Preliminary Field Check For Drip Systems

RECEIVED By Kathy Griffin at 11:22 am, Jun 16, 2	0025				
COMAL (ENGINEER		ACILITY APPLICA	TION	195 DAVID JON/ NEW BRAUNFELS, (830) 608-20 WWW.CCEO.(TX 78132 90
Dete In	no 4, 2025		Permit Number	118757	
Date Ju	GENT INFORMATION			and the second second second	
Owner Name	4P VENTURES, LLC				
Mailing Address	12432 REBECCA CREEK ROAD	Agent Address			
City, State, Zip	SPRING BRANCH TEXAS 78070	City, State, Zip	NEW BRAUN	IFELS TEXAS 78	132
Phone #	210-867-3569	Phone #		-905-2778	Manada - Middel
Email	4pventuresllc@gmail.com	Email	gregjohns	onpe@yahoo.com	
2. LOCATION					
Subdivision Name	LAKE OF THE HILLS ESTA	TES Uni	t Lot_	2 Block	<u>13</u>
Survey Name / Ab	stract Number		/	Acreage	
	1155 SOUTHLINE DRIVE		RANCH State	TX Zip	78070
3. TYPE OF DEVE	ELOPMENT				
Single Famil	y Residential				
Type of Cor	struction (House, Mobile, RV, Etc.)	HOUSE			
Number of I					
	Ft of Living Area 1204				
processing.	Family Residential				
	terials must show adequate land area for doublin	a the required land needs	ed for treatment unit	s and disposal area	a)
	ility				
	ctories, Churches, Schools, Parks, Etc Ind		pants		
	s, Lounges, Theaters - Indicate Number of S			-	
				ee beer laanse van de selen de	
	I, Hospital, Nursing Home - Indicate Number				
	er/RV Parks - Indicate Number of Spaces				
Miscellaneo	ous				
And the second se	0.70.000				
	of Construction: \$ 250,000			-) 5	
	of the proposed OSSF located in the United				
	No (If yes, owner must provide approval from USACE		ements within the USA	ACE flowage easeme	ent)
Source of Wate	r 🔀 Public 🗌 Private Well 🗌 Rainwat	ter Collection			
4. SIGNATURE C					
 The completed ap facts. I certify that property 	ication, I certify that: plication and all additional information submitted t I am the property owner or I possess the approp ereby given to the permitting authority and design	priate land rights necessar	ry to make the perm	itted improvements	s on said
site/soil evaluation	n and inspection of private sewage facilities a permit of authorization to construct will not be in unty Flood Damage Prevention Order. sent to the online posting/public release of my e-	ssued until the Floodplain	Administrator has p	performed the revie	ws required
A	Pa. III	1.11.2			

Signature of Owner

0-11-25 Date

Page 1 of 2 Revised January 2021 COMAL COUNTY ENGINEER'S OFFICE

ON-SITE SEWAGE FACILITY APPLICATION

195 DAVID JONAS DR NEW BRAUNFELS, TX 78132 (830) 608-2090 <u>WWW.CCEO.ORG</u>

Planning Materials & Site E	valuation as Required Comp	pleted By <u>GREG W.</u>	OHNSON, P.E.	
System Description	PROPRIETARY; A	EROBIC TREATMENT	AND SURFACE IRRI	GATION
Size of Septic System Requ	ired Based on Planning Mat	erials & Soil Evaluation		
Tank Size(s) (Gallons)	NUWATER B-550-PC	Absorption/Applicat	ion Area (Sq Ft)	2000
Gallons Per Day (As Per TO (Sites generating more than 50	many to consider the construction of the second sec	and the second se	h TCEQ)	
Is the property located over (If yes, the planning materials r			rofessional Engineer (P.I	E.))
Is there an existing TCEQ a	proved WPAP for the prope	erty? 🗌 Yes 🛛 No		
(if yes, the R. S. or P. E. shall c	ertify that the OSSF design cor	nplies with all provisions of	the existing WPAP.)	
Is there at least one acre per sir	ngle family dwelling as per 285.40	0(c)(1)? 🗌 Yes 🛛 No		
If there is no existing WPAI	P, does the proposed develo	opment activity require	a TCEQ approved WP/	AP? 🗌 Yes 🔀 No
	certify that the OSSF design wi I OSSF until the proposed WPA			
Is the property located over	the Edwards Contributing 2	Zone? 🛛 Yes 🗌 No		
Is there an existing TCEQ a	pproval CZP for the propert	ty? 🗌 Yes 🛛 No		
(if yes, the P.E. or R.S. shall c	ertify that the OSSF design cor	mplies with all provisions o	f the existing CZP)	
not be issued for the propose	does the proposed develop ertify that the OSSF design will ed OSSF until the CZP has be in incorporated city?	comply with all provisions een approved by the app		
			GREG W. JOHNSON	
If yes, indicate the city:			PROFILE PROVIDENCE	
				RM #2585
By signing this application, I ce	rtify that:			
	ove is true and correct to the be	st 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

