

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: _____

OSSF Installer #: _____

1st Inspection Date: _____

2nd Inspection Date: _____

3rd Inspection Date: _____

Inspector Name: _____

Inspector Name: _____

Inspector Name: _____

Permit#:		Address:					
No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
1	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Site and Soil Conditions Consistent with Submitted Planning Materials		285.31(a) 285.30(b)(1)(A)(iv) 285.30(b)(1)(A)(v) 285.30(b)(1)(A)(iii) 285.30(b)(1)(A)(ii) 285.30(b)(1)(A)(i)				
2	SITE AND SOIL CONDITIONS & SETBACK DISTANCES Setback Distances Meet Minimum Standards		285.91(10) 285.30(b)(4) 285.31(d)				
3	SEWER PIPE Proper Type Pipe from Structure to Disposal System (Cast Iron, Ductile Iron, Sch. 40, SDR 26)		285.32(a)(1)				
4	SEWER PIPE Slope from the Sewer to the Tank at least 1/8 Inch Per Foot		285.32(a)(3)				
5	SEWER PIPE Two Way Sanitary - Type Cleanout Properly Installed (Add. C/O Every 100' &/or 90 degree bends)		285.32(a)(5)				
6	PRETREATMENT Installed (if required) TCEQ Approved List PRETREATMENT Septic Tank(s) Meet Minimum Requirements		285.32(b)(1)(G) 285.32(b)(1)(E)(iii) 285.32(b)(1)(E)(iv) 285.32(b)(1)(F) 285.32(b)(1)(B) 285.32(b)(1)(C)(i) 285.32(b)(1)(C)(ii) 285.32(b)(1)(D) 285.32(b)(1)(E) 285.32(b)(1)(A) 285.32(b)(1)(E)(ii)(II) 285.32(b)(1)(E)(i) 285.32(b)(1)(E)(ii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

Inspector Notes:

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
8	SEPTIC TANK Tank(s) Clearly Marked SEPTIC TANK If Single Tank, 2 Compartments Provided with Baffle SEPTIC TANK Inlet Flowline Greater than 3" and " T " Provided on Inlet and Outlet SEPTIC TANK Septic Tank(s) Meet Minimum Requirements		285.32(b)(1) (E)285.91(2)285.32(b)(1) (F)285.32(b)(1)(E) (iii)285.32(b)(1)(E)(ii) (II)285.32(b)(1)(E)(ii) (I)285.32(b)(1)(E) (i)285.32(b)(1) (D)285.32(b)(1)(C) (ii)285.32(b)(1)(C) (i)285.32(b)(1) (B)285.32(b)(1) (A)285.32(b)(1)(E)(iv)				
9	ALL TANKS Installed on 4" Sand Cushion/ Proper Backfill Used		285.32(b)(1)(F) 285.32(b)(1)(G) 285.34(b)				
10	SEPTIC TANK Inspection / Clean Out Port & Risers Provided on Tanks Buried Greater than 12" Sealed and Capped		285.38(d)				
11	SEPTIC TANK Secondary restraint system provided SEPTIC TANK Riser permanently fastened to lid or cast into tank SEPTIC TANK Riser cap protected against unauthorized intrusions		285.38(d) 285.38(e)				
12	SEPTIC TANK Tank Volume Installed						
13	PUMP TANK Volume Installed						
14	AEROBIC TREATMENT UNIT Size Installed						
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number						
16	DISPOSAL SYSTEM Absorptive		285.33(a)(4) 285.33(a)(1) 285.33(a)(2) 285.33(a)(3)				
17	DISPOSAL SYSTEM Leaching Chamber		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)				
18	DISPOSAL SYSTEM Evapo-transpirative		285.33(a)(3) 285.33(a)(4) 285.33(a)(1) 285.33(a)(2)				

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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
19	DISPOSAL SYSTEM Drip Irrigation		285.33(c)(3)(A)-(F)				
20	DISPOSAL SYSTEM Soil Substitution		285.33(d)(4)				
21	DISPOSAL SYSTEM Pumped Effluent		285.33(a)(4) 285.33(a)(3) 285.33(a)(1) 285.33(a)(2)				
22	DISPOSAL SYSTEM Gravelless Pipe		285.33(a)(3) 285.33(a)(2) 285.33(a)(4) 285.33(a)(1)				
23	DISPOSAL SYSTEM Mound		285.33(a)(3) 285.33(a)(1) 285.33(a)(2) 285.33(a)(4)				
24	DISPOSAL SYSTEM Other (describe) (Approved Design)		285.33(d)(6) 285.33(c)(4)				
25	DRAINFIELD Absorptive Drainline 3" PVC or 4" PVC						
26	DRAINFIELD Area Installed						
27	DRAINFIELD Level to within 1 inch per 25 feet and within 3 inches over entire excavation		285.33(b)(1)(A)(v)				
28	DRAINFIELD Excavation Width DRAINFIELD Excavation Depth DRAINFIELD Excavation Separation DRAINFIELD Depth of Porous Media DRAINFIELD Type of Porous Media						
29	DRAINFIELD Pipe and Gravel - Geotextile Fabric in Place		285.33(b)(1)(E)				
30	DRAINFIELD Leaching Chambers DRAINFIELD Chambers - Open End Plates w/Splash Plate, Inspection Port & Closed End Plates in Place (per manufacturers spec.)		285.33(c)(2)				
31	LOW PRESSURE DISPOSAL SYSTEM Adequate Trench Length & Width, and Adequate Separation Distance between Trenches		285.33(d)(1)(C)(i)				

**Comal County Environmental Health
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No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0% EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom) EFFLUENT DISPOSAL SYSTEM Lateral Depth of 18 inches to 3 ft. & Vertical Separation of 1ft on bottom and 2 ft. to restrictive horizon and ground water respectfully EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart		285.33(b)(3)(A) 285.33(b)(3)(A) 285.33(b)(3) (B)285.91(13) 285.33(b)(3)(D) 285.33(b)(3)(F)				
33	AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.		285.32(c)(1)				
34	AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided AEROBIC TREATMENT UNIT Secondary restraint system provided AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions						
35	AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.						
36	PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction PUMP TANK Sampling Port Provided in the Treated Effluent Line PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump						
37	PUMP TANK Inspection/Clean Out Port & Risers Provided PUMP TANK Secondary restraint system provided PUMP TANK Riser permanently fastened to lid or cast into tank PUMP TANK Riser cap protected against unauthorized intrusions						
38	PUMP TANK Secondary restraint system provided						
39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried						

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
40	APPLICATION AREA Distribution Pipe, Fitting, Sprinkler Heads & Valve Covers Color Coded Purple?		285.33(d)(2)(G)(iii)(II) 285.33(d)(2)(G)(iii)(III) 285.33(d)(2)(G)(v) 285.33(d)(2)(G)(iii) 285.33(d)(2)(G)(iv) 285.33(d)(2)(G)(i) 285.33(d)(2)(G)(ii) 285.33(d)(2)(G)(iii)(I)				
41	APPLICATION AREA Low Angle Nozzles Used / Pressure is as required APPLICATION AREA Acceptable Area, nothing within 10 ft of sprinkler heads? APPLICATION AREA The Landscape Plan is as Designed		285.33(d)(2)(G) (i)285.33(d)(2) (A)285.33(d)(2)(F)				
42	APPLICATION AREA Area Installed						
43	PUMP TANK Meets Minimum Reserve Capacity Requirements						
44	PUMP TANK Material Type & Manufacturer						
45	PUMP TANK Type/Size of Pump Installed						



COMAL COUNTY

ENGINEER'S OFFICE

Permit of Authorization to Construct an On-Site Sewage Facility Permit Valid For One Year From Date Issued

Permit Number: 112978
Issued This Date: 07/26/2021
This permit is hereby given to: VINCENT & CHRISTINA PENDERGRASS

To start construction of a private, on-site sewage facility located at:

1876 LAGUNA
SPRING BRANCH, TX 78070

Subdivision: REBECCA CREEK PARK 3RD FILING
Unit: 0
Lot: 25
Block: 35
Acreage: 0.0000

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Drip Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

Call (830) 608-2090 to schedule inspections.

RECEIVED

By KG at 10:44 am, Jul 21, 2021



COMAL COUNTY

ENGINEER'S OFFICE

OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

		112978
Date Received	Initials	Permit Number

Instructions:

Place a check mark next to all items that apply. For items that do not apply, place "N/A". This OSSF Development Application Checklist **must** accompany the completed application.

OSSF Permit

- Completed Application for Permit for Authorization to Construct an On-Site Sewage Facility and License to Operate
- Site/Soil Evaluation Completed by a Certified Site Evaluator or a Professional Engineer
- Planning Materials of the OSSF as Required by the TCEQ Rules for OSSF Chapter 285. Planning Materials shall consist of a scaled design and all system specifications.
- Required Permit Fee - See Attached Fee Schedule
- Copy of Recorded Deed
- Surface Application/Aerobic Treatment System
- Recorded Certification of OSSF Requiring Maintenance/Affidavit to the Public
- Signed Maintenance Contract with Effective Date as Issuance of License to Operate

I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.



