cover, and Orthoimagery. Refer to associated Federal Geographic Data Committee (FGDC) Metadata for additional source data information.

This map is not a legal document. Boundaries may be generalized for this map scale. Private lands within government reservations may not be shown. Obtain permission before entering private lands. Temporal changes may have occurred since these data were collected and some data may no longer represent actual surface conditions.

Learn About The National Map: https://nationalmap.gov



UTM GRID AND 2021 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
NU
Grid Zone Designation 14R

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2
1000 500 0 METERS 1000 2000
1 0.5 0 MILES 1
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988
CONTOUR SMOOTHNESS = Medium

USER DEFINED CONTENT

QUADRANGLE LOCATION

Spicewood	Pace Bend	Mansfield Dam
Hammetts Crossing	Shingle Hills	Bee Cave
Henly	Dripping Springs	Signal Hill

ADJOINING QUADRANGLES

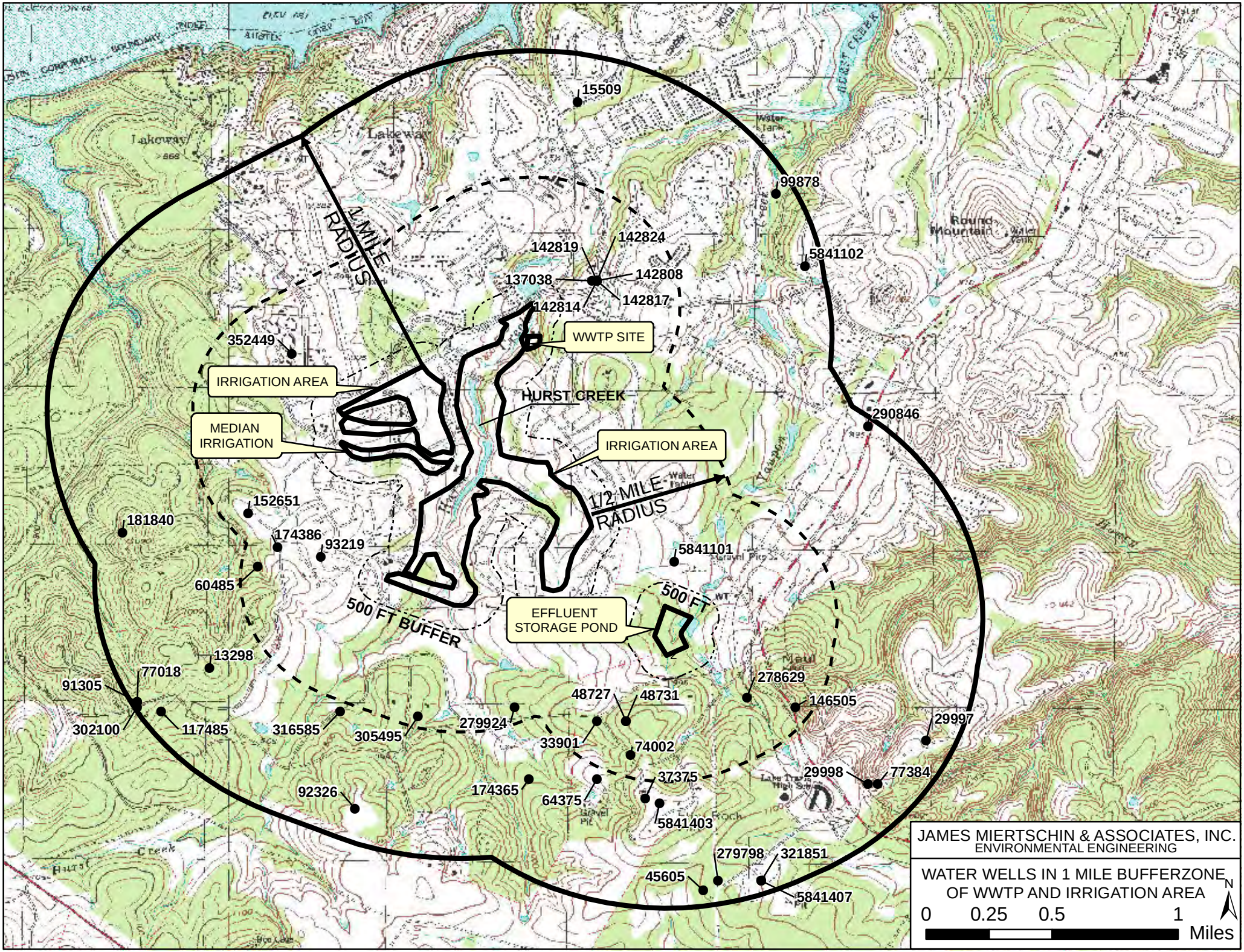
ROAD CLASSIFICATION

Expressway
Secondary Hwy
Ramp
Local Connector
Local Road
4WD
Interstate Route
US Route
State Route

SHINGLE HILLS, TX
2024

ATTACHMENT 9

Water Well Map & Information


15509
99878
142824
142819
5841102
142808
137038
142817
142814
WWTP SITE
352449
IRRIGATION AREA
HURST CREEK
MEDIAN IRRIGATION
290846
IRRIGATION AREA
1 MILE RADIUS
1/2 MILE RADIUS
152651
181840
174386
93219
5841101
60485
500 FT BUFFER
EFFLUENT STORAGE POND
500 FT
13298
77018
278629
91305
48727
48731
146505
29997
302100
117485
316585
305495
279924
33901
74002
37375
29998
77384
92326
174365
64375
5841403
279798
321851
45605
5841407
JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
WATER WELLS IN 1 MILE BUFFERZONE OF WWTP AND IRRIGATION AREA
N
0 0.25 0.5 1
Miles

WATER WELLS IN 1 MILE RADIUS OF IRRIGATION AREA

Well ID	Well Use	Producing?	Open, cased, capped, or plugged?	Proposed Best Management Practice
48731	Domestic	40 GPM	N/A	Irrigation Controls
60485	Domestic	40 GPM	N/A	Irrigation Controls
64375	Domestic	40 GPM	N/A	Irrigation Controls
74002	Domestic	20 GPM	N/A	Irrigation Controls
77018	Domestic	35 GPM	N/A	Irrigation Controls
77384	Domestic	25 GPM	N/A	Irrigation Controls
91305	Domestic	35 GPM	N/A	Irrigation Controls
92326	Domestic	30 GPM	N/A	Irrigation Controls
93219	Domestic	25 GPM	N/A	Irrigation Controls
99878	Domestic	20 GPM	N/A	Irrigation Controls
117485	Domestic	50 GPM	N/A	Irrigation Controls
142814	Monitor	N/A	N/A	Irrigation Controls
142817	Monitor	N/A	N/A	Irrigation Controls
142819	Monitor	N/A	N/A	Irrigation Controls
142824	Monitor	N/A	N/A	Irrigation Controls
146505	Irrigation	30-35 GPM	N/A	Irrigation Controls
152651	Domestic	30 GPM	N/A	Irrigation Controls
174365	Domestic	15-20 GPM	N/A	Irrigation Controls
174386	Domestic	N/A	N/A	Irrigation Controls
181840	Domestic	30 GPM	N/A	Irrigation Controls
278629	Irrigation	50-60 GPM	N/A	Irrigation Controls
279798	Domestic	27 GPM	N/A	Irrigation Controls
290846	Monitor	N/A	0-2 FT Conc., Plugged	Irrigation Controls
5841101	Domestic	N/A	Steel Casing, Open	Irrigation Controls
5841102	Irrigation	N/A	Steel Casing, Open	Irrigation Controls
5841403	Domestic	N/A	Steel Casing, Open	Irrigation Controls
5841407	Irrigation	N/A	PVC Casing, Open	Irrigation Controls

Source: TNRCC, TWDB Records

STATE OF TEXAS WELL REPORT for Tracking #48731

Owner:	**Don Mitchem**	Owner Well #:	**No Data**
Address:	**3519 south Pawnee Pass Lakeway , TX 78738**	Grid #:	**58-41-4**
Well Location:	**3519 south Pawnee Pass Lakeway , TX 78738**	Latitude:	**30° 19' 57" N**
Well County:	**Travis**	Longitude:	**097° 58' 38" W**
Elevation:	**1107 ft.**	GPS Brand Used:	**GARMIN**
Type of Work:	**Replacement Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **9/17/2004**
Completed: **9/19/2004**

Diameter of Hole:
Diameter: **8 in From Surface To 40 ft**
Diameter: **7 in From 40 ft To 420 ft**
Diameter: **6.75 in From 420 ft To 860 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 40 ft to 0 ft with 15 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **gravity flow**
Cemented By: **adc**
Distance to Septic Field or other Concentrated Contamination: **200+ ft**
Distance to Property Line: **200+ ft**
Method of Verification: **est.**
Approved by Variance: **n/a**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **560 ft. below land surface on 9/23/2004**
Artesian flow: **No Data**

Packers:
neoprene/burlap 40
shale trap 740

Plugging Info:
Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
Submersible
Depth to pump bowl: **700 ft**

Well Tests:
Jetted \ Estimated
Yield: **40 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **trinitty**
Depth of Strata: **780-860 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**associated drilling co po box 1060 manchaca , TX 78652**
Driller License Number:	**4064**
Licensed Well Driller Signature:	**4064 wi james benoit**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**5s20-39ds b08110039-p10241us6 0422 / 794545506**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**48731**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-18 white limestone
18-410 bluish lime and clay mix
410-530 tan limestone
530-580 grey limestone
580-600 grey sandstone
600-630 grey clay/shale
630-680 grey white sandstone/limestone
680-820 red sandstone
820-860 multi-color limestones

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5" new sdr17 -3 to 860
slotted 780-840

STATE OF TEXAS WELL REPORT for Tracking #60485

Owner:	**Dennis Cook**	Owner Well #:	**1**
Address:	**5604 Southwest Parkway Austin , TX 78735**	Grid #:	**58-41-1**
Well Location:	**3413 Serene Hill Ct. Austin , TX 78738**	Latitude:	**30° 20' 29" N**
Well County:	**Travis**	Longitude:	**097° 59' 54" W**
Elevation:	**1022 ft.**	GPS Brand Used:	**germin**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **1/14/2005**
Completed: **1/16/2005**

Diameter of Hole:
Diameter: **8 in From Surface To 20 ft**
Diameter: **7 in From 20 ft To 860 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 20 ft with 5 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **gravity**
Cemented By: **ADC**
Distance to Septic Field or other Concentrated Contamination: **100 ft**
Distance to Property Line: **150 ft**
Method of Verification: **measured**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **377 ft. below land surface on 1/18/2005**
Artesian flow: **No Data**

Packers: **neophrene 20'**

neophrene 780'

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **Submersible**
Depth to pump bowl: **740 ft**

Well Tests: **Estimated**
Yield: **40 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **trinity**
Depth of Strata: **780-860 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**A** **Po Box 1060** **Manchaca , TX 78652**
Driller License Number:	**4064**
Licensed Well Driller Signature:	**James Benoit**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**60485**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 black topsoil
1-20 tan caliche
20-320 gray limestone
320-420 sandstone
420-520 tan limestone
520-560 red sandstone/ clay
560-640 sandstone
640-780 gray limestone
780-860 broken red sandstone

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5 new plastic -2 860 SDR 17

perf. from 780' to 860'

STATE OF TEXAS WELL REPORT for Tracking #64375

Owner:	**Rick Skinner c/o Action Water Wells**	Owner Well #:	**1**
Address:	**100 Spanish Oak Trail Spicewood , TX 78669**	Grid #:	**58-41-4**
Well Location:	**Pawnee Pass TX**	Latitude:	**30° 19' 45" N**
Well County:	**Travis**	Longitude:	**097° 58' 44" W**
Elevation:	**No Data**	GPS Brand Used:	**eTrax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **3/25/2005**
Completed: **3/25/2005**

Diameter of Hole:
Diameter: **8 in From Surface To 20 ft**
Diameter: **6 in From 20 ft To 880 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 20 ft with 4 Portland (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Slurry**
Cemented By: **APEX Drilling Inc.**
Distance to Septic Field or other Concentrated Contamination: **100+ ft**
Distance to Property Line: **>50 ft**
Method of Verification: **landowner**
Approved by Variance: **n/a**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers: **Burlap 685', 680', 20'**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **Jetted \ Estimated**
Yield: **40 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Lower Trinity**
Depth of Strata: **685-875 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

Company Information:	**APEX Drilling Inc.** **PO Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G Becker, P.G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Amended 8/10/05 ref#1899**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**64375**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
000	**012**	**Caliche**
012	**120**	**Blue Limestone**
120	**180**	**Tan Limestone**
180	**220**	**Gray Limestone with Clay**
220	**390**	**Gray & Tan Limestone**
390	**480**	**Tan Limestone**
480	**530**	**Gray Limestone**
530	**610**	**Tan Limestone**
610	**630**	**Gray Limestone with Clay**
630	**665**	**Clay - Hammid**
665	**685**	**Gray Sandstone w/ White Limestone**
685	**800**	**Red Sandstone**
800	**855**	**Gravel**
855	**865**	**White Limestone**
865	**875**	**Gravel**
875	**880**	**White Limestone**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4.5"	**New**	**PVC**	**+2 to 800 SDR17**
4.5"	**New**	**Screen**	**800 to 880**

STATE OF TEXAS WELL REPORT for Tracking #74002

Owner:	**Summit Buiders**	Owner Well #:	**1**
Address:	**Po Box 340277 Austin , TX 78734**	Grid #:	**58-41-4**
Well Location:	**3700 Wild Cherry Austin , TX 78738**	Latitude:	**30° 19' 50" N**
Well County:	**Travis**	Longitude:	**097° 58' 37" W**
Elevation:	**1113 ft.**	GPS Brand Used:	**germin**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **1/3/2006**
Completed: **1/5/2006**

Diameter of Hole:
Diameter: **8.5 in From Surface To 120 ft**
Diameter: **7 in From 120 ft To 950 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 120 ft with 28 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **tremie**
Cemented By: **ADC**
Distance to Septic Field or other Concentrated Contamination: **150 ft**
Distance to Property Line: **40 ft**
Method of Verification: **measured**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **587 ft. below land surface on 1/9/2006**
Artesian flow: **No Data**

Packers:
neophrene 120
neophrene 800

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
Submersible
Depth to pump bowl: **760 ft**

Well Tests:
Estimated
Yield: **20 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **800'-930' ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Associated Drilling Co.** **P.O. Box 1060** **Manchaca , TX 78652**
Driller License Number:	**4064**
Licensed Well Driller Signature:	**James Benoit / 4064wi**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**74002**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 black topsoil
1-20 tan caliche
20-460 gray limestone
460-500 tan limestone (broken)
500-740 gray limestone
740-800 shale
800-930 broken red sandstone
930-950 hard tan limestone

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5 new plastic -2 950 SDR 17

mill slotted 800'- 900'

STATE OF TEXAS WELL REPORT for Tracking #77018

Owner:	**Gary Simon**	Owner Well #:	**1**
Address:	**17003 Flint Rock Rd Austin , TX 78738**	Grid #:	**57-48-3**
Well Location:	**17204 Flint Rock Rd Austin , TX 78738**	Latitude:	**30° 20' 01" N**
Well County:	**Travis**	Longitude:	**098° 00' 19" W**
Elevation:	**No Data**	GPS Brand Used:	**eTrax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **9/9/2005**
Completed: **9/10/2005**

Diameter of Hole:
Diameter: **8 in From Surface To 20 ft**
Diameter: **6 in From 20 ft To 875 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 20 ft with 4 Portland (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Slurry**
Cemented By: **APEX Drilling**
Distance to Septic Field or other Concentrated Contamination: **100+ ft**
Distance to Property Line: **50+ ft**
Method of Verification: **landowner**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers: **Burlap 690', 680', 20'**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **Jetted \ Estimated**
Yield: **35 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trintiy**
Depth of Strata: **675 to 875 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

Company Information:	**APEX Drilling, Inc.** **PO Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G. Becker, P.G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Amended 2/23/06 Ref.#3007**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**77018**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-032 Tan LS
032-320 Tan & Gry LS
320-440 Tan LS
440-620 Tan & Gry LS
620-675 Gry LS w/ Clay
675-700 Red Clay w/ Sand (H2O)
700-710 Gravel
710-755 Red Sand
755-785 Tan LS
785-840 Red SS
840-860 Wht LS
860-875 Gravel

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5" New PVC +2 to 875 SDR17

STATE OF TEXAS WELL REPORT for Tracking #77384

Owner:	**TOLL BROTHERS**	Owner Well #:	**No Data**
Address:	**8716 N. Mopac, Suite 100 Austin , TX 78759**	Grid #:	**58-41-4**
Well Location:	**101 1/2 Aria Drive Austin , TX 78738**	Latitude:	**30° 19' 44" N**
Well County:	**Travis**	Longitude:	**097° 57' 46" W**
Elevation:	**No Data**	GPS Brand Used:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **12/30/2005**
Completed: **12/30/2005**

Diameter of Hole:
Diameter: **9 in From Surface To 100 ft**
Diameter: **6 in From 100 ft To 810 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 100 ft with 27 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Pressure trimmy**
Cemented By: **Central Texas Drilling**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **Owner**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers: **4 PVC & Burlap at 100', 660', 700', 710'**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **Submersible**
Depth to pump bowl: **(No Data) ft**

Well Tests: **Jetted \ Estimated**
Yield: **20-30 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **40 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

	resubmittal.
Company Information:	**Central Texas Drilling Co.** **500 Southland Drive** **Burnet , TX 78611**
Driller License Number:	**1313**
Licensed Well Driller Signature:	**Frank Glass**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**77384**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-001 Top soil
001-017 Caliche
017-090 Blue lime
090-340 Gray lime
340-400 Brown lime
400-610 Gray & brown lime strips sandstone
610-660 Hammond
660-700 Brown sandstone
700-810 Trinity 20-30 gpm

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5" OD New Plastic +2-810 (SDR 17 - 750' & 60' Screen)

STATE OF TEXAS WELL REPORT for Tracking #91305

Owner:	**Fred Edlin**	Owner Well #:	**No Data**
Address:	**129 Royal Oaks Lane Lakeway , TX 78734**	Grid #:	**57-48-3**
Well Location:	**4313 Travis Vista Lakeway , TX 78734**	Latitude:	**30° 20' 01" N**
Well County:	**Travis**	Longitude:	**098° 00' 19" W**
Elevation:	**No Data**	GPS Brand Used:	**e-Trax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **9/10/2005** Completed: **9/11/2005**
Diameter of Hole:	Diameter: **8 in From Surface To 20 ft** Diameter: **6 in From 20 ft To 875 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 20 ft with 4 of Portland (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **Slurry** Cemented By: **Apex Drilling, Inc** Distance to Septic Field or other Concentrated Contamination: **100 ft** Distance to Property Line: **50 ft** Method of Verification: **Landowner** Approved by Variance: **No Data**
Surface Completion:	**Surface Sleeve Installed**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**Burlap 700', 695', 20'**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**No Data**
Well Tests:	**Jetted \ Estimated** Yield: **35 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **Trinity** Depth of Strata: **700-875 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:	**Apex Drilling, Inc** **PO Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G Becker P.G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**91305**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
000	**032**	**Tan Limestone**
032	**320**	**Tan-Grey Limestone**
320	**440**	**Tan Limestone**
440	**620**	**Grey & Tan Limestone**
620	**675**	**Grey Limestone w/ Clay**
675	**700**	**Red Clay w/ Sand H2O**
700	**710**	**Gravel**
710	**755**	**Red Sand**
755	**785**	**Tan Limestone**
785	**840**	**Red Sandstone**
840	**860**	**White Limestone**
860	**875**	**Gravel**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4.5" (5" OD)	**New**	**PVC**	**+2' to 775' SDR17**
4.5" (5" OD)	**New**	**PVC Slotted**	**775' to 795' .035**
4.5" (5" OD)	**New**	**PVC**	**795' to 855' SDR17**
4.5" (5" OD)	**New**	**PVC Slotted**	**855' to 875' .035**

STATE OF TEXAS WELL REPORT for Tracking #92326

Owner:	**Andrew Heller**	Owner Well #:	**No Data**
Address:	**4501 Henning Dr Austin , TX 78738**	Grid #:	**58-41-4**
Well Location:	**4501 Henning Dr Austin , TX 78738**	Latitude:	**30° 19' 39" N**
Well County:	**Travis**	Longitude:	**097° 59' 34" W**
Elevation:	**No Data**	GPS Brand Used:	**e-Trax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **8/23/2005** Completed: **8/23/2005**
Diameter of Hole:	Diameter: **8 in From Surface To 20 ft** Diameter: **6 in From 20 ft To 880 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 20 ft with 4 of Portland (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **Slurry** Cemented By: **Apex Drilling, Inc** Distance to Septic Field or other Concentrated Contamination: **100 ft** Distance to Property Line: **50 ft** Method of Verification: **Landowner** Approved by Variance: **No Data**
Surface Completion:	**Surface Sleeve Installed**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**Burlap 700', 695', 20'**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**No Data**
Well Tests:	**Jetted \ Estimated** Yield: **30 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **Trinity** Depth of Strata: **705-860 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:	**Apex Drilling, Inc** **PO Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G Becker P.G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**92326**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-028 Caliche
028-080 Blue Limestone
080-180 Grey-Tan Limestone
180-350 Grey-Limestone w/ Clay
350-530 Tan-Grey Limestone
530-590 Tan Limestone
590-640 White Limestone
640-655 Grey Limestone
655-690 Clay
690-705 Grey Sandstone
705-770 Red Sand H2O
770-810 Tan Limestone
810-845 Red Sand H2O
845-860 Gravel
860-880 Tan-Blue Clay

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5" (5" OD) New PVC +2' to 780' SDR17
4.5" (5" OD) New Slotted PVC 780' to 860' .035
4.5" (5" OD) New PVC 860' to 880' SDR17

STATE OF TEXAS WELL REPORT for Tracking #93219

Owner:	**J R BOEHL**	Owner Well #:	**No Data**
Address:	**239 BORA BORA DR GALVESTON , TX 77554**	Grid #:	**58-41-1**
Well Location:	**17106 MAJESTIC RIDGE AUSTIN , TX 78738**	Latitude:	**30° 20' 31" N**
Well County:	**Travis**	Longitude:	**097° 59' 41" W**
Elevation:	**1010 ft.**	GPS Brand Used:	**GARMIN**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **8/17/2006**
Completed: **8/18/2006**

Diameter of Hole:
Diameter: **8 in From Surface To 13 ft**
Diameter: **6.75 in From 13 ft To 795 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:
1st Interval: **From 0 ft to 2 ft with 2 (#sacks and material)**
2nd Interval: **From 2 ft to 13 ft with 8 (#sacks and material)**
3rd Interval: **No Data**
Method Used: **SLURRIED & POURED**
Cemented By: **BOBBY ROBERTS**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **NOT YET INSTALLED**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **540 ft. below land surface on 8/21/2006**
Artesian flow: **No Data**

Packers:
NEOPRENE 13
NEOPRENE 725
NEOPRENE 730

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
Submersible
Depth to pump bowl: **700 ft**

Well Tests:
Jetted \ Estimated
Yield: **25 GPM with (No Data) ft drawdown after (No Data) hours**

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

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**BEE CAVE DRILLING** **185 ANGELFIRE DR** **DRIPPING SPRINGS , TX 78620**
Driller License Number:	**54416**
Licensed Well Driller Signature:	**BOBBY ROBERTS**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**93219**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-2 TOPSOIL
2-51 TAN LIMESTONE
51-520 GREY LIMESTONE
520-646 GREY ROCK
646-680 GREY SHALE
680-690 GREY ROCK
690-715 TAN ROCK
715-725 BROWN CLAY
725-790 BROWN ROCK W/B 25 GPM TDS 1440
790-795 BLUE CLAY

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5 NEW PLASTIC 0-730
4.5 NEW SCREEN MFG. 730-790 .050
4.5 NEW PLASTIC 790-795

STATE OF TEXAS WELL REPORT for Tracking #99878

Owner:	**Daniel Straub**	Owner Well #:	**No Data**
Address:	**15207 Sutton Dr. Austin , TX 78734**	Grid #:	**58-41-1**
Well Location:	**Lot 13 Cardinal Hills Est. Unit 14 Lakeway , TX 78734**	Latitude:	**30° 21' 46" N**
Well County:	**Travis**	Longitude:	**097° 58' 07" W**
Elevation:	**No Data**	GPS Brand Used:	**Map**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **2/2/2004**
Completed: **2/4/2004**

Diameter of Hole:
Diameter: **8 in From Surface To 500 ft**

Drilling Method:
Air Hammer

Borehole Completion:
Straight Wall

Annular Seal Data:
1st Interval: **From 0 ft to 100 ft with 20 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Trimie Pressure Cement**
Cemented By: **B. Strong**
Distance to Septic Field or other Concentrated Contamination: **140 ft**
Distance to Property Line: **No Data**
Method of Verification: **Measuring Wheel**
Approved by Variance: **No Data**

Surface Completion:
Surface Sleeve Installed

Water Level:
Static level: **432 ft. below land surface on 2/2/2004**
Artesian flow: **No Data**

Packers:
Rubber 100

Plugging Info:
Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
No Data

Well Tests:
Estimated
Yield: **20 GPM with (No Data) ft drawdown after (No Data) hours**

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

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

Company Information:	**Highland Drilling, Inc.** **309 Frazier St.** **Tow , TX 78672**
Driller License Number:	**54563**
Licensed Well Driller Signature:	**Bryan Strong**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Logged by DT$**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**99878**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**1**	**Top Soil**
1	**18**	**Caliche**
18	**280**	**Blue Shale**
280	**325**	**Sandstone**
325	**342**	**Blue Shale**
342	**442**	**Sandstone**
442	**463**	**Blue Shale**
463	**467**	**Sand**
467	**475**	**Sandstone**
475	**500**	**Blue Shale**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
5	**N**	**PVC**	**0/460 Sch 40**
5	**N**	**Perf.**	**460/480 Sch 40**
5	**N**	**PVC**	**480/500 Sch 40**

STATE OF TEXAS WELL REPORT for Tracking #117485

Owner:	**Mollison Homes c/o Mike Mollison**	Owner Well #:	**No Data**
Address:	**17115 Majestic Ridge Lakeway , TX 78738**	Grid #:	**57-48-6**
Well Location:	**17012 Flint Rock RD Lakeway , TX 78738**	Latitude:	**30° 19' 59" N**
Well County:	**Travis**	Longitude:	**098° 00' 14" W**
Elevation:	**No Data**	GPS Brand Used:	**e-Trax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **4/25/2007**
Completed: **4/25/2007**

Diameter of Hole:
Diameter: **8 in From Surface To 20 ft**
Diameter: **6.5 in From 20 ft To 845 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 20 ft with 4 of Portland (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Slurry**
Cemented By: **Apex Drilling, Inc**
Distance to Septic Field or other Concentrated Contamination: **100 ft**
Distance to Property Line: **50 ft**
Method of Verification: **Landowner**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers: **Neoprene 635', 630', 625', 20**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **Estimated**
Yield: **50 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **637-835 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

Company Information:	**Apex Drilling, Inc** **PO Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54989**
Licensed Well Driller Signature:	**Andrew J Johnson**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**117485**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
000	**030**	**Caliche**
030	**090**	**Blue Limestone**
090	**210**	**Grey Limestone**
210	**410**	**Grey-Tan Limestone**
410	**450**	**Tan Limestone**
450	**525**	**Grey Limestone**
525	**560**	**Tan Limestone**
560	**580**	**Grey Limestone / Clay**
580	**605**	**Clay**
605	**637**	**Grey Sandy Limestone**
637	**645**	**Red Sandstone**
645	**660**	**Sand**
660	**704**	**Red Sandstone**
704	**715**	**White Limestone**
715	**740**	**Sand**
740	**782**	**Tan Limestone**
782	**835**	**Sand / Gravel**
835	**845**	**Tan Clay**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
4.5" (5" OD)	**New**	**PVC**	**+2' to 715' SDR17**
4.5" (5" OD)	**New**	**Slotted PVC**	**715' to 735' .035**
4.5" (5" OD)	**New**	**PVC**	**735' to 755' SDR17**
4.5" (5" OD)	**New**	**Slotted PVC**	**755' to 775' .035**
4.5" (5" OD)	**New**	**PVC**	**775' to 795' SDR17**
4.5" (5" OD)	**New**	**Slotted PVC**	**795' to 835' .035**
4.5" (5" OD)	**New**	**PVC**	**835' to 845' SDR17**

STATE OF TEXAS WELL REPORT for Tracking #142814

Owner:	**Village Service Center**	Owner Well #:	**MW-3**
Address:	**6607 Whitemarsh Valley Walk Austin , TX 78746**	Grid #:	**58-41-1**
Well Location:	**2200 Lakeway Blvd Austin , TX 78734**	Latitude:	**30° 21' 28" N**
Well County:	**Travis**	Longitude:	**097° 58' 44" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin etrex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date:
Started: **5/8/2008**
Completed: **5/8/2008**

Diameter of Hole:
Diameter: **7.875 in From Surface To 100 ft**

Drilling Method:
Air Rotary

Borehole Completion:
Gravel Packed From: **58 ft to 100 ft**
Gravel Pack Size: **8/16**

Annular Seal Data:
1st Interval: **From 0 ft to 2 ft with 4 cement (#sacks and material)**
2nd Interval: **From 2 ft to 58 ft with 29 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **poured**
Cemented By: **Talon**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion:
Surface Slab Installed

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers:
No Data

Plugging Info:
Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
No Data

Well Tests:
No Data

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

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

Company Information:	**Talon Drilling, LP** **921 N Bivins** **Amarillo , TX 79107**
Driller License Number:	**54499**
Licensed Well Driller Signature:	**Shane Currie**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**142814**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description

0 to 1.5 Brown, 10R 5/4, Top Soil/Fill-Gravelly Clay, Firm, Roots, Damp, No Odor
1.5 to 4 Dark Reddish Tan, 5R 2/6, Clay, Moderate Plasticity, Stiff, Slick Appearance, Damp, No Odor
4 to 6 Orange Brown, 5R 2/6, Clay, Moderate Plasticity, Stiff, Stick Appearance, Damp, No Odor
6 to 19 Light Tan and White, 10YR 8/2, Limestone, Dense, Massive, Weathered, Dry, No Odor
19 to 30 Gray, 10R 6/2, Limestone, Dense, Massive, Weathered, Dry, Becoming more Clayey, No Odor
30 to 32 Gray, 10R 6/2, Limestone, Dense, Massive, Weathered, Dry, Becoming less Clayey, No Odor
32 to 100 Gray, 10R 6/2, Some dark Gray Speks (Iron?), Limestone, Dense, Massive, Weathered, Dry, Becoming more Clayey, No Odor