6/10/2025

Date

POOR QUALITY

AFFIDAVIT

THE COUNTY OF COMAL STATE OF THEAS

CERTIFICATION OF OUR REQUIRENCE MAINTENANCE

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

The Texas Health and Safety Code, Chapter 366 anthorizes the Texas Countilation on Environmental Quality (TCEQ) to regulate on-site severage facilities (OSSFs). Additionally, the Texas Water Code (TWC), § 5.012 and § 5.013, gives the commission primary suppossibility for implementing the laws of the State of Texas relating to water and adopting rules accessary to carry out its powers and dutics under the TWC. The commission, under the sutherity 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 picess of property. To achieve this motion, the commission sequires a recorded atliderit. Additionally, the owner usest provide proof of the recording to the OSSF permitting authority. This seconded affiderit is not a representation or warranty by the commission of the suitability of this OSSF, nor does it constitute any generates by the commission that the appropriate OSSF was installed.

1

An OSSF requiring a maintenance contract, according to 30 Texas Administrative Code §245.91(12) will be installed on the property described as (insert legal description):

	B BLOCK	2 10	LAKE OF THE BULLS ESTATES	ULH		
--	---------	------	---------------------------	-----	--	--

IP NOT IN SUBSIVISION: _____ACREACE _____SUBVEY

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

4P VENTURES, LLC

20 25

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

Upon sale or transfer of the showe-described property, the paralt 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 County Engineer's Office.

WITNESS BY HANDESD ON THES [] DAY OF vne

ALA

Amondo Power -MANAGER

SWORN TO AND SUBSCRIPED REPORT HE ON THIS ! [__ DAY OF

Parokett Amanda

20 25 1 314

Signature

Le Persz 10 A 1 stare fii ie Ci 2mm, Ep. 04-10-2029 ID No. 135507298

Filed and Recorded Official Public Records Bobbie Koepp, County Clerk Comal County, Texas 06/16/2025 08:23:59 AM TAMMY 1 Pages(s) 202506018135

Bothie Koepp

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

444 A Old Hwy #9 Comfort, TX 78013 Off. (830) 995-3189 Fax. (830) 995-4051	Permit/License Number Customer <u>4P VENTURES, LLC</u> Site Address <u>1155 SOUTHLINE DRIVE</u> City <u>SPRING BRANCHZip 78070</u> Mailing Address <u>12432 REBECCA CREEK RD, S.B., TX</u> 78070 County <u>COMAL</u> Map # <u>CCEO PG15, D2</u> Phone <u>210-867-3569</u>
LAKE OF THE HILLS ESTATES, BLK 13, LOT 2	Phone 210-867-3569 Emeil Apventureslic@gmail.com

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between 4P VENTURES, LLC (hereinafter referred to as "Customer") and Block Creek Acrobic 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.

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:

RC

Customer's Initials

Contractor's Initials

Not required; X 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):

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

RC

Customer's Initials

copyright all rights reserved

Contractor's Initials

THIS INDEMNITIFCATION 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 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 og written.

Rudy Carson Block Creek Aerobic Services, LLC,

amanta Paulos

ustomer Signature

0-13-75

Date

Contractor MP# 0002036

> C copyright all rights reserved

RC

Customer's Initials

Contractor's Initials

ON-SITE SEWERAGE FACILITY SOIL EVALUATION REPORT INFORMATION

Date Soil Survey Performed:	Ju	ne 09, 2025				
Site Location:		LAKE of the H	IILLS ESTA	TES, BLOCK 13	, LOT 2	
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 SUI	RFACE EVALUATI	ION			
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations
0 4" 1 2	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 4"	BROWN
3	-					
5	-					

servations	Restrictive Horizon	Drainage (Mottles/ Water Table)	Gravel Analysis	Soil Texture	Texture Class	Depth (Feet)
	ABOVE		AS		SAME	

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

06/09/2025 Date

OSSF SOIL EVALUATION REPORT INFORMATION

Site Evaluator Information:

Date: June 10, 2025

Applicant Information:

Presence of upper water shed

Organized sewage service available to lot

		Site Evaluator Inte	
Name:	4P VENTURES, LLC.	Name: Greg W. Jol	nnson, P.E., R.S, S.E. 11561
Address:	12431 REBECCA CREEK ROAD	Address: 170 Holl	ow Oak
	NG BRANCH State: TEXAS		