Signature of Applicant

07/20/2021

Date

___ COMPLETE APPLICATION

Check No. _____ Receipt No. _____

___ INCOMPLETE APPLICATION
(Missing Items Circled, Application Refeused)

RECEIVED

By KG at 10:44 am, Jul 21, 2021



COMAL COUNTY
ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR
NEW BRAUNFELS, TX 78132
(830) 608-2090
WWW.CCEG.ORG

Date July 8, 2021

Permit Number 112978

1. APPLICANT / AGENT INFORMATION

Owner Name VINCENT MICHAEL PENDERGRASS & CHRISTINA PENDERGRASS
Mailing Address c/o 13838 SOUTHTON ROAD
City, State, Zip SAN ANTONIO TEXAS 78223
Phone # 210-633-0800
Email leo@alamotransport.com

Agent Name GREG JOHNSON, P.E.
Agent Address 170 HOLLOW OAK
City, State, Zip NEW BRAUNFELS TEXAS 78132
Phone # 830-905-2778
Email gregjohnsonpe@yahoo.com

2. LOCATION

Subdivision Name REBECCA CREEK PARK Unit 3rd Lot 25 Block 35
Survey Name / Abstract Number _____ Acreage _____
Address 1876 LAGUNA City SPRING BRANCH State TX Zip 78070

3. TYPE OF DEVELOPMENT

Single Family Residential
Type of Construction (House, Mobile, RV, Etc.) MOBILE HOME
Number of Bedrooms 4
Indicate Sq Ft of Living Area 2584

Non-Single Family Residential
(Planning materials must show adequate land area for doubling the required land needed for treatment units and disposal area)
Type of Facility _____
Offices, Factories, Churches, Schools, Parks, Etc. - Indicate Number Of Occupants _____
Restaurants, Lounges, Theaters - Indicate Number of Seats _____
Hotel, Motel, Hospital, Nursing Home - Indicate Number of Beds _____
Travel Trailer/RV Parks - Indicate Number of Spaces _____
Miscellaneous _____

Estimated Cost of Construction: \$ 150,000 (Structure Only)

Is any portion of the proposed OSSF located in the United States Army Corps of Engineers (USACE) flowage easement?

Yes No (If yes, owner must provide approval from USACE for proposed OSSF improvements within the USACE flowage easement)

Source of Water Public Private Well Rainwater Collection

4. SIGNATURE OF OWNER

By signing this application, I certify that:

- The completed application and all additional information submitted does not contain any false information and does not conceal any material facts. I certify that I am the property owner or I possess the appropriate land rights necessary to make the permitted improvements on said property.
- Authorization is hereby given to the permitting authority and designated agents to enter upon the above described property for the purpose of site/soil evaluation and inspection of private sewage facilities..
- I understand that a permit of authorization to construct will not be issued until the Floodplain Administrator has performed the reviews required by the Comal County Flood Damage Prevention Order.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable.

[Signature]
Signature of Owner Christina Pendergrass

7/17/2021
Date 7/17/21

REVISED

10:13 am, Oct 21, 2021

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH * * ***

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) NUWATER B-550-PC Absorption/Application Area (Sq Ft) 2836

Gallons Per Day (As Per TCEQ Table III) 300

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ)

Is the property located over the Edwards Recharge Zone? Yes No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? Yes No

(if yes, the R. S. or P. E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? Yes No

(If yes, the R.S. or P. E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? Yes No

Is there an existing TCEQ approval CZP for the property? Yes No

(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes No

(if yes, the P.E. or R.S. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city? Yes No

If yes, indicate the city: _____



FIRM #2585

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable

Signature of Designer

October 21, 2021
Date

TS



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AFFIDAVIT

THE COUNTY OF COMAL
STATE OF TEXAS

CERTIFICATION OF OSSF REQUIRING MAINTENANCE

According to Texas Commission on Environmental Quality Rules for On-Site Sewage Facilities (OSSF's), this document is filed in the Deed Records of Comal County, Texas.

I

The Texas Health and Safety Code, Chapter 366 authorizes the Texas Commission on Environmental Quality (TCEQ) to regulate on-site sewage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary responsibility for implementing the laws of the State of Texas relating to water and adopting rules necessary to carry out its powers and duties under the TWC. The commission, under the authority of the TWC and the Texas Health and Safety code, requires owner's to provide notice to the public that certain types of OSSFs are located on specific pieces of property. To achieve this notice, the commission requires a recorded affidavit. Additionally, the owner must provide proof of the recording to the OSSF permitting authority. This recorded affidavit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any guarantee by the commission that the appropriate OSSF was installed.

II

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §285.91(12) will be installed on the property described as (insert legal description):

UNIT/PHASE/SECTION 35 BLOCK 25 LOT REBECCA CREEK PARK, 3RD FILING SUBDIVISION

IF NOT IN SUBDIVISION: _____ ACREAGE _____ SURVEY _____

VINCENT MICHAEL PENDERGRASS &
CHRISTINA PENDERGRASS

The property is owned by (insert owner's full name): _____

This OSSF must be covered by a continuous maintenance contract for the first two years. After the initial two-year service policy, the owner of an aerobic treatment system for a single family residence shall either obtain a maintenance contract within 30 days or maintain the system personally.

Upon sale or transfer of the above-described property, the permit for the OSSF shall be transferred to the buyer or new owner. A copy of the planning materials for the OSSF can be obtained from the Comal County Engineer's Office.

WITNESS BY HAND(S) ON THIS 17 DAY OF July, 2021

[Signature]

[Signature]

Owner(s) signature(s)
Vincent Michael Pendergrass
Christina Pendergrass

Vincent Pendergrass

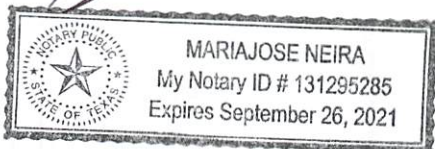
Christina Pendergrass

Owner (s) Printed name (s)

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 17 DAY OF July, 2021

[Signature]

Notary Public Signature



RECORDED AS
RECEIVED

THIS AREA FOR COMAL COUNTY CLERK RECORDING PURPOSES ONLY

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
07/20/2021 01:43:21 PM
TERRI 1 Page(s)
202106038563



Bobbie Koepf

RECORDER'S MEMORANDUM
THIS DOCUMENT WAS OF POOR
QUALITY AT THE TIME OF RECORDING
AND MAY NOT REPRODUCE

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

Regulatory Authority COMAL
Block Creek Aerobic Services, LLC
444 A Old Hwy #9
Comfort, TX 78013
Off. (830) 995-3189
Fax. (830) 995-4051

Permit/License Number _____
Customer VINCENT M. & CHRISTINA PENDERGRASS
Site Address 1876 LAGUNA
City SPRING BRANCH Zip 78070
Mailing Address _____
County COMAL Map # CCEO 16, D7
Phone 210-365-4747
Email _____

2 YEAR CONTRACT
2 YEAR WARRANTY ON PARTS AND LABOR

SUBDIVISION/LEGAL: REBECCA CREEK PARK, 3rd Filing
BLOCK 35, LOT 25

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between VINCENT M. & CHRISTINA PENDERGRASS (hereinafter referred to as "Customer") and Block Creek Aerobic Services, LLC. By this agreement, Block Creek Aerobic Services, LLC and its employees (hereinafter inclusively referred to as "Contractor") agree to render services at the site address stated above, as described herein, and the Customer agrees to fulfill his/her/their responsibilities, as described herein.

II. Effective Date:

This Agreement commences on LTO and ends on _____ for a total of two (2) years (initial agreement) or one (1) year (thereafter). If this is an initial agreement (new installation), the Customer shall notify the Contractor within two (2) business days of the system's first use to establish the date of commencement. If no notification is received by Contractor within ninety (90) days after completion of installation or where county authority mandates, the date of commencement will be the date the "License to operate" (Notice of Approval) was issued by the permitting authority. This agreement may or may not commence at the same time as any warranty period of installed equipment, but in no case shall it extend the specified warranty.

III. Termination of Agreement:

This Agreement may be terminated by either party for any reason, including for example, substantial failure of either party to perform in accordance with the terms of this Agreement, without fault or liability of the terminating party. The terminating party must provide written notice to the non-terminating party thirty (30) days prior to the termination of this Agreement. If this Agreement is terminated, Contractor will be paid at the rate of \$75.00 per hour for any work performed and for which compensation has not been received. After the deduction of all outstanding charges, any remaining monies from prepayment for services will be refunded to customer within thirty (30) days of termination of this Agreement. Either party terminating this Agreement for any reason, including non-renewal, shall notify in writing the equipment manufacturer and the appropriate regulatory agency a minimum of thirty (30) days prior to the date of such termination. Nonpayment of any kind shall be considered breach of contract and a termination of contract.

IV. Services:

Contractor will:

- a. Inspect and perform routine upkeep on the On-Site Sewage Facility (hereinafter referred to as OSSF) as recommended by the treatment system manufacturer, and required by state and/or local regulation, for a total of three visits to site per year. The list of items checked at each visit shall be the: control panel, Electrical circuits, timer, Aeration including compressor and diffusers, CFM/PSI measured, lids safety pans, pump, compressor, sludge levels, and anything else required as per the manufacturer.
- b. Provide a written record of visits to the site by means of an inspection tag attached to or contained in the control panel.
- c. Repair or replace, if Contractor has the necessary materials at site, any component of the OSSF found to be failing or inoperative during the course of a routine monitoring visit. If such services are not covered by warranty, and the service(s) cost less than \$100.00, Customer hereby authorizes Contractor to perform the service(s) and bill Customer for said service(s). When service costs are greater than \$100.00, or if contractor does not have the necessary supplies at the site, Contractor will notify Customer of the required service(s) and the associated cost(s). Customer must notify Contractor of arrangements to affect repair of system with in two (2) business days after said notification.
- d. Provide sample collection and laboratory testing of TSS and BOD on a yearly basis (commercial systems only).
- e. Forward copies of this Agreement and all reports to the regulatory agency and the Customer.