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To

4 new pvc casing 0 to 60 sch 40
4 new pvc screen 60 to 100 slot 0.010

STATE OF TEXAS WELL REPORT for Tracking #142817

Owner:	**Village Service Center**	Owner Well #:	**MW-5**
Address:	**6607 Whitemarsh Valley Walk Austin , TX 78746**	Grid #:	**58-41-1**
Well Location:	**2200 Lakeway Blvd Austin , TX 78734**	Latitude:	**30° 21' 28" N**
Well County:	**Travis**	Longitude:	**097° 58' 44" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin etrex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date: Started: **5/8/2008**
Completed: **5/8/2008**

Diameter of Hole: Diameter: **7.875 in From Surface To 100 ft**

Drilling Method: **Air Rotary**

Borehole Completion: Gravel Packed From: **58 ft to 100 ft**
Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 2 ft with 4 cement (#sacks and material)**
2nd Interval: **From 2 ft to 58 ft with 29 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **poured**
Cemented By: **Talon**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

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

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

Company Information:	**Talon Drilling, LP** **921 N Bivins** **Amarillo , TX 79107**
Driller License Number:	**54499**
Licensed Well Driller Signature:	**Shane Currie**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**142817**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 to 1.5 Brown, 10R 5/4, Top Soil/Fill-Gravelly Clay, Firm, Roots, Damp, No Odor
1.5 to 6 Dark Reddish Tan, 5R 2/6, Clay, Moderate Plasticity, Stiff, Stick Appearance, Damp, No Odor
6 to 100 Dark Reddish Tan, 5R 2/6, Clay, Moderate Plasticity, Stiff, Stick Appearance, At 20' Becomes Clayey and Gray, 10R 6/2, Damp, No Odor

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4 new pvc casing 0 to 60 sch 40
4 new pvc screen 60 to 100 slot 0.010

STATE OF TEXAS WELL REPORT for Tracking #142819

Owner:	**Village Service Center**	Owner Well #:	**MW-6**
Address:	**6607 Whitemarsh Valley Walk Austin , TX 78746**	Grid #:	**58-41-1**
Well Location:	**2200 Lakeway Blvd Austin , TX 78734**	Latitude:	**30° 21' 28" N**
Well County:	**Travis**	Longitude:	**097° 58' 44" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin etrex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date:
Started: **5/7/2008**
Completed: **5/7/2008**

Diameter of Hole:
Diameter: **7.875 in From Surface To 100 ft**

Drilling Method:
Air Rotary

Borehole Completion:
Gravel Packed From: **58 ft to 100 ft**
Gravel Pack Size: **8/16**

Annular Seal Data:
1st Interval: **From 0 ft to 2 ft with 4 cement (#sacks and material)**
2nd Interval: **From 2 ft to 58 ft with 29 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **poured**
Cemented By: **Talon**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion:
Surface Slab Installed

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers:
No Data

Plugging Info:
Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
No Data

Well Tests:
No Data

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

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

Company Information:	**Talon Drilling, LP** **921 N Bivins** **Amarillo , TX 79107**
Driller License Number:	**54499**
Licensed Well Driller Signature:	**Shane Currie**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**142819**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description

0 to 2' Dark Brown, 10R 3/4, Clayey Gravel, Moderate Plasticity, Soft to Firm, Damp, No Odor
2 to 3 Dark Reddish Tan, 5R 2/6, Clay, Moderate Plasticity, Stiff, Slick Appearance, Damp, No Odor
3 to 19 Light Tan-White, 10YR 8/2, Weathered Limestone, Dense, Massive, Dry, No Odor
19 to 23 Becomes More Clayey And GRay, 10R 6/2
23 to 60 Reddish Brown, 10R 4/6, Weathered Limestone, Some Weathered Clay, No Odor
Rock To Friable to Get a Rock Core Sample
60 to 100 Becomes Gray, 10R 6/2, More Clayey, Less Dense

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To

4 new pvc casing 0 to 60 sch 40
4 new pvc screen 60 to 100 slot 0.010

STATE OF TEXAS WELL REPORT for Tracking #142824

Owner:	**Village Service Center**	Owner Well #:	**MW-4**
Address:	**6607 Whitemarsh Valley Walk Austin , TX 78746**	Grid #:	**58-41-1**
Well Location:	**2200 Lakeway Blvd Austin , TX 78734**	Latitude:	**30° 21' 28" N**
Well County:	**Travis**	Longitude:	**097° 58' 44" W**
Elevation:	**No Data**	GPS Brand Used:	**Garmin etrex**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date: Started: **5/6/2008**
Completed: **5/6/2008**

Diameter of Hole: Diameter: **7.875 in From Surface To 33 ft**

Drilling Method: **Air Rotary**

Borehole Completion: Gravel Packed From: **13 ft to 30 ft**
Gravel Pack Size: **8/16**

Annular Seal Data: 1st Interval: **From 0 ft to 2 ft with 4 cement (#sacks and material)**
2nd Interval: **From 2 ft to 13 ft with 2 bentonite (#sacks and material)**
3rd Interval: **No Data**
Method Used: **poured**
Cemented By: **Talon**
Distance to Septic Field or other Concentrated Contamination: **No Data**
Distance to Property Line: **No Data**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Slab Installed**

Water Level: Static level: **No Data**
Artesian flow: **No Data**

Packers: **No Data**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **No Data**

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

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

Company Information:	**Talon Drilling, LP** **921 N Bivins** **Amarillo , TX 79107**
Driller License Number:	**54499**
Licensed Well Driller Signature:	**Shane Currie**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**142824**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description

0 to 2" BLack, 5R 2/2, Topsoil, Loam, Damp
2" to 1.5 Orange/Brown, 10R 5/4, Clay, High Plasticity, Firm, 35% Angular Gravel (2cm-21cm), Damp, No Odor
1.5 to 3.5 Reddish Brown, 5R 3/4, GRavelly Clay, High Plasticity, Firm, 25% (>1 Rich), White Angular Limestone Gravel, Likely Weathered Limestone, Damp, Slight Odor
3.5 to 4.5 Orange Red, 10R 4/6, Gravelly Clay, Similar to above, Thick Limestone Lenses From 3.5-4.5, Damp, No Odor
4.5 to 18 Light Tan-White, Limestone, 10YR 8/2, Massive, Hard with Some Friable Layers, Dry, No Odor
18 to 23 GRay, 10R 6/2, Becoming More Weathered, Clayey
23 to 33 Some Fossils-no Rock Core or Spoon Possible Due to Friability

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To

2 new pvc casing 0 to 10 sch 40
2 new pvc screen 10 to 30 slot 0.010

STATE OF TEXAS WELL REPORT for Tracking #146505

Owner:	**McAden Cumby Builders**	Owner Well #:	**No Data**
Address:	**500 Cap.of Tx. Bldg.8, Ste.100 AUSTIN , TX 78746**	Grid #:	**58-41-1**
Well Location:	**3001 F.M. 620 SOUTH AUSTIN , TX 78734**	Latitude:	**30° 20' 00" N**
Well County:	**Travis**	Longitude:	**097° 58' 03" W**
Elevation:	**No Data**	GPS Brand Used:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Date:	Started: **6/19/2008** Completed: **6/19/2008**
Diameter of Hole:	Diameter: **8.625 in From Surface To 100 ft** Diameter: **6.5 in From 100 ft To 760 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	Other: **CASED**
Annular Seal Data:	1st Interval: **From 0 ft to 100 ft with 16 CEMENT (#sacks and material)** 2nd Interval: **From 0 ft to 100 ft with 15 VOLCLAY (#sacks and material)** 3rd Interval: **No Data** Method Used: **PRESSURE TRIMMY CEMENTING** Cemented By: **CENTRAL TEXAS DRILLING, INC.** Distance to Septic Field or other Concentrated Contamination: **N/A ft** Distance to Property Line: **N/A ft** Method of Verification: **WELL DRILLED FIRST** Approved by Variance: **No Data**
Surface Completion:	**Pitless Adapter Used**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**5 BURLAP,PVC,RUBBER 100,580,600,620, 640**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**Submersible** Depth to pump bowl: **(No Data) ft**
Well Tests:	**Jetted** Yield: **30-35 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **TRINITY** Depth of Strata: **85 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete

	the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**CENTRAL TEXAS DRILLING, INC.** **2520 HWY. 290 WEST** **DRIPPING SPRINGS , TX 78620**
Driller License Number:	**4227**
Licensed Well Driller Signature:	**AARON GLASS**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Amended Ref# 6153 7/30/08**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**146505**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-2 FILL
2-18 CALICHE
18-20 BLUE LIMESTONE
20-210 GRAY LIMESTONE
210-460 GRAY W/TAN LIMESTONE
460-510 TAN LIMESTONE
510-540 TAN/GRAY/BROWN LIMESTONE
540-560 TAN/BROWN SANDSTONE
560-580 BROWN/GRAY LIMESTONE
580-595 GRAY LIMESTONE
595-610 GRAY LIMESTONE W/HAMMIT CLAY
610-630 GRAY LIMESTONE W/RED CLAY
630-650 GRAY/TAN LIMESTONE W/ LITTLE CLAY
650-660 RED/GRAY LIMESTONE
660-720 RED/TAN SAND
720-760 SAND & GRAVEL

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5" OD N SDR17 PVC +3 TO 760
5" OD N SDR17 PVC SLOT 660 TO 760 .032

STATE OF TEXAS WELL REPORT for Tracking #152651

Owner:	**Gene Villanueva**	Owner Well #:	**1**
Address:	**318 Nautilus Ave Lakeway , TX 78738**	Grid #:	**58-41-1**
Well Location:	**3408 Serene Hills Court Lakeway , TX 78738**	Latitude:	**30° 20' 40" N**
Well County:	**Travis**	Longitude:	**097° 59' 56" W**
Elevation:	**937 ft.**	GPS Brand Used:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **8/29/2008**
Completed: **9/3/2008**

Diameter of Hole:
Diameter: **8 in From Surface To 120 ft**
Diameter: **7 in From 120 ft To 850 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 120 ft with 36 (#sacks and material)**
2nd Interval: **From 640 ft to 700 ft with 18 (#sacks and material)**
3rd Interval: **No Data**
Method Used: **tremie**
Cemented By: **ADC**
Distance to Septic Field or other Concentrated Contamination: **91 ft**
Distance to Property Line: **50+ ft**
Method of Verification: **measured**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **409 ft. below land surface on 9/6/2008**
Artesian flow: **No Data**

Packers: **neophrene 120'**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump:
Submersible
Depth to pump bowl: **700 ft**

Well Tests:
Estimated
Yield: **30 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **740'-850' ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

	resubmittal.
Company Information:	**Associated Drilling Co.** **P.O. Box 1060** **Manchaca , TX 78652**
Driller License Number:	**1955**
Licensed Well Driller Signature:	**Byron Benoit**
Registered Driller Apprentice Signature:	**Frank Barnard**
Apprentice Registration Number:	**56366**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**152651**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 topsoil
1-13 caliche
13-247 gray limestone
247-249 void
249-600 gray limestone
600-640 shale
640-700 hard tan limestone
700-740 red sandstone
740-850 broken red sandstone

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5" new plastic -2' to 850' sdr17

slotted 740'-850'

STATE OF TEXAS WELL REPORT for Tracking #174365

Owner:	**David Faust--Diamond F Ranch**	Owner Well #:	**No Data**
Address:	**P.O. Box 340080** **Austin , TX 78734**	Grid #:	**58-41-4**
Well Location:	**16177 Flint Rock Rd** **Austin , TX 78738**	Latitude:	**30° 19' 45" N**
Well County:	**Travis**	Longitude:	**097° 58' 58" W**
Elevation:	**No Data**	GPS Brand Used:	**unknown**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **7/29/2004**
Completed: **7/29/2004**

Diameter of Hole:
Diameter: **9 in From Surface To 30 ft**
Diameter: **6 in From 30 ft To 810 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 30 ft with 5 (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **slurry**
Cemented By: **Western Water Wells, LLC**
Distance to Septic Field or other Concentrated Contamination: **100+ ft**
Distance to Property Line: **No Data**
Method of Verification: **owner**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers:
PVC and burlap, 30'
PVC and burlap, 620'
PVC and burlap, 630'

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **Submersible**
Depth to pump bowl: **(No Data) ft**

Well Tests: **Jetted \ Estimated**
Yield: **15-20 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **45 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Western Water Wells, LLC** **500 Southland Drive** **Burnet , TX 78611**
Driller License Number:	**1313**
Licensed Well Driller Signature:	**Frank A. Glass**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**$scd**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**174365**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 topsoil
1-15 caliche
15-75 blue lime
75-315 gray lime
315-360 brown lime
360-490 gray and brown lime sandstone
490-525 white lime 5-8 gpm
525-560 gray lime
560-610 Hammond
610-630 gray lime
630-700 sandstone and sand
700-760 tan lime
760-800 sand strips
800-810 chert lime

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5 OD N plastic +2-810 17 & 40

STATE OF TEXAS WELL REPORT for Tracking #174386

Owner:	**David Piland**	Owner Well #:	**No Data**
Address:	**26 Autumn Oak Austin , TX 78738**	Grid #:	**58-41-1**
Well Location:	**3605 Serene Hills Lot 27 Majestic Hills , TX**	Latitude:	**30° 20' 33" N**
Well County:	**Travis**	Longitude:	**097° 59' 50" W**
Elevation:	**No Data**	GPS Brand Used:	**unknown**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **7/2/2004** Completed: **7/2/2004**
Diameter of Hole:	Diameter: **9 in From Surface To 25 ft** Diameter: **6 in From 25 ft To 800 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 25 ft with 5 (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **slurry** Cemented By: **Western Water Wells, LLC** Distance to Septic Field or other Concentrated Contamination: **100+ ft** Distance to Property Line: **No Data** Method of Verification: **owner** Approved by Variance: **No Data**
Surface Completion:	**No Data**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**PVC and burlap, 25'** **PVC and burlap, 660'** **PVC and burlap, 670'**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**No Data**
Well Tests:	**Jetted \ Estimated** Yield: **(No Data) GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **Trinity** Depth of Strata: **40 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete

	the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Western Water Wells, LLC** **500 Southland Drive** **Burnet , TX 78611**
Driller License Number:	**1313**
Licensed Well Driller Signature:	**Frank A. Glass**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Well Test: no returns. $scd**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**174386**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 topsoil
1-17 caliche
17-65 blue lime
65-275 gray lime
275-276 fracture--lost returns
276-580 lime
580-635 Hammond
635-670 lime
670-800 Trinity

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5 OD N plastic +2-800 SDR17&40

STATE OF TEXAS WELL REPORT for Tracking #181840

Owner:	**Duncan Johnson Comm-Word (Owner)**	Owner Well #:	**No Data**
Address:	**6601-A Bee Cave Road Austin , TX 78746**	Grid #:	**57-48-3**
Well Location:	**17824 Serene Hills Pass Austin , TX 78738**	Latitude:	**30° 20' 36" N**
Well County:	**Travis**	Longitude:	**098° 00' 22" W**
Elevation:	**No Data**	GPS Brand Used:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **5/22/2009** Completed: **5/22/2009**
Diameter of Hole:	Diameter: **9 in From Surface To 50 ft** Diameter: **6 in From 50 ft To 890 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 50 ft with 10 (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **Slurry** Cemented By: **Western Water Wells** Distance to Septic Field or other Concentrated Contamination: **100+ ft** Distance to Property Line: **50+ ft** Method of Verification: **Owner** Approved by Variance: **No Data**
Surface Completion:	**Surface Sleeve Installed**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**6 PVC & Burlap @ 50', 640', 680', 695', 700', 740'**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**Submersible** Depth to pump bowl: **(No Data) ft**
Well Tests:	**Jetted \ Estimated** Yield: **30 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **Trinity** Depth of Strata: **60 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and

	resubmittal.
Company Information:	**Western Water Wells** **500 Southland Dr.** **Burnet , TX 78611**
Driller License Number:	**1313**
Licensed Well Driller Signature:	**Frank Glass**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**181840**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-001 Top Soil
001-040 Caliche
040-070 Blue Lime
070-315 Gray Lime
315-375 Brown Lime
375-395 White Soap Stone
395-590 Gray & Brown Lime
590-640 White & Brown
640-690 Hammond
690-748 Sand
740-890 Trinity 30 GPM

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5 OD New Plastic +2 to 890 SDR 17
80' Screen

STATE OF TEXAS WELL REPORT for Tracking #278629

Owner:	**Aqua Land Lakeway Medical Dvlp, LLC**	Owner Well #:	**No Data**
Address:	**3700 Buffalo Speedway Ste.1100 Houston , TX 77098**	Grid #:	**58-41-1**
Well Location:	**3002 1/2 Ranch Rd. 620 South Lakeway , TX 78738**	Latitude:	**30° 20' 02" N**
Well County:	**Travis**	Longitude:	**097° 58' 13" W**
Elevation:	**No Data**	GPS Brand Used:	**e-Trax**
Type of Work:	**New Well**	Proposed Use:	**Irrigation**

Drilling Date:
Started: **11/21/2011**
Completed: **11/22/2011**

Diameter of Hole:
Diameter: **10 in From Surface To 40 ft**
Diameter: **8 in From 40 ft To 860 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:
1st Interval: **From 0 ft to 50 ft with 21 of Portland (#sacks and material)**
2nd Interval: **No Data**
3rd Interval: **No Data**
Method Used: **Slurry**
Cemented By: **Apex Drilling, Inc.**
Distance to Septic Field or other Concentrated Contamination: **100+ ft**
Distance to Property Line: **50+ ft**
Method of Verification: **Landowner**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **No Data**
Artesian flow: **No Data**

Packers: **Burlap/Neoprene 710, 705, 700, 300, 60, 50**

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **Jetted**
Yield: **50-60 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **Trinity**
Depth of Strata: **710-853 ft.**
Chemical Analysis Made: **No**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**

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

Company Information:	**Apex Drilling, Inc.** **P O Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G. Becker, P. G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**Reference to Variance #068-12 (Distance to Sewer Line)** **Amended 4/26/12 Ref.# 10346**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**278629**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-036 Fill
036-161 Grey Limestone
161-178 Tan Limestone
178-490 Grey/Tan Limestone
490-510 Tan Limestone
510-580 Grey/Tan Limestone
580-665 Grey Limestone w/Clay
665-710 Red Sandstone
710-715 Gravel H2O
715-742 Red Sandstone
742-754 Gravel H2O
754-790 Red Sandstone
790-800 Gravel H2O
800-830 Sandstone
830-853 Gravel H2O
853-860 Tan Clay

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5" (5" OD) New PVC + 2' to 780' SDR17
5" (5" OD) New Slotted PVC 780' to 860' .035

8" New PVC 0' to 40' Sch40

STATE OF TEXAS WELL REPORT for Tracking #279798

Owner:	**Lake Travis High School**	Owner Well #:	**No Data**
Address:	**3324 Ranch Rd. 620 S. Austin , TX 78738**	Grid #:	**58-41-4**
Well Location:	**3324 Ranch Rd. 620 S. Austin , TX 78738**	Latitude:	**30° 19' 24" N**
Well County:	**Travis**	Longitude:	**097° 58' 19" W**
Elevation:	**No Data**	GPS Brand Used:	**e-Trax**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **8/22/2011** Completed: **8/22/2011**
Diameter of Hole:	Diameter: **8 in From Surface To 952 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 60 ft with 12 of Portland (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **Slurry** Cemented By: **Apex Drilling, Inc.** Distance to Septic Field or other Concentrated Contamination: **100+ ft** Distance to Property Line: **50+ ft** Method of Verification: **Landowner** Approved by Variance: **No Data**
Surface Completion:	**Surface Sleeve Installed**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**Burlap/Neoprene 755, 760, 765, 60**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**No Data**
Well Tests:	**Jetted** Yield: **27 GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:	Type of Water: **Trinity** Depth of Strata: **755-945 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:	**Apex Drilling, Inc.** **P O Box 867** **Marble Falls , TX 78654**
Driller License Number:	**54516**
Licensed Well Driller Signature:	**Michael G. Becker, P. G.**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**279798**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
000-001 Top Soil
001-024 Tan Limestone
024-118 Grey/Tan Limestone
118-128 Tan Limestone
128-492 Grey/Tan Limestone
492-520 Tan/White Limestone
520-680 Grey/Tan Limestone
680-755 Grey Limestone w/Clay
755-920 Red Sandstone
920-945 Gravel
945-952 Tan Clay

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
4.5" (5" OD) New PVC + 2' to 872' SDR17
4.5" (5" OD) New Slotted PVC 872' to 952' .035

STATE OF TEXAS WELL REPORT for Tracking #290846

Owner:	**Circle K Stores, Inc. #2704681**	Owner Well #:	**B-1**
Address:	**P.O. Box 52085 Phoenix , AZ 85072**	Grid #:	**58-41-1**
Well Location:	**1405 S. Ranch Road 620 Austin , TX 78734**	Latitude:	**30° 20' 58" N**
Well County:	**Travis**	Longitude:	**097° 57' 48" W**
Elevation:	**No Data**	GPS Brand Used:	**Google Earth**
Type of Work:	**New Well**	Proposed Use:	**Monitor**

Drilling Date:	Started: **6/5/2012** Completed: **6/5/2012**
Diameter of Hole:	Diameter: **6 in From Surface To 80 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	Other: **Plugged**
Annular Seal Data:	1st Interval: **No Data** 2nd Interval: **No Data** 3rd Interval: **No Data**
Surface Completion:	**Alternative Procedure Used**

Water Level:	Static level: **No Data** Artesian flow: **No Data**
Packers:	**N/A**
Plugging Info:	The well **was** plugged within 48 hours. Casing left in well: Cement/Bentonite left in well: From (ft) To (ft) From (ft) To (ft) Cem/Bent Sacks Used **0 - 2 Concrete** **2 - 80 Bentonite** **No casing left in well.**
Type Of Pump:	**No Data**
Well Tests:	**No Data**

Water Quality:	Type of Water: **No Data** Depth of Strata: **No Data** Chemical Analysis Made: **No Data** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No Data**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Vortex Drilling, Inc.** **4412 Bluemel Road** **San Antonio , TX 78240**

Driller License Number:	**4868**
Licensed Well Driller Signature:	**James E. Neal**
Registered Driller Apprentice Signature:	**Ralph Bartholomew**
Apprentice Registration Number:	**59046**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking number (Tracking #**290846**) on your written request.

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

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0 - 6" Concrete
6" - 2' Caliche fill
2 - 80 Limestone

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
1 New Schedule 40 PVC .010 80 - 70 Screen
1 New Schedule 40 PVC 70 - 0 Riser

TWDB Groundwater Database Query Result

REPORTED WATER WELL DATA ON STATE WELL NUMBER = 5841101

Query for another State Well Number: Submit

| Water Quality | Infrequent Constituent | Water Level | 5 Day Water Level | Well Casing | Remarks | Scanned Images |

*For a complete explanation, click here to read the TWDB Groundwater Data System Data Dictionary.

Field	Value	*Explanation
STATE WELL NUMBER	5841101	
COUNTY CODE	453	Travis County, Texas
BASIN	14	Colorado River Basin
PREVIOUS WELL NUMBER	T	
LATITUDE	302030	DMS (in decimal degrees: 30.341667)
LAT DEC	30.341666	
LONGITUDE	975828	DMS (in decimal degrees: -97.974444)
LONG DEC	-97.974443	
OWNER 1	Ivan Wall	
OWNER 2		
DRILLER 1	Glass	
DRILLER 2		
SOURCE OF COORDINATES	1	
AQUIFER CODE	217HSTN	HOSSTON FORMATION
AQUIFER ID1	28	Trinity Aquifer
AQUIFER ID2		
AQUIFER ID3		
ELEVATION	920	feet
ELEVATION MEASUREMENT METHOD	M	Interpolated From Topo Map
ALPHA CODE		
DATE DRILLED	10161965	
WELL TYPE	W	Withdrawal of Water

WELL DEPTH	577	feet
SOURCE OF DEPTH	D	Driller's Log
TYPE OF LIFT	S	Submersible Pump
TYPE OF POWER	E	Electric Motor
HORSEPOWER		
PRIMARY WATER USE	H	Domestic
SECONDARY WATER USE		
TERTIARY WATER USE		
WATER LEVEL AVAILABLE	H	Click here for water level data
WATER QUALITY AVAILABLE	Y	Click here for water quality data
WELL LOGS AVAILABLE	D	
OTHER DATA AVAILABLE	M	
DATE COLLECTED OR UPDATED	08151991	
REPORTING AGENCY	01	TWDB or Predecessor Agency
WELL SCHEDULE IN FILE		
CONTRUCTION METHOD	C	Cable-tool
COMPLETION	X	Open Hole
CASING MATERIAL	S	Steel
SCREEN MATERIAL		
GMA	9	
RWPA	K	
DISTRICTID		

Groundwater Database Disclaimer

The Groundwater Database (GWDB) of the Texas Water Development Board (TWDB) contains information about more than 123,500 water well, spring, and oil/gas test sites in Texas including associated water level and water quality data. Because data collection methods and data maintenance have varied and evolved over the years, the information in the GWDB has a range of accuracy that the user needs to be aware of. See Explanation of Groundwater Data for information on the sources of information and level of accurracy in the document.

The TWDB is providing information via this Web site as a public service. Except where noted, all of the information provided is believed to be accurate and reliable; however, the Texas Water Development Board (TWDB) assumes no responsibility for any errors appearing in rules or otherwise. Further, TWDB assumes no responsibility for the use of the information provided. **PLEASE NOTE** that users of this Web site are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy,

completeness, currency, or suitability of the information provided via this Web site. TWDB specifically disclaims any and all liability for any claims or damages that may result from providing the Web site or the information it contains, including any Web sites maintained by third parties and linked to the TWDB Web site. TWDB makes no effort to verify independently, and does not exert editorial control over information on pages outside of the www.twdb.state.tx.us domain and its sub-domains. It is the user's responsibility to take precautions to ensure that whatever is selected is free of such items as viruses, worms, Trojan horses and other items of a destructive nature.

For additional information or answers to questions concerning the TWDB GWDB contact David Thorkildsen at (512) 936-0871 or Janie Hopkins at (512) 936-0841.

You can download Groundwater Database Reports in ASCII text files from this link. The files are organized by Texas counties.

This page is maintained by WIID Staff
Last updated on 1/27/2012 9:43:57 AM

TWDB Groundwater Database Query Result

REPORTED WATER WELL DATA ON STATE WELL NUMBER = 5841102

Query for another State Well Number: Submit

| Water Quality | Infrequent Constituent | Water Level | 5 Day Water Level | Well Casing | Remarks | Scanned Images |

*For a complete explanation, click here to read the TWDB Groundwater Data System Data Dictionary.

Field	Value	*Explanation
STATE WELL NUMBER	5841102	
COUNTY CODE	453	Travis County, Texas
BASIN	14	Colorado River Basin
PREVIOUS WELL NUMBER		
LATITUDE	302131	DMS (in decimal degrees: 30.358611)
LAT DEC	30.358611	
LONGITUDE	975801	DMS (in decimal degrees: -97.966944)
LONG DEC	-97.966943	
OWNER 1	Youpon Golf Course	
OWNER 2		
DRILLER 1	Central Texas Drlg.	
DRILLER 2		
SOURCE OF COORDINATES	1	
AQUIFER CODE	217HSTN	HOSSTON FORMATION
AQUIFER ID1	28	Trinity Aquifer
AQUIFER ID2		
AQUIFER ID3		
ELEVATION	840	feet
ELEVATION MEASUREMENT METHOD	M	Interpolated From Topo Map
ALPHA CODE		

DATE DRILLED	08121984	
WELL TYPE	W	Withdrawal of Water
WELL DEPTH	680	feet
SOURCE OF DEPTH	D	Driller's Log
TYPE OF LIFT	S	Submersible Pump
TYPE OF POWER	E	Electric Motor
HORSEPOWER		
PRIMARY WATER USE	I	Irrigation
SECONDARY WATER USE		
TERTIARY WATER USE		
WATER LEVEL AVAILABLE	N	
WATER QUALITY AVAILABLE	N	
WELL LOGS AVAILABLE	D	
OTHER DATA AVAILABLE		
DATE COLLECTED OR UPDATED	10131987	
REPORTING AGENCY	01	TWDB or Predecessor Agency
WELL SCHEDULE IN FILE		
CONTRUCTION METHOD	A	Air Rotary
COMPLETION	X	Open Hole
CASING MATERIAL	S	Steel
SCREEN MATERIAL		
GMA	9	
RWPA	K	
DISTRICTID		

Groundwater Database Disclaimer

The Groundwater Database (GWDB) of the Texas Water Development Board (TWDB) contains information about more than 123,500 water well, spring, and oil/gas test sites in Texas including associated water level and water quality data. Because data collection methods and data maintenance have varied and evolved over the years, the information in the GWDB has a range of accuracy that the user needs to be aware of. See Explanation of Groundwater Data for information on the sources of information and level of accurracy in the document.

The TWDB is providing information via this Web site as a public service. Except where noted, all of the information provided is believed to be accurate and reliable; however, the Texas Water Development Board (TWDB) assumes no responsibility for any errors appearing in rules or otherwise.

Furth.., TWDB assumes no responsibility for the use of the information provided. **PLEASE NOTE** that users of this Web site are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy, completeness, currency, or suitability of the information provided via this Web site. TWDB specifically disclaims any and all liability for any claims or damages that may result from providing the Web site or the information it contains, including any Web sites maintained by third parties and linked to the TWDB Web site. TWDB makes no effort to verify independently, and does not exert editorial control over information on pages outside of the www.twdb.state.tx.us domain and its sub-domains. It is the user's responsibility to take precautions to ensure that whatever is selected is free of such items as viruses, worms, Trojan horses and other items of a destructive nature.

For additional information or answers to questions concerning the TWDB GWDB contact David Thorkildsen at (512) 936-0871 or Janie Hopkins at (512) 936-0841.

You can download Groundwater Database Reports in ASCII text files from this link. The files are organized by Texas counties.

This page is maintained by WIID Staff
Last updated on 1/27/2012 9:43:57 AM

TWDB Groundwater Database Query Result

REPORTED WATER WELL DATA ON STATE WELL NUMBER = 5841403

Query for another State Well Number: Submit

| Water Quality | Infrequent Constituent | Water Level | 5 Day Water Level | Well Casing | Remarks | Scanned Images |

*For a complete explanation, click here to read the TWDB Groundwater Data System Data Dictionary.