VP CP

Customer's Initials



BS

Contractor's Initials

f. Visit site in response to Customer's request for unscheduled services within forty-eight (48) hours of the date of notification (weekends and holidays excluded) of said request. Unless otherwise covered by warranty, costs for such unscheduled responses will be billed to Customer.

V. Disinfection:

____ Not required; ____ required. The responsibility to maintain the disinfection device(s) and provide any necessary chemicals is that of the Customer.

VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

VII. Performance of Agreement:

Commencement of performance by Contractor under this Agreement is contingent on the following conditions:

a. If this is an initial Agreement (new installation):

I. Contractor's receipt of a fully executed original copy or facsimile of this agreement and all documentation requested by Contractor.

If the above conditions are not met, Contractor is not obligated to perform any portion of this Agreement.

VIII. Customer's Responsibilities:

The customer is responsible for each and all of the following:

a. Provide all necessary yard or lawn maintenance and removal of all obstacles, including but not limited to dogs and other animals, vehicles, trees, brush, trash, or debris, as needed to allow the OSSF to function properly, and to allow Contractor safe and easy access to all parts of the OSSF.

b. Protect equipment from physical damage including but not limited to that damage caused by insects.

c. Maintain a current license to operate, and abide by the conditions and limitations of that license, and all requirements for and OSSF from the State and/or local regulatory agency, whichever requirements are more stringent, as well as the proprietary system's manufacturer recommendations.

d. Notify Contractor immediately of any and all alarms, and/or any and all problems with, including failure of, the OSSF.

e. Provide, upon request by Contractor, water usage records for the OSSF so that the Contractor can perform a proper evaluation of the performance of the OSSF.

f. Allow for samples at both the inlet and outlet of the OSSF to be obtained by Contractor for the purpose of evaluating the OSSF's performance. If these samples are taken to a laboratory for testing, with the exception of the service provided under Section IV (d) above, Customer agrees to pay Contractor for the sample collection and transportation, portal to portal, at a rate of \$35.00 per hour, plus the associated fees for laboratory testing.

g. Prevent the backwash or flushing of water treatment or conditioning equipment from entering the OSSF.

h. Prevent the condensation from air conditioning or refrigeration units, or the drains of icemakers, from hydraulically overloading the aerobic treatment units. Drain lines may discharge into the surface application pump tank if approved by system designer.

i. Provide for pumping and cleaning of tanks and treatment units, when and as recommended by Contractor, at Customer's expense.

j. Maintain site drainage to prevent adverse effects on the OSSF.

k. Pay promptly and fully, all Contractor's fees, bills, or invoices as described herein.

IX. Access by Contractor:

Contractor is hereby granted an easement to the OSSF for the purpose of performing services described herein. Contractor may enter the property during Contractor's normal business hours and/or other reasonable hours without prior notice to Customer to perform the Services and/or repairs described herein. Contractor shall have access to the OSSF electrical and physical components. Tanks and treatment units shall be accessible by means of man ways, or risers and removable covers, for the purpose of evaluation as required by State and/or local rules and the proprietary system manufacturer. It is Customer's responsibility to keep lids exposed and accessible at all times.

X. Limit of Liability:

Contractor shall not be held liable for any incidental, consequential, or special damages, or for economic loss due to expense, or for loss of profits or income, or loss of use to Customer, whether in contract tort or any other theory. In no event shall Contractor be liable in an amount exceeding the total Fee for Services amount paid by Customer under this Agreement.

XI. Indemnification:

Customer (whether one or more) shall and does hereby agree to indemnify, hold harmless and defend Contractor and each of its successors, assigns, heirs, legal representatives, devisees, employees, agents and/or counsel (collectively "Indemnitees") from and against any and all liabilities, claims, damages, losses, liens, causes of action, suits, fines, judgments and other expenses (including, but not limited to, attorneys' fees and expenses and costs of investigation), of any kind, nature or

VP CP

Customer's Initials



BS

Contractor's Initials

description, (hereinafter collectively referred to as "Liabilities") arising out of, caused by, or resulting, in whole or in part, from this Agreement.

THIS INDEMNIFICATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCURRENT OR CONTRIBUTORY NEGLIGENCE OR BY THE STRICT LIABILITY OF ANY INDEMNITEE.

Customer hereby waives its right of recourse as to any Indemnitee when Indemnification applies, and Customer shall require its insurer(s) to waive its/their right of subrogation to the extent such action is required to render such waiver of subrogation effective. Customer shall be subrogated to Indemnitees with respect to all rights Indemnitees may have against third parties with respect to matters as to which Customer provides indemnity and/or defense to Indemnitees. No Indemnification is provided to Indemnitees when the liability or loss results from (1) the sole responsibility of such Indemnitee; or, (2) the willful misconduct of such Indemnitee. Upon irrevocable acceptance of this Indemnification obligation, Customer, in its sole discretion, shall select and pay counsel to defend Indemnitees of and from any action that is subject to this Indemnification provision. Indemnitees hereby covenant not to compromise or settle any claim or cause of action for which Customer has provided Indemnification without the consent of Customer.

XII. Severability:

If any provision of the "Proposal and Contract" shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of the "Agreement" is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

XIII. Fee for Services:

The Fee for Services does not include any fees for equipment, material, labor necessary for non-warranty repairs, unscheduled inspections, or Customer requested visits to the site.

XIV. Payment:

Full payment is due upon execution of this Agreement (Required of new Customer). For any other service(s) or repair(s) provided by Contractor the Customer shall pay the invoice(s) for said service(s) or repair(s) within thirty (30) days of the invoice date. The Contractor shall mail all invoices on the date of invoice. All payments not received within thirty (30) days from the invoice date will be subject to a \$29.00 late penalty and a 1.5% per month carrying charge, as well as any reasonable attorney's fees, and all collection and court costs incurred by Contractor in collection of unpaid debt(s). Contractor may terminate contract at any time for nonpayment for services. Any check returned to Contractor for any reason will be assessed a \$30.00 return check fee.

XV. Application or Transfer of payment:

The fees paid for this agreement may be transferred to subsequent property owner(s); however, this Agreement is not transferable. Customer shall advise the subsequent property owner(s) of the State requirement that they sign a replacement agreement authorizing Contractor to perform the herein described Services, and accepting Customer's Responsibilities. This replacement Agreement must be signed and received in Contractor's offices within ten (10) business days of date of transfer of property ownership. Contractor will apply all funds received from Customer first to any past due obligation arising from this Agreement including late fees or penalties, return check fees, and/or charges for services or repairs not paid within thirty (30) days of invoice date. Any remaining monies shall be applied to the funding of the replacement Agreement. The consumption of funds in this manner may cause a reduction in the termination date of effective coverage per this Agreement. See Section IV.

XVI. Entire Agreement:

This agreement contains the entire Agreement of the parties, and there are no other conditions in any other agreement, oral or written.

Brent S. [Signature]
Block Creek Aerobic Services, LLC,
Contractor
MC# 0000042 and MC#0000002

VP CP

Customer's Initials

[Signature] 7/17/2021
Customer Signature Date

[Signature] 7/17/2021

Date

BS



Contractor's Initials

**ON-SITE SEWERAGE FACILITY
SOIL EVALUATION REPORT INFORMATION**

Date Soil Survey Performed: July 13, 2021

Site Location: REBECCA CREEK PARK - 3rd FILING, BLOCK 35, LOT 25

Proposed Excavation Depth: N/A

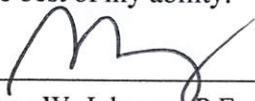
Requirements:

At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area. Locations of soil boring or dug pits must be shown on the site drawing. For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation depth. For surface disposal, the surface horizon must be evaluated. Describe each soil horizon and identify any restrictive features on the form. Indicate depths where features appear.

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION <u> </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 4"	BROWN
1						
2						
3						
4						
5						

SOIL BORING NUMBER <u> </u> SURFACE EVALUATION <u> </u>						
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0	SAME		AS		ABOVE	
1						
2						
3						
4						
5						

I certify that the findings of this report are based on my field observations and are accurate to the best of my ability.



Greg W. Johnson, P.E. 67587-F2585, S.E. 11561

07/13/2021

Date

OSSF SOIL EVALUATION REPORT INFORMATION

Date: July 14, 2021

Applicant Information:

Name: VINCENT MICHAEL & CHRISTINA PENDERGRASS
Address: c/o 13838 SOUTHTON ROAD
City: SAN ANTONIO State: TEXAS
Zip Code: 78223 Phone: (210) 633-0800

Site Evaluator Information:

Name: Greg W. Johnson, P.E., R.S, S.E. 11561
Address: 170 Hollow Oak
City: New Braunfels State: Texas
Zip Code: 78132 Phone & Fax (830)905-2778

Property Location:

Lot 25 Unit Blk 35 Subd. REBECCA CREEK PARK - 3rd FILING
Street Address: 1876 LAGUNA
City: SPRING BRANCH Zip Code: 78070
Additional Info.: _____

Installer Information:

Name: _____
Company: _____
Address: _____
City: _____ State: _____
Zip Code: _____ Phone _____

Topography: Slope within proposed disposal area: 6 to 8 %
Presence of 100 yr. Flood Zone: YES ___ NO X
Existing or proposed water well in nearby area. YES ___ NO X
Presence of adjacent ponds, streams, water impoundments YES ___ NO X
Presence of upper water shed YES ___ NO X
Organized sewage service available to lot YES ___ NO X

I HAVE PERFORMED A THOROUGH INVESTIGATION BEING A REGISTERED PROFESSIONAL ENGINEER AND SITE EVALUATOR IN ACCORDANCE WITH CHAPTER 285, SUBCHAPTER D, §285.30, & §285.40 (REGARDING RECHARGE FEATURES), TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (EFFECTIVE DECEMBER 29, 2016).