Field	Value	*Explanation
STATE WELL NUMBER	5841403	
COUNTY CODE	453	Travis County, Texas
BASIN	14	Colorado River Basin
PREVIOUS WELL NUMBER		
LATITUDE	301940	DMS (in decimal degrees: 30.327778)
LAT DEC	30.327777	
LONGITUDE	975831	DMS (in decimal degrees: -97.975278)
LONG DEC	-97.975277	
OWNER 1	Charles Glass	
OWNER 2		
DRILLER 1	Emmett Glass	
DRILLER 2		
SOURCE OF COORDINATES	1	
AQUIFER CODE	218GLRSL	GLEN ROSE LIMESTONE,LOWER MEMBER
AQUIFER ID1	28	Trinity Aquifer
AQUIFER ID2		
AQUIFER ID3		
ELEVATION	1112	feet
ELEVATION MEASUREMENT METHOD	D	Digital Elevation Model -DEM
ALPHA CODE		

DATE DRILLED	00001970	
WELL TYPE	W	Withdrawal of Water
WELL DEPTH	816	feet
SOURCE OF DEPTH	O	Owner
TYPE OF LIFT		
TYPE OF POWER		
HORSEPOWER		
PRIMARY WATER USE	H	Domestic
SECONDARY WATER USE		
TERTIARY WATER USE		
WATER LEVEL AVAILABLE	M	Click here for water level data
WATER QUALITY AVAILABLE	N	
WELL LOGS AVAILABLE		
OTHER DATA AVAILABLE		
DATE COLLECTED OR UPDATED	10221998	
REPORTING AGENCY	01	TWDB or Predecessor Agency
WELL SCHEDULE IN FILE		
CONTRUCTION METHOD	C	Cable-tool
COMPLETION	X	Open Hole
CASING MATERIAL	S	Steel
SCREEN MATERIAL		
GMA	9	
RWPA	K	
DISTRICTID		

Groundwater Database Disclaimer

The Groundwater Database (GWDB) of the Texas Water Development Board (TWDB) contains information about more than 123,500 water well, spring, and oil/gas test sites in Texas including associated water level and water quality data. Because data collection methods and data maintenance have varied and evolved over the years, the information in the GWDB has a range of accuracy that the user needs to be aware of. See Explanation of Groundwater Data for information on the sources of information and level of accurracy in the document.

The TWDB is providing information via this Web site as a public service. Except where noted, all of the information provided is believed to be accurate and reliable; however, the Texas Water Development Board (TWDB) assumes no responsibility for any errors appearing in rules or otherwise.

Furth.., TWDB assumes no responsibility for the use of the information provided. **PLEASE NOTE** that users of this Web site are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy, completeness, currency, or suitability of the information provided via this Web site. TWDB specifically disclaims any and all liability for any claims or damages that may result from providing the Web site or the information it contains, including any Web sites maintained by third parties and linked to the TWDB Web site. TWDB makes no effort to verify independently, and does not exert editorial control over information on pages outside of the www.twdb.state.tx.us domain and its sub-domains. It is the user's responsibility to take precautions to ensure that whatever is selected is free of such items as viruses, worms, Trojan horses and other items of a destructive nature.

For additional information or answers to questions concerning the TWDB GWDB contact David Thorkildsen at (512) 936-0871 or Janie Hopkins at (512) 936-0841.

You can download Groundwater Database Reports in ASCII text files from this link. The files are organized by Texas counties.

This page is maintained by WIID Staff
Last updated on 1/27/2012 9:43:57 AM

TWDB Groundwater Database Query Result

REPORTED WATER WELL DATA ON STATE WELL NUMBER = 5841407

Query for another State Well Number: Submit

| Water Quality | Infrequent Constituent | Water Level | 5 Day Water Level | Well Casing | Remarks | Scanned Images |

*For a complete explanation, click here to read the TWDB Groundwater Data System Data Dictionary.

Field	Value	*Explanation
STATE WELL NUMBER	5841407	
COUNTY CODE	453	Travis County, Texas
BASIN	14	Colorado River Basin
PREVIOUS WELL NUMBER		
LATITUDE	301924	DMS (in decimal degrees: 30.323333)
LAT DEC	30.323332	
LONGITUDE	975810	DMS (in decimal degrees: -97.969444)
LONG DEC	-97.969443	
OWNER 1	Lake Travis High	
OWNER 2	School #2	
DRILLER 1	Whisenant & Lyle	
DRILLER 2		
SOURCE OF COORDINATES	1	
AQUIFER CODE	217HSTN	HOSSTON FORMATION
AQUIFER ID1	28	Trinity Aquifer
AQUIFER ID2		
AQUIFER ID3		
ELEVATION	1095	feet
ELEVATION MEASUREMENT METHOD	D	Digital Elevation Model -DEM
ALPHA CODE		

DATE DRILLED	06132013	
WELL TYPE	W	Withdrawal of Water
WELL DEPTH	1000	feet
SOURCE OF DEPTH	D	Driller's Log
TYPE OF LIFT	S	Submersible Pump
TYPE OF POWER	E	Electric Motor
HORSEPOWER		
PRIMARY WATER USE	I	Irrigation
SECONDARY WATER USE		
TERTIARY WATER USE		
WATER LEVEL AVAILABLE	M	Click here for water level data
WATER QUALITY AVAILABLE	Y	Click here for water quality data
WELL LOGS AVAILABLE	J,I,Z	
OTHER DATA AVAILABLE		
DATE COLLECTED OR UPDATED	07312013	
REPORTING AGENCY	05	GROUNDWATER CONSERVATION DISTRICT
WELL SCHEDULE IN FILE		
CONTRUCTION METHOD	A	Air Rotary
COMPLETION	O	Open End
CASING MATERIAL	P	PVC, Fiberglass, other Plastic
SCREEN MATERIAL		
GMA	9	
RWPA	K	
DISTRICTID		

Groundwater Database Disclaimer

The Groundwater Database (GWDB) of the Texas Water Development Board (TWDB) contains information about more than 123,500 water well, spring, and oil/gas test sites in Texas including associated water level and water quality data. Because data collection methods and data maintenance have varied and evolved over the years, the information in the GWDB has a range of accuracy that the user needs to be aware of. See Explanation of Groundwater Data for information on the sources of information and level of accurracy in the document.

The TWDB is providing information via this Web site as a public service. Except where noted, all of the information provided is believed to be accurate and reliable; however, the Texas Water

Development Board (TWDB) assumes no responsibility for any errors appearing in rules or otherwise. Further, TWDB assumes no responsibility for the use of the information provided. **PLEASE NOTE** that users of this Web site are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy, completeness, currency, or suitability of the information provided via this Web site. TWDB specifically disclaims any and all liability for any claims or damages that may result from providing the Web site or the information it contains, including any Web sites maintained by third parties and linked to the TWDB Web site. TWDB makes no effort to verify independently, and does not exert editorial control over information on pages outside of the www.twdb.state.tx.us domain and its sub-domains. It is the user's responsibility to take precautions to ensure that whatever is selected is free of such items as viruses, worms, Trojan horses and other items of a destructive nature.

For additional information or answers to questions concerning the TWDB GWDB contact David Thorkildsen at (512) 936-0871 or Janie Hopkins at (512) 936-0841.

You can download Groundwater Database Reports in ASCII text files from this link. The files are organized by Texas counties.

This page is maintained by WIID Staff
Last updated on 1/27/2012 9:43:57 AM

ATTACHMENT 10

Groundwater Quality Technical Report

ATTACHMENT 10
Groundwater Quality Technical Report

In accordance with 30 TAC 309.20(a)(4)(A), the attached exhibit shows all water wells within 0.5 miles of the land application site. A listing of these wells is shown below:

Well ID	Well Use	Casing
352449	Irrigation	4.5” PVC
152651	Domestic	4.5” PVC
174386	Domestic	5” PVC
93219	Domestic	4.5” PVC
305495	Domestic	5” PVC
279924	Geothermal	1” PVC
33901	Domestic	4.5” PVC
48727	Domestic	4.5” PVC
48731	Domestic	4.5” PVC
74002	Domestic	4.5” PVC
278629	Irrigation	5” PVC
146505	Irrigation	5” PVC
5841101	Domestic	8” Steel
142814	Monitor	4” PVC
142817	Monitor	4” PVC
142808	Monitor	4” PVC
142824	Monitor	4” PVC
142819	Monitor	4” PVC
137038	Monitor	2” PVC

Available well data has also been attached for each of the listed wells that are within 0.5 mile of the land application area. There are no monitoring wells on the project site. To protect groundwater quality, the permittee complies with buffer zones requirements of 30 TAC 309.13(c). No private or public wells were found to be located closer than 500 feet from the wastewater treatment plant or the land application boundary. Minimum separation distances from wastewater treatment units and wells are exceeded with the existing plant. The permittee also complies with 30 TAC 213 subchapter B, requirements for proposed facilities overlaying the Edwards Aquifer Contributing Zone. The treated effluent wastewater pond adheres to the standards in 30 TAC 217.203 pertaining to the design criteria for domestic wastewater systems. The pond is lined with geo-textile material having a coefficient of permeability less than 1x10-7 centimeters per second for a thickness of two feet corresponding to water depths less than eight feet. Application of the treated effluent will not occur during periods of inundation; frozen or saturated ground and no runoff of effluent will be allowed. Treated effluent will be distributed to crops at agronomic rates limited to what is necessary to sustain the vegetation.

ATTACHMENT 11

Soil Map & Soil Analysis

SOILS REPORT

HURST CREEK MUNICIPAL UTILITY DISTRICT

A soils map for the Hurst Creek Municipal Utility District Golf Course and Median Irrigation area is shown in Figure 1. The figure depicts the location of the portion of land that is currently irrigated with treated effluent. Irrigation of the golf course has been in place since 1982. The irrigation areas are superimposed over mapping of the indigenous soil units on a USGS base map. Soils mapping was based upon file information provided by the Natural Resources Conservation Service's (NRCS) online soil survey database. (NRCS, http://websoilsurvey.nrcs.usda.gov/app/).

As shown on the soils map, the predominant soil types in the area are Brackett-Rock, Tarrant-Soils, and Volente Silty Clay Loam.

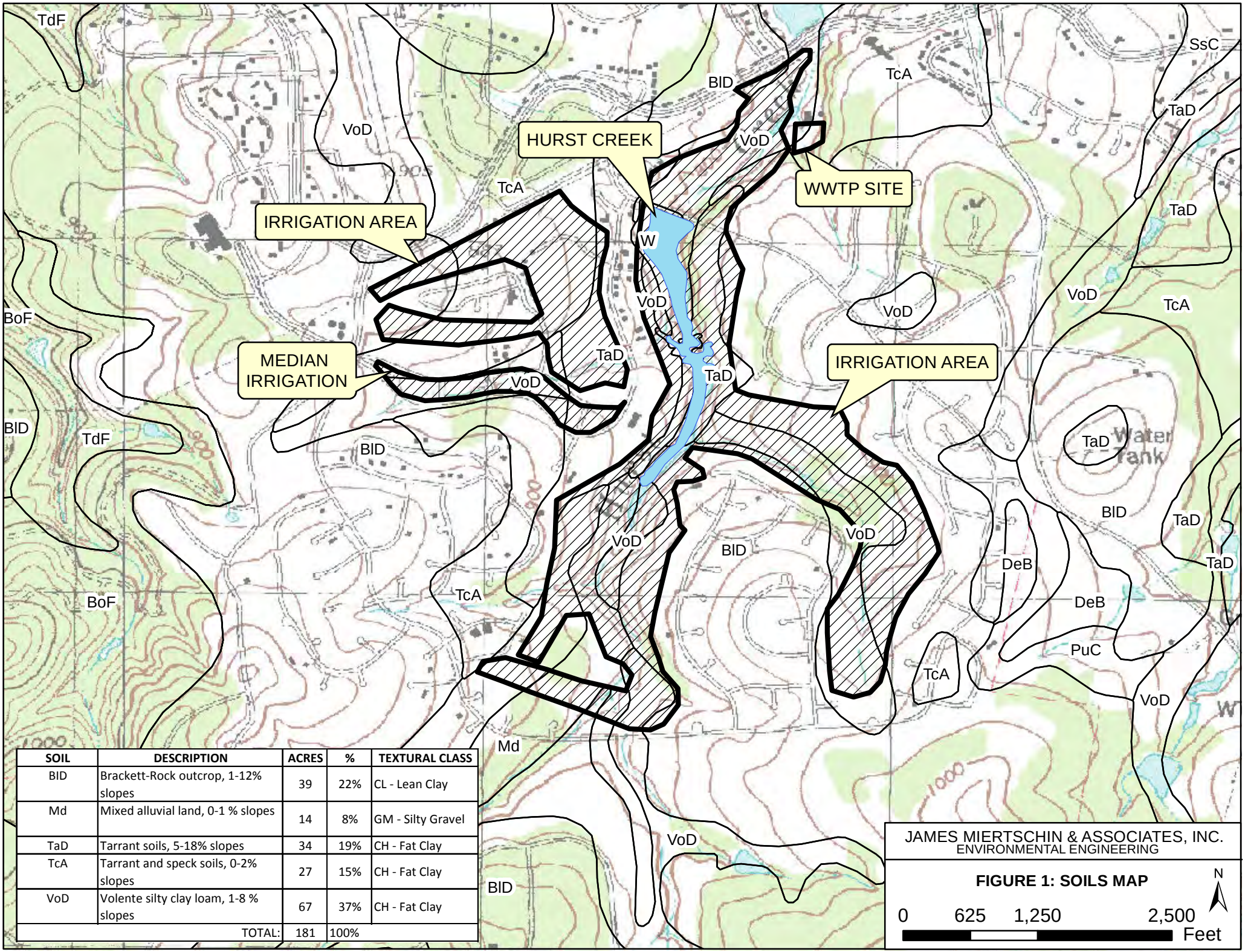
Soil properties are summarized in Table 1. The tabulated data was based upon information provided by the NRCS. The area of each of the indigenous soil types associated with the irrigation areas is described below:

SOIL	DESCRIPTION	ACRES	%
BID	Brackett-Rock outcrop, 1-12% slopes	39	22%
Md	Mixed alluvial land, 0-1 % slopes	14	8%
TaD	Tarrant soils, 5-18% slopes	34	19%
TcA	Tarrant and speck soils, 0-2% slopes	27	15%
VoD	Volente silty clay loam, 1-8 % slopes	67	37%
	TOTAL:	181	100%

The areas in the preceding tabulation exclude irrigation over the Hurst Creek waterway.

Table 1: Soil Properties

Soil Series	Hyd Group	Map Symbol	Depth (in)	USDA Texture	Percentage Passing Sieve No. 200	Liquid Limit	Plasticity Index	Permeability (in/hr)	AWC (in/in)	WaterTable Depth (ft)
Bracket-Rock, 1-12 % Slopes	D	BID	0-6	Gravelly clay loam	55-80	25-43	10-26	0.57-1.98	0.09-0.16	>6.5
			6-18	Clay loam, gravelly loam, gravelly clay loam, loam	45-72	25-40	10-23	0.57-1.98	0.09-0.16	
			18-48	Bedrock	--	--	--	0.06-1.98	--	
Mixed alluvial land, 0-15% slopes, frequently flooded	A	Md	0-48	Stratified very gravelly coarse sand to very gravelly sand	5-20	0-20	NP-4	5.94-20.0	0.03-0.08	>6.5
Tarrant soils, 5-18% slopes	D	TaD	0-8	Very stony clay	36-95	51-75	25-44	0.20-0.57	0.05-0.10	>6.5
			8-12	Bedrock	--	--	--	0.06-1.98	--	
Tarrant and Speck soils, 0-2% slopes	D	TcA	0-10	Very stony clay	36-95	51-75	25-44	0.20-0.57	0.10-0.18	>6.5
			10-12	Bedrock	--	--	--	0.06-1.98	--	
Volente silty clay loam 1-8% slopes	C	VoD	0-36	Silty Clay Loam	85-96	51-65	25-37	0.20-0.57	0.15-0.20	>6.5
			36-46	Silty Clay, Clay Loam, Silty Clay Loam	85-95	45-55	25-32	0.20-0.57	0.15-0.20	
			46-54	Clay Loam, Silty Clay Loam, Clay	75-90	30-40	13-23	0.57-1.98	0.13-0.20	



SOIL	DESCRIPTION	ACRES	%	TEXTURAL CLASS
BID	Brackett-Rock outcrop, 1-12% slopes	39	22%	CL - Lean Clay
Md	Mixed alluvial land, 0-1 % slopes	14	8%	GM - Silty Gravel
TaD	Tarrant soils, 5-18% slopes	34	19%	CH - Fat Clay
TcA	Tarrant and speck soils, 0-2% slopes	27	15%	CH - Fat Clay
VoD	Volente silty clay loam, 1-8 % slopes	67	37%	CH - Fat Clay
	TOTAL:	181	100%	

JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING

FIGURE 1: SOILS MAP

N

0 625 1,250 2,500 Feet

General descriptions of the major soil types are provided below.

Brackett-Rock

The Brackett-Rock series consists of shallow, well drained soils that formed from residuum weathered from limestone. The typical profile includes a surface layer of gravelly clay loam 6 inches thick and a subsurface layer of clay loam down to bedrock at 18 inches.

Tarrant-Rock

The Tarrant-Rock series consists of shallow, well drained soils that formed from residuum weathered from limestone. The typical profile includes a surface layer of stony clay 7 inches thick down to bedrock.

Volente Silty-Clay Loam

The Volente series consists of deep, well-drained soils that developed in slope alluvium. The typical profile the surface layer is dark grayish-brown silty clay loam about 22 inches thick over a dark-brown silty clay.

An analysis of the soil in the land application area was prepared for this permit renewal and is displayed in Table 2. The locations of the soil sampling sites are shown in Figure 2.Upon review of the soil sampling data, fertilizer recommendations should remain based upon the nitrogen application rate for Bermudagrass that is discussed in the Cropping Plan of this permit renewal.


SITE 1
WWTP SITE
SITE 2
IRRIGATION AREA
MEDIAN
IRRIGATION
SITE 3
JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
FIGURE 2:
SOILS SAMPLING LOCATIONS
N
0
700
1,400
2,800
Feet

TABLE 2: HURST CREEK MUD

SOIL SAMPLING ANALYSIS, 2024

COMPOSITE SAMPLE ID	SAMPLE DEPTH	DATE	Ph	CONDUCTIVITY (umhos/cm)	SAR	NA (mg/L)	Ca (mg/L)	Mg (mg/kg)	TKN (mg/kg)	TOTAL NITROGEN (mg/kg)	NITRATE-N (mg/kg)	POTASSIUM (mg/kg)	PHOSPHORUS (mg/kg)	SULFUR (mg/kg)	FERTILIZER RECOMMENDATION
SITE 1	0”-6”	02/05/24	8.4	126	2.29	183	12,034	628	942	948	6	407	6	126	1.1 lbs N/1000 sqft, 3.9 lbs P2O5/1000 sqft, 2.3 lbs K2O/1000 sqft
	6”-18”	02/05/24	8.6	106	1.16	144	30,371	445	374	378	4	220	0	315	
	18”-30”	02/05/24	8.6	107	0.94	122	32,969	380	119	120	1	72	0	336	
SITE 2	0”-6”	02/05/24	8.5	58	0.29	34	27,754	304	379	381	2	108	0	255	1.1 lbs N/1000 sqft, 3.9 lbs P2O5/1000 sqft, 1.5 lbs K2O/1000 sqft
	6”-18”	02/05/24	8.3	88	1.30	143	23,636	370	363	364	1	217	0	232	
	18”-30”	02/05/24	8.3	89	1.91	165	14,409	449	692	693	1	253	2	171	
SITE 3	0”-6”	02/05/24	8.5	65	0.91	90	19,053	488	1140	1140	4	234	0	186	1.1 lbs N/1000 sqft, 3.9 lbs P2O5/1000 sqft, 2.5 lbs K2O/1000 sqft
	6”-18”	02/05/24	8.6	59	0.52	65	31,452	300	661	663	2	99	0	296	
	18”-30”	02/05/24	8.7	60	0.45	58	32,469	276	375	376	1	65	0	304	

Email information for report date:

3/1/24 13:59

H001611

HURST CREEK MUD

Attn: Kurt Pendleton

kurtpendleton@hurstcreekmud.org

102 TROPHY DRIVE

AUSTIN, TX 78738

Please contact us for your sampling needs or if you have any questions. Some convenient contacts are listed below. You can also access your results and reports through our ClientConnect ™ portal on our website (www.aqua-techlabs.com).

For sampling questions:

samplingbryan@aqua-techlabs.com (Bryan area)
samplingaustin@aqua-techlabs.com (Austin area)

reporting@aqua-techlabs.com (report questions)

Aqua-Tech values you as a customer and encourages you to speak with our staff at 979-778-3707 or the above emails if you have questions.

Thank you for your business,
June M. Brien
Executive Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

The analyses summarized in this report were performed by Aqua-Tech Laboratories, Inc. unless otherwise noted. Aqua-Tech Laboratories, Inc. holds accreditation from the State of Texas in accordance with TNI and/or through the TCEQ Drinking Water Commercial Laboratory Approval Program.

The following abbreviations indicate certification status:

NEL	TNI accredited parameter.
ANR	Accreditation not offered by the State of Texas.
DWP	Approval through the TCEQ Drinking Water Commercial Laboratory Approval Program.
INF	Aqua-Tech Laboratories, Inc. is not accredited for this parameter. It is reported on an informational basis only.

Subcontracted data summarized in this report is indicated by "Sub" in the Lab column.

Certificate: T104704371-23-27

TCEQ Lab ID T104704371

General Definitions:

NR	Not Reported.
RPD	Relative Percent Difference.
% R	Percent Recovery.
dry	Results with the "dry" unit designation are reported on a "dry weight" basis.
SQL	The Sample Quantitation Limit is the value below which the parameter cannot reliably be detected. The SQL includes all sample preparations, dilutions and / or concentrations.
Adj MDL	The Adjusted Method Detection Limit is the MDL value adjusted for any sample dilutions or concentrations .
MDL	The Method Detection Limit is the lowest theoretical value that is statistically different from zero for a specific method, taking into account all preparation steps and instrument settings.

All samples are reported on an "as received" basis unless the designation "dry" is added to the reported unit.

Copies of Aqua-Tech Laboratories, Inc. procedures and individual sampling plans are available upon request. Note that samples are collected by Aqua-Tech Laboratories, Inc. personnel unless otherwise noted in the "Sample Collected" field of this report as "Client" or "CLT".

Samples included in this report were received in acceptable condition according to Aqua-Tech Laboratories, Inc. procedures and 40 CFR, Chapter I, Subchapter D, Part 136.3, TABLE II. - *Required containers, preservation techniques, and holding times*, unless otherwise noted in this report.

Record Retention:

All reports, raw data, and associated quality control data are kept on file for 10 years before being destroyed. Any client that would like copies of records must contact Aqua-Tech Laboratories, Inc. no later than six months prior to the scheduled disposal. An administrative fee for retrieval and distribution will apply.

This report was approved by:

June M. Brien, Technical Director

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

See attached subcontract report for additional analysis and fertilizer recommendations.

Hurst Creek WWTP Soil 0-6 Inches Site 3

Collected: 02/05/24 12:42 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-07

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**84.9**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173203	NEL
Total Kjeldahl Nitrogen as N	**1140**	mg/kg dry		0.13	38.1	58.6	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**1140**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 6-18 Inches Site 3

Collected: 02/05/24 12:51 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-08

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**87.4**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173204	NEL
Total Kjeldahl Nitrogen as N	**661**	mg/kg dry		0.13	36.4	56.1	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**663**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 18-30 Inches Site 3

Collected: 02/05/24 13:03 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-09

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**88.0**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173204	NEL
Total Kjeldahl Nitrogen as N	**375**	mg/kg dry		0.13	36.2	55.7	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**376**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

Hurst Creek WWTP Soil 0-6 Inches Site 2

Collected: 02/05/24 13:13 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-04

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**88.6**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/11/24 13:18 SR	SM2540 G 2015	M173227	NEL
Total Kjeldahl Nitrogen as N	**379**	mg/kg dry		0.13	36.1	55.5	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**381**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 6-18 Inches Site 2

Collected: 02/05/24 13:15 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-05

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**80.0**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173203	NEL
Total Kjeldahl Nitrogen as N	**363**	mg/kg dry		0.13	40.5	62.3	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**364**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 18-30 Inches Site 2

Collected: 02/05/24 13:19 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-06

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**81.7**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173203	NEL
Total Kjeldahl Nitrogen as N	**692**	mg/kg dry		0.13	39.6	61.0	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**693**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

Hurst Creek WWTP Soil 0-6 Inches Site 1

Collected: 02/05/24 13:30 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-01

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**80.3**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173203	NEL
Total Kjeldahl Nitrogen as N	**942**	mg/kg dry		0.13	80.2	123	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173599	ANR
Plant Available Parameters											
Total Nitrogen	**948**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 6-18 Inches Site 1

Collected: 02/05/24 13:35 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-02

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**84.6**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/09/24 16:52 MAM	SM2540 G 2015	M173203	NEL
Total Kjeldahl Nitrogen as N	**374**	mg/kg dry		0.13	37.9	58.4	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173599	ANR
Plant Available Parameters											
Total Nitrogen	**378**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

Hurst Creek WWTP Soil 18-30 Inches Site 1

Collected: 02/05/24 13:39 by CLIENT
Received: 02/08/24 16:00 by Katherine Borta

Type: Comp | *Matrix*: Solid | *C-O-C #*: H001611

Lab ID# H001611-03

	Result	Units	Notes	MDL	Adj MDL	SQL	Lab	Analyzed	Method	Batch	
General Chemistry											
% Solids	**86.6**	g/100g (%)		0.10	0.10	0.10	*Austin*	02/11/24 13:18 SR	SM2540 G 2015	M173227	NEL
Total Kjeldahl Nitrogen as N	**119**	mg/kg dry		0.13	75.0	115	*Bryan*	02/20/24 14:06 KMA	SM4500-NH3 G 2011	M173598	ANR
Plant Available Parameters											
Total Nitrogen	**120**	mg/kg dry wt.			N/A	N/A	*Calc*	02/28/24 15:02 PMY	Calculation	M174006	ANR

Please see the attached subcontract report for subcontracted data.

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

General Chemistry - Quality Control

	Result	Units	Notes	MDL	SQL	Analyzed	Spike Amount	Source Result	%R	%R Limits	RPD	RPD Limit	Batch
% Solids - SM2540 G 2015													*Austin*
Blank	<0.10	g/100g (%)		0.10	0.10	02/09/24 16:52 MAM							M173203
Duplicate	1.10	%		0.100	0.100	02/09/24 16:52 MAM		1.10			0.00	10	M173203
Duplicate	1.10	g/100g (%)		0.10	0.10	02/09/24 16:52 MAM		1.10			0.00	10	M173203
Blank	<0.10	g/100g (%)		0.10	0.10	02/09/24 16:52 MAM							M173204
Duplicate	0.400	%		0.100	0.100	02/09/24 16:52 MAM		0.400			0.00	10	M173204
Duplicate	0.40	g/100g (%)		0.10	0.10	02/09/24 16:52 MAM		0.40			0.00	10	M173204
Blank	<0.10	g/100g (%)		0.10	0.10	02/11/24 13:18 SR							M173227
Duplicate	13.1	g/100g (%)		0.10	0.10	02/11/24 13:18 SR		13.3			1.44	10	M173227
Duplicate	13.1	%		0.100	0.100	02/11/24 13:18 SR		13.3			1.44	10	M173227
Total Kjeldahl Nitrogen as N - SM4500-NH3 G 2011													*Bryan*
Initial Cal Check	4.71	mg/L				02/20/24 14:06 KMA	4.56		103	90 - 110			2402227
Low Cal Check	0.22	mg/L				02/20/24 14:06 KMA	0.200		112	70 - 130			2402227
Blank	<0.20	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA							M173598
LCS	4.19	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA	4.00		105	91 - 116			M173598
LCS Dup	4.22	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA	4.00		105	91 - 116	0.738	10	M173598
Matrix Spike	2480	mg/kg dry		75.0	115	02/20/24 14:06 KMA	2310	119	102	88.2 - 119			M173598
Matrix Spike Dup	2490	mg/kg dry		75.0	115	02/20/24 14:06 KMA	2310	119	103	88.2 - 119	0.512	20	M173598
Blank	<0.20	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA							M173599
LCS	4.19	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA	4.00		105	91 - 116			M173599
LCS Dup	4.22	mg/kg wet		0.13	0.20	02/20/24 14:06 KMA	4.00		105	91 - 116	0.738	10	M173599
Matrix Spike	3500	mg/kg dry		80.2	123	02/20/24 14:06 KMA	2470	942	104	88.2 - 119			M173599
Matrix Spike Dup	3470	mg/kg dry		80.2	123	02/20/24 14:06 KMA	2470	942	102	88.2 - 119	1.21	20	M173599

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H001611-01										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173203
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:13 CTG	Bryan	B	0.0505	g	25.0	mL	1	M173599
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-02										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173203
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:13 CTG	Bryan	B	0.101	g	25.0	mL	1	M173599
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-03										
% Solids	SM2540 G 2015	2/11/24 13:18 SR	Austin	C	10.0	g	10.0	mL	1	M173227
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.0500	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-04										
% Solids	SM2540 G 2015	2/11/24 13:18 SR	Austin	C	10.0	g	10.0	mL	1	M173227
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.102	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-05										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173203
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.100	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-06										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173203
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.100	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-07										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173203
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.100	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006

BRYAN FACILITY
635 Phil Gramm Boulevard
Bryan, TX 77807
Phone: (979) 778-3707
Fax: (979) 778-3193

AQUA-TECH LABORATORIES

AUSTIN FACILITY
3512 Montopolis Dr. Suite A
Austin, TX 78744
Phone: (512) 301-9559
Fax: (512) 301-9552

Analytical Report

HURST CREEK MUD

Report Printed: **3/1/24** **13:59**

H001611

Sample Preparation Summary

Sample	Method	Prepared	Lab	Bottle	Initial	Units	Final	Units	External Dilution Factor	Batch
H001611-08										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173204
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.102	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006
H001611-09										
% Solids	SM2540 G 2015	2/9/24 16:52 MAM	Austin	C	10.0	g	10.0	mL	1	M173204
Subcontract	Sub Contract Data Entry	2/24/24 8:07 PMY	Bryan	-	-	-	-	-	-	M173809
Total Kjeldahl Nitrogen as N	SM4500-NH3 G 2011	2/20/24 9:09 CTG	Bryan	A	0.102	g	25.0	mL	1	M173598
Total Nitrogen	Calculation	2/28/24 15:02 PMY			1.00	g	1.00	mL	1	M174006

Chain-of-Custody and Analysis Request

AQUA-TECH LABORATORIES, INC.

Client / Project Name: HURST CREEK MUD — Hurst Creek MUD WWTP Soil REC

Contact Information
Name: Kurt Pendleton
Address: 102 TROPHY DRIVE
City: AUSTIN
State: TX Zip: 78738
Phone: (512) 261-6281
email:

Definitions
DW Drinking Water
NP Non-Potable Water
S Solid
CM Custody Maintained
CTU Custody Transfer Unbroken
CT Corrected Temperature

Reagent tracking is available upon request.

TCEQ LAB ID: T104704371

Aqua-Tech laboratories, Inc.
Austin: 3512 Montopolis Dr. Austin, TX 78744 512.301.9559
Bryan: 635 Phil Gramm Blvd. Bryan, TX 77807 979.778.3707
Test results meet all accreditation/certification requirements unless stated otherwise.

C-O-C # **H001611**
Page 1 of 2
rte_ATL COC 012723.rpt

Analyses Requested: "A" prefix indicates Austin, all others Bryan or Subcontracted, indicated by [SUB].
Name format: Analysis-Matrix-Technology-Method.

[NEL] = NELAP accredited parameter
[SUB] = NELAP accredited subcontracted parameter
[CNR] = No NELAP accreditation required or available
[INF] = Informational only (not NELAC certified)

By relinquishing the samples listed below to Aqua-Tech laboratories, Inc. (ATL), the client agrees to the following terms. Samples will be analyzed by a method that is within ATL's NELAP fields of accreditation (FoA). Analytes requiring an accredited method that is not within ATL's FoA will be subcontracted to a NELAP lab that is accredited for that method. Clients will be notified of the subcontract lab's details. Other analytes not requiring accreditation will be analyzed by a compendial method. If a specific method is required, the client will note the method in the "Analysis Requested" column. The client approves all method modifications documented by ATL or the subcontract lab.
A current list of ATL's NELAC fields of accreditation and other methods are available on request.

Comments:

- LAB RECEIPT - Y003

Temperature - CT (C):	2.4
Preservation Correct:	Yes
Post-Preservatives:	N/A
Thermometer ID:	0811654
pH Paper ID:	0812800

ko_A COC MULTI 043020.rpt

Sample Custody

Relinquished (print & sign)	Blake Blatchley / Blake Blatchley	☑ Sampler ☐ Client ☐ ATL Field	Date 02/07/24 Time 12:19 pm ☐ Iced / Refrig ☐ Custody Sealed
Received (print & sign)	Kevin Spradley /	☒ Client ☐ ATL Field	Date 02/7/24 Time 12:19 pm ☒ Iced / Refrig ☐ CM / CTU
Relinquished (print & sign)	Kevin Spradley /	☒ Client ☐ ATL Field	Date 2/8/24 Time 2:20 pm ☒ Iced / Refrig ☐ CM / CTU
Received (print & sign)	Katherine Borta /	☐ Client ☑ ATL Field	Date 2/8/24 Time 14:40 ☑ Iced / Refrig ☐ CM / CTU
Relinquished (print & sign)	Katherine Borta /	☐ Client ☑ ATL Field	Date 02/08/24 Time 16:00 ☑ Iced / Refrig ☑ CM / CTU / Sealed
Received (print & sign)	Katherine Borta /	X Lab	Date 02/08/24 Time 16:00 X Cond Good X Iced / Refrig X CM / CTU

Field Sample ID	Start Date	Start Time	End Date	End Time	Composite Type	Sample Matrix	Container (Checked box indicates bottle arrived in lab) (Volume - Type - Preservative)	Lab ID
Hurst Creek WWTP Soil 0-6 Inches Site 1	02/05/24	1:25	02/05/24	1:30	Comp	S	☑ A SOIL 1LP	**H001611-01**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]			Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab			
Hurst Creek WWTP Soil 6-18 Inches Site 1	02/05/24	1:30	02/05/24	1:35	Comp	S	☑ A SOIL 1LP	**H001611-02**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]			Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB]			
Hurst Creek WWTP Soil 18-30 Inches Site 1	02/05/24	1:35	02/05/24	1:39	Comp	S	☑ A SOIL 1LP	**H001611-03**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]			Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB]			

AQUA-TECH LABORATORIES, INC.

Chain-of-Custody and Analysis Request

C-O-C # **H001611**

Page 2 of 2

Client : HURST CREEK MUD

Field Sample ID	Start Date	Start Time	End Date	End Time	Composite Type	Sample Matrix	Container (Checked box indicates bottle arrived in lab) (Volume - Type - Preservative)	Lab ID
Hurst Creek WWTP Soil 0-6 Inches Site 2	02/05/24	1:11	02/05/24	1:13	Comp	S	☑ A SOIL 1LP	**H001611-04**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					
Hurst Creek WWTP Soil 6-18 Inches Site 2	02/05/24	1:13	02/05/24	1:15	Comp	S	☑ A SOIL 1LP	**H001611-05**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					
Hurst Creek WWTP Soil 18-30 Inches Site 2	02/05/24	1:15	02/05/24	1:19	Comp	S	☑ A SOIL 1LP	**H001611-06**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					
Hurst Creek WWTP Soil 0-6 Inches Site 3	02/05/24	12:37pm	02/05/24	12:42pm	Comp	S	☑ A SOIL 1LP	**H001611-07**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					
Hurst Creek WWTP Soil 6-18 Inches Site 3	02/05/24	12:40	02/05/24	12:51	Comp	S	☑ A SOIL 1LP	**H001611-08**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					
Hurst Creek WWTP Soil 18-30 Inches Site 3	02/05/24	12:52	02/05/24	1:03	Comp	S	☑ A SOIL 1LP	**H001611-09**
A TS SL Grav SM2540 G [NEL] N Total SL PKG TAMU [CNR] P TAMU Plant Available Mehlich 3 CNR [SUB] TKN SL AUTO SM4500 NH3 G [CNR]	Cond SL (1:2) Probe TAMU CNR [SUB] N Total TAMU CALC ENTRY [CNR] Solids, Dry Weight Y Billing N Total Calc		K TAMU Plant Available Mehlich 3 CNR [SUB] NO3N TAMU Extractable Mehlich 3 CNR [SUB] SUB pH SL TAMU (1:2) CNR [SUB] Y Billing Ship to Sub-Contract Lab					

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650497
Customer Sample ID: H001611-01
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	**8.4**	(6.2)	-	**Mod. Alkaline**							
Conductivity	**126**	(-)	umho/cm	**None**			CL*				**Fertilizer Recommended**
Nitrate-N	**6**	(-)	ppm**								**0.9** lbs N/1000sqft
Phosphorus	**6**	(50)	ppm								**3.5** lbs P2O5/1000sqft
Potassium	**407**	(175)	ppm								**0** lbs K20/1000sqft
Calcium	**12,034**	(180)	ppm								**0** lbs Ca/1000sqft
Magnesium	**628**	(50)	ppm								**0** lbs Mg/1000sgft
Sulfur	**126**	(13)	ppm								**0** lbs S/1000sqft
Sodium	**183**	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650498
Customer Sample ID: H001611-02
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow VLow Low Mod High VHigh Excess.	Fertilizer Recommended
pH	**8.6**	(6.2)	-	**Mod. Alkaline**	
Conductivity	**106**	(-)	umho/cm	**None** CL*	
Nitrate-N	**4**	(-)	ppm**		**1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm		**3.9** lbs P2O5/1000sqft
Potassium	**220**	(175)	ppm		**0** lbs K20/1000sqft
Calcium	**30,371**	(180)	ppm		**0** lbs Ca/1000sqft
Magnesium	**445**	(50)	ppm		**0** lbs Mg/1000sgft
Sulfur	**315**	(13)	ppm		**0** lbs S/1000sqft
Sodium	**144**	(-)	ppm		
Iron					
Zinc					
Manganese					
Copper					
Boron					
Limestone Requirement					**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650499
Customer Sample ID: H001611-03
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow / VLow / Low / Mod / High / VHigh / Excess.	Fertilizer Recommended
pH	**8.6**	(6.2)	-	**Mod. Alkaline**	
Conductivity	**107**	(-)	umho/cm	**None** (CL*)	
Nitrate-N	**1**	(-)	ppm**		**1.1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm		**3.9** lbs P2O5/1000sqft
Potassium	**72**	(175)	ppm		**2.3** lbs K20/1000sqft
Calcium	**32,969**	(180)	ppm		**0** lbs Ca/1000sqft
Magnesium	**380**	(50)	ppm		**0** lbs Mg/1000sgft
Sulfur	**336**	(13)	ppm		**0** lbs S/1000sqft
Sodium	**122**	(-)	ppm		
Iron					
Zinc					
Manganese					
Copper					
Boron					
Limestone Requirement					**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650500
Customer Sample ID: H001611-04
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	**8.5**	(6.2)	-	**Mod. Alkaline**							
Conductivity	**58**	(-)	umho/cm	**None**			CL*				**Fertilizer Recommended**
Nitrate-N	**2**	(-)	ppm**								**1.1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm								**3.9** lbs P2O5/1000sqft
Potassium	**108**	(175)	ppm								**1.5** lbs K20/1000sqft
Calcium	**27,754**	(180)	ppm								**0** lbs Ca/1000sqft
Magnesium	**304**	(50)	ppm								**0** lbs Mg/1000sgft
Sulfur	**255**	(13)	ppm								**0** lbs S/1000sqft
Sodium	**34**	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650501
Customer Sample ID: H001611-05
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	**8.3**	(6.2)	-	**Mod. Alkaline**							
Conductivity	**88**	(-)	umho/cm	**None**			CL*				**Fertilizer Recommended**
Nitrate-N	**1**	(-)	ppm**								**1.1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm								**3.9** lbs P2O5/1000sqft
Potassium	**217**	(175)	ppm								**0** lbs K20/1000sqft
Calcium	**23,636**	(180)	ppm								**0** lbs Ca/1000sqft
Magnesium	**370**	(50)	ppm								**0** lbs Mg/1000sgft
Sulfur	**232**	(13)	ppm								**0** lbs S/1000sqft
Sodium	**143**	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 80 sqft

Brazos County
Laboratory Number: 650502
Customer Sample ID: H001611-06
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	**8.3**	(6.2)	-	**Mod. Alkaline**							
Conductivity	**89**	(-)	umho/cm	**None**			CL*				**Fertilizer Recommended**
Nitrate-N	**1**	(-)	ppm**								**1.1** lbs N/1000sqft
Phosphorus	**2**	(50)	ppm								**3.8** lbs P2O5/1000sqft
Potassium	**253**	(175)	ppm								**0** lbs K20/1000sqft
Calcium	**14,409**	(180)	ppm								**0** lbs Ca/1000sqft
Magnesium	**449**	(50)	ppm								**0** lbs Mg/1000sgft
Sulfur	**171**	(13)	ppm								**0** lbs S/1000sqft
Sodium	**165**	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 21 sqft

Brazos County
Laboratory Number: 650503
Customer Sample ID: H001611-07
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow VLow Low Mod High VHigh Excess.	Fertilizer Recommended
pH	8.5	(6.2)	-	Mod. Alkaline	
Conductivity	65	(-)	umho/cm	None (CL*)	
Nitrate-N	4	(-)	ppm**		1 lbs N/1000sqft
Phosphorus	0	(50)	ppm		3.9 lbs P2O5/1000sqft
Potassium	234	(175)	ppm		0 lbs K20/1000sqft
Calcium	19,053	(180)	ppm		0 lbs Ca/1000sqft
Magnesium	488	(50)	ppm		0 lbs Mg/1000sgft
Sulfur	186	(13)	ppm		0 lbs S/1000sqft
Sodium	90	(-)	ppm		
Iron					
Zinc					
Manganese					
Copper					
Boron					
Limestone Requirement					0.00 lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 21 sqft

Brazos County
Laboratory Number: 650504
Customer Sample ID: H001611-08
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow VLow Low Mod High VHigh Excess.	Fertilizer Recommended
pH	**8.6**	(6.2)	-	**Mod. Alkaline**	
Conductivity	**59**	(-)	umho/cm	**None** CL*	
Nitrate-N	**2**	(-)	ppm**		**1.1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm		**3.9** lbs P2O5/1000sqft
Potassium	**99**	(175)	ppm		**1.7** lbs K20/1000sqft
Calcium	**31,452**	(180)	ppm		**0** lbs Ca/1000sqft
Magnesium	**300**	(50)	ppm		**0** lbs Mg/1000sgft
Sulfur	**296**	(13)	ppm		**0** lbs S/1000sqft
Sodium	**65**	(-)	ppm		
Iron					
Zinc					
Manganese					
Copper					
Boron					
Limestone Requirement					**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

TEXAS A&M AGRILIFE EXTENSION

Soil Analysis Report

Soil, Water and Forage Testing Laboratory
Department of Soil and Crop Sciences
2478 TAMU
College Station, TX 77843-2478
(979)321-5960

Visit our website: http://soiltesting.tamu.edu

Report generated for:
Aqua-Tech Laboratories, Inc.
635 Phil Gramm Blvd
BRYAN, TX 77807

Sample received on: 2/13/2024
Printed on: 2/21/2024
Area Represented: 21 sqft

Brazos County
Laboratory Number: 650505
Customer Sample ID: H001611-09
Crop Grown: LANDSCAPE (LAWN , TREES , SHRUBS , OR GROUND COVER)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	**8.7**	(6.2)	-	**Mod. Alkaline**							
Conductivity	**60**	(-)	umho/cm	**None**			CL*				**Fertilizer Recommended**
Nitrate-N	**1**	(-)	ppm**								**1.1** lbs N/1000sqft
Phosphorus	**0**	(50)	ppm								**3.9** lbs P2O5/1000sqft
Potassium	**65**	(175)	ppm								**2.5** lbs K20/1000sqft
Calcium	**32,469**	(180)	ppm								**0** lbs Ca/1000sqft
Magnesium	**276**	(50)	ppm								**0** lbs Mg/1000sgft
Sulfur	**304**	(13)	ppm								**0** lbs S/1000sqft
Sodium	**58**	(-)	ppm								
Iron											
Zinc											
Manganese											
Copper											
Boron											
Limestone Requirement											**0.00** lbs/1000sqft

*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended. **ppm=mg/kg

Online fertilizer calculators to determine appropriate fertilizers and application rates.
http://soiltesting.tamu.edu

Methods: pH and conductivity/ 2:1; nitrate-N/Cd-red.; P, K, Ca, Mg, Na, and S/Mehlich 3 by ICP; Fe, Zn, Mn, and Cu/DTPA by ICP; and B/hot water by ICP.

ProAnalysisVer. 2.19j

AQUA-TECH LABORATORIES — Chain-of-Custody and Analysis Request

All analyses must be performed by a TNI approved method certified by the TCEQ. Contact ATL's sample custodian via voice and email if your methods do not meet this criteria.

SHIPPED TO
TAMU - Soil Lab
2610 F&B Road
College Station, TX 77845
Phone: (979) 845-4816

DEFINITIONS

P	Plastic
G	Glass
L	Liter
CM	Custody Maintained
CTU	Custody Transfer Unbroken
ATL	Aqua-Tech Laboratories, Inc

Comments:

Please use Sample ID as PO# and email reports to reporting@aqua-techlabs.com.

Lines below document condition at receipt in lab (shipped to) listed above.

Cooler ID	Temp Read (C)	Corrected Temp (C)	Thermometer ID	Please hold coolers for pick-up.
AQU 1		NA	CMRB7	

T104704371
TX239

Aqua-Tech laboratories, Inc.

Austin: 3512 Montopolis Dr. Suite A, Austin, TX 78744, 512 301 9559
Bryan: 635 Phil Gramm Blvd, Bryan, TX 77807, 979.778.3707

Test results meet all accreditation/certification requirements unless stated otherwise.

C-O-C # **870 - H001611**

sco_ATL TAMU 011921

Sample Custody

Relinquished (print & sign)	Chancey Glenn / Chay Jr	☐ Sampler ☐ Client ☒ ATL Field	Date 2-12-24 Time 11:27	☒ Iced / Refrig ☐ Custody Sealed
Received (print & sign)		☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Relinquished (print & sign)		☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Received (print & sign)		☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU
Relinquished (print & sign)		☐ Client ☐ ATL Field	Date Time	☐ Iced / Refrig ☐ CM / CTU / Sealed
Received (print & sign)	J. Washom	☒ Lab	Date 2/12/24 Time 1:27	☒ Cond Good ☒ Iced / Refrig ☐ CM / CTU

Sample ID Sampled / Matrix	Analysis Request	(ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed above.)	Lab ID
H001611-01 2/05/24 13:30 Soil	***Mehlich 3 - TAMU***: P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract***: pH; Conductivity (1:2)	( ) H001611-01 [A] - SOIL 1LP	
H001611-02 2/05/24 13:35 Soil	***Mehlich 3 - TAMU***: P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract***: pH; Conductivity (1:2)	( ) H001611-02 [A] - SOIL 1LP	
H001611-03 2/05/24 13:39 Soil	***Mehlich 3 - TAMU***: P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract***: pH; Conductivity (1:2)	( ) H001611-03 [A] - SOIL 1LP	
H001611-04 2/05/24 13:13 Soil	***Mehlich 3 - TAMU***: P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract***: pH; Conductivity (1:2)	( ) H001611-04 [A] - SOIL 1LP	

AQUA-TECH LABORATORIES, INC.

Chain-of-Custody and Analysis Request

C-O-C # **904 - H001611**

SHIPPED TO: TAMU - Soil Lab

Sample ID Sampled / Matrix	Analysis Request	(ATL indicates cooler number in parentheses for each container - only required if more than one cooler listed above.)	Lab ID
H001611-05 02/05/24 13:15 Soil	***Mehlich 3 - TAMU*** P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract*** pH; Conductivity (1:2)	( ) H001611-05 [A] - SOIL 1LP	
H001611-06 02/05/24 13:19 Soil	***Mehlich 3 - TAMU*** P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract*** pH; Conductivity (1:2)	( ) H001611-06 [A] - SOIL 1LP	
H001611-07 02/05/24 12:42 Soil	***Mehlich 3 - TAMU*** P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract*** pH; Conductivity (1:2)	( ) H001611-07 [A] - SOIL 1LP	
H001611-08 02/05/24 12:51 Soil	***Mehlich 3 - TAMU*** NO3N Extractable; P Plant Available; K Plant Available ***TAMU - 1:2 Soil Extract*** pH; Conductivity (1:2)	( ) H001611-08 [A] - SOIL 1LP	
H001611-09 02/05/24 13:03 Soil	***Mehlich 3 - TAMU*** P Plant Available; NO3N Extractable; K Plant Available ***TAMU - 1:2 Soil Extract*** pH; Conductivity (1:2)	( ) H001611-09 [A] - SOIL 1LP	

ATTACHMENT 12

WWTP 2 Year Effluent Data

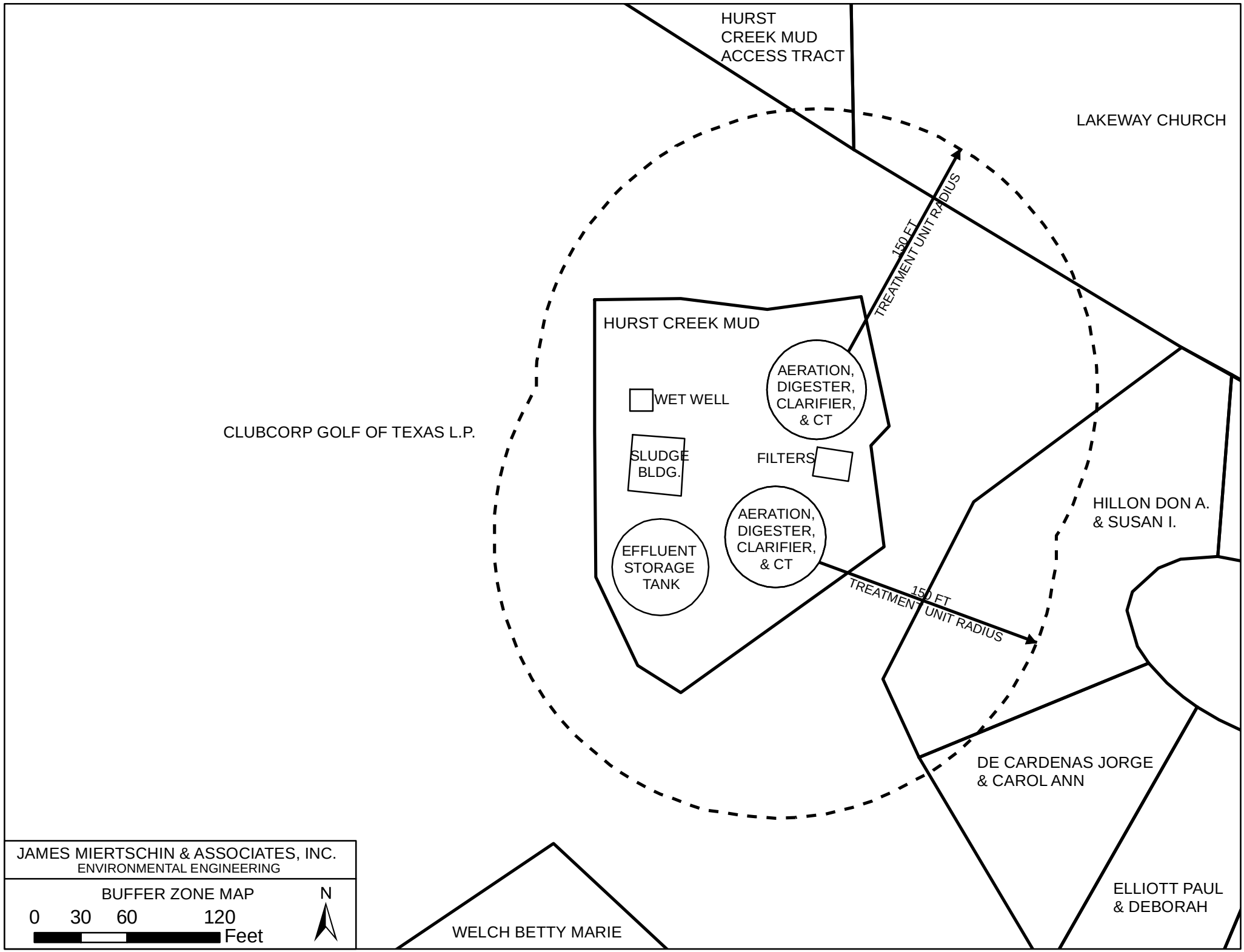
Two Year Eflluent Data For Permit Renewal

		30 Day AVG.	30 Day AVG.	30 Day AVG.	30 Day AVG.	30 Day AVG.
	30 Day AVG.	Effluent	Effluent	Effluent	Chlorine	Effluent
	Flow	BOD	TSS	Phos.	Residual	Turbidity
Date	MGD	mg/L	mg/L	mg/L	mg/L	NTU
4/2022	0.1727	2.25	1.75	1.021	6.9	0.89
5/2022	0.1815	2.25	1.00	0.783	6.0	1.07
6/2022	0.1801	2.20	1.00	1.092	4.1	1.04
7/2022	0.2405	1.25	1.00	0.708	4.5	1.29
8/2022	0.2368	1.33	1.00	1.136	5.6	1.32
9/2022	0.2459	1.56	1.25	1.378	5.3	1.35
10/2022	0.1745	2.13	1.75	1.543	5.6	1.05
11/2022	0.1895	2.11	1.60	1.075	6.3	0.97
12/2022	0.1943	1.89	1.00	1.408	7.3	0.86
1/2023	0.1811	1.75	1.00	0.897	7.0	0.85
2/2023	0.2073	2.38	1.25	1.288	6.0	1.20
3/2023	0.1649	2.20	1.00	1.456	5.9	1.05
4/2023	0.1895	2.13	1.00	1.105	5.5	1.01
5/2023	0.1784	2.33	1.00	1.377	3.8	1.05
6/2023	0.1755	2.33	1.25	1.550	2.3	0.87
7/2023	0.1682	2.00	1.00	1.370	4.3	0.61
8/2023	0.1786	1.80	1.00	1.325	5.8	0.73
9/2023	0.1826	1.63	1.25	1.189	5.8	0.56
10/2023	0.1782	1.38	1.25	0.877	5.9	0.56
11/2023	0.1700	1.70	1.20	1.084	4.7	0.76
12/2023	0.1758	1.63	1.00	0.863	5.4	0.73
1/2024	0.2905	1.44	1.60	0.803	6.5	0.74
2/2024	0.2236	1.75	1.25	1.175	5.4	0.74
3/2024	0.1726	1.63	1.25	1.201	6.9	0.81
4/2024	0.1858	1.75	1.00	1.226	5.4	0.84
Min.	0.1649	1.25	1.00	0.71	2.30	0.56
Max	0.2905	2.38	1.75	1.55	7.30	1.35
Average	0.1935	1.87	1.19	1.16	5.53	0.92

	Single Grab	30 Day AVG.		
	Fecal	Fecal	Effluent	
	Coliform	Coliform	pH	
Date	#/100 mL	#/100 mL	0-14	Acres Irrigated
4/2022	1.00	1.00	7	181
5/2022	1.00	1.00	7.3	181
6/2022	6.00	1.50	7.1	181
7/2022	1.00	1.00	7.2	181
8/2022	1.00	1.00	7.4	181
9/2022	1.00	1.00	7.9	181
10/2022	1.00	1.00	7.2	181
11/2022	1.00	1.00	7.1	181
12/2022	8.00	1.70	7.3	181
1/2023	30.00	4.63	7.3	181
2/2023	1.00	1.00	7.4	181
3/2023	1.00	1.00	7.5	181
4/2023	8.00	1.88	7.5	181
5/2023	2.00	1.11	7.6	181
6/2023	16.00	3.44	7.7	181
7/2023	1.00	1.00	7.4	181
8/2023	1.00	1.00	7.4	181
9/2023	1.00	1.00	7.7	181
10/2023	1.00	1.00	7.4	181
11/2023	3.00	1.20	7	181
12/2023	3.00	1.25	7.3	181
1/2024	1.00	1.00	7.7	181
2/2024	1.00	1.00	7.3	181
3/2024	1.00	1.00	7.5	181
4/2024	1.00	1.00	7.4	181
Min.	1.00	1.00	7.00	181
Max	30.00	4.63	7.90	181
Average	3.72	1.35	7.38	181

ATTACHMENT 13

Buffer Zone


HURST
CREEK MUD
ACCESS TRACT
LAKEWAY CHURCH
150 FT
TREATMENT UNIT RADIUS
HURST CREEK MUD
AERATION,
DIGESTER,
CLARIFIER,
& CT
WET WELL
CLUBCORP GOLF OF TEXAS L.P.
SLUDGE
BLDG.
FILTERS
AERATION,
DIGESTER,
CLARIFIER,
& CT
EFFLUENT
STORAGE
TANK
HILLON DON A.
& SUSAN I.
150 FT
TREATMENT UNIT RADIUS
DE CARDENAS JORGE
& CAROL ANN
ELLIOTT PAUL
& DEBORAH
WELCH BETTY MARIE
JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
BUFFER ZONE MAP
N
0 30 60 120
Feet

ATTACHMENT 14

Correspondence related to changing permitted flow as minor amendment

ATTACHMENT 14: Correspondence related to changing permitted flow as a minor amendment

Aaron Laughlin

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Friday, August 11, 2023 7:37 AM
To: Aaron Laughlin
Cc: Curtis Steger; Earl Wood; Firoj Vahora
Subject: FW: Hurst Creek MUD Permit WQ0012215-001
Attachments: HCMUD TLAP 5-20-2014 pages referencing flow rate.pdf

Good Morning Aaron:

Pursuant to your additional information, the senior staff attorney has decided to make changes thru minor amendment.

Please let me know, if you have any additional questions in this regard.

Thanks,

Firoj Vahora, Team Leader
Municipal Permits Team (MC 148)
Wastewater Permitting Section
Water Quality Division, TCEQ
email: firoj.vahora@tceq.texas.gov
phone: 512-239-4540

From: Aaron Laughlin <alaughlin@stegerbizzell.com>
Sent: Thursday, August 10, 2023 10:26 AM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Cc: Curtis Steger <curtis.steger@stegerbizzell.com>; Earl Wood <earlwood@hurstcreekmud.org>
Subject: RE: Hurst Creek MUD Permit WQ0012215-001

Firoj,

In response to the question below: Are there any discussions documented in the file from when the permit was issued that demonstrates that something else was intended?

The answer is yes. I have attached two pages from the permit application in 2014 that clearly identify the intent of the permit application was to obtain a 0.5 MGD irrigation daily application rate for the permit, not 0.4 MGD. Can you please

take these two pages from the permit application back to the Environmental Law Division and ask them to reconsider their opinion on the requirement of a major permit amendment?

Thanks,
Aaron

From: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Sent: Thursday, August 10, 2023 9:45 AM
To: Aaron Laughlin <alaughlin@stegerbizzell.com>
Cc: Curtis Steger <curtis.steger@stegerbizzell.com>; Earl Wood <earlwood@hurstcreekmud.org>; Firoj Vahora <firoj.vahora@tceq.texas.gov>
Subject: RE: Hurst Creek MUD Permit WQ0012215-001
Importance: High

Hello Aaron:

I have received a response from our Environmental Law Division. Here is the response:

Special Condition 21 says they can take up to .1 MGD from another facility, but it doesn't say that this is additional capacity above the .4 MDG allowed on page 2 of the permit. It seems like they will need a major amendment to increase to .5 MGD. Are there any discussions documented in the file from when the permit was issued that demonstrates that something else was intended? Based on the limited information provided, I think they need a major amendment to increase the disposal rate to .5 MGD.

I agree that reducing the acreage can be a minor amendment.

Please let me know, if you have any additional questions in this regard.

Thanks,

Firoj Vahora, Team Leader
Municipal Permits Team (MC 148)
Wastewater Permitting Section
Water Quality Division, TCEQ
email: firoj.vahora@tceq.texas.gov
phone: 512-239-4540
Please consider whether it is necessary to print this e-mail

How is our Customer Service? Fill out our online customer satisfactory survey at www.tceq.texas.gov/customersurvey

From: Aaron Laughlin <alaughlin@stegerbizzell.com>
Sent: Tuesday, August 8, 2023 10:45 AM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>

Cc: Curtis Steger <curtis.steger@stegerbizzell.com>; Earl Wood <earlwood@hurstcreekmud.org>
Subject: RE: Hurst Creek MUD Permit WQ0012215-001

Good morning Firoj,

Just following up on this email. Are you able to verify that we can update the Hurst Creek MUD permit as listed below without a major permit amendment?

Thanks,
Aaron

From: Aaron Laughlin
Sent: Wednesday, August 2, 2023 4:57 PM
To: Firoj Vahora <firoj.vahora@tceq.texas.gov>
Cc: Curtis Steger <curtis.steger@stegerbizzell.com>; Earl Wood <earlwood@hurstcreekmud.org>
Subject: Hurst Creek MUD Permit WQ0012215-001

Firoj,

Thanks for taking the time to set up a conference call with us earlier today. We have two points of order that we would like to address prior to Hurst Creek MUD's upcoming permit renewal application submittal. Specifically, we would like to confirm that both of these items can be addressed without requiring a major amendment to the permit.