GREG W. JOHNSON, P.E. 67587 - S.E. 11561

07/14/2021

DATE



FIRM #2585

DRIP TUBING SYSTEM**DESIGNED FOR:**

VINCENT MICHAEL & CHRISTINA PENDERGRASS
13838 SOUTHTON ROAD
SAN ANTONIO, TEXAS 78223

SITE DESCRIPTION:

Located in Rebecca Creek Park, 3rd filing, Block 35, Lot 25, at 1876 Laguna, the proposed system will serve a four bedroom mobile residence (2584 sf.) situated in an area with Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4 inch SCH-40 pipe discharges from the residence into a new NuWater B550 600 gpd aerobic treatment plant containing a 353 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP Franklin C1-Series-20XC105P4-2W115 submersible pump or equivalent. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a tank operating level from 50-70 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal 1" Super Filter, disk filter " filter then through a 1" SCH-40 manifold to a 2836 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the Arkal disk filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to installing tubing the entire field must be scarified and built up with eight inches of Type II or III soil. Drip tubing will be laid and the entire field area will be capped with 6" of loamy soil (Type 2 or 3 - **NOT SAND**). The field area will be sodded with grass with hearty grass such as Bermuda, St. Augustine, etc. prior to system startup.

Tanks must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Q = 300 gallons per day - 4 bedroom residence (Table III)

Pretreatment tank size: 353 Gal

Plant Size: NuWater B550- 600 GPD (TCEQ Approved)

Pump tank size: 768 Gal

Reserve capacity after High Level: 100 gal. (1/3 day usage)

Application Rate: $R_a = 0.2$ gal/sf

Total absorption area: $Q/R_a = 300 \text{ GPD}/0.20 = 1500 \text{ sf}$. (Actual 2836 sf.)

Total linear feet drip tubing: 1418' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 709 emitters @ 0.61 gph @ 30 psi = 7.21 gpm

Pump: 0.5 HP Franklin C1-Series-20XC105P4-2W115 submersible pump or equivalent.

Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)

Volume below working level = 15" = 218 gal

Working level = 300 gal = 21"

Reserve Requirement = 1 day = 100 gal. = 7"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

IN DRIP TUBING W/ NOM. DIA. 0.55" ID

$MSV = 2 \text{ FPS} ((ID \uparrow 2)/4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

$MSV = 2(3.14159((.55/12) \uparrow 2)/4) * 7.48 * 60$

$MSV = 1.5 \text{ gpm MIN FLOW RATE} \times 4 \text{ lines} = 6 \text{ gpm}$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

$MSV = 2 \text{ FPS} ((ID \uparrow 2)/4) * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$

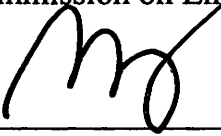
$MSV = 2(3.14159((1.049/12) \uparrow 2)/4) * 7.48 * 60$

$MSV = 5.4 \text{ GPM}$

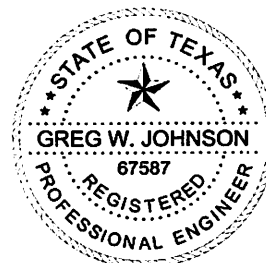
PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field. The manifold trench should be kept shallow to prevent interconnection of the trenches.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)


 10/21/2021

 Greg W. Johnson, P.E. No. 67587, F#2585
 170 Hollow Oak
 New Braunfels, Texas 78132
 830/905-2778



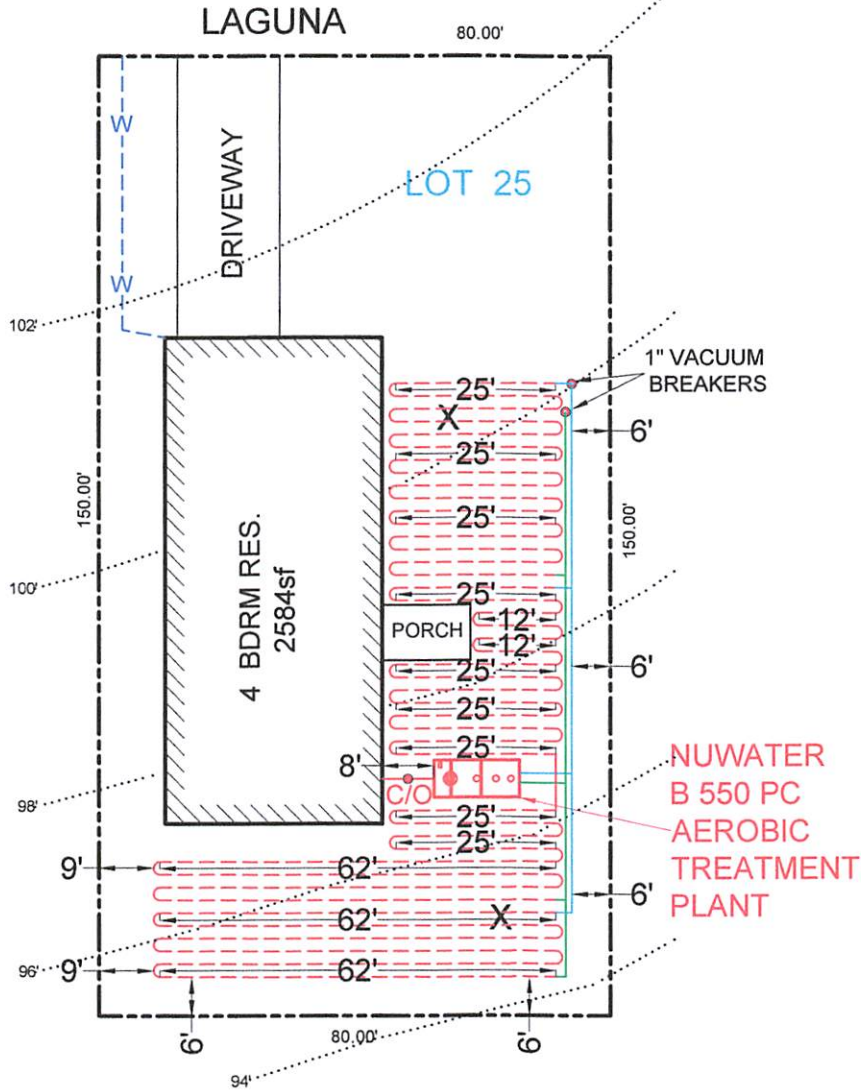
REVISED

10:14 am, Oct 21, 2021

INSTALL 2836sf OF FIELD USING 1418' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.

*USE TWO WAY CLEANOUT
**USE SCH-40 OR SDR-26 TO TANK

X= TEST HOLE



OWNER: VINCENT MICHAEL & CHRISTINA PENDERGRASS		DRAWN BY: EJS III	
STREET ADDRESS: 1876 LAGUNA			
LEGAL DESC: REBECCA CREEK PARK - 3rd FILING	UNIT/SECTION/PHASE:	BLOCK: 35	LOT: 25
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=30'	DATE: 7/14/2021	REVISED: 10/21/2021

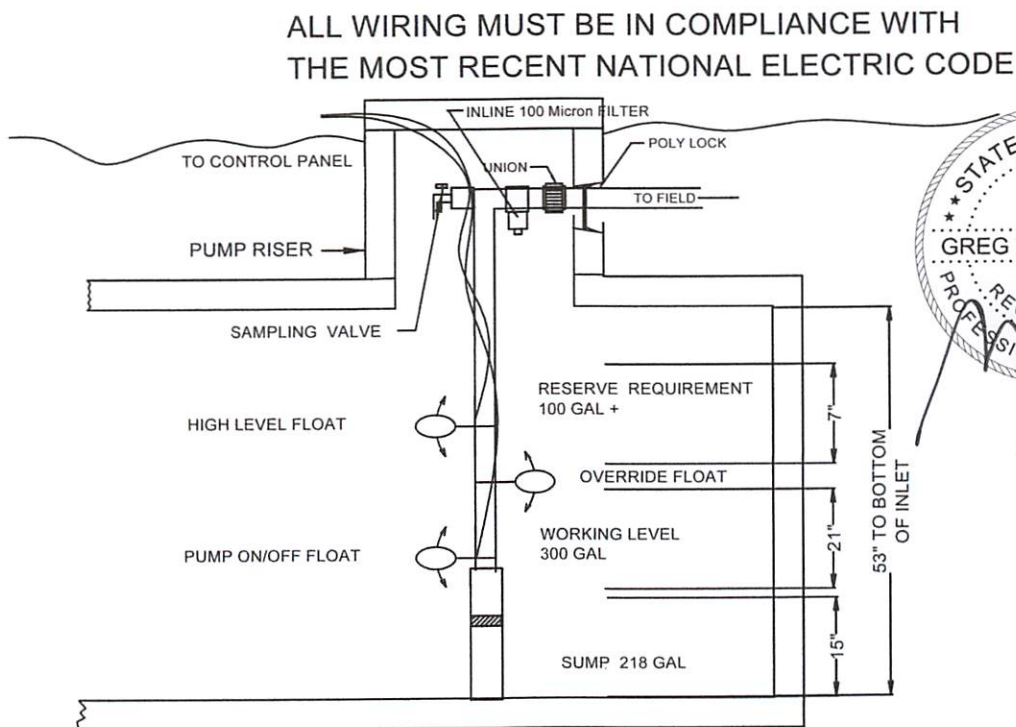
TANK NOTES:

Tanks must be set to allow a minimum of 1/8" per foot fall from the residence.