1. We request the option to decrease the total land application irrigation area down from 181 acres to 175 acres. The attached exhibit shows the 6-acre portion of the 181 acres that is proposed to be excluded from the irrigation area. We are not proposing any changes to the irrigation storage area, application rate, or permitted flow rate as a result of this change. As previously discussed in your attached email on May 30, we would like to confirm that this modification can be done as a renewal with minor amendment application.
2. We request to clarify that the daily land application disposal rate in the permit is 0.5 MGD. The intent of the previous application from 2014 was that Hurst Creek MUD has a 0.4 MGD plant that they discharge to the irrigation storage pond. Separate from this, Travis County WCID 17 is allowed to send up to 0.1 MGD from their WWTP to the same irrigation storage pond for disposal by Hurst Creek MUD under special provision 21 of this permit. In total, Hurst Creek MUD needs to be able to dispose of 0.5 MGD to handle flows from their plant and the WCID 17 plant. Please see the attached cover letter from James Miertschin to Dan Roark that was submitted with the previous application in 2014 that summarizes this intent. We would like to request that this clarification be made to the permit without requiring a major amendment to the permit.

Please let us know at your convenience if these requests can be handled without requiring a major permit amendment. We intend to move forward right away with a permit renewal/minor amendment application when we receive this confirmation.

Thanks,

Aaron J. Laughlin, PE
Senior Engineer
Steger Bizzell
Texas Registered Engineering Firm F-181
1978 South Austin Avenue
Georgetown, TX 78626
PH: 512-930-9412

JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
P.O. BOX 162305 AUSTIN, TEXAS 78716-2305 (512) 327-2708

MEMO

TO: Dan Roark
FROM: James Miertschin, PE
DATE: 20 May 2014
SUBJECT: Final Draft Permit Renewal Application Package
Hurst Creek MUD TLAP No. 0012215001

Enclosed is a final draft permit renewal application package for the Hurst Creek TLAP permit. I believe that it is relatively complete, but would like for all of the key people involved to review it for completeness and accuracy. The existing permit has an expiration date of 1 December 2014, and an application to renew is due at the TCEQ by 4 June 2014 (180 days prior to expiration).

As a starting point, recall the key sizing parameters described in the existing permit:

- Effluent volume 0.4 MGD from the treatment system
- Effluent volume to be irrigated 0.5 MGD
- Storage pond volume of 138 acre-feet
- Irrigation of 181 acres of golf course land
- Irrigation application rate 4.5 acre-feet/acre/year
- Effluent limitations 5 mg/L BOD5, 10 mg/L TSS, 2 mg/L TP, pH 6-9, chlorine 1 mg/L

Our objectives for the permit renewal are to continue with all existing provisions of the permit.

We still need a few items to complete the application, as identified below:

- Administrative Report, pg 14 of 18, Item 10 - we are assuming that Wilson Smith, Board President, will sign the application
- Technical Report 1.0, pg 9 of 44, Item 14 - we are assuming Dan Roark will certify laboratory submittals
- Application Fee - will need fee of $1215.00 when submit to TCEQ

We will prepare the final permit application and submit to the TCEQ after we receive the requested information and any review comments.

DOMESTIC WORKSHEET 3.0
LAND DISPOSAL OF EFFLUENT

THE FOLLOWING IS FOR ALL PERMIT APPLICATIONS, RENEWAL, NEW AND AMENDMENTS

1. TYPE OF DISPOSAL SYSTEM (Instructions, Page 55)

- ☐ Surface Application
- ☐ Evaporation
- ☑ Irrigation
- ☐ Other (describe below in detail)
- ☐ Subsurface Application
- ☐ Evapotranspiration beds
- ☐ Subsurface soils absorption
- ☐ Subsurface area drip dispersal system

NOTE: All applicant's authorized or proposing subsurface disposal MUST complete and submit Worksheet 7.0.

2. LAND APPLICATION AREA (Instructions, Page 55)

Effluent Application in GPD	Irrigation Acreage in Acres	Describe land use & indicate type of crop (alfalfa or wheat, Bermuda grass, park, golf course, pastureland, etc.)	Public Access Y/N
500,000	181	Golf Course	N

3. STORAGE AND EVAPORATION PONDS (Instructions, Page 55)

Pond Number	Surface Area (acres)	Storage volume (acre-feet)	Dimensions	Liner Type
1	9.0	138	812' x 412' x 43'	Synthetic

☑ Check if the liner certification completed by a Texas licensed professional engineer is attached.

SEE EXHIBIT G

4. FLOOD AND RUNOFF PROTECTION (Instructions, Page 55)

Is the existing/proposed application site within the 100-year frequency flood level?

☑ Yes ☐ No

Source: FEMA 100-Year Flood Mapping

Candice Calhoun

From: Aaron Laughlin <alaughlin@stegerbizzell.com>
Sent: Thursday, August 1, 2024 11:43 AM
To: Candice Calhoun
Cc: Earl Wood
Subject: Permit Application WQ0012215-001 Response to Comments
Attachments: TCEQ Full Response to Comments WQ0012215001.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Ms. Calhoun,

I am mailing you an original and two copies of this response to comments submittal for Hurst Creek MUD WWTP WQ0012215-001, but wanted to also send you an electronic copy of our full submittal.

Please let me know if you have any questions related to this response.

Thanks,

Aaron J. Laughlin, PE
Senior Engineer
Steger Bizzell
Texas Registered Engineering Firm F-181
1978 South Austin Avenue
Georgetown, TX 78626
PH: 512-930-9412

STEGER BIZZELL

August 1, 2024

Ms. Candice Calhoun
TCEQ - MC148
P.O. Box 13087
Austin, Texas 78711-3087

Re: Application to Renew and Amend Permit No: WQ0012215-001
Hurst Creek Municipal Utility District (CN600642748)
Hurst Creek MUD WWTP (RN101614063)

Dear Ms. Calhoun,

This letter is in response to your correspondence back to us listing a total of two administrative review comments for the Hurst Creek MUD WWTP permit application. A copy of the letter you sent to us is included with this correspondence. The following items are responses (in bold) to the items requested (in italics):

1. *Administrative Report 1.0 Section 9, Item E – The Owner of the effluent disposal site listed differs from the owner listed on the lease agreement. Please provide an updated lease, to match section 9, item E, or provide an updated section of the application to match the lease agreement.*

   Hurst Creek MUD's original waste disposal contract agreement was with Lakeway Golf Clubs, Inc. in August, 1997. In April, 1999, a general warranty deed transferred ownership of this land to Clubcorp Golf of Texas, L.P (DBA The Clubs of Lakeway). An amendment to the contract between Hurst Creek MUD and Lakeway Golf Clubs Inc. in August, 2000 conveyed the waste disposal contract agreement to Clubcorp Golf of Texas, LP. All relevant contract and lease agreements are enclosed with this correspondence.

2. *Review of Notice of Receipt of Application and Intent to Obtain a Water Quality Permit (NORI).*

   There are no apparent errors in the draft NORI text.

If you should have any questions with regard to this response to comments, please feel free to contact me by email at alaughlin@stegerbizzell.com.

Sincerely,

Aaron Laughlin, P.E.

cc: Earl Wood, Hurst Creek MUD (electronic only)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 24, 2024

Mr. Earl Wood
General Manager
Hurst Creek Municipal Utility District
102 Trophy Drive
The Hills, Texas 78738

RE: Application to Renew and Amend Permit No.: WQ0012215001
Applicant Name: Hurst Creek Municipal Utility District (CN600642748); 0 (0)
Site Name: Hurst Creek MUD WWTP (RN101614063)
Type of Application: Renewal with changes

VIA EMAIL

Dear Mr. Wood:

We have received the application for the above referenced permit, and it is currently under review. Your attention to the following item(s) are requested before we can declare the application administratively complete. Please submit responses to the following items via email.

1. Administrative Report 1.0 -

   Section 9, Item E - The Owner of effluent disposal site listed differs from the owner listed on the lease agreement. Please provide an updated lease, to match section 9, item E, or provide an updated section of the application to match the lease agreement.

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

APPLICATION. Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, Texas 78738, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend and renew Texas Land Application Permit (TLAP) No. WQ0012215001 to authorize changing the daily average flow from 400,000 gallons per day to 500,000 gallons per day. The domestic wastewater treatment facility and disposal site are located at 2401 Lakeway Bourlevard, near the city of The Hills, in Travis County, Texas 78738. TCEQ received this application on July 18, 2024. The permit application will be available for viewing and copying at Hurst Creek Municipal Utility District, 102 Trophy Drive, The Hills, in Travis County, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tlap-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-97.983055,30.356944&level=18

Further information may also be obtained from Hurst Creek Municipal Utility District at the address stated above or by calling Mr. Earl Wood, General Manager, at 512-261-6281.

Please submit the complete response, addressed to my attention by August 7, 2024. If you should have any questions, please do not hesitate to contact me by phone at (512) 239-4312 or by email at candice.calhoun@tceq.texas.gov

Sincerely,

C. Calhoun

Candice Calhoun
Applications Review and Processing Team (MC148)
Water Quality Division
Texas Commission of Environmental Quality

cgc

Enclosure(s)

cc: Mr. Aaron Laughlin, P.E., Project Manager, Steger Bizzell, 1978 South Austin Avenue, Georgetown, Texas 78626

AMENDED
WASTE DISPOSAL CONTRACT
BETWEEN
HURST CREEK MUNICIPAL UTILITY DISTRICT
AND
LAKEWAY GOLF CLUBS, INC.

THE STATE OF TEXAS §
§
COUNTY OF TRAVIS §

This agreement (hereafter, the "Agreement") is entered into as of this 30th day of August, 1997, by and between Hurst Creek Municipal Utility District, a body politic and corporate and a governmental agency of the State of Texas organized under the provisions of Article XVI, Section 59, Texas Constitution and Chapter 54, Texas Water Code (hereafter, the "District"), and Lakeway Golf Clubs, Inc., a Texas corporation (hereafter, the "Company").

RECITALS

The District owns and operates a sewage collection, treatment and waste disposal system. The Company owns and operates an eighteen hole golf course on land located within the boundaries of the District. The District owns Wastewater Discharge Permit No. 12215-001, as amended, from the Texas Natural Resource Conservation Commission which authorizes the District to dispose of treated wastewater from the District's wastewater treatment plant and provides that the District should use treated wastewater for irrigation. The District has requested that the Company agree to divert and use the District's treated wastewater for irrigation of the golf course to the extent the wastewater can be lawfully and practically disposed of by irrigation of the

golf course. The Company has requested that the District provide treated wastewater suitable for irrigation purposes for the golf course. The Company has also requested that the District provide raw water suitable for irrigation purposes for the golf course. The District and the Company recognize that the performance of their respective obligations as provided in this Agreement is of service and economic value to the other. Accordingly, the District and the Company desire to enter into a definitive agreement to specify the terms and conditions under which the District will supply treated wastewater and raw water, or a combination thereof, to the Company and the Company will accept treated wastewater and raw water, or a combination thereof, from the District to irrigate the golf course. The District and the Company are presently parties to that certain "Waste Disposal Contract Between Hurst Creek Municipal Utility District and Lakeway Company," dated October 12, 1987, as amended by that "First Amendment to Waste Disposal Contract between Hurst Creek Municipal Utility District and Lakeway Company," dated effective June 9, 1995 (the "Prior Agreements"), the Company being the successor in interest to Lakeway Company under those agreements. It is the intention of the District and the Company that this Agreement continue, replace and restate entirely the agreement between the parties regarding the matters discussed in the Prior Agreements such that this Agreement shall hereafter constitute the entire agreement between the parties relative to the subject matter hereof, continuing and replacing the Prior Agreements.

AGREEMENT

For and in consideration of the mutual promises, covenants, obligations and benefits of this Agreement, the District and the Company contract and agree as follows:

ARTICLE I

Definitions

Unless otherwise provided or unless the context otherwise requires, the terms defined in this Article shall have the respective meanings specified below:

Collection System: The "Collection System" shall mean the sanitary sewer system of the District including sanitary sewers, manholes, intercepting sewers, sewage pumping and other similar appurtenances, and any improvements, extensions or enlargements thereof, which the District now owns or will acquire and/or construct.

Commission: "Commission" means the Texas Natural Resource Conservation Commission or its successors.

Dam No. 1: "Dam No. 1" means that certain dam and reservoir on Hurst Creek as described on **Exhibit "A"** and as authorized in Permit No. 4169 issued by the Commission to the District.

Dam No. 2: "Dam No. 2" means that certain dam and reservoir on Hurst Creek as described on **Exhibit "A"** and as authorized in Permit No. 4169 issued by the Commission to the District.

Dams: "Dams" means Dam No. 1 and Dam No. 2, collectively.

Delivery Points: "Delivery Points" means the points designated on **Exhibit "A"** and **Exhibit "A-1"** where the District delivers or has the right to deliver Effluent and Raw Water to the Company pursuant to this Agreement, being, collectively, the Delivery Point (Raw Water), the Delivery Point (Raw Water/Irrigation) and the Delivery Point (Raw Water and/or Effluent) as shown on **Exhibit "A"**.

Discharge Permits: "Discharge Permits" means all permits, licenses, orders, other authorizations and all regulations applicable to the discharge, disposal, or use of Effluent, and the construction, maintenance or operation of the Wastewater Treatment Facilities heretofore or hereafter issued, adopted or otherwise required by any governmental entity having jurisdiction thereof, including, without limitation, Commission Discharge Permit No. 12215-001, as amended, and U.S. Environmental Protection Agency N.P.D.E.S. Permit No. TX0083615 issued to the District.

District's Engineer: The "District's Engineer" means James Miertschin and Associates, Inc., Austin, Texas, or such other engineer as the District may designate from time to time.

Effluent: "Effluent" means the treated wastewater effluent discharged from the Wastewater Treatment Plant or other treated wastewater effluent substantially the same as that discharged from the District's Wastewater Treatment Plant, including that treated wastewater effluent received by the District pursuant to that certain "Agreement Concerning Wastewater Disposal between the District and Lynn Acres, L.L.C.," dated effective July 7, 1995.

Effluent Transportation and Storage Facilities: "Effluent Transportation and Storage Facilities" means gravity sewer lines, manholes, lift stations, force mains, effluent holding tanks or ponds and other facilities used to convey Effluent from the Wastewater Treatment Plant and Raw Water from the Raw Water Diversion Point to the Delivery Points or to store the Effluent and Raw Water prior to delivery at the Delivery Points, including any future extensions or additions to the District's existing facilities. The facilities currently planned are more particularly described on "A".

Irrigated Area: "Irrigated Area" means those tee areas, fairways, greens, and roughs located in The Hills of Lakeway golf course, the Academy of Golf three hole course and The Hills driving range presently being irrigated with the Effluent and Raw Water, said Irrigated Area being located generally within the tract described on **Exhibit "B"**.

Irrigation System: "Irrigation System" means the pumps, force mains, lines, pipes, irrigation pipe, sprinkler heads, control system and other related appurtenances for conveyance of Effluent and Raw Water from the Delivery Points to, and disposal of Effluent and Raw Water on, the Irrigated Area.

Prior Agreements: "Prior Agreements" means the "Waste Disposal Contract between Hurst Creek Municipal Utility District and Lakeway Company" dated October 12, 1987, and the "First Amendment to Waste Disposal Contract between Hurst Creek Municipal Utility District and Lakeway Company" dated effective June 9, 1995.

Raw Water: "Raw Water" means the water diverted from Lake Travis by the District and other water impounded in the Dams from whatever source, including but not limited to stream flow or run-off.

Raw Water Diversion Point: "Raw Water Diversion Point" means the point located on Hurst Creek downstream of Dam No. 1 where the District intends in the future to divert Raw Water from Hurst Creek for transportation and storage, together with Effluent, in the District's Effluent Transportation and Storage Facilities.

Wastewater Treatment Facilities: "Wastewater Treatment Facilities" means the District's Collection System, Wastewater Treatment Plant and Effluent Transportation and Storage Facilities.

Wastewater Treatment Plant: "Wastewater Treatment Plant" means the plant and appurtenant facilities necessary to treat wastewater collected through the District's Collection System, including extensions, additions and replacements thereto.

Water Permits: "Water Permits" means all permits, licenses, orders, other authorizations and all regulations applicable to the impounding, storage, diversion and use of Raw Water heretofore or hereafter issued, adopted or otherwise required by any governmental entity having jurisdiction thereof, including, without limitation, Permit No. 4169 issued by the Commission to the District, a copy of which is attached as **Exhibit "D"**.

ARTICLE II

Supply of Effluent for Irrigation Purposes

Section 1. General. The District owns and operates, and reserves from time to time the right to expand and add facilities to, the Wastewater Treatment Facilities and Permit No. 4169. The Company owns and operates, and reserves from time to time the right to expand and add facilities to, the Irrigation System, Dam No. 1 and Dam No. 2.

Section 2. Delivery of Effluent and Raw Water. The District agrees to deliver at the Delivery Points all Effluent from the Wastewater Treatment Facilities, provided that the amount of Effluent delivered does not exceed 650,000 gallons per day ("gpd") based on a 30-day average and 500,000 gpd based on an annual average. The Company agrees to receive all Effluent delivered at the Delivery Points provided that the Company has no obligation to receive any amounts in excess of 650,000 gpd based on a 30-day average and 500,000 gpd based on an annual average, and further provided that the Company's obligation to take any Effluent is subject to the

conditions set forth in Section 3 hereof. The District also may, but shall not be required to, deliver Effluent to any other place, person or entity for any lawful purpose, provided that the Company has a first right of refusal of all Effluent. The District shall notify the Company of its desire to deliver Effluent to a party other than the Company and shall not commence such deliveries of Effluent until it has obtained the written agreement of the Company to such delivery. Future additional Delivery Points may be agreed to by the parties. The District shall be the sole owner of, have exclusive dominion and control over, and be solely responsible for the Effluent within its Wastewater Treatment Facilities until the Effluent reaches the Delivery Points.

Subject to the provisions described in this paragraph, the District agrees to (i) deliver Raw Water to Dam No. 2 in sufficient quantities to maintain the reservoir levels in Dams Nos. 1 and 2 at the levels requested by the Company and (ii) provide Raw Water, Effluent or a combination thereof in sufficient quantities to irrigate the Irrigated Area. It is specifically provided, however, that the District's obligations to deliver Raw Water or a combination of Raw Water and Effluent hereunder is subordinate and inferior to the District's obligation and right to provide potable water service for municipal use by the District's residential and commercial customers, both present and future, and within and without the boundaries of the District. The District agrees, however, that, subject to applicable law, the Company's right to receive Raw Water is superior to the right of other District customers, present or future, to purchase Raw Water for recreational uses or to irrigate other golf courses. It is further provided that the District may, in times of emergency or shortage of water supply, production, storage or transportation capability in the District's system, curtail or limit the provision of Raw Water or Raw Water and Effluent under this Agreement as necessary to alleviate said emergency or shortage, or to enable the District to provide water for municipal use to the District's customers as provided herein. As

used in this Agreement, the term "emergency" shall include, but not be limited to, force majeure and the acts of third parties unrelated to the District which cause the District's system to be unable to provide the full amount of Raw Water, Effluent or a combination thereof required to maintain the reservoir levels in Dams Nos. 1 or 2 at the levels requested by the Company, or to irrigate the Irrigated Area.

Section 3. Disposal of Effluent. Provided that the Effluent meets the standards required by the Discharge Permits, the Company agrees to receive and dispose of the Effluent, whether or not combined with Raw Water, delivered by the District at the Delivery Points to the extent the Effluent can be lawfully disposed of by irrigation of the Irrigated Area without causing the golf course to become unacceptable as a first class golf course. Title to, exclusive dominion and control over, and responsibility for the Raw Water, Effluent, or combination thereof, shall pass from the District to the Company upon passage of same through the Delivery Points. Subject to the other provisions of this Agreement, the Company agrees to maximize its use of Effluent, whether or not combined with Raw Water, for irrigation purposes on the Irrigated Area so that the District fully complies with the Discharge Permits. The Company further agrees to adopt such additional and further irrigation and disposal practices as may now or hereafter be required by the Discharge Permits. It is specifically provided, however, that the Company shall not be required to dispose of Effluent by irrigation in violation of law, including any limits on the quantities of Effluent which may be disposed of on the Irrigated Area, or if to do so would render the golf course unusable for its intended purpose.

Section 4. Operation and Maintenance by the District. The District shall operate, maintain and repair and, as necessary, replace at its expense the Wastewater Treatment Facilities. The Company shall immediately notify the District's General Manager if it has reason to believe

that the Effluent or the wastewater treatment operation does not meet the requirements of the Discharge Permits as to quality or quantity. Upon receipt of such notice, the District shall immediately determine if the Effluent meets the requirements of the Discharge Permits, and, if not, shall expeditiously remedy said failure, or if the Effluent is not produced from the District's Wastewater Treatment Plant, to cause the producer of such Effluent to remedy this failure.

Section 5. Operation and Maintenance by the Company. The Company shall operate, maintain, repair and, as needed, replace the Irrigation System and the Irrigated Area, and, until the District begins operating under the no-discharge phase of the Discharge Permits, Dam No. 1 and Dam No. 2. After the District begins operating under the no-discharge phase of the Discharge Permits, the Company shall have no obligation to the District regarding repair of Dam No. 1 or Dam No. 2. The parties agree to cooperate to maintain the flows of water and the re-circulation of water provided for in Permit No. 4169. The District specifically agrees that the Company may re-circulate water as provided in such permit and that the District will not take any steps to modify or terminate Permit No. 4169 or that would cause such permit to terminate or be modified in a manner inconsistent with the District's obligations under this Agreement including, but not limited to, termination of the District's contract with the Lower Colorado River Authority to impound, divert and use inflows from Hurst Creek; provided, however, that in no event shall the District have any obligation to maintain, repair or replace the Dams. In the event that the TNRCC or other governmental body having jurisdiction over Permit No. 4169 threatens to take or begins action to revoke Permit No. 4169 because of the failure to maintain the Dams, the District shall have the right to request appropriate amendments to such permit after notifying the Company in writing and allowing the Company a reasonable time to make such repairs.

Section 6. Operation of Irrigation System and Irrigated Area. To the extent obligated herein, the Company agrees to cooperate with the District and to use the Irrigation System and the Irrigated Area to receive sufficient Effluent from the Wastewater Treatment Facilities and apply such Effluent to the Irrigated Area so that the parties are in compliance with the terms and conditions of the Discharge Permits. The Company shall operate the Irrigation System and the Irrigated Area in accordance with the Discharge Permits and Water Permit and shall be responsible for such additional health precautions, if any, including the construction, installation and maintenance of signs, as the Company or any governmental entity with jurisdiction deems appropriate. The Company may at its sole risk, allow others to dispose of the Effluent so long as such is not contrary to law. If requested by the District, any such disposal outside of the Irrigated Area shall be discontinued immediately.

The Company shall operate, maintain or replace the Irrigation System or the Irrigated Area in accordance with the Discharge Permits and generally accepted practices to achieve their specified purpose. If either party fails to comply with its obligations under this Agreement or fails to correct any deficiency in operation within twenty-four (24) hours after notification of such deficiency, the other party shall have the right to request any court, agency or other governmental authority of appropriate jurisdiction to grant any and all remedies which are appropriate to assure conformance to the provisions of this Agreement. The Company shall be liable to the District for all costs actually incurred by the District in pursuing such remedies, including attorneys fees, and for any penalties or fines imposed on District as a result of the Company's failure to comply with the terms hereof. It is specifically provided, however, that nothing herein shall be construed to require the Company to extend its irrigation system or to irrigate any areas other than the Irrigated Area. Should the District desire at a later time to irrigate

the areas outside the Irrigated Area and within the boundaries of the golf course, the Company agrees to cooperate to allow the District, at the District's sole expense, to construct and operate an irrigation system to dispose of Effluent (whether or not combined with Raw Water) in such areas. The location of such irrigation facilities and the method of construction and operation of same shall be subject to further mutual agreement by the District and the Company at that time.

Section 7. Regulation and Future Modifications. The parties recognize that the operation of the Wastewater Treatment Facilities and the disposal of the Effluent are subject to regulation by the Commission and other governmental entities. Accordingly, the parties agree that they will cooperate with each other as may be necessary to assure compliance with all terms and conditions of all existing Discharge Permits and the Water Permits. The District and the Company agree to consult and cooperate with each other to assure compliance with the Discharge Permits and Water Permits and to assure that efficient wastewater service may be provided by the District while the golf course continues to be operated as a first class golf course with no adverse impact on its water features.

Section 8: Raw Water Diversion. The Company understands and agrees that the District intends to, and may, construct extensions and improvements to its Effluent Transportation and Storage Facilities and additional Raw Water Diversion facilities. More specifically, the District is in the process of designing and preparing final plans and specifications for an additional Raw Water Diversion facility to be located at the Raw Water Diversion Point so that the District may divert Raw Water, including Raw Water diverted by the District from Lake Travis and passed through the Dams, for transportation to and storage by the District in its Wastewater Transportation and Storage Facilities. The Company hereby consents to such action by the District, including any necessary amendments to the Water Permits, and agrees to grant the

District an easement, in form and substance acceptable to the District, authorizing and permitting the District to construct, operate, maintain, repair and replace the facilities necessary to divert Raw Water from the Raw Water Diversion Point and Effluent from the District's Wastewater Treatment Plant to the District's proposed approximately 44 million gallon off-site effluent holding pond authorized to be constructed by the District pursuant to the Discharge Permits, and from said holding pond to the Delivery Point, provided that the Company has received, reviewed and approved the plans and specifications for such facilities and such facilities do not adversely impact the golf course aesthetically or in any other manner not agreed to in writing by the Company.

ARTICLE III

General

Section 1. Connection Fee. The Company shall not be charged any connection fee by the District for the provision of Effluent or Raw Water under this Agreement.

Section 2. Rates for Service. The District shall not be charged any service fee by the Company for the Company's disposing of the Effluent (whether or not combined with Raw Water) for the District. The District may, by appropriate order or orders adopted from time to time by its Board of Directors, charge and collect a reasonable rate for the provision of Raw Water, Effluent or combination thereof, to the Company. Such rate shall be based on the District's operation and maintenance costs of providing same and shall not include capital costs. The initial rate shall be $0.77 per 1,000 gallons of Raw Water, Effluent, or combination thereof as measured at the Delivery Point (Raw Water/Irrigation) and the Delivery Point (Raw Water and/or Effluent). The Company agrees that the District needs and has the right to vary the rate

from time to time. To assure that both parties receive the benefits each anticipated receiving under this Agreement, the parties agree that the District shall (a) endeavor to set future rates pursuant to the methodology evidenced in the attached **Exhibit "C"**, which is the rate study commissioned by the District in 1996 during the negotiation of this Agreement for purposes of estimating the future rates which might result from the use of that methodology and (b) take into consideration, in setting such future rates, the expectations of both the District and the Company when entering into this Agreement that the rates should be based on the operation and maintenance costs of providing Effluent and Raw Water hereunder.

Section 3. Term. Unless terminated by mutual agreement of the parties hereto or their successors and assigns, this Agreement shall continue in force and effect for a period of forty (40) years from the date of its execution and may thereafter be continuously renewed by mutual agreement of the parties.

Section 4. Force Majeure. If either party is rendered unable, wholly or in part, by reason of force majeure to carry out any of its obligations under this Agreement, then the obligations of that party to the extent affected by such force majeure and to the extent that due diligence is being used to resume performance at the earliest practicable time, shall be suspended during the continuance of any inability so caused to the extent provided but for no longer period. Such cause, as far as possible, shall be remedied with all reasonable diligence. The term "force majeure," as used herein, shall include acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, orders of any kind of any governmental entity or any civil or military authority, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, hurricanes, storms, floods, washouts, droughts, arrests, restraint of government and people, civil disturbances, explosions, breakage or accidents to machinery, pipelines or canals, or any other

conditions which are not within the control of such party. It is understood and agreed that the settlement of strikes and lockouts shall be entirely within the discretion of either party hereto, and that the above requirements that any force majeure shall be remedied with all reasonable dispatch shall not require the settlement of strikes and lockouts by acceding to the demand of the opposing party or parties when such settlement is unfavorable to it in the judgment of either party hereto.

Section 5. Modification. This Agreement shall be subject to change or modification only with the mutual written consent of the Company and the District.

Section 6. Captions. The captions appearing at the first of each numbered section or paragraph in this Agreement are inserted and included solely for convenience and shall never be considered or given any effect in construing this Agreement.

Section 7. Severability. The provisions of this Agreement are severable, and if any provision or part of this Agreement or the application thereof to any person or circumstance shall ever be held by any court of competent jurisdiction to be invalid or unconstitutional for any reason, the remainder of this Agreement and the application of such provision or part of this Agreement to other persons or circumstances shall not be affected thereby.

Section 8. Cooperation. Each party hereby agrees that it will take all actions necessary to fully carry out the purposes and intent of this Agreement.

Section 9. Addresses and Notice. Unless otherwise provided in this Agreement, any notice herein provided or permitted to be given, made, or accepted by any party must be in writing and may be given by depositing the same in the United States mail postpaid, registered or certified and addressed to the party to be notified, with return receipt requested, or by delivering the same to an officer of such party, or by prepaid telegram addressed to the party to be notified. Notice deposited in the mail in the manner described above shall be conclusively

deemed to be effective from and after the expiration of three (3) business days after it is so deposited. Notice given in any other manner shall be effective only if and when received by the party to be notified. For the purposes of notice, the addresses of the parties shall be as follows:

Hurst Creek Municipal Utility District
102 Trophy Drive
Austin, Texas 78738

Lakeway Golf Clubs, Inc.
One World of Tennis Square
Austin, Texas 78738
Attention: Bob Holzman

The parties shall have the right from time to time and at any time to change their respective addresses and each shall have the right to specify as its address any other address in the State of Texas by at least fifteen (15) business days' written notice to the other parties.

Section 10. Assignability and Notice of Agreement. The rights and obligations hereunder are not assignable by either party unless specifically provided herein. The rights and obligations of the Company shall run with the ownership of the Irrigated Area and Irrigation System and shall bind and accrue to all future owners of the Irrigated Area and the Irrigation System. The rights and obligations of the District hereunder may be assigned to any other governmental entity providing wastewater service to the District or the area served by the District by providing the Company written notice of such assignment, provided that such assignment in no way diminishes the rights of the Company hereunder. Both parties agree to provide a copy of this Agreement to all potential successors and assigns and to have such successor or assign acknowledge and agree to assumption of the rights and obligations hereunder prior to or simultaneously with any conveyance or assignment of rights hereunder. The District and the

Company shall execute a "Notice of Agreement and Restrictive Covenant" in a form acceptable to the parties (the "Restriction") which shall have attached a legal description of the Irrigated Area and which reflects both the rights and the obligations of the parties to deliver and receive Effluent and Raw Water hereunder. The parties agree to execute and record from time to time amendments to the Restriction to evidence any changes in this Agreement.