Tightlines to the tank shall be SCH-40 PVC.

A two way sanitary tee is required between residence and tank.

A minimum of 4" of sand, sandy loam, clay loam free of rock shall be placed under and around tanks



TYPICAL PUMP TANK CONFIGURATION
NU-WATER 550PC -400PT 768 GAL PUMP TANK

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

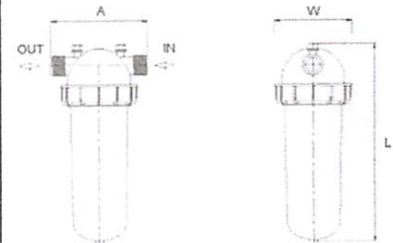
Features

- ◆ A "T" shaped filter with two 1" male threads.
- ◆ A "T" volume filter for in-line installation on 1" pipelines.
- ◆ The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- ◆ Manufactured entirely from fiber reinforced plastic.
- ◆ A cylindrical column of grooved discs constitutes the filter element.
- ◆ Spring keeps the discs compressed.
- ◆ Screw-on filter cover.
- ◆ Filter discs are available in various filtration grades.



Technical Data

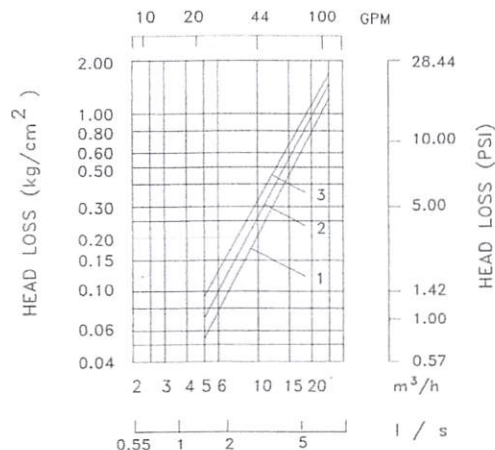
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
Filter width W	130 mm	5 3/32"
Distance between end connections A	158 mm	6 7/32"
Weight	1.420 kg	3.13 lbs.
Maximum temperature	70° C	158 °F
pH	5-11	5-11



Filtration Grades

- Blue (400 micron / 40 mesh)
- Yellow (200 micron / 80 mesh)
- Red (130 micron / 120 mesh)
- Black (100 micron / 140 mesh)
- Green (55 micron)

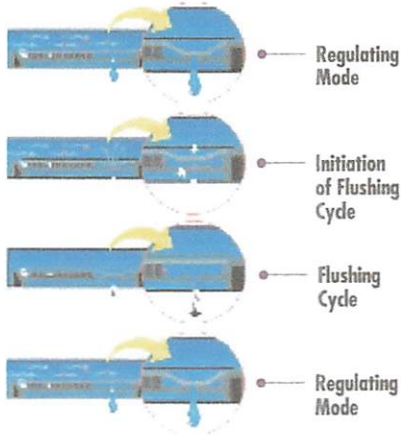
Head Loss Chart





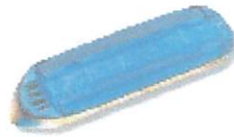
Bioline® Driperline

Pressure Compensating Driperline for Wastewater



BioLine's Self-Cleaning, Pressure Compensating Dripper is a fully self-contained unit molded to the interior wall of the dripper tubing.

As shown at left, BioLine is continuously self-cleaning during operation, not just at the beginning and end of a cycle. The result is dependable, clog free operation, year after year.



Product Advantages

The Proven Performer

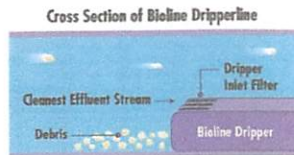
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for many years of hard use in wastewater applications.

Quality Manufacturing with Specifications Designed to Meet Your Needs

- Pressure compensating drippers assure the highest application uniformity - even on sloped or rolling terrain.
- Excellent uniformity with runs of 400 feet or more - reducing installation costs.
- Highest quality-control standards in the industry: Cv of 0.25 (coefficient of manufacturer's variation).
- A selection of flows and spacings to satisfy the designer's demand for almost any application rate.

Long-Term Reliability

- Protection against plugging:
 - Dripper inlet raised 0.27" above wall of tubing to prevent sediment from entering dripper.
 - Drippers impregnated with Vinyzene to prevent buildup of microbial slime.
 - Unique self-flushing mechanism passes small particles before they can build up.



Root Safe

- A physical barrier on each BioLine dripper helps prevent root intrusion.
- Protection never wears out - never depletes - releases nothing to the environment.
- Working reliably for up to 15 years in subsurface wastewater installations.
- Additional security of chemical root inhibition with Techfilter - supplies Trifluralin to the entire system, effectively inhibiting root growth to the dripper outlets.



Applications

- For domestic strength wastewater disposal.
- Installed following a treatment process.
- Can be successfully used on straight septic effluent with proper design, filtration and operation.
- Suitable for reuse applications using municipally treated effluent designated for irrigation water.

Specifications

Wall thickness (mil): 45*

Nominal flow rates (GPH): .4, .6, .9*

Common spacings: 12", 18", 24"*

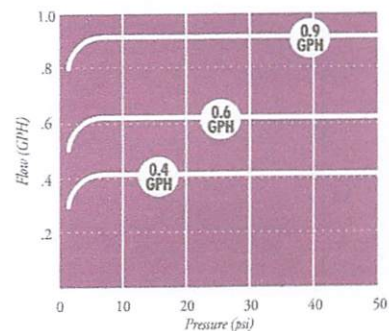
Recommended filtration: 120 mesh

Inside diameter: .570"

Color: Purple tubing indicates non-potable source

*Additional flows, spacings, and pipe sizes available by request. Please contact Netafim USA Customer Service for details.

BIOLINE Flow Rate vs. Pressure



NETAFIM USA

5470 E. Home Ave. • Fresno, CA 93727
 888.638.2346 • 559.453.6800
 FAX 800.695.4753
www.netafimusa.com

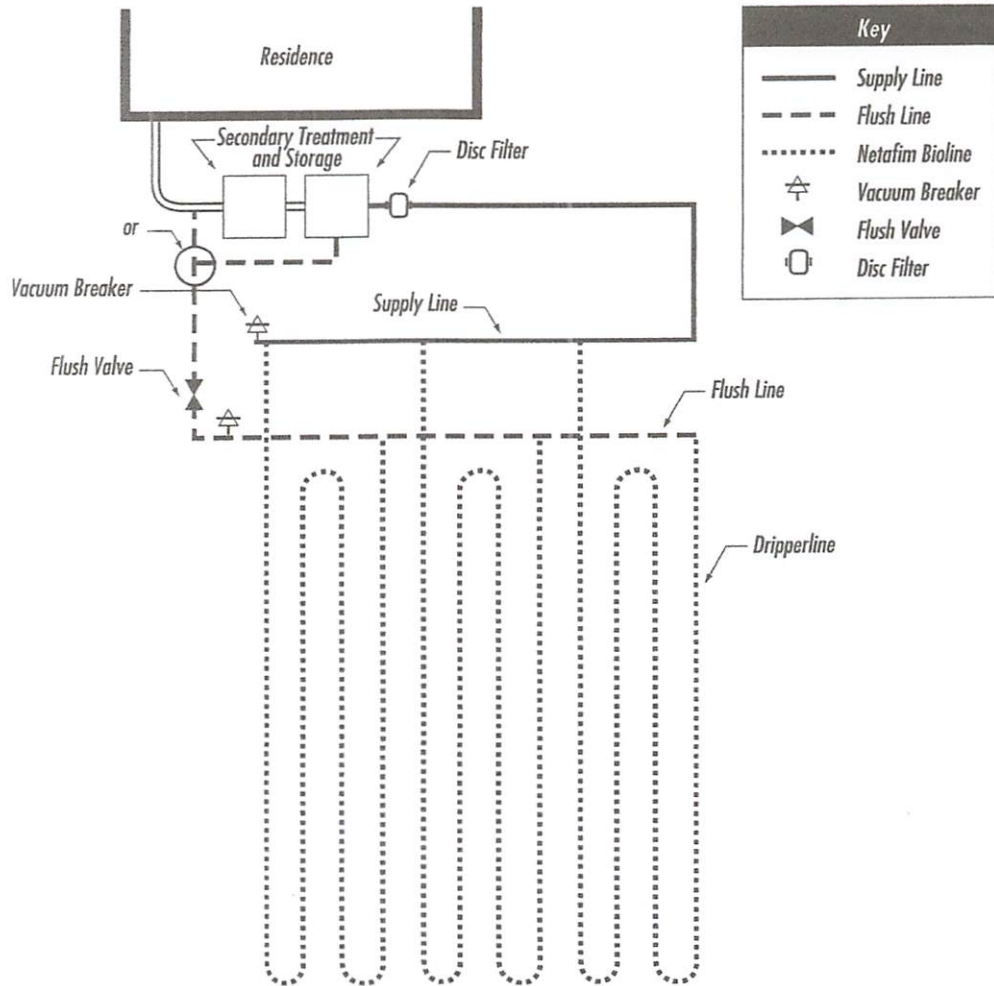
NETAFIM WASTEWATER DISPERSAL SYSTEM DESIGN GUIDE

SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

Rectangular field with supply and flush manifold on same side and in same trench;