Section 11. Merger. This Agreement, together with such descriptions, terms and conditions as may be included in the exhibits hereto, constitutes the entire agreement between the parties relative to the subject matter hereof. There have been and are no agreements, covenants, representations, or warranties between the parties other than those expressly stated or provided for herein. This Agreement completely amends and restates the Prior Agreements between the parties.

Section 12. Lender Subordination. The Company agrees to obtain from any lender with a lien on or security interest in the Company's Dams or Irrigated Area or other property affected by this Agreement an acknowledgment of the District's rights and obligations hereunder.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in multiple counterparts, each of which shall be deemed to be an original, as of the date and year first written herein.

HURST CREEK MUNICIPAL UTILITY DISTRICT

By: _____
President, Board of Directors

ATTEST:

_____
Secretary, Board of Directors

[SEAL]

LAKEWAY GOLF CLUBS, INC.

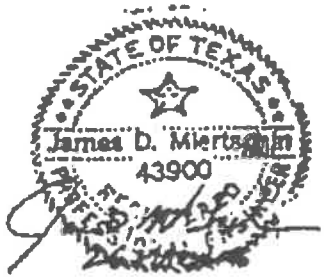
By: _____
Andrew Crosson
Vice President

\hurst\lakeway3.wdo

EXHIBIT C

JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
P.O. Box 162305 • AUSTIN, TEXAS 78716-2305 • (512) 327-2708

MEMO



TO: Dan Roark, General Manager
Hurst Creek MUD
FROM: James Miertschin, PE, PhD
DATE: 26 March 1996
SUBJECT: Estimated Costs for Irrigation Water

We have recently developed a spreadsheet analysis of estimated costs for irrigation water after completion of wastewater system improvements that include construction of an off-channel effluent storage pond. The analysis includes your input on cost factors for pumping and cost for purchase of raw water from Lake Travis.

The irrigation supply system will involve three separate pumping cost factors. First, raw water will be pumped from Lake Travis to the on-channel ponds on Hurst Creek. From there, the raw water will be pumped to the new off-channel storage pond. Effluent will also be pumped from the wastewater treatment plant site to the new off-channel storage pond. For the present analysis, it is assumed that the raw water and effluent can be pumped with the same transmission system. The third pumping step involves pumping of commingled effluent and raw water from the off-channel storage pond to the golf course irrigation system.

Raw water pumping from Lake Travis includes an electrical cost and a cost for raw water. The cost is estimated to be $0.43 per 1000 gallons, plus a fixed cost of $180 per month for the electric motor horsepower charge. The pumping cost from the wastewater treatment plant site to the off-channel storage pond is estimated to be $0.085 per 1000 gallons, plus a fixed cost of $226 per month. The pumping cost from the off-channel storage pond to the golf course irrigation system is estimated to be $0.024 per 1000 gallons, plus a fixed cost of $61 per month.

The attached spreadsheet (Table 1) displays the calculations involved in determination of irrigation water supply costs on a year to year basis. A brief description of each column is provided below.

The first column tracks the year to year chronology of the analysis. It has been assumed that the off-channel storage pond and associated improvements will be operational in 1997. The next column presents the number of wastewater connections projected for Hurst Creek MUD, information developed based upon recent historical growth trends. Full buildout is assumed to occur by the year 2017. Under the heading of effluent average daily flow, the first column presents projected average daily flow rates based upon a wastewater generation rate of 220 gallons per

connection per day. The next column converts the average daily flow rate to an annual rate in 1000 gallons per year.

The next column displays the golf course irrigation water need. A minimum golf course water need of 60.4 million gallons per year was estimated based upon use data for the past three years. However, the minimum need was set equal to the available effluent volume if the effluent volume was greater than 60.4 million gallons per year.

Water pumped from Lake Travis is denoted as raw water. Raw water needs are displayed in two columns. First, the raw water needed for irrigation is determined based upon the effluent availability and the minimum golf course irrigation need. Next, a column for raw water needed for maintenance is presented, which accounts for water that must be pumped to the existing on channel golf course ponds to replace water that is lost by evaporation during the warm weather months

Three columns are presented for raw water costs. The first column displays the cost of pumping raw water from Lake Travis to the on-channel ponds on Hurst Creek. The next column shows the cost of pumping raw water from the on-channel pond to the off-channel storage pond. It is assumed that the raw water can be pumped from the existing wastewater treatment plant site, using the same pumping and transmission system used for treated effluent. Costs to pump the raw water component from the storage pond back to irrigation are shown in the third column. In actuality, the raw water will be commingled with effluent in the off-channel storage pond and pumped back to irrigation. The components were separated in the spreadsheet for ease of computation. The cost factors for pumping raw water to the storage pond and then back to irrigation did not include the monthly fixed horsepower charge, since that expenditure is included in the subsequent analysis of effluent pumping costs.

Effluent pumping costs are displayed in the next two columns. The first column shows the costs for pumping treated effluent from the treatment plant to the off-channel storage pond. The next column shows the costs for pumping effluent from the storage pond back to the irrigation system. These costs are based upon the electrical power costs per 1000 gallons and the fixed monthly horsepower charges.

The total costs for irrigation supply pumping are presented in two separate columns in terms of dollars per year and dollars per 1000 gallons. The total pumping cost includes the raw water pumping components and the effluent pumping components. The cost per 1000 gallons is based upon the volume of irrigation water supply plus the raw water used for maintenance of on-channel pond levels.

The next column presents personnel costs for system operation. The cost is based upon half-time utilization of one full-time employee. System maintenance and repair

costs are displayed in the next column, based upon an allocation of 50% of the repair and maintenance costs encountered during the past three year period.

The total cost for irrigation supply is presented in the final two columns. The first column displays costs in terms of dollars per year, and includes the pumping costs, personnel costs, and maintenance costs. The last column presents costs on the basis of dollars per 1000 gallons, referencing the total volume of effluent and raw water pumped for irrigation and on-channel pond maintenance.

A second spreadsheet is presented in Table 2 for projection of irrigation costs with the proposed Lynnwood development online. Lynnwood has an agreement with Hurst Creek MUD to provide up to 100,000 gallons per day of treated effluent to the off-channel effluent storage pond. For the present analysis, the Lynnwood effluent contribution was phased in over a 20-year period, assuming commencement of effluent flow in the year 1998, as shown in the fifth column of the table. The volume of Lynnwood effluent is combined with the volume of Hurst Creek MUD effluent for calculation of total effluent availability. All other columns in Table 2 are similar to the analysis in Table 1. The development and phasing of effluent flows from the Lynnwood development are not under the control of Hurst Creek MUD, therefore, the projected sequence is speculative.

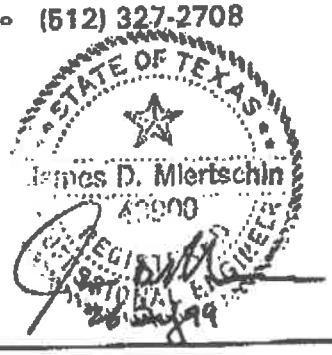
...e 1*
...jected Irrigation Costs
...st Creek MUD

Year	Number of Connections	Effluent Average Daily Flow (GPD)	Effluent Average Daily Flow (1000 G/YR)	Golf Course Water Need (1000 G/YR)	Raw Water Need For Irrig (1000 G/YR)	Raw Water Need For Maint (1000 G/YR)	Raw Water Costs: Pumping From Lake ($/YR)	Raw Water Costs: Pumping To Pond ($/YR)	Raw Water Costs: Pumping To Irrig ($/YR)	Effluent Costs: Pumping To Pond ($/YR)	Effluent Costs: Pumping To Irrig ($/YR)	Total Cost For Irrig Pumping ($/YR)	Total Cost For Irrig Pumping ($/1000 G)	Personnel Cost ($/YR)	System Maint Cost ($/YR)	Total Cost For Irrigation ($/YR)	Total Cost For Irrigation ($/1000 G)
1997	476	104,720	[illegible] *	60,400	22,177	5,304	13,737	1,885	532	5,901	1,649	23,765	0.30	13,520	13,170	50,455	0.77
1998	516	113,520	41,435	60,400	19,965	5,304	12,366	1,812	405	6,734	1,720	22,383	0.34	13,520	13,170	49,073	0.75
1999	556	122,320	44,647	60,400	15,753	5,304	10,975	1,339	370	6,607	1,804	21,002	0.32	13,520	13,170	47,692	0.73
2000	596	131,120	47,858	60,400	12,641	5,304	9,593	1,058	301	6,780	1,801	19,621	0.30	13,520	13,170	46,311	0.70
2001	638	139,920	51,071	60,400	9,329	5,304	8,212	793	224	7,053	1,950	18,240	0.28	13,520	13,170	44,930	0.68
2002	676	148,720	54,283	60,400	6,117	5,304	6,831	520	147	7,326	2,036	16,859	0.25	13,520	13,170	43,549	0.66
2003	716	157,520	57,495	60,400	2,905	5,304	5,450	247	70	7,599	2,112	16,478	0.24	13,520	13,170	47,168	0.64
	756	166,320	60,707	60,707	0	5,304	4,201	0	0	7,872	2,189	14,262	0.22	13,520	13,170	40,952	0.62
--	796	175,120	63,919	63,919	0	5,304	4,201	0	0	8,145	2,266	14,612	0.21	13,520	13,170	41,302	0.60
2006	836	183,920	67,131	67,131	0	5,304	4,201	0	0	8,418	2,343	14,962	0.21	13,520	13,170	41,652	0.58
2007	876	192,720	70,343	70,343	0	5,304	4,201	0	0	8,691	2,420	15,312	0.20	13,520	13,170	42,002	0.55
2008	916	201,520	73,555	73,555	0	5,304	4,201	0	0	8,964	2,497	15,662	0.20	13,520	13,170	42,352	0.54
2009	956	210,320	76,767	76,767	0	5,304	4,201	0	0	9,237	2,574	16,012	0.20	13,520	13,170	42,702	0.52
2010	996	219,120	79,979	79,979	0	5,304	4,201	0	0	9,510	2,651	16,362	0.19	13,520	13,170	43,052	0.50
2011	1036	227,920	83,191	83,191	0	5,304	4,201	0	0	9,783	2,728	16,713	0.19	13,520	13,170	43,403	0.49
2012	1076	236,720	86,403	86,403	0	5,304	4,201	0	0	10,056	2,806	17,063	0.19	13,520	13,170	43,753	0.48
2013	1116	245,520	89,615	89,615	0	5,304	4,201	0	0	10,329	2,883	17,413	0.18	13,520	13,170	44,103	0.46
2014	1191	262,020	95,637	95,637	0	5,304	4,201	0	0	10,841	3,027	18,069	0.18	13,520	13,170	44,759	0.44
2015	1231	270,820	98,849	98,849	0	5,304	4,201	0	0	11,114	3,104	18,419	0.18	13,520	13,170	45,109	0.43
2016	1271	279,620	102,061	102,061	0	5,304	4,201	0	0	11,387	3,181	18,769	0.17	13,520	13,170	45,459	0.42
2017	1310	288,200	105,193	105,193	0	5,304	4,201	0	0	11,653	3,257	19,111	0.17	13,520	13,170	45,801	0.41

...w water pumping cost from Lake Travis = 0.430/1000 gal + 160/mo
...mping cost from WWTP to pond = 0.098/1000 gal + 226/mo
...mping cost from pond to irrigation = 0.024/1000 gal + 61/mo

*This note is added by the district and Lakeway as of 5/2/97. The parties understand that the estimates made above do not contain electricity charges for the District's effluent ...mps to pump Effluent and Raw Water from the District's new effluent holding pond ...o the Delivery Points for use in the Irrigation System. Actual rates charged by the District will include those electricity charges after construction of the District's new effluent holding pond.

JAMES MIERTSCHIN & ASSOCIATES, INC.
ENVIRONMENTAL ENGINEERING
P.O. BOX 162305 • AUSTIN, TEXAS 78716-2305 • (512) 327-2708



MEMO

TO: Dan Roark, General Manager
FROM: James Miertschin, PE
DATE: 26 July 1999
SUBJECT: Future Water Supply Needs

Hurst Creek MUD has a contract with the LCRA to purchase up to 1600 ac-ft of water per year. This memo presents an evaluation of the adequacy of the total volume of water reserved.

The long-term water use in the District was analyzed using records for raw water pumped, potable water produced, golf course irrigation water, POA irrigation water, and water purchased or sold to Lakeway MUD. Records from 1990 to the present were examined. A trend of increasing water use is evident, attributable to the increasing number of connections within the Hills. The monthly and seasonal fluctuation in use is pronounced, which is probably influenced most heavily by lawn watering.

Data for the year 1998 were examined as most representative of current demands. The average total raw water use for 1998 was 0.70 MGD, which includes potable water use and irrigation water use. The average potable water use for 1998 was 0.52 MGD, after deleting water used for irrigation.

It can be assumed that the average number of residential connections in 1998 was 550. Therefore, it can be calculated that the average demand for potable water per connection was 0.66 gpm.

The ultimate number of connections in the District has been estimated to be 1200 residential connections plus approximately 123 out-of-District connections, for a total of 1323 connections. If the average demand for potable water per connection is assumed to be constant, the future demand at full buildout can be calculated to be 873.2 gpm (1.257 MGD). Converted to an annual volume, the average potable demand is projected to be 1408 ac-ft per year. This total demand can be expected to fluctuate year to year due to climatological conditions. A demand range of plus or minus 10% appears to be reasonable, which would represent a range of 1267 - 1549 ac-ft per year.

The Hills golf course has historically used a combination of treated effluent and raw water supplied by the District for irrigation. For a one-year period spanning 1998 and 1999, for example, the golf course used 116.5 MG (357.5 ac-ft) of water that was purchased from the District. This volume represents an average irrigation application

rate of approximately 2 ft/yr. The effluent available from the District at full buildout is projected to be 0.4 MGD, which equates to a volume of 448 ac-ft per year. The full District effluent volume would enable the golf course to achieve an application rate of approximately 2.5 ft/yr. In addition, the District is obligated to receive 0.1 MGD of treated effluent from the Lynnwood subdivision in the future, which will bring the total treated effluent available to 0.5 MGD, or 560 ac-ft/yr. The golf course will have to apply effluent at an application rate of approximately 3.1 ft/yr at this future flow condition. As shown by the preceding calculations, when the District is at full buildout, golf course irrigation should be able to rely on treated effluent as the sole source of water. Therefore, the evaluation of future District water supply needs based upon potable demand is appropriate.

The results of this analysis indicate that the District's contracted water supply of 1600 ac-ft per year is adequate for future needs.

LCRA PIPELINE CAPACITY = 2.2 MGD

01-11020151-JG-CO

1999005108 11 pgs

AFTER RECORDING RETURN TO:
ATTN: JIM GARRISON
STEWART TITLE
P. O. BOX 1806
AUSTIN, TEXAS 78767

~~After recordation return to~~

~~Glenn B. Callison, Esq.~~
Munsch Hardt Kopf & Harr, P C
4000 Fountain Place
1445 Ross Avenue
Dallas, Texas 75202

GENERAL WARRANTY DEED

This General Warranty Deed (this **"Deed"**) is made as of March 30, 1999, to be effective as of April 1, 1999, by **LAKEWAY GOLF CLUBS ACQUISITION, L.L.C.**, a Texas limited liability company (successor by merger to Lakeway Golf Clubs, Inc , as described on Exhibit "B" attached hereto) (the **"Grantor"**) to **CLUBCORP GOLF OF TEXAS, L.P.**, a Texas limited partnership (the **"Grantee"**)

For and in consideration of the sum of Ten and No/100 Dollars ($10 00) and other valuable consideration to Grantor paid by the Grantee, the receipt of which are acknowledged, Grantor and Grantee agree as follows

1 Conveyance and Warranty of Title

Grantor GRANTS, SELLS, and CONVEYS to Grantee all of the real property, together with all the rights, expressed or implied in and to the reservation of all oil, gas and other minerals as set out in deeds (the **"Property"**) situated in Travis County, Texas more particularly described on Exhibit "A" attached hereto and made a part hereof for all purposes, together with all improvements, structures and fixtures located thereon as well as all of Grantor's rights to appurtenances, easements, rights of way, adjacent streets and alleys, strips and gores,

TO HAVE AND TO HOLD the Property together with all and singular the rights and appurtenances thereto in anywise belonging, to Grantee, its successors and assigns, forever, and Grantor binds itself, its successors and assigns, to WARRANT AND FOREVER DEFEND all and singular the Property to Grantee, its successors and assigns, against every person whomsoever lawfully claiming or to claim the same or any part thereof

EXECUTED as of the date first above written

GRANTOR:

LAKEWAY GOLF CLUBS ACQUISITION, L.L.C., a Texas limited liability company, successor by merger to Lakeway Golf Clubs, Inc

By _____
Mary Cowser, Senior Vice President

GRANTEE'S ADDRESS:

3030 LBJ Freeway, Suite 700
Dallas, Texas 75234
Attn Ms Mary Cowser

AFTER RECORDING RETURN TO:
ATTN: JIM GARRISON
STEWART TITLE
P. O. BOX 1806
AUSTIN, TEXAS 78767

STATE OF NY §
§
COUNTY OF NY §

On this 27 day of March, 1999, before me personally appeared Mary Cowser, Senior Vice President of Lakeway Golf Clubs Acquisition, L L C , a Texas limited liability company, successor by merger to Lakeway Golf Clubs, Inc , who is personally known to me, this day appeared before me personally and in my presence did acknowledge that he did sign, seal and deliver the foregoing instrument of his own free will and accord, for the purposes therein named and expressed

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at March 27, 1999, the day and year first above written

Kim Muncan
Notary Public, State of NY

My Commission Expires
1/2/2000

[Stamped Notary Seal]

KIM MUNCAN
Notary Public, State of New York
No 41-4960923
Qualified in Queens County
Commission Expires Jan 2, 2000

P \2372\95\TITLE\TEXAS\ACAD-DED WPD
3 TDB lg rm 3/24/99

Warranty Deed

Academy of Golf
Austin, Texas

EXHIBIT "A"
(Legal Description)

A DESCRIPTION OF 50.63 ACRES OF LAND OUT OF THE C.E.P I. & M. CO. SURVEY NO. 67 AND THE H. HOFFMEISTER SURVEY NO. 469 IN TRAVIS COUNTY, TEXAS, BEING ALL OF GOLF COURSE LOTS 768 AND 777, THE HILLS OF LAKEWAY PHASE ONE, A SUBDIVISION RECORDED IN BOOK 79, PAGE 324 OF THE TRAVIS COUNTY, TEXAS PLAT RECORDS, ALL OF LOT 1, WORLD OF TENNIS SECTION ONE, A SUBDIVISION RECORDED IN BOOK 81, PAGE 54 OF SAID PLAT RECORDS, BEING THAT SAME TRACT OF LAND AS DESCRIBED IN A DEED FROM THE FEDERAL DEPOSIT INSURANCE CORPORATION TO HILLWOOD PROPERTY COMPANY AS EXHIBIT A-3, AND RECORDED IN VOLUME 12364, PAGE 1915 OF SAID DEED RECORDS, SAID 50.63 ACRE TRACT OF LAND, AS SHOWN ON SURVEY RESOURCES, INC. DRAWING NO. C077-249502-01, BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS.

BEGINNING at a 1/2-inch iron rod found in the west line of The Hills Drive, a 60-foot wide private street right-of-way as shown on said plat recorded in Book 79, Page 324 of said Plat Records, being the most northerly corner of said Golf Course Lot 768 and the most easterly corner of Lot 50, St. Andrews Planned Unit Development, a subdivision of record in Book 87, Page 157A-157C of said Plat Records, and being the most northerly corner of the tract described herein;

THENCE with the west line of said The Hills Drive, being an east line of said Golf Course Lot 768 and an east line hereof, S 12° 57' 38" E, a distance of 125.58 feet to a 1/2 inch iron rod found for an easterly corner of said Golf Course Lot 768 and the most northerly corner of Lot 709 of said The Hills of Lakeway Phase One;

THENCE leaving said The Hills Drive, with a southerly line of said Golf Course Lot 768 and the northerly lines of Lots 709 and 708 of said The Hills of Lakeway Phase One, S 59° 44' 25" W, a distance of 404.13 feet to a 1/2 inch iron rod found for the most westerly corner of said Lot 708 and an interior corner of said Golf Course Lot 768 and of the tract described herein,

THENCE with the westerly lines of Lots 708 through 705, inclusive, of said The Hills of Lakeway Phase One, being easterly lines of said Golf Course Lot 768, the following three (3) courses and distances:

1. S 42° 05' 09" E, a distance of 259.84 feet to a 1/2-inch iron rod found,
2. S 27° 35' 02" E, a distance of 106.84 feet to a 1/2-inch iron rod found, and
3. S 47° 27' 50" E, a distance of 222.85 feet to a 1/2-inch rod found in the west line of Club Estates Parkway, a 60-foot wide private street right-of-way as shown on said plat of The Hills of Lakeway Phase One, being the most southerly corner of said Lot 705 and an easterly corner of said Golf Course Lot 768 and of the tract described herein;

THENCE with the said west line of Club Estates Parkway, being an east line of said Golf Course Lot 768, the following seven (7) courses and distances:

1. S 00° 59' 54" W, a distance of 44.85 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the right,
2. with the arc of said curve a distance of 99.53 feet, having a central angle of 14° 18' 24", radius of 398.59 feet and a chord which bears S 08° 57' 03" W, a distance of 99.27 feet to a 1/2-inch iron rod found for the termination of said curve,

3. S 16° 06' 03" W, a distance of 198.50 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

4. with the arc of said curve a distance of 295.29 feet, having a central angle of 34° 37' 41", radius of 488.58 feet and a chord which bears S 01° 14' 17" E, a distance of 290.81 feet to a 1/2-inch iron rod found for the termination of said curve,

5. S 18° 34' 13" E, a distance of 543.52 feet to a 1/2-inch rod found at a point of non-tangent curvature to the right, and

6. with the arc of said curve a distance of 409.64 feet, having a central angle of 46° 23' 07", radius of 505.99 feet and chord which bears S 04° 37' 47" W, a distance of 398.54 feet to a 1/2-inch iron rod found at a point of non-tangent compound curvature, being at the point where said Club Estates Parkway branches into two (2) 50-foot wide private street rights-of-way,

THENCE with the northerly line of the north branch of said Club Estates Parkway, being the southerly line of said Golf Course Lot 768 the following five (5) courses and distances.

1. with the arc of a curve to the right a distance of 112.19 feet, having a central angle of 64° 16' 49", radius of 100.00, and chord which bears S 59° 58' 47" W, a distance of 106.40 feet to a 1/2-inch iron rod found for the termination of said curve,

2. N 87° 52' 13" W, a distance of 57.86 feet to a 1/2-inch iron rod found to a non-tangent point of curvature to the right,

3. with the arc of said curve a distance of 327.65 feet, having a central angle of 41° 03' 12", radius of 457.28 feet, and chord which bears N 67° 20' 13" W, a distance of 320.69 feet to a 1/2-inch iron rod found for the termination of said curve,

4. N 46° 48' 13" W, a distance of 247.81 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the left, and

5. with the arc of said curve, a distance of 43.86 feet, having a central angle of 07° 19' 08", radius of 343.36 feet, and chord which bears N 50° 27' 43" W, a distance of 43.83 feet to a 1/2-inch iron rod found for a point of non-tangent reverse curvature to the right;

THENCE with the arc of said curve a distance of 21.67 feet, having a central angle of 82° 46' 26", radius of 15.00 feet, and chord which bears N 12° 43' 44" W, a distance of 19.83 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left, being in the east line of Tournament Way, a 60-foot wide private street right-of-way as shown on said plat of The Hills of Lakeway Phase One, being a southwesterly corner of said Golf Course Lot 768;

THENCE with the east line of said Tournament Way and the west line of said Golf Course Lot 768, the following two (2) courses and distances:

1. with the arc of said curve to the left a distance of 447.03 feet, having a central angle of 45° 56' 02", radius of 557.80 feet, and chord which bears N 05° 41' 02" E, a distance of 435.15 feet to a 1/2-inch iron rod found for the termination of said curve, and

2. N 17° 16' 25" W, a distance of 139 75 feet to a 1/2-inch iron rod found at the point where the west line of said Golf Course Lot 768 leaves the east line of said Tournament Way, same being the most southerly corner of Academy Place Section One-B, a subdivision recorded in Book 83, Page 8 of said Plat Records,

THENCE continuing with the west line of said Golf Course Lot 768, being the east line of said Academy Place Section One-B, the following two (2) courses and distances:

1. N 17° 19' 08" W, a distance of 149 94 feet to a 1/2-inch iron found for an angle point, and

2. N 21° 38' 12" W, a distance of 318 64 feet to a 1/2-inch iron rod found for the most northerly corner of said Academy Place Section One-B, being the most easterly corner of Lot 8 of Academy Place Section One, a subdivision recorded in Book 81, Page 206 of said Plat Records,

THENCE leaving the west line of said Golf Course Lot 768, with the northerly line of said Lot 8 and the northerly line of Lot 9A of Academy Place Section One-A, a subdivision recorded in Book 81, Page 361 of said Plat Records, N 78° 22' 11" W, a distance of 158.11 feet to a 1/2-inch iron rod found for the northwest corner of said Lot 9A, being the northeast corner of Lot 10A of said Academy Place Section One-A,

THENCE with the remaining northerly line of said Academy Place Section One-A and a portion of the northerly line of Lot 22 of said Academy Place Section One, the following two (2) courses and distances

1 S 58° 49' 22" W, a distance of 216 44 feet to a 1/2-inch iron rod found for an angle point, and

2. S 75° 34' 07" W, a distance of 551 25 feet to a 1/2-inch iron rod found for an angle point in the northerly line of said Lot 22,

THENCE with the remaining northerly line of said Lot 22 and the northerly line of Lot 23 of said Academy Place Section One, S 50° 50' 54" W, a distance of 125.93 feet to a 1/2 inch iron rod found for the northwest corner of said Academy Place Section One,

THENCE with the westerly line of said Academy Place Section One, S 14° 32' 23" E a distance of 160.53 feet to a 1/2-inch iron rod found for the southwest corner of said Section One,

THENCE with a portion of the southerly lines of said Academy Place Section One, the following three (3) courses and distances:

1 S 70° 00' 58" E, a distance of 223.29 feet to a 1/2-inch iron rod found for an angle point,

2. S 89° 11' 10" E, a distance of 191 57 feet to an iron rod found for an angle point, and

3 S 84° 08' 53" E, a distance of 264.44 feet to a 1/2-inch iron rod found on a north line of Golf Course Lot 777 of said The Hills of Lakeway Phase One, being an angle point in the south line of said Academy Place Section One;

THENCE with the common line of said Golf Course Lot 777 and said Academy Place Section One, N 81° 47' 25" E, a distance of 378.53 feet to a 1/2-inch iron rod found on the west line of said Tournament Way, being a non-tangent point of curvature to the right;

THENCE leaving said Academy Place Section One, with the west line of said Tournament Way, being the east line of said Golf Course Lot 777, the following three (3) courses and distances:

1. with the arc of said curve to the right a distance of 22.25 feet, having a central angle of 63° 49' 07", radius of 19.98 feet, and chord which bears S 49° 28' 17" E, a distance of 21 12 feet to an iron rod found for the termination of said curve,

2. S 17° 16' 25" E, a distance of 76.52 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the right, and

3. with the arc of said curve a distance of 178.94 feet, having a central angle of 20° 36' 15", radius of 497 60 feet, and a chord which bears S 06° 57' 28" E, a distance of 177 98 feet to an iron rod found for the southeast corner of said Golf Course Lot 777, being the northeast corner of Lot 253 of said The Hills of Lakeway Phase One;

THENCE with southerly lines of said Golf Course Lot 777, being with the northerly lines of lots 253 through 259, inclusive, of said The Hills of Lakeway Phase One, the following three (3) courses and distances:

1. N 82° 48' 03" W, a distance of 185.68 feet to a 1/2-inch iron rod found for angle point,

2. S 78° 27' 25" W, a distance of 675.21 feet to a 1/2-inch iron rod found for angle point, and

3. N 69° 33' 55" W, a distance of 470 64 feet to a 1/2-inch iron rod found for the northwest corner of said Lot 259, being an interior corner of said Golf Course Lot 777,

THENCE with the westerly line of said Lot 259, being an easterly line of said Golf Course Lot 777, S 23° 09' 05" W, a distance of 165.00 feet to a P K nail found in a concrete drainage channel for the southwest corner of said Lot 259, being a southeast corner of said Golf Course Lot 777 and of the tract described herein, same being on the north line of said northerly branch of Club Estates Parkway (50-foot right-of-way),

THENCE with said north line, being a south line of said Golf Course Lot 777, with the arc of a curve to the left an arc distance of 100 33 feet, having a central angle of 02° 30' 00", radius of 2299 27 feet, and chord which bears N 68° 05' 55" W, a distance of 100 32 feet to an iron rod found at a non-tangent point of reverse curvature to the right,

THENCE with the arc of said curve, a distance of 39.45 feet, having a central angle of 90° 24' 19", radius of 25.00 feet, and chord which bears N 24° 28' 26" W, a distance of 35.48 feet to an iron rod found at a non-tangent point of reverse curvature, being on the east line of The Hills Drive, a 100-foot wide public street right-of-way as shown on said plat of The Hills of Lakeway;

THENCE with the east line of said The Hills Drive as shown on said plat and the east line of The Hills Drive as dedicated by instrument recorded in Volume 7032, Page 1 of the Travis County, Texas Deed Records, being partly with the west line of said Golf Course Lot 777 and partly with the west line of said Lot 1, World of Tennis Section One, the following four (4) courses and distances:

1. with the arc of a curve to the left a distance of 218.65 feet, having a central angle of 24° 40' 00", radius of 507 89 feet, and chord which bears N 08° 19' 23" E, a distance of 216.97 feet to an iron rod found at a point of tangency,

2. N 04° 00' 37" W, a distance of 170.28 feet to an iron rod found at a point of curvature to the right,

3. with the arc of said curve, at a distance of 25.90 feet passing the most northerly corner of said The Hills Drive as shown on said plat, being the southeast corner of said The Hills Drive dedicated in Volume 7032, Page 1 of the Deed Records of Travis County, Texas, and being the south corner of said Lot 1 World of Tennis Section One, continuing with the arc of said curve a total distance of 233.37 feet, having a central angle of 29° 10' 00", radius of 458.44 feet, and chord which bears N 10° 34' 23" E, a distance of 230 86 feet to an iron rod found at a point of reverse curvature, and

4. with the arc of said curve to the left a distance of 191 61 feet, having a central angle of 09° 32' 00", radius of 1151.57 feet and chord which bears N 20° 23' 23" E, a distance of 191 39 feet to an iron rod found at a non-tangent point of reverse curvature;

THENCE with the arc of said curve to the right a distance of 35 32 feet, having a central angle of 80° 56' 43", radius of 25 00 feet, and chord which bears N 56° 02' 18" E, a distance of 32.45 feet to an iron rod found on the southerly line of Lakeway Boulevard, a 120-foot wide public street right-of-way as shown on the plat of Lakeway Section Nineteen as recorded in Book 58, Page 69 of the Travis County, Texas Plat Records,

THENCE with the southerly line of said Lakeway Boulevard, for a northerly line of the tract described herein, the following four (4) courses and distances

1. with the arc of a curve to the left at a distance of 64 22 feet passing a concrete monument found for the most easterly corner of Lot 1 of said Lakeway Section Nineteen, continuing a total distance of 282.67 feet along the arc of said curve, having a central angle of 36° 37' 45", radius of 442 15 feet, and chord which bears N 78° 05' 36" E, a distance of 277 88 feet to a 1/2-inch iron rod found for the non-tangent termination of said curve,

2. N 59° 43' 47" E, a distance of 326 81 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the left,

3. with the arc of said curve a distance of 330 25 feet, having a central angle of 32° 34' 30", radius of 580 87 feet, and chord which bears N 43° 27' 23" E, a distance of 325.82 feet to a 1/2-inch iron rod found for the non-tangent termination of said curve, and

4. N 27° 11' 27" E, a distance of 59 94 feet to a 1/2-inch iron rod found for the most westerly corner of Lot 29 of said The Hills of Lakeway Phase 12,

THENCE leaving said Lakeway Boulevard, with the southerly lines of said St. Andrews Planned Unit development the following two (2) courses and distances:

1. S 82° 50' 13" E, a distance of 111 25 feet to a 1/2-inch iron rod found for an angle point, and

2. N 59° 45' 21" E, a distance of 1057 74 feet to the **POINT OF BEGINNING** and containing 50 63 acres of land

EXHIBIT "B"

(Certificate of Merger attached hereto)

EXHIBIT B

The State of Texas

SECRETARY OF STATE

CERTIFICATE OF CONVERSION

The undersigned, as Secretary of State of Texas, hereby certifies that the attached Articles of Conversion of

LAKEWAY GOLF CLUBS, INC.
a Texas corporation

converting it to

LAKEWAY GOLF CLUBS ACQUISITION, L.L.C.
a Texas limited liability company

have been received in this office and found to conform to law. ACCORDINGLY, the undersigned, as Secretary of State, and by virtue of the authority vested in the Secretary by law, hereby issues this Certificate of Conversion.