- Locate supply and flush manifold in same trench
- Dripperlines are looped at the end opposite the supply and flush manifolds
- The longest Bioline length should not exceed 400 ft. Drip fields 200 ft. in length might loop the Bioline once; drip dispersal fields under 100 ft. might be looped twice, as illustrated



VOID

*** COMAL COUNTY OFFICE OF ENVIRONMENTAL HEALTH ***

APPLICATION FOR PERMIT FOR AUTHORIZATION TO CONSTRUCT AN ON-SITE SEWAGE FACILITY AND LICENSE TO OPERATE

Planning Materials & Site Evaluation as Required Completed By GREG W. JOHNSON, P.E.

System Description PROPRIETARY; AEROBIC TREATMENT AND DRIP TUBING

Size of Septic System Required Based on Planning Materials & Soil Evaluation

Tank Size(s) (Gallons) NUWATER B-550-PC Absorption/Application Area (Sq Ft) 2500

Gallons Per Day (As Per TCEQ Table III) 300

(Sites generating more than 5000 gallons per day are required to obtain a permit through TCEQ)

Is the property located over the Edwards Recharge Zone? Yes No

(If yes, the planning materials must be completed by a Registered Sanitarian (R.S.) or Professional Engineer (P.E.))

Is there an existing TCEQ approved WPAP for the property? No

(if yes, the R. S. or P. E. shall certify that the OSSF design complies with all provisions of the existing WPAP.)

If there is no existing WPAP, does the proposed development activity require a TCEQ approved WPAP? Yes No

(If yes, the R.S. or P. E. shall certify that the OSSF design will comply with all provisions of the proposed WPAP. A Permit to Construct will not be issued for the proposed OSSF until the proposed WPAP has been approved by the appropriate regional office.)

Is the property located over the Edwards Contributing Zone? Yes No

Is there an existing TCEQ approval CZP for the property? Yes No

(if yes, the P.E. or R.S. shall certify that the OSSF design complies with all provisions of the existing CZP)

If there is no existing CZP, does the proposed development activity require a TCEQ approved CZP? Yes No

(if yes, the P.E. or R.S. shall certify that the OSSF design will comply with all provisions of the proposed CZP. A Permit to construct will not be issued for the proposed OSSF until the CZP has been approved by the appropriate regional office.)

Is this property within an incorporated city? Yes No

If yes, indicate the city: _____



FIRM #2585

VOID

By signing this application, I certify that:

- The information provided above is true and correct to the best of my knowledge.
- I affirmatively consent to the online posting/public release of my e-mail address associated with this permit application, as applicable

Signature of Designer _____

Date 7/14/21

VOID

DRIP TUBING SYSTEM

DESIGNED FOR:

VINCENT MICHAEL & CHRISTINA PENDERGRASS
13838 SOUTHTON ROAD
SAN ANTONIO, TEXAS 78223

SITE DESCRIPTION:

Located in Rebecca Creek Park, 3rd filing, Block 35, Lot 25, at 1876 Laguna, the proposed system will serve a four bedroom mobile residence (2584 sf.) situated in an area with Type-III soil as described in the Soil Evaluation Report. An aerobic treatment plant utilizing drip irrigation was chosen as the most appropriate system to serve the conditions on this lot.

PROPOSED SYSTEM:

A 3 or 4 inch SCH-40 pipe discharges from the residence into a new NuWater B550 600 gpd aerobic treatment plant containing a 353 gal. pretreatment chamber and a 768 gal. pump chamber. The effluent after processing gravity feeds into the pump chamber. The pump chamber contains a 0.5 HP Franklin 105P4-2W115 submersible pump or equivalent. The well pump is activated by mercury floats and a timer set to cycle eight times per day with a tank operating level from 50-70 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron Arkal 1" Super Filter, disk filter filter then through a 1" SCH-40 manifold to a 2500 sf. drip tubing field, with *Netifim Bioline* drip lines set approximately two feet apart with 0.61 gph emitters set every two feet, as per the attached schematic. A pressure regulator Model PMR30MF installed in the pump tank on the manifold to the field will maintain pressure at 30 psi. A 1" SCH-40 return line is installed to periodically flush the system by cycling a 1" ball valve. Solids caught in the Arkal disk filter are flushed each cycle back to the trash tank. Agricultural Products, Inc. (Model #VBK-1) 1" PVC vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Prior to installing tubing the entire field must be scarified and built up with eight inches of Type II or III soil. Drip tubing will be laid and the entire field area will be capped with 6" of loamy soil (Type 2 or 3 - **NOT SAND**). The field area will be sodded with grass with hearty grass such as Bermuda, St. Augustine, etc. prior to system startup.

Tanks must have at grade risers on each opening with watertight caps that must be at least 65# or have a padlock or can only be removed with tools. A secondary plug, cap, or suitable restraint must be provided below riser cap to prevent tank entry should the cap be damaged or removed, in compliance with Chapter §285.38.

DESIGN SPECIFICATIONS:

Q = 300 gallons per day - 4 bedroom residence (Table III)
Pretreatment tank size: 353 Gal
Plant Size: NuWater B550- 600 GPD (TCEQ Approved)
Pump tank size: 768 Gal

VOID

VOID

Reserve capacity after High Level: 100 gal.
Application Rate: Ra = 0.2 gal/sf
Total absorption area: Q/Ra = 300 GPD/0.20 = 1500 sf. (Actual 2500 sf.)
Total linear feet drip tubing: 1250' *Netifim Bioline* drip tubing .61 GPH
Pump requirement: 625 emitters @ 0.61 gph @ 30 psi = 6.354 gpm
Pump: 0.5 HP Franklin C1-Series-20XC105P4-2W115 submersible pump or equivalent.
Dosing volume: 50-70 gal.

Pump Tank Calculations: 768 Gal (14.5 gal/in.)
Volume below working level = 15" = 218 gal
Working level = 300 gal = 21"
Reserve Requirement = 1 day = 100 gal. = 7"

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS
IN DRIP TUBING W/ NOM. DIA. 0.55" ID

MSV = 2 FPS $(\frac{ID}{12})^4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$
MSV = $2(3.14159((.55/12)^2/4) * 7.48 * 60$
MSV = 1.5 gpm MIN FLOW RATE

VOID

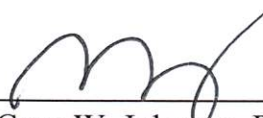
IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

MSV = 2 FPS $(\frac{ID}{12})^4 * 7.48 \text{ gal/cf} * 60 \text{ sec/min}$
MSV = $2(3.14159((1.049/12)^2/4) * 7.48 * 60$
MSV = 5.4 GPM

PIPE AND FITTINGS:

All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging. Drip tubing 0.61 gph drip tubing to be used in field. The manifold trench should be kept shallow to prevent interconnection of the trenches.

Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission on Environmental Quality (Effective December 29, 2016)

 07/14/2021
Greg W. Johnson, P.E. No. 67587, F#2585
170 Hollow Oak
New Braunfels, Texas 78132
830/905-2778