Filed: April 1, 1999

Effective: April 1, 1999

THE STATE OF TEXAS

Elton Bomer
Secretary of State

FILED AND RECORDED

04-12-1999 12:20 PM 1999005108
HAYWOODK $29.00
Dana DeBeauvoir ,COUNTY CLERK
TRAVIS COUNTY, TEXAS

RECORDERS MEMORANDUM-At the time of recordation this instrument was found to be inadequate for the best photographic reproduction, because of illegibility, carbon or photocopy, discolored paper, etc All blockouts, additions and changes were present at the time the instrument was filed and recorded

FIRST AMENDMENT TO AMENDED WASTE DISPOSAL CONTRACT

This First Amendment to Amended Waste Disposal Contract (the "First Amendment") is entered into by and between Hurst Creek Municipal Utility District ("District") and Clubcorp Golf of Texas, L.P. ("the Company"), as follows:

WHEREAS, the District and Lakeway Golf Clubs, Inc. heretofore entered into that certain "Amended Waste Disposal Contract Between Hurst Creek Municipal Utility District and Lakeway Golf Clubs, Inc.", dated August 30, 1997 ("Amended Waste Disposal Contract"); and

WHEREAS, the Company has succeeded to the rights and responsibilities of Lakeway Golf Clubs, Inc. under the Amended Waste Disposal Contract; and

WHEREAS, the Amended Waste Disposal Contract authorizes the sale of the District's wastewater effluent and raw water to the Company for the irrigation of The Hills Golf Course, the Academy of Golf three-hole course, and The Hills Driving Range (referred to as "Irrigated Area" in the Amended Waste Disposal Contract), owned by the Company, and located within the boundaries of the District; and

WHEREAS, the District has secured a wastewater treatment and disposal permit from the Texas Natural Resource Conservation Commission, TNRCC Permit No. 12215-001, which requires the District to dispose of up to 500,000 gallons per day ("gpd") on an average annual basis of wastewater effluent; and

WHEREAS, in order to ensure that the District has the capability of disposing of wastewater effluent in the amounts described in the Amended Waste Disposal Contract and its TNRCC Permit No. 12215-001, the District and the Company desire to amend said contract as herein provided.

NOW, THEREFORE, FOR AND IN CONSIDERATION OF the sum of TEN DOLLARS ($10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

Section 1. Except as provided in this First Amendment, all terms and conditions of the Amended Waste Disposal Contract shall continue in effect for the term of said contract, except to the extent that said terms and conditions conflict with the express provisions of this First Amendment. In such event, the express provisions of this First Amendment shall control.

Section 2. The following definitions in Article I of the Amended Waste Disposal Contract are hereby amended as follows:

(a) Irrigated Area: "Irrigated Area" means those areas located in and around The Hills Golf Course, said irrigated areas described by metes and bounds in **Exhibit B-1** of this Agreement.

(b) Prior Agreements: "Prior Agreements" means the "Waste Disposal Contract between the Hurst Creek Municipal Utility District and Lakeway Company" dated October 12, 1987, the "First Amendment to Waste Disposal Contract between Hurst Creek Municipal Utility District and Lakeway Company" dated June 9, 1995, and the "Amended Waste Disposal Contract between Hurst Creek Municipal Utility District and Lakeway Golf Clubs, Inc." dated August 30, 1997.

Section 3. Article II, Section 3 of the Amended Waste Disposal Contract, "Disposal of Effluent", is hereby amended by adding the following provisions to the end of said Article and Section:

. . . Notwithstanding any other provision in this Agreement to the contrary, the Company agrees to maximize the reach of the Irrigation System within the Irrigated Area, and to adopt and implement irrigation and disposal practices, as necessary to fully dispose of Effluent in the amounts specified in Article II, Section 2 herein. The Company has carefully considered its ability to comply with such disposal obligations and has satisfied itself that disposal of such amounts, given its ability to so expand its Irrigation System and to implement such irrigation and disposal practices, can be accomplished so that such Effluent amounts can be lawfully disposed of by irrigation of the Irrigated Area without causing the golf course to become unacceptable as a first-class golf course.

Section 4. Article III, Section 6 of the Amended Waste Disposal Contract, "Operation of Irrigation System and Irrigated Area", is hereby amended by deleting the phrase ". . . and within the boundaries of the golf course . . ." from the fifth sentence of the second paragraph of said Article and Section.

Section 5. By its execution of this First Amendment, the Company formally consents to the District's provision of a temporary reclaimed water supply, made up of treated wastewater effluent and/or raw water, to the Hills II Golf Course, pursuant to the terms and conditions of that certain "Temporary Reclaimed Water Supply Contract" entered into between the District and Hills II of Lakeway, Inc., an affiliate of the Company, contemporaneously with the execution of this First Amendment.

Section 6. Within thirty (30) days of the execution of this First Amendment, the Company shall provide the District with an easement, in a form and substance acceptable to the District, authorizing and permitting the District to construct, operate, maintain, repair and/or replace the facilities necessary to: (a) divert Raw Water at the District's existing Raw Water Diversion Point on Hurst Creek to the Wastewater Treatment Plant; (b) from the Wastewater Treatment Plant to an existing valve vault on The Hills Golf Course; (c) from said valve vault to the District's existing 44 million gallon effluent storage pond; and, (d) from said valve vault to the existing Irrigation System pumphouse on The Hills Golf Course.

Section 7. A metes and bounds description of the Irrigated Area as defined in this First Amendment is attached hereto as **Exhibit B-1**. **Exhibit B** of the Amended Waste Disposal Contract is hereby replaced by **Exhibit B-1**, attached hereto and made a part of the Amended Waste Disposal Contract for all purposes.

Section 8. The Effective Date of this First Amendment is August 30, 2000.

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment in multiple counterparts, each of which shall be deemed to be an original, as of the Effective Date defined herein.

CLUBCORP GOLF OF TEXAS, L.P.

By: ClubCorp Gen Par of Texas, L.L.C.
its general partner

By: _____ V.P.

ATTEST:

By: _____

HURST CREEK MUNICIPAL UTILITY DISTRICT

By: Haskell Wotkyns, Jr.
President, Board of Directors

ATTEST:

By: M.D. Ingram
Secretary, Board of Directors

EXHIBITS

Exhibit B-1 Metes and Bounds Description of Irrigated Area

Exhibit B-1

A DESCRIPTION OF A 162.12 NET ACRE TRACT OF LAND OUT OF THE TEXAS CENTRAL RAILROAD COMPANY SURVEY NO. 195, J.H. LOHMAN SURVEY NO. 523, H. HOFFMEISTER SURVEY NO. 469, W. FAUCETT SURVEYS NO. 425 AND 426, AND THE C.W. WALDRON SURVEY NO. 78, ALL IN TRAVIS COUNTY, TEXAS, BEING A PORTION OF THAT 188.621 TRACT OF LAND AS DESCRIBED IN THAT SPECIAL WARRANTY DEED FROM FEDERAL DEPOSIT INSURANCE CORPORATION TO THE HILLWOOD PROPERTY COMPANY AS EXHIBIT A-5, AND RECORDED IN VOLUME 12364, PAGE 1915 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS; SAID 162.12 NET ACRE TRACT, AS SHOWN ON SURVEY RESOURCES, INC. DRAWING NO. C077-249501-01, AS TRACT 1, SAVE AND EXCEPT THAT CERTAIN 0.14 ACRE TRACT OF LAND AS DESCRIBED IN THAT DEED TO THE HURST CREEK MUNICIPAL UTILITY DISTRICT AS RECORDED IN VOLUME 9228, PAGE 248, THAT CERTAIN 0.732 ACRE TRACT OF LAND DESCRIBED IN THAT SPECIAL WARRANTY DEED TO THE HURST CREEK MUNICIPAL UTILITY DISTRICT, AS RECORDED IN VOLUME 11375, PAGE 79, BOTH OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, AND THAT 0.70 ACRE TRACT OF LAND DESCRIBED BELOW; SAID 162.12 NET ACRE TRACT AS SHOWN ON SRI DRAWING NO. C077-249501-01, BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

Tract 1 - 161.69 Acres:

BEGINNING at a 1/2-inch iron rod found at the southwest corner of Lot 260, The Hills of Lakeway Phase Four, a subdivision of record in Travis County, Texas and recorded in Book 81, Page 123 of the Plat Records of Travis County, Texas; said iron rod being on the north right-of-way line of The Hills Drive (60 foot R.O.W.), a private road, as shown on said recorded plat of The Hills of Lakeway Phase Four;

THENCE with the north right-of-way line of the said Hills Drive, THE BEARING BASIS FOR THIS SURVEY, S 86° 49' 10" W, a distance of 930.90 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the right; said iron rod being at the northwesterly corner of The Hills Drive as shown on the subdivision plat of The Hills of Lakeway Phase Three, a subdivision of record in Travis County, Texas and recorded in Book 80, Page 230, of the Plat Records of Travis County, Texas;

THENCE continuing along the north right-of-way line of The Hills Drive with said curve to the right a distance of 40.95 feet along the arc, having a radius of 1622.84 feet, a central angle of 01° 26' 45" and a subchord which bears S 87° 12' 26" W, a distance of 40.95 feet to a 1/2-inch iron rod found at a point of non-tangent, compound curvature of a curve to the right;

THENCE with said curve to the right a distance of 26.07 feet along the arc, having a radius of 15.31 feet, a central angle of 97° 33' 47" and a chord which bears N 43° 07' 53" W, a distance of 23.03 feet to a 1/2-inch iron rod found at a non-tangent point of compound curvature of a curve to the right; said iron rod being in the east right-of-way line of Silktassel Lane, a private street, as shown on said subdivision plat of The Hills of Lakeway Phase Three;

THENCE with the east right-of-way of said Silktassel Lane the following four (4) courses:

1. a distance of 21.02 feet along the arc of said curve to the right, having a radius of 25.00 feet, a central angle of 48° 09' 55" and a chord which bears N 30° 44' 02" E, a distance of 20.40 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left,

2. a distance of 42.17 feet along the arc of said curve to the left, having a radius of 50.00 feet, a central angle of 48° 19' 31" and a chord which bears N 30° 36' 52" E, a distance of 40.93 feet to a 1/2-inch iron rod found at the point of termination of said curve,

3. N 06° 27' 58" E, a distance of 40.14 feet to a 1/2-inch iron rod found at a non-tangent point of a curve to the left, and

4. a distance of 37.73 feet along the arc of said curve to the left, having a radius of 50.00 feet, a central angle of 43° 13' 48" and a chord which bears N 15° 12' 21" W, a distance of 36.84 feet to a 1/2-inch iron rod found at the southeast corner of Lot 803 of said Hills of Lakeway Phase Three;

THENCE leaving the right-of-way of Silktassel Lane, with the southeast line of said Lot 803, N 70° 31' 13" E, a distance of 150.40 feet to a 1/2-inch iron rod found at the most easterly corner of said Lot 803;

THENCE with the northeast line of The Hills of Lakeway Phase Three and of the Amended Plat of Lots 805 and 806 The Hills of Lakeway Phase Three, as recorded in Book 90, Page 52 of the Plat Records of Travis County, Texas, the following four (4) courses:

1. N 65° 11' 56" W, a distance of 299.97 feet to a 1/2-inch iron rod in concrete found,

2. N 63° 47' 57" W, a distance of 343.11 feet to a 1/2-inch iron rod found,

3. N 50° 39' 51" W, a distance of 239.11 feet to a 1/2-inch iron rod found, and

4. S 77° 18' 41" W, a distance of 61.32 feet to a 1/2-inch iron rod found at the southeast corner of Common Area 782, The Hills of Lakeway Phase Six, a subdivision of record in Travis County, Texas, and recorded in Book 81, Page 373 Plat Records of Travis County, Texas;

THENCE with the east line of said Hills of Lakeway Phase Six the following two (2) courses:

1. N 09° 14' 37" E, a distance of 85.13 feet to a 1/2-inch iron rod found in the south right-of-way line of Treehaven Lane (60 foot R.O.W.), a private street, as shown on said subdivision plat of The Hills of Lakeway Phase Six, and

2. N 77° 10' 16" E, with said right-of-way line, a distance of 228.75 feet to a 1/2-inch iron rod found at a point of a non-tangent point of curvature to the right, for the west corner of a called 5.213 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd. as Exhibit A-5-A, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas;

THENCE leaving the east right-of-way of Treehaven Lane, with south line of the said 5.213 acre tract, being a north line of said 188.621 acre tract, the following two (2) courses:

1. a distance of 23.99 feet along the arc of said curve to the right, having a radius of 17.17 feet, a central angle of 80° 04' 30" and a chord which bears S 68° 21' 43" E, a distance of 22.09 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left, and

2. a distance of 106.42 feet along the arc of said curve to the left, having a radius of 192.61 feet, a central angle of 31° 39' 28" and a chord which bears S 44° 09' 05" E, a distance of 105.07 feet to a point of a non-tangent compound curve;

THENCE leaving said line, over and across said 188.621 acre tract, a distance of 280.73 feet along the arc of said curve to the left, having a radius of 346.00 feet, a central angle of 46° 29' 14" and a chord which bears S 73° 27' 11" E, a distance of 273.09 feet to a non-tangent point in said south line of the 5.213 acre tract, being a north line of said 188.621 acre tract;

THENCE continuing with said south line of the 5.213 acre tract, being a north line of said 188.621 acre tract, the following four (4) courses:

1. S 78° 31' 24" E, a distance of 24.09 feet to a 1/2-inch iron rod found, at a point of curvature to the left,

2. a distance of 99.42 feet along the arc of said curve to the left, having a radius of 90.69 feet, a central angle of 62° 48' 50" and a chord which bears N 70° 04' 11" E, a distance of 94.52 feet to a 1/2-inch iron rod found at the point of termination of said curve,

3. N 38° 39' 46" E, a distance of 11.93 feet to a point, and

4. S 64° 46' 10" E, a distance of 99.72 feet to a 1/2-inch iron rod found for a south corner of said 5.213 acre tract, being an interior north corner of said 188.621 acre tract;

THENCE leaving the south line of said 5.213 acre tract, being a north line of said 188.621 acre tract, over and across said 188.621 acre tract, the following four (4) courses and distances:

1. S 62° 21' 17" E, a distance of 229.39 feet to a 1/2-inch iron rod set,

2. S 70° 25' 47" E, a distance of 123.39 feet to a 1/2-inch iron rod set,

3. N 26° 51' 54" E, a distance of 213.42 feet to a 1/2-inch iron rod set, and

4. N 47° 24' 50" W, a distance of 170.43 feet to a 1/2-inch iron rod found for a northeast corner of said 5.213 acre tract, being an interior southwest corner of said 188.621 acre tract;

THENCE with the north and west lines of said 5.213 acre tract, being interior south and east lines of said 188.621 acre tract, the following seven (7) courses:

1. N 08° 17' 28" W, a distance of 131.01 feet to a 1/2-inch iron rod found,

2. N 26° 33' 30" W, a distance of 305.14 feet to a 1/2-inch iron rod found,

3. N 85° 06' 11" W, a distance of 153.20 feet to a 1/2-inch iron rod found,

4. S 22° 57' 23" W, a distance of 216.92 feet to a 1/2-inch iron rod found,

5. S 24° 05' 23" W, a distance of 165.60 feet to a 1/2-inch iron rod found,

6. S 27° 51' 42" W, a distance of 129.23 feet to a 1/2-inch iron rod found, and

7. S 64° 46' 25" E, a distance of 88.19 feet to a 1/2-inch iron rod set for a non-tangent point of curvature to the right in a south line of said 5.213 acre tract, being a north line of said 188.621 acre tract;

THENCE leaving said line, over and across said 188.621 acre tract, a distance of 59.85 feet along the arc of said curve to the right, having a radius of 296.00 feet, a central angle of 11° 35' 04" and a chord which bears S 76° 01' 18" W, a distance of 59.75 feet to a point in a north line of said 5.213 acre tract, being a south line of said 188.621 acre tract;

THENCE continuing with said north line of the 5.213 acre tract, being a south line of said 188.621 acre tract, the following three (3) courses:

1. N 78° 31' 24" W, a distance of 53.36 feet to a 1/2-inch iron rod found, at a point of curvature to the right,

2. a distance of 176.88 feet along the arc of said curve to the right, having a radius of 939.24 feet, a central angle of 10° 47' 25" and a chord which bears N 73° 08' 35" W, a distance of 176.62 feet to a 1/2-inch iron rod found at a point of compound curvature, and

3. a distance of 15.12 feet along the arc of said curve to the right, having a radius of 142.61 feet, a central angle of 06° 04' 22" and a chord which bears N 64° 40' 32" W, a distance of 15.11 feet to a non-tangent point of compound curvature;

THENCE leaving said line, over and across said 188.621 acre tract, the following two (2) courses:

1. a distance of 70.25 feet along the arc of said curve to the right, having a radius of 296.00 feet, a central angle of 13° 35' 56" and a chord which bears N 42° 33' 15" W, a distance of 70.09 feet to a point of compound curvature, and

2. a distance of 21.52 feet along the arc of said curve to the right, having a radius of 15.00 feet, a central angle of 82° 11' 48" and a chord which bears N 05° 20' 36" E, a distance of 19.72 feet to a 1/2-inch iron rod found in said south right-of-way line of Treehaven Lane, for a west corner of said 188.621 acre tract, being the most westerly corner of that certain 0.0072 acre tract of land described in a deed from Lakeway Company to J. Clark Newlin and recorded in Volume 8452, Page 330 Deed Records of Travis County, Texas;

THENCE leaving said right-of-way of Treehaven Lane, with the southeast line of said 0.0072 acre tract and the southeast line of Lot A of the Amended Plat of Lots 480 and 481, The Hills of Lakeway, Phase Six P.U.D., a subdivision of record in Travis County, Texas, and recorded in Book 90, Page 154, Plat Records of Travis County, Texas, N 62° 32' 56" E, a distance of 142.14 feet to a 1/2-inch iron rod found;

THENCE with the east line of said Amended Plat of Lots 480 and 481, The Hills of Lakeway, Phase Six P.U.D., and Hills of Lakeway Phase Six, N 27° 56' 18" E, a distance of 287.34 feet to a 1/2-inch iron rod found at the southeast corner of Lot 487-A, Amended plat of Lots 487 and 488, The Hills of Lakeway Phase Six, P.U.D., a subdivision of record in Travis County, Texas and recorded in Book 87, Page 1298, Plat Records of Travis County, Texas;

THENCE with the east line of said amended plat the following three (3) courses:

1. N 11° 18' 37" E, a distance of 113.73 feet to a 1/2-inch iron rod found,

2. N 02° 34' 35" W, a distance of 92.24 feet to a 1/2-inch iron rod found,

3. N 82° 22' 58" W, a distance of 73.24 feet to a 1/2-inch iron rod found at the northwest corner of Lot 488A of said amended plat; said iron rod being in the east line of common area Lot 773, The Hills of Lakeway Phase Two, a subdivision of record in Travis County, Texas, and recorded in Book 79, Page 388, Plat Records of Travis County, Texas.

THENCE with the east line of said Hills of Lakeway Phase Two the following four (4) courses:

1. N 19° 25' 30" E, a distance of 209.09 feet to a 1/2-inch iron rod found,

2. N 15° 16' 09" E, a distance of 306.90 feet to a 1/2-inch iron rod found,

3. N 07° 46' 08" E, a distance of 215.59 feet to a 1/2-inch iron rod found, and

4. N 40° 09' 55" W, a distance of 21.85 feet to a 1/2-inch iron rod found at the southeast corner of common area Lot 758, The Hills of Lakeway Phase One, a subdivision of record in Travis County, Texas and recorded in Book 79, Page 324, Plat Records of Travis County, Texas;

THENCE with the east line of said Hills of Lakeway Phase One the following four (4) courses:

1. N 10° 26' 45" E, a distance of 186.76 feet to a 1/2-inch iron rod found,

2. N 60° 29' 55" E, a distance of 284.94 feet to a 1/2-inch iron rod found,

3. N 26° 50' 26" E, a distance of 170.12 feet to a 1/2-inch iron rod found, and

4. N 51° 46' 38" E, a distance of 336.93 feet to a 1/2-inch iron rod found at the most easterly common corner of Lots 253 and 773, The Hills of Lakeway Phase One;

THENCE with the common line of said Lots 252 and 773, N 36° 25' 58" W, a distance of 201.53 feet to a 1/2-inch iron rod found at a non-tangent point in a curve to the left in the east right-of-way line of Club Estates Parkway (a ROW of varying width), as shown on the plat of said Hills of Lakeway Phase One, for the most northerly common corner of Lots 252 and 773;

THENCE with the east right-of-way of said Club Estates Parkway the following four (4) courses:

1. a distance of 85.07 feet along the arc of said curve to the left, having a radius of 320.00 feet, a central angel of 15° 13' 54" and a chord which bears N 35° 26' 15" E, a distance of 84.82 feet to a 1/2-inch iron rod found at the point of termination of said curve.

2. N 27° 44' 53" E, a distance of 163.68 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

3. a distance of 458.21 feet along the arc of said curve to the left, having a radius of 565.99 feet, a central angle of 46° 23' 07" and a chord which bears N 04° 33' 20" E, a distance of 445.80 feet to a 1/2-inch iron rod found for the termination of said curve,

4. N 18° 37' 29" W, a distance of 32.85 feet to a 1/2-inch iron rod found for the southwest corner of Lot 729;

THENCE leaving the east right-of-way of Club Estates Parkway with the south line of Lot 729, N 48° 41' 00" E, a distance of 164.37 feet to a 5/8-inch iron rod found at the southeast corner of Lot 729;

THENCE with the east line of The Hills of Lakeway Phase One the following six (6) courses:

1. N 00° 21' 31" E, a distance of 228.03 feet to a 1/2-inch iron rod found,

2. N 19° 37' 01" W, a distance of 351.17 feet to a 1/2-inch iron rod found,

3. N 01° 00' 55" E, a distance of 476.67 feet to a 1/2-inch iron rod found,

4. N 25° 38' 55" E, a distance of 234.54 feet to a 1/2-inch iron rod found on the south right-of-way of The Hills Drive, as shown on said Hills of Lakeway Phase One,

5. with the southeast line of said The Hills Drive as shown on said Hills of Lakeway Phase One, N 22° 52' 55" E, a distance of 60.00 feet to a point in a concrete golf cart path, and

6. with the north right-of-way of said The Hills Drive, N 67° 03' 22" W, a distance of 80.10 feet to a railroad spike found at the southeast corner of "The Masters" at The Hills of Lakeway, a subdivision of record in Travis County, Texas and recorded in Book 85, Page 82A, Plat Records of Travis County, Texas;

THENCE with the east line of "The Masters" at The Hills of Lakeway the following nine (9) courses:

1. N 22° 53' 09" E, a distance of 116.76 feet to a 1/2-inch iron rod found,

2. N 39° 36' 17" E, a distance of 174.27 feet to a PK nail found,

3. N 56° 46' 48" E, a distance of 203.58 feet to a 1/2-inch iron rod found,

4. N 69° 05' 22" E, a distance of 314.12 feet to a 1/2-inch iron rod found,

5. N 67° 19' 33" E, a distance of 106.13 feet to a 1/2-inch iron rod found,

6. N 43° 47' 34" E, a distance of 146.71 feet to a 1/2-inch iron rod found,

7. N 08° 52' 31" W, a distance of 83.78 feet to a 1/2-inch iron rod found,

8. N 21° 08' 39" E, a distance of 157.53 feet to a 1/2-inch iron rod found, and

9. N 30° 11' 21" W, a distance of 176.41 feet to a 1/2-inch iron rod found in the south right-of-way of Lakeway Boulevard (120 foot ROW) as dedicated by Lakeway Section 16-A, a subdivision of record in Travis County, Texas and recorded in Book 59, Page 19, Plat Records of Travis County, Texas;

THENCE with the said south right-of-way of Lakeway Boulevard, the following three (3) courses:

1. N 59° 54' 00" E, a distance of 400.27 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

2. a distance of 149.84 feet along the arc of said curve to the left, having a radius of 632.96 feet, a central angle of 13° 33' 48" and a chord which bears N 52° 45' 49" E, a distance of 149.49 feet to a 1/2-inch iron rod found for the termination of said curve, and

3. N 46° 01' 46" E, a distance of 209.87 feet to a 1/2-inch iron rod found in the west line of a tract of land described in a deed to M&S Properties and recorded in Volume 11228, Page 212, Deed Records of Travis County, Texas; from which a 1/2-inch iron rod found in the south right-of-way of World of Tennis Boulevard at a point of curvature to the right bears, N 46° 01' 46" E, a distance of 61.23 feet;

THENCE with said west line of the M&S Tract of land S 24° 09' 35" W, a distance of 119.32 feet to a 1/2-inch iron rod found in the west line of a called 25.006 acre tract of land described in a deed from David H. Meck to M&S Properties and recorded in Volume 11040, Page 781, Deed Records of Travis County, Texas; from which iron rod found a 1/2-inch iron rod found at the northwest corner of said 25.006 acre tract of land bears N 33° 47' 00" E, a distance of 170.46 feet,

THENCE with the west and south lines of said 25.006 acre tract of land the following four (4) courses:

1. S 33° 49' 47" W, a distance of 118.39 feet to a 1/2-inch iron rod found,

2. S 23° 58' 44" W, a distance of 202.47 feet to a 1/2-inch iron rod found,

3. S 22° 21' 28" W, a distance of 105.19 feet to a 1/2-inch iron rod found in an asphalt golf cart path at the southwest corner of said 25.006 acre tract of land, and,

4. S 58° 23' 03" E, a distance of 630.23 feet to a 1/2-inch iron rod found at the most northerly corner of Lot 763, The Hills of Lakeway Phase Nine P.U.D., a subdivision of record in Travis County, Texas, and recorded in Book 85, Page 190, Plat Records of Travis County, Texas;

THENCE with the west line of said Hills of Lakeway Phase Nine the following nine (9) courses:

1. S 56° 37' 53" W, a distance of 159.97 feet to a 1/2-inch iron rod found,

2. S 31° 36' 08" W, a distance of 130.01 feet to a 60-D nail found,

3. S 27° 20' 56" E, a distance of 220.19 feet to a 1/2-inch iron rod found,

4. S 68° 48' 05" E, a distance of 93.46 feet to a 1/2-inch iron rod found,

5. S 24° 10' 41° W, a distance of 20.01 feet to a 1/2-inch iron rod found,

6. S 68° 32' 15° E, a distance of 126.49 feet to a 1/2-inch iron rod found, at the southeast corner of Lot 768, in the west right-of-way line of Falling Oaks Trail (60 foot ROW), a private street as shown on said plat of The Hills of Lakeway Phase Nine, at a non-tangent point of curvature to the left,

7. with the west right-of-way line of said Falling Oaks Trail, a distance of 30.01 feet along the arc of said curve to the left, having a radius of 1028.94 feet, a central angle of 01° 40' 16" and a subchord which bears S 21° 03' 53" W, a distance of 30.01 feet to a 1/2-inch iron rod found at the northeast corner of Lot 769,

8. N 68° 32' 42" W, a distance of 208.94 feet to a 1/2-inch iron rod found, and

9. S 43° 36' 34" W, a distance of 127.58 feet to a PK nail found for a northeast corner of a called 18.508 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd. as Exhibit A-5-B, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas;

THENCE leaving the west line of said Hills of Lakeway Phase Nine, continuing with the interior south and east lines of the said 188.621 acre tract, being the north and west lines of the said 18.508 acre tract, the following seven (7) courses:

1. N 46° 07' 54" W, a distance of 295.53 feet to a 1/2-inch iron rod found,

2. S 63° 39' 25" W, a distance of 137.95 feet to a 1/2-inch iron rod found,

3. S 43° 49' 30" W, a distance of 225.77 feet to a 1/2-inch iron rod found,

4. S 57° 10' 15" W, a distance of 220.04 feet to a 1/2-inch iron rod found,

5. S 25° 52' 58" W, a distance of 261.09 feet to a 1/2-inch iron rod set,

6. N 67° 06' 18" W, a distance of 166.93 feet to a 1/2-inch iron rod set, and

7. S 37° 10' 34" W, a distance of 61.91 feet to a 1/2-inch iron rod set in a west line of said 18.508 acre tract, being an east line of said 188.621 acre tract;

THENCE leaving said line, over and across said 188.621 acre tract, the following eight (8) courses:

1. N 67° 06' 18" W, a distance of 43.40 feet to a 1/2-inch iron rod set,

2. S 37° 12' 35" W, a distance of 256.80 feet to a 1/2-inch iron rod set,

3. S 15° 12' 12" E, a distance of 172.73 feet to a 1/2-inch iron rod set,

4. S 07° 18' 47" E, a distance of 175.56 feet to a 1/2-inch iron rod set,

5. S 00° 42' 44" E, a distance of 120.91 feet to a 1/2-inch iron rod set,

6. S 20° 51' 18" E, a distance of 176.32 feet to a 1/2-inch iron rod set,

7. N 86° 26' 12" E, a distance of 59.71 feet to a 1/2-inch iron rod set, and

8. N 48° 00' 13" E, a distance of 33.99 feet to a 1/2-inch iron rod set in a south line of said 18.508 acre tract, being a north line of said 188.621 acre tract;

THENCE with the east, south and west lines of said 18.508 acre tract, being the west, north and east lines of said 188.621 acre tract, the following six (6) courses:

1. N 89° 09' 34" E, a distance of 48.75 feet to a 1/2-inch iron rod found,

2. N 08° 49' 21" W, a distance of 163.21 feet to a 1/2-inch iron rod found,

3. N 06° 20' 05" E, a distance of 172.98 feet to a 1/2-inch iron rod found,

4. N 15° 55' 01" E, a distance of 395.93 feet to a 1/2-inch iron rod set,

5. S 67° 06' 18" E, a distance of 241.49 feet to a 1/2-inch iron rod set, and

6. S 13° 51' 35" W, a distance of 356.78 feet to a 1/2-inch iron rod found at a west corner of said 18.508 acre tract, being a east corner of said 188.621 acre tract, and being the north corner of Lot 880 of said Hills of Lakeway Phase Nine;

THENCE continuing with the west line of said Hills of Lakeway Phase Nine and south line of the Amended Plats of Lots 865 and 867 Hills of Lakeway P.U.D. Phase 9 as recorded in Book 87, Page 788, Plat Records of Travis County, Texas, the following fifteen (15) courses:

1. S 04° 56' 30" W, a distance of 92.15 feet to a 1/2-inch iron rod found,

2. S 02° 19' 02" W, a distance of 65.81 feet to a 1/2-inch iron rod found,

3. S 07° 00' 57" W, a distance of 402.74 feet to a 1/2-inch iron rod found,

4. S 01° 30' 46" E, a distance of 139.65 feet to a 1/2-inch iron rod found,

5. N 89° 00' 40" E, a distance of 166.23 feet to a 1/2-inch iron rod found at the southeast corner of Lot 874, in the west right-of-way line of Hedgebrook Way (60 feet ROW), a private street as shown on said recorded plat of The Hills of Lakeway Phase Nine, at a non-tangent point of curvature to the left,

6. with the west right-of-way of said Hedgebrook Way, a distance of 30.76 feet along the arc of said curve to the left, having a radius of 338.00 feet, a central angle of 05° 12' 53" and a subchord which bears S 13° 34' 20" E, a distance of 30.75 feet to a 1/2-inch iron rod found at the northeast corner of Lot 873,

7. leaving Hedgebrook Way, S 89° 00' 11" W, a distance of 172.64 feet to a 1/2-inch iron rod found,

8. S 01° 31' 05" E, a distance of 48.17 feet to a 1/2-inch iron rod found,

9. S 04° 10' 23" E, a distance of 246.81 feet to a 1/2-inch iron rod set,

10. S 72° 14' 28" E, a distance of 74.87 feet to a 1/2-inch iron rod found,

11. S 85° 35' 26" E, a distance of 61.52 feet to a 1/2-inch iron rod found,

12. S 88° 25' 56" E, a distance of 90.56 feet to a 1/2-inch iron rod found,

13. S 70° 04' 05" E, a distance of 356.76 feet to a 1/2-inch iron rod found,

14. S 88° 29' 02" E, a distance of 273.35 feet to a 1/2-inch iron rod found, and

15. S 26° 28' 23" E, a distance of 98.85 feet to a 1/2-inch iron rod found, at the common rear lot corner of Lots 860, The Hills of Lakeway Phase Nine and Lot 596, The Hills of Lakeway Phase Eight, a subdivision of record in Travis County, Texas, and recorded in Book 82, Page 1, Plat Records of Travis County, Texas;

THENCE with the west line of said Hills of Lakeway Phase Eight, and with the west line of the Amended Plat of Lots 561 and 562, The Hills of Lakeway Phase Eight as recorded in Book 89, Page 367, Plat Records of Travis County, Texas, and with the west line of the Amended Plat of Lots 551 and 550, The Hills of Lakeway Phase Eight as recorded in Book 90, Page 153, Plat Records of Travis County, Texas the following thirteen (13) courses:

1. S 00° 26' 07" E, a distance of 168.12 feet to a 1/2-inch iron rod found,

2. S 46° 08' 47" E, a distance of 332.52 feet to a 1/2-inch iron rod found,

3. S 71° 28' 09" E, a distance of 165.97 feet to a 1/2-inch iron rod found,

4. S 40° 39' 20" E, a distance of 185.97 feet to a 1/2-inch iron rod found,

5. S 21° 24' 47" E, a distance of 321.87 feet to a 1/2-inch iron rod found,

6. S 14° 37' 05" E, a distance of 182.15 feet to a 1/2-inch iron rod found,

7. S 15° 06' 55" E, a distance of 221.50 feet to a 1/2-inch iron rod found,

8. S 33° 52' 16" W, a distance of 582.08 feet to a 1/2-inch iron rod found,

9. S 21° 37' 23" W, a distance of 173.55 feet to a 1/2-inch iron rod found,

10. S 10° 31' 26" W, a distance of 207.03 feet to a 1/2-inch iron rod found,

11. S 09° 30' 10" W, a distance of 210.59 feet to a 1/2-inch iron rod found,

12. S 23° 41' 00" W, a distance of 279.27 feet to a 1/2-inch iron rod found, and

13. S 85° 02' 38" W, a distance of 152.88 feet to a 1/2-inch iron rod found at the common rear lot corner of Lots 520 of said The Hills of Lakeway Phase Eight, and 286, The Hills of Lakeway Phase Four, a subdivision of record in Book 81, Page 123, Plat Records of Travis County, Texas,

THENCE with the east line of said The Hills of Lakeway Phase Four the following seven (7) courses:

1. N 73° 36' 32" W, a distance of 183.71 feet to a 1/2-inch iron rod found,

2. N 06° 29' 04" W, a distance of 433.22 feet to a 1/2-inch iron rod found,

3. N 00° 21' 02" E, a distance of 342.41 feet to a 1/2-inch iron rod found,

4. N 32° 05' 22" E, a distance of 286.02 feet to a 1/2-inch iron rod found,

5. N 35° 33' 16" E, a distance of 212.22 feet to a 1/2-inch iron rod found,

6. N 31° 12' 02" E, a distance of 99.05 feet to a 1/2-inch iron rod found, and

7. N 02° 22' 59" W, a distance of 294.17 feet to a 1/2-inch iron rod found at the common rear lot corner of Lots 307 and 308 of said Hills of Lakeway Phase Four,

THENCE with the north line of said Hills of Lakeway Phase Four the following six (6) courses:

1. N 75° 56' 26" W, a distance of 167.82 feet to a 1/2-inch iron rod found,

2. N 25° 45' 25" W, a distance of 107.80 feet to a 1/2-inch iron rod found,

3. N 59° 29' 45" W, a distance of 332.70 feet to a 1/2-inch iron rod found,

4. N 50° 46' 58" W, a distance of 504.44 feet to a 1/2-inch iron rod found,

5. N 84° 10' 23" W, a distance of 111.28 feet to a 1/2-inch iron rod found, and

6. N 83° 55' 43" W, a distance of 320.44 feet to a 1/2-inch iron rod found at the most northerly rear lot corner in Lot 324, of said The Hills of Lakeway Phase Four, from which a 1/2-inch iron rod found at the common rear lot corner of Lots 324 and 323 bears S 83° 55' 43" E, a distance of 45.68 feet,

THENCE with the west line of said The Hills of Lakeway Phase Four and with the west line of the Amended Plat of Lots 328 and 329, The Hills of Lakeway Phase Four as recorded in Book 88, Page 155, Plat Records of Travis County, Texas, the following seven (7) courses:

1. S 46° 55' 28" W, a distance of 83.41 feet to a 1/2-inch iron rod found,
2. S 43° 19' 01" E, a distance of 177.86 feet to a 1/2-inch iron rod found,
3. S 02° 18' 43" W, a distance of 93.34 feet to a 1/2-inch iron rod found,
4. S 72° 03' 27" W, a distance of 227.79 feet to a 1/2-inch iron rod found,
5. S 36° 52' 08" W, a distance of 52.09 feet to a 1/2-inch iron rod found,
6. S 19° 42' 08" E, a distance of 164.90 feet to a 1/2-inch iron rod found, and
7. S 27° 31' 23" E, a distance of 143.84 feet to a 1/2-inch iron rod found at the most westerly common rear lot corner of Lots 332, The Hills of Lakeway Phase Four, and common area 781, The Hills of Lakeway Phase Five-Amended, a subdivision of record in Travis County, Texas; and recorded in Book 81, Page 399, Plat Records of Travis County, Texas,

THENCE with the west line of said The Hills of Lakeway Phase Five-Amended the following nine (9) courses:

1. S 33° 45' 41" W, a distance of 255.94 feet to a 1/2-inch iron rod found,
2. S 12° 24' 25" W, a distance of 216.05 feet to a 1/2-inch iron rod found,
3. S 12° 07' 31" W, a distance of 254.41 feet to a 1/2-inch iron rod found,
4. S 23° 49' 29" W, a distance of 93.79 feet to a 1/2-inch iron rod found,
5. S 02° 38' 53" W, a distance of 249.81 feet to a 1/2-inch iron rod found,
6. S 20° 44' 36" E, a distance of 293.67 feet to a 1/2-inch iron rod found,
7. S 25° 33' 32" E, a distance of 137.58 feet to a 1/2-inch iron rod found,
8. S 05° 04' 12" E, a distance of 239.63 feet to a 1/2-inch iron rod found, and
9. S 15° 49' 28" W, a distance of 10.45 feet to a 1/2-inch iron rod found at the common rear lot corner of common area 780, The Hills of Lakeway Phase Five-Amended and Lot 261, The Hills of Lakeway Phase Four,

THENCE with the west line of Lots 261 and 260, The Hills of Lakeway Phase Four the following two (2) courses:

1. S 15° 32' 05" W, a distance of 150.66 feet to a 1/2-inch iron rod found, and
2. S 04° 16' 29" E, a distance of 89.19 feet to the POINT OF BEGINNING and containing 163.69 acres of land.

Save and Except 0.14 Acres:

COMMENCING at a 1/2-inch iron rod found in the southwest line of that certain 25.006 acre tract described in the deed to M&S Properties as recorded in Volume 11040, Page 781 of the Travis County, Texas Real Property Records, being the most northerly corner of Lot 763 of The Hills of Lakeway Phase Nine, a subdivision of record in Book 85, Page 190 of the Travis County, Texas Plat Records;

THENCE leaving said Phase Nine P.U.D., with the south line of said 25.006 acre tract, being a north line of said 188.621 acre tract, N 58° 23' 03" W, a distance of 207.78 feet;

THENCE leaving said 25.006 acre tract and crossing said 188.621 acre tract, S 31° 36' 57" W, a distance of 82.92 feet to a found chain link fence corner post being the POINT OF BEGINNING and being the northeast corner hereof;

THENCE continuing to cross said 188.621 acre tract the following five (5) courses:

1. S 09° 15' 03" E, a distance of 90.30 feet to a found chain link fence post being the southeast corner hereof.
2. S 41° 27' 12" W, a distance of 10.79 feet to a found chain link fence post,
3. S 82° 05' 53" W, a distance of 56.30 feet to a found chain link fence post being the southwest corner hereof.
4. N 07° 54' 07" W, a distance of 95.83 feet to a found chain link fence post being the northwest corner hereof, and
5. N 80° 44' 57" E, a distance of 62.38 feet to the POINT OF BEGINNING and containing 0.14 acres of land.

Save and Except 0.732 Acres:

BEGINNING at a chain link fence corner found at the northwest corner of a 0.14 acre tract of land conveyed to Hurst Creek Municipal Utility District by deed recorded in Volume 9228, Page 248, Travis County Deed Records, same being the most northerly northeast corner hereof;

THENCE S 07° 54' 07" E, a distance of 95.83 feet, along the west line of the said 0.14 acre tract of land, to a point for the southwest corner of the said 0.14 acre tract of land;

THENCE N 82° 05' 53" E, a distance of 56.30 feet, along the south line of the said 0.14 acre tract of land, to a chain link fence corner found at a southeast corner of said 0.14 acre tract of land, same being the most easterly northeast corner hereof;

THENCE over and across a portion of the said 189.493 acre tract of land, the following eight (8) courses:

1. S 03° 48' 16" E, a distance of 59.72 feet to an iron rod found,
2. S 47° 32' 53" W, a distance of 161.61 feet to an iron rod found, same being the most southerly corner hereof;
3. N 47° 29' 24" W, a distance of 29.46 feet to an iron rod found,
4. N 33° 30' 51" W, a distance of 85.52 feet to an iron rod found,
5. N 02° 38' 44" E, a distance of 91.66 feet to an iron rod found,
6. N 11° 28' 11" E, a distance of 77.94 feet to an iron rod found, same being the northwest corner hereof,

7. N 87° 40' 52" E, a distance of 41.76 feet to an angle point, and

8. S 84° 42' 07" E, a distance of 54.05 feet to the POINT OF BEGINNING and containing 0.732 acres of land.

Save and Except 0.70 Acres:

BEGINNING at a 1/2-inch iron rod found at the northeast corner of Lot 713, The Hills of Lakeway Phase One, a subdivision of record in Travis County, Texas and recorded in Book 79, Page 324 of the Plat Records of Travis County, Texas; said iron rod being on the south right-of-way line of The Hills Drive (60 foot R.O.W.), a private road, Lot 774, as shown on said recorded plat of The Hills of Lakeway Phase One, and being on the west line of said 188.621 acre tract, for the west corner of the herein described 0.70 acre tract;

THENCE with the east line of said The Hills Drive, Lot 774, as shown on said Hills of Lakeway Phase One, being the west line of said 188.621 acre tract, N 22° 52' 55" E, a distance of 60.00 feet to a point in a concrete golf cart path, for the north corner of the herein described 0.70 acre tract;

THENCE leaving the east line of said The Hills of Lakeway, Phase One, over and across said 188.621 acre tract, S 67° 06' 18" E, a distance of 516.18 feet to a 1/2-inch iron rod set for a northwest corner of a called 18.508 acre tract of land described in a deed from Federal Deposit Insurance Corporation to Lakeway Property Company, Ltd. as Exhibit A-5-B, and recorded in Volume 12364, Page 2021, of the Deed Records of Travis County, Texas, being a southeast corner of said 188.621 acre tract and the northeast corner of the herein described 0.70 acre tract;

THENCE with a west line of said 18.508 acre tract, being an east line of said 188.621 acre tract, S 37° 10' 34" W, a distance of 61.91 feet to a 1/2-inch iron rod set;

THENCE leaving said line and crossing said 188.621 acres tract, N 67° 06' 18" W, a distance of 500.89 feet to the POINT OF BEGINNING and containing 0.70 acres of land.

Together with the following easements:

Easement Tract 1: A Blanket Easement reserved in a deed recorded in Volume 10035, Page 132, Real Property Records of Travis County, Texas, for the flowage of water for irrigation of Golf Course over and across Lots 762, 763, 764, 765 and 766, The Hills of Lakeway Phase One, a subdivision recorded in Book 79, Pages 324-328, Plat Records, Travis County, Texas.

Easement Tract 2: A Golf Course Appurtenant Easement over and across Lots 829 and 830, The Hills of Lakeway Phase Three, a subdivision in Travis County, Texas, according to the map or plat thereof recorded in Book 86, Page 230, Plat Records of Travis County, Texas, located as shown on such recorded plat.

A DESCRIPTION OF 50.63 ACRES OF LAND OUT OF THE C.E.P.I. & M. CO. SURVEY NO. 67 AND THE H. HOFFMEISTER SURVEY NO. 469 IN TRAVIS COUNTY, TEXAS, BEING ALL OF GOLF COURSE LOTS 768 AND 777, THE HILLS OF LAKEWAY PHASE ONE, A SUBDIVISION RECORDED IN BOOK 79, PAGE 324 OF THE TRAVIS COUNTY, TEXAS PLAT RECORDS, ALL OF LOT 1, WORLD OF TENNIS SECTION ONE, A SUBDIVISION RECORDED IN BOOK 81, PAGE 54 OF SAID PLAT RECORDS, BEING THAT SAME TRACT OF LAND AS DESCRIBED IN A DEED FROM THE FEDERAL DEPOSIT INSURANCE CORPORATION TO HILLWOOD PROPERTY COMPANY AS EXHIBIT A-3, AND RECORDED IN VOLUME 12364, PAGE 1915 OF SAID DEED RECORDS; SAID 50.63 ACRE TRACT OF LAND, AS SHOWN ON SURVEY RESOURCES, INC. DRAWING NO. C077-249502-01, BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING at a 1/2-inch iron rod found in the west line of The Hills Drive, a 60-foot wide private street right-of-way as shown on said plat recorded in Book 79, Page 324 of said Plat Records, being the most northerly corner of said Golf Course Lot 768 and the most easterly corner of Lot 50, St. Andrews Planned Unit Development, a subdivision of record in Book 87, Page 157A-157C of said Plat Records, and being the most northerly corner of the tract described herein;

THENCE with the west line of said The Hills Drive, being an east line of said Golf Course Lot 768 and an east line hereof, S 12° 57' 38" E, a distance of 125.58 feet to a 1/2 inch iron rod found for an easterly corner of said Golf Course Lot 768 and the most northerly corner of Lot 709 of said The Hills of Lakeway, Phase One;

THENCE leaving said The Hills Drive, with a southerly line of said Golf Course Lot 768 and the northerly lines of Lots 709 and 708 of said The Hills of Lakeway Phase One, S 59° 44' 25" W, a distance of 404.13 feet to a 1/2 inch iron rod found for the most westerly corner of said Lot 708 and an interior corner of said Golf Course Lot 768 and of the tract described herein,

THENCE with the westerly lines of Lots 708 through 705, inclusive, of said The Hills of Lakeway Phase One, being easterly lines of said Golf Course Lot 768, the following three (3) courses and distances:

1. S 42° 05' 09" E, a distance of 259.84 feet to a 1/2-inch iron rod found,
2. S 27° 35' 02" E, a distance of 106.84 feet to a 1/2-inch iron rod found, and
3. S 47° 27' 50" E, a distance of 222.85 feet to a 1/2-inch rod found in the west line of Club Estates Parkway, a 60-foot wide private street right-of-way as shown on said plat of The Hills of Lakeway Phase One, being the most southerly corner of said Lot 705 and an easterly corner of said Golf Course Lot 768 and of the tract described herein;

THENCE with the said west line of Club Estates Parkway, being an east line of said Golf Course Lot 768, the following seven (7) courses and distances:

1. S 00° 59' 54" W, a distance of 44.85 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the right,
2. with the arc of said curve a distance of 99.53 feet, having a central angle of 14° 18' 24", radius of 398.59 feet and a chord which bears S 08° 57' 03" W, a distance of 99.27 feet to a 1/2-inch iron rod found for the termination of said curve,

3. S 18° 06' 03" W, a distance of 198.50 feet to a 1/2-inch iron rod found at a non-tangent point of curvature to the left,

4. with the arc of said curve a distance of 295.29 feet, having a central angle of 34° 37' 41", radius of 488.58 feet and a chord which bears S 01° 14' 17" E, a distance of 290.81 feet to a 1/2-inch iron rod found for the termination of said curve,

5. S 18° 34' 13" E, a distance of 543.52 feet to a 1/2-inch rod found at a point of non-tangent curvature to the right, and

6. with the arc of said curve a distance of 409.64 feet, having a central angle of 46° 23' 07", radius of 505.99 feet and chord which bears S 04° 37' 47" W, a distance of 398.54 feet to a 1/2-inch iron rod found at a point of non-tangent compound curvature, being at the point where said Club Estates Parkway branches into two (2) 50-foot wide private street rights-of-way;

THENCE with the northerly line of the north branch of said Club Estates Parkway, being the southerly line of said Golf Course Lot 768 the following five (5) courses and distances:

1. with the arc of a curve to the right a distance of 112.19 feet, having a central angle of 64° 16' 49", radius of 100.00, and chord which bears S 59° 58' 47" W, a distance of 106.40 feet to a 1/2-inch iron rod found for the termination of said curve,

2. N 87° 52' 13" W, a distance of 57.86 feet to a 1/2-inch iron rod found to a non-tangent point of curvature to the right,

3. with the arc of said curve a distance of 327.65 feet, having a central angle of 41° 03' 12", radius of 457.28 feet, and chord which bears N 67° 20' 13" W, a distance of 320.69 feet to a 1/2-inch iron rod found for the termination of said curve,

4. N 46° 48' 13" W, a distance of 247.81 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the left, and

5. with the arc of said curve, a distance of 43.86 feet, having a central angle of 07° 19' 06", radius of 343.36 feet, and chord which bears N 50° 27' 43" W, a distance of 43.83 feet to a 1/2-inch iron rod found for a point of non-tangent reverse curvature to the right;

THENCE with the arc of said curve a distance of 21.67 feet, having a central angle of 82° 46' 26", radius of 15.00 feet, and chord which bears N 12° 43' 44" W, a distance of 19.83 feet to a 1/2-inch iron rod found at a non-tangent point of reverse curvature to the left, being in the east line of Tournament Way, a 60-foot wide private street right-of-way as shown on said plat of The Hills of Lakeway Phase One, being a southwesterly corner of said Golf Course Lot 768;

THENCE with the east line of said Tournament Way and the west line of said Golf Course Lot 768, the following two (2) courses and distances:

1. with the arc of said curve to the left a distance of 447.03 feet, having a central angle of 45° 56' 02", radius of 557.60 feet, and chord which bears N 05° 41' 02" E, a distance of 435.15 feet to a 1/2-inch iron rod found for the termination of said curve, and

2. N 17° 16' 25" W, a distance of 139.75 feet to a 1/2-inch iron rod found at the point where the west line of said Golf Course Lot 768 leaves the east line of said Tournament Way, same being the most southerly corner of Academy Place Section One-B, a subdivision recorded in Book 83, Page 8 of said Plat Records;

THENCE continuing with the west line of said Golf Course Lot 768, being the east line of said Academy Place Section One-B, the following two (2) courses and distances:

1. N 17° 19' 06" W, a distance of 149.94 feet to a 1/2-inch iron found for an angle point, and

2. N 21° 18' 12" W, a distance of 318.64 feet to a 1/2-inch iron rod found for the most northerly corner of said Academy Place Section One-B, being the most easterly corner of Lot 8 of Academy Place Section One, a subdivision recorded in Book 81, Page 206 of said Plat Records;

THENCE leaving the west line of said Golf Course Lot 768, with the northerly line of said Lot 8 and the northerly line of Lot 9A of Academy Place Section One-A, a subdivision recorded in Book 81, Page 361 of said Plat Records, N 78° 22' 11" W, a distance of 158.11 feet to a 1/2-inch iron rod found for the northwest corner of said Lot 9A, being the northeast corner of Lot 10A of said Academy Place Section One-A;

THENCE with the remaining northerly line of said Academy Place Section One-A and a portion of the northerly line of Lot 22 of said Academy Place Section One, the following two (2) courses and distances:

1. S 58° 49' 22" W, a distance of 216.44 feet to a 1/2-inch iron rod found for an angle point, and

2. S 75° 34' 07" W, a distance of 551.25 feet to a 1/2-inch iron rod found for an angle point in the northerly line of said Lot 22;

THENCE with the remaining northerly line of said Lot 22 and the northerly line of Lot 23 of said Academy Place Section One, S 50° 50' 54" W, a distance of 125.93 feet to a 1/2-inch iron rod found for the northwest corner of said Academy Place Section One;

THENCE with the westerly line of said Academy Place Section One, S 14° 32' 23" E, a distance of 160.53 feet to a 1/2-inch iron rod found for the southwest corner of said Section One;

THENCE with a portion of the southerly lines of said Academy Place Section One, the following three (3) courses and distances:

1. S 70° 00' 58" E, a distance of 223.29 feet to a 1/2-inch iron rod found for an angle point,

2. S 89° 11' 10" E, a distance of 191.57 feet to an iron rod found for an angle point, and

3. S 84° 08' 53" E, a distance of 264.44 feet to a 1/2-inch iron rod found on a north line of Golf Course Lot 777 of said The Hills of Lakeway Phase One, being an angle point in the south line of said Academy Place Section One;

THENCE with the common line of said Golf Course Lot 777 and said Academy Place Section One, N 81° 47' 25" E, a distance of 376.53 feet to a 1/2-inch iron rod found on the west line of said Tournament Way, being a non-tangent point of curvature to the right;

THENCE leaving said Academy Place Section One, with the west line of said Tournament Way, being the east line of said Golf Course Lot 777, the following three (3) courses and distances:

1. with the arc of said curve to the right a distance of 22.25 feet, having a central angle of 63° 49' 07", radius of 19.98 feet, and chord which bears S 49° 28' 17" E, a distance of 21.12 feet to an iron rod found for the termination of said curve,

2. S 17° 16' 25" E, a distance of 76.52 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the right, and

3. with the arc of said curve a distance of 178.94 feet, having a central angle of 20° 36' 15", radius of 497.60 feet, and a chord which bears S 06° 57' 28" E, a distance of 177.98 feet to an iron rod found for the southeast corner of said Golf Course Lot 777, being the northeast corner of Lot 253 of said The Hills of Lakeway Phase One:

THENCE with southerly lines of said Golf Course Lot 777, being with the northerly lines of lots 253 through 259, inclusive, of said The Hills of Lakeway Phase One, the following three (3) courses and distances:

1. N 82° 48' 03" W, a distance of 185.68 feet to a 1/2-inch iron rod found for angle point,

2. S 78° 27' 25" W, a distance of 675.21 feet to a 1/2-inch iron rod found for angle point, and

3. N 69° 33' 55" W, a distance of 470.64 feet to a 1/2-inch iron rod found for the northwest corner of said Lot 259, being an interior corner of said Golf Course Lot 777;

THENCE with the westerly line of said Lot 259, being an easterly line of said Golf Course Lot 777, S 23° 09' 05" W, a distance of 165.00 feet to a P.K. nail found in a concrete drainage channel for the southwest corner of said Lot 259, being a southeast corner of said Golf Course Lot 777 and of the tract described herein, same being on the north line of said northerly branch of Club Estates Parkway (50-foot right-of-way);

THENCE with said north line, being a south line of said Golf Course Lot 777, with the arc of a curve to the left an arc distance of 100.33 feet, having a central angle of 02° 30' 00", radius of 2299.27 feet, and chord which bears N 68° 05' 55" W, a distance of 100.32 feet to an iron rod found at a non-tangent point of reverse curvature to the right;

THENCE with the arc of said curve, a distance of 39.45 feet, having a central angle of 90° 24' 19", radius of 25.00 feet, and chord which bears N 24° 28' 26" W, a distance of 35.48 feet to an iron rod found at a non-tangent point of reverse curvature, being on the east line of The Hills Drive, a 100-foot wide public street right-of-way as shown on said plat of The Hills of Lakeway;

THENCE with the east line of said The Hills Drive as shown on said plat and the east line of The Hills Drive as dedicated by instrument recorded in Volume 7032, Page 1 of the Travis County, Texas Deed Records, being partly with the west line of said Golf Course Lot 777 and partly with the west line of said Lot 1, World of Tennis Section One, the following four (4) courses and distances:

1. with the arc of a curve to the left a distance of 218.65 feet, having a central angle of 24° 40' 00", radius of 507.89 feet, and chord which bears N 08° 19' 23" E, a distance of 216.97 feet to an iron rod found at a point of tangency,

2. N 04° 00' 37" W, a distance of 170.28 feet to an iron rod found at a point of curvature to the right,

3. with the arc of said curve, at a distance of 25.90 feet passing the most northerly corner of said The Hills Drive as shown on said plat, being the southeast corner of said The Hills Drive dedicated in Volume 7032, Page 1 of the Deed Records of Travis County, Texas, and being the south corner of said Lot 1 World of Tennis Section One, continuing with the arc of said curve a total distance of 233.37 feet, having a central angle of 29° 10' 00", radius of 458.44 feet, and chord which bears N 10° 34' 23" E, a distance of 230.86 feet to an iron rod found at a point of reverse curvature, and

4. with the arc of said curve to the left a distance of 191.61 feet, having a central angle of 09° 32' 00", radius of 1151.57 feet and chord which bears N 20° 23' 23" E, a distance of 191.39 feet to an iron rod found at a non-tangent point of reverse curvature;

THENCE with the arc of said curve to the right a distance of 35.32 feet, having a central angle of 80° 56' 43", radius of 25.00 feet, and chord which bears N 56° 02' 18" E, a distance of 32.45 feet to an iron rod found on the southerly line of Lakeway Boulevard, a 120-foot wide public street right-of-way as shown on the plat of Lakeway Section Nineteen as recorded in Book 58, Page 69 of the Travis County, Texas Plat Records;

THENCE with the southerly line of said Lakeway Boulevard, for a northerly line of the tract described herein, the following four (4) courses and distances:

1. with the arc of a curve to the left at a distance of 64.22 feet passing a concrete monument found for the most easterly corner of Lot 1 of said Lakeway Section Nineteen, continuing a total distance of 282.67 feet along the arc of said curve, having a central angle of 36° 37' 45", radius of 442.15 feet, and chord which bears N 78° 05' 36" E, a distance of 277.88 feet to a 1/2-inch iron rod found for the non-tangent termination of said curve,

2. N 59° 43' 47" E, a distance of 326.81 feet to a 1/2-inch iron rod found for a non-tangent point of curvature to the left,

3. with the arc of said curve a distance of 330.25 feet, having a central angle of 32° 34' 30", radius of 580.87 feet, and chord which bears N 43° 27' 23" E, a distance of 325.82 feet to a 1/2-inch iron rod found for the non-tangent termination of said curve, and

4. N 27° 11' 27" E, a distance of 59.94 feet to a 1/2-inch iron rod found for the most westerly corner of Lot 29 of said The Hills of Lakeway Phase 12;

THENCE leaving said Lakeway Boulevard, with the southerly lines of said St. Andrews Planned Unit development the following two (2) courses and distances:

1. S 82° 50' 13" E, a distance of 111.25 feet to a 1/2-inch iron rod found for an angle point, and

2. N 59° 45' 21" E, a distance of 1057.74 feet to the POINT OF BEGINNING and containing 50.63 acres of land.