VOID

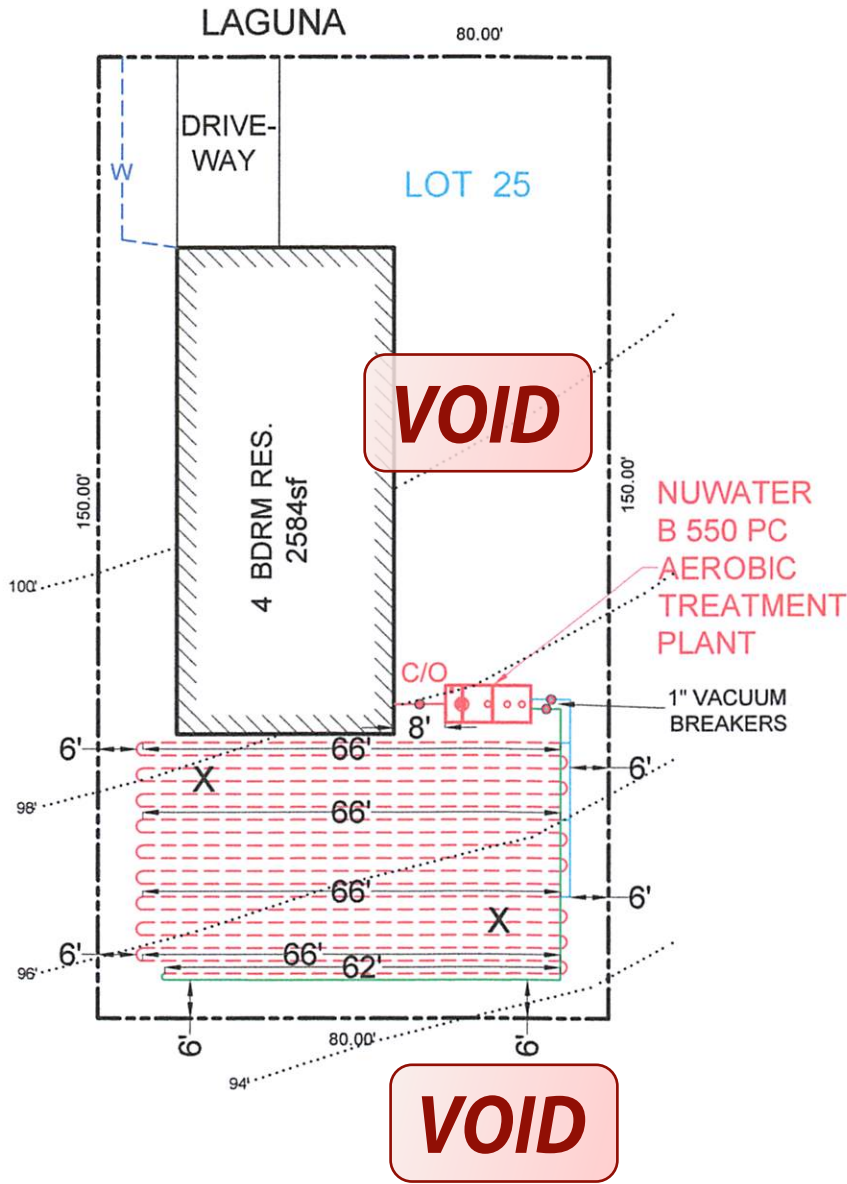


VOID

INSTALL 2000sf OF FIELD USING 1000' OF DRIP TUBING. THERE SHALL BE NO PARKING, DRIVING OR STORAGE ON THE SEPTIC FIELD AT ANY TIME FOR ANY REASON.

*USE TWO WAY CLEANOUT
**USE SCH-40 OR SDR-26 TO TANK

X= TEST HOLE



VOID



OWNER: VINCENT MICHAEL & CHRISTINA PENDERGRASS		DRAWN BY: EJS III	
STREET ADDRESS: 1876 LAGUNA			
LEGAL DESC: REBECCA CREEK PARK - 3rd FILING	UNIT/SECTION/PHASE:	BLOCK: 35	LOT: 25
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=30'	DATE: 7/14/2021	REVISED:

General Warranty Deed
(with Vendor's Lien)

NOTICE OF CONFIDENTIALITY RIGHTS

IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

Date: June 5, 2021

Grantor: SATX Restorations, LLC, a Texas limited liability company

Grantor's Mailing Address: 30131 Bulverde Ln #151 Bulverde, Tx 78143

Grantee: Vincent Michael Pendergrass and Christina Pendergrass, a married couple

Grantee's Mailing Address: 134 Juniper Ln Boerne, Tx 78006

Consideration: Cash and a note, dated June 5, 2021, executed by Borrower and payable to the order of 21st Mortgage Corporation ("Lender") in the principal amount of \$297,143.30. The note is secured by a first and superior vendor's lien against, and superior title to, the Property retained in this deed in favor of 21st Mortgage Corporation and is also secured by a first-lien deed of trust, of even date, to Tim Williams, Trustee, recorded in the real property records of Comal County, Texas.

The vendor's lien against and superior title to the Property are retained for the benefit of 21st Mortgage Corporation until the \$297,143.30 note described above is fully paid according to its terms, at which time this deed will become absolute as to the lien securing this note. The vendor's lien and superior title are transferred to 21st Mortgage Corporation without recourse.

Property (including any improvements):

Lot 25, Block 35, REBECCA CREEK PARK, THIRD FILING, situated in Comal County, Texas, according to the map or plat thereof, recorded in Volume 3, Pages 8-15, Map and Plat Records, Comal County, Texas.

Reservations from Conveyance: None

Independence Title Company
GF# 2131334547

Exceptions to Conveyance and Warranty:

Liens described as part of the Consideration and any other liens described in this deed as being either assumed or subject to which title is taken; validly existing easements, rights-of-way, and prescriptive rights, whether of record or not; all presently recorded and validly existing restrictions, reservations, covenants, conditions, oil and gas leases, mineral interests outstanding in persons other than Grantor, and other instruments, other than conveyances of the surface fee estate, that affect the Property; validly existing rights of adjoining owners in any walls and fences situated on a common boundary; any discrepancies, conflicts, or shortages in area or boundary lines; any encroachments or overlapping of improvements; all rights, obligations, and other matters arising from and existing by reason of any water, utility, road, or improvement districts which affect the Property; standby fees, taxes, and assessments by any taxing authority for the current year, which Grantee assumes and agrees to pay, and subsequent assessments for that and prior years due to change in land usage, ownership, or both, the payment of which Grantee also assumes.

Grantor, for the Consideration and subject to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any way belonging, to have and to hold it to Grantee and Grantee's heirs, successors, and assigns forever. Grantor binds Grantor and Grantor's heirs and successors to warrant and forever defend all and singular the Property to Grantee and Grantee's heirs, successors, and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the Reservations from Conveyance and the Exceptions to Conveyance and Warranty.

Limitation of Warranties: Pursuant to Section 7 of the purchase and sale contract between Grantor, as Seller, and Grantee, as Buyer, Grantee accepts the Property "AS IS". "As is" means the present condition of the Property with any and all defects and without warranty except for the warranties of title and the warranties in the purchase and sale contract.

When the context requires, singular nouns and pronouns include the plural.

NOTICE: This instrument was prepared by Hancock McGill & Bleau, LLLP (HMB) at the request of Independence Title or the parties using information provided by the title company and the parties. Unless we have been provided with a copy of any contracts related to this transaction or been informed of any reservations required by the seller, the reservations will not be included in this warranty deed and by accepting this deed, all parties release HMB from any liability resulting from the failure to include undisclosed reservations. We have not investigated or verified information provided to us and do not warrant the validity of the information or quality of title to the real estate described above. **We do not represent the parties named in this instrument. The parties should seek independent legal counsel for advice concerning the effect and consequences of this instrument.**

SATX Restorations, LLC

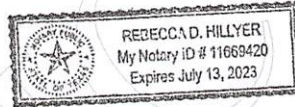
By: Cheryl A. Ettinger
Name: Cheryl A. Ettinger
Title: Sole Managing Member

State of TEXAS
County of Guadalupe

This document was acknowledged before me on June 5, 2021 by Cheryl A. Ettinger, Sole Managing Member of SATX Restorations, LLC on behalf of the Texas limited liability company.

Rebecca D. Hillyer
Notary Public, State of Tx

Prepared By:
Hancock McGill & Bleau, L.L.L.P.
Attorneys at Law
File No. 2121334-sw

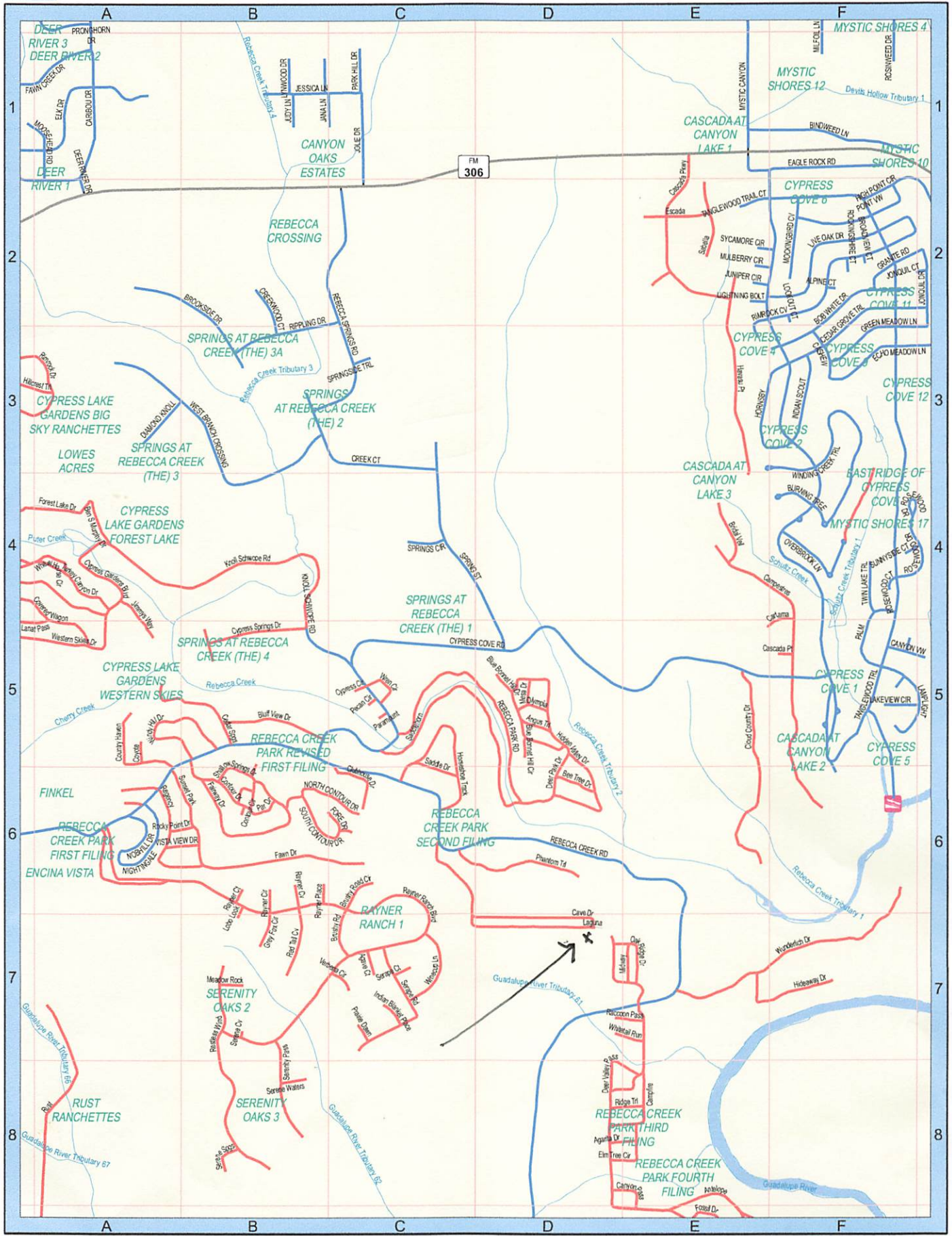


After Recording Return To:

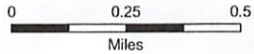
**Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
06/08/2021 03:23:29 PM
NANCY 3 Pages(s)
202106030755**



Bobbie Koepf



SEE PAGE 17



Block Creek Aerobic Services, LLC
444 A Old Hwy No 9
Comfort, TX 78013

Phone: (830) 995-3189
Fax: (830) 995-4051

To: Vincent & Christina Pendergrass
1876 Laguna
Spring Branch, TX 78070

Printed: 8/12/2022
Insp ID #: 128515
Main Phone: (210) 852-6155
Work:
Cell Phone:
Alt Cell:

Permit #: **112978**
Agency: Comal County
County: Comal
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic With Chlorine
Disposal: Drip Emitters

Customer ID: 8111
Contract Dates: 6/28/2022 - 6/28/2024
Scheduled Date: 10/28/2022

GPS Coordinates: Latitude: 29.90791 Longitude: -98.35510

Service Type: Customer Request

Visit Date: 8/12/2022

Time In: 930am

Out: 10am

Entered By: Jason K Stanberry

Method: Grab

Technician: Jason K Stanberry

Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Floats: OP

Timer: OP

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. Break in drip field - rebuilt drip filter and added a union

Service Completed

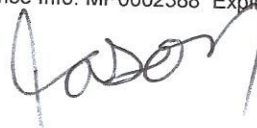
Site: 1876 Laguna, Spring Branch, TX 78070

Provider: **Rudy Carson**

Technician: Jason K Stanberry

License Info: MP0002036 Expires:

License Info: MP0002388 Expires: 10/30/2024



Block Creek Aerobic Services, LLC
444 A Old Hwy No 9
Comfort, TX 78013

Phone: (830) 995-3189
Fax: (830) 995-4051

To: Vincent & Christina Pendergrass
1876 Laguna
Spring Branch, TX 78070

Printed: 9/28/2022 Main Phone: (210) 852-6155
Insp ID #: 131115 Work:
Cell Phone:
Alt Cell:

Permit #: **112978**

Agency: Comal County

County: Comal

Mfg / Brand: Advantage Wastewater LLC - Nu Water

Treatment Type: Aerobic With Chlorine

Disposal: Drip Emitters

Customer ID: 8111

Contract Dates: 6/28/2022 - 6/28/2024

Scheduled Date: 10/28/2022

Inspection 1 of 6

GPS Coordinates: Latitude: 29.90791 Longitude: -98.35510

Service Type: Scheduled Inspection

Visit Date: 9/28/2022

Time In: 1255p

Out: 118

Method: Grab

Technician: Jose Ramos

Maint. Provider: Rudy Carson

This counts as a type of "Scheduled Inspection"
Entered By: Jose Ramos

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Chlorine Supply: Operational

Chlorine Residual: 0.7

Sludge Levels

For Tank 1: 15"

For Tank 2: 0"

For Tank 3: 0"

Floats: OP

Timer: OP

CFM: 2.6

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Tank Lid / Riser: Secured

Insp. Port / Plug: Secured

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Inspection Port Plug was noted as Secured prior to leaving.
Cleaned compressor filter. Tank 1 scum 3"

Service Completed

Site: 1876 Laguna, Spring Branch, TX 78070

Provider: **Rudy Carson**

Technician: Jose Ramos

License Info: MP0002036 Expires:

License Info: MT0001770 Expires: 9/1/2022

Block Creek Aerobic Services, LLC
444 A Old Hwy No 9
Comfort, TX 78013

Printed: 7/13/2023 Insp ID #: 142875

Phone: (830) 995-3189
Fax: (830) 995-4051

To: Vincent & Christina Pendergrass
1876 Laguna
Spring Branch, TX 78070

Permit #: **112978**

Main Phone: (210) 852-6155
Work:
Cell Phone:
Alt Cell:

Agency: Comal County
County: Comal
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic With Chlorine
Disposal: Drip Emitters

Customer ID: 8111
Contract Dates: 6/28/2022 - 6/28/2024
Scheduled Date: 6/28/2023 Inspection 3 of 6

GPS Coordinates: Latitude: 29.90791 Longitude: -98.35510

Service Type: Scheduled Inspection

Visit Date: 7/13/2023 Time In: 1:10

This counts as a type of "Scheduled Inspection"
Entered By: Trenton L Soldan

Method: Grab

Technician: Trenton L Soldan

Maint. Provider: Rudy Carson

Aerators: Operational

Sludge Levels

Filters: Operational

For Tank 1: n/a

Irrigation Pumps: Operational

For Tank 2: n/a

Disinfection Device: Operational

For Tank 3: n/a

Chlorine Residual: 1

Floats: OP

Timer: OP

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Trenton

Comments

septic lines all ripped up owner is getting fixed

Service Completed

Site: 1876 Laguna, Spring Branch, TX 78070

Provider: *Rudy Carson*

Technician: *Trenton L Soldan*

License Info: MP0002036 Expires: 11/30/2025

License Info: MT0002287 Expires: 3/31/2025

Block Creek Aerobic Services, LLC
444 A Old Hwy No 9
Comfort, TX 78013

Phone: (830) 995-3189
Fax: (830) 995-4051

To: Vincent & Christina Pendergrass
1876 Laguna
Spring Branch, TX 78070

Printed: 11/8/2023
Insp ID #: 146638
Main Phone: (210) 852-6155
Work:
Cell Phone:
Alt Cell:

Permit #: **112978**

Agency: Comal County
County: Comal
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic With Chlorine
Disposal: Drip Emitters

Customer ID: 8111
Contract Dates: 6/28/2022 - 6/28/2024
Scheduled Date: 10/28/2023
Inspection 4 of 6

GPS Coordinates: Latitude: 29.90791 Longitude: -98.35510

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"
Entered By: Christopher T Zigalo

Visit Date: 11/8/2023

Time In:

Method: Grab

Technician: Christopher T Zigalo

Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: 20"

For Tank 2: 4"

For Tank 3: 2"

Floats: OP

Timer: OP

Electric Circuits: Operational

Tank Lid / Riser: Secured

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Cleaned drip filter and back flushed drip filter - Scum in pretreatment is 3"

Service Completed

Site: 1876 Laguna, Spring Branch, TX 78070

Provider: Rudy Carson

Technician: Christopher T Zigalo

License Info: MP0002036 Expires: 11/30/2025

License Info: MT0001878 Expires: 9/30/2026

Block Creek Aerobic Services, LLC

444 A Old Hwy No 9
Comfort, TX 78013

(830) 995-3189

Printed:1/31/2024

Permit: 112978

Site: 1876 Laguna, Spring Branch, TX 78070

Main Phone: 2108526155

Vincent & Christina Pendergrass

1876 Laguna
Spring Branch, TX 78070

Agency: Comal County
County: Comal

System Info: MFG: Advantage Wastewater LLC Brand: Nu Water
Treatment Type: Aerobic With Chlorine Disposal Type: Drip Emitters

Customer ID: 8111
Insp ID: 153686

Visit Details

Visit Date: 1/31/2024

Entered By: Alejandro Gonzalez

GPS Lat: 29.90791 GPS Long: -98.35510

Scheduled Date: 2/28/2024

Time In: 2:23pm

Contract Starts: 6/28/2022

Entered On: 1/31/2024

Time Out: 2:40pm

Contract Ends: 6/28/2024

Visit Results

Service Type: **Scheduled Inspection**

Count: Inspection 5 of 6

Method: **Grab**

Technician: Alejandro Gonzalez

License #

Expires

MT0000996

1/31/2025

Provider: Rudy Carson

MP0002036

11/30/2025

Service Completed

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Level Tank 1: 8"

Sludge Level Tank 2: 24"

Sludge Level Tank 3: 0"

Turbidity: Good

Chlorine Residual: 1

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Drip/Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - Scum in pretreatment is 4"

Provider: *Rudy Carson*

Technician: *Alejandro Gonzalez*

License: Number: MP0002036 Exp: 11/30/2025

License: Number: MT0000996 Exp: 1/31/2025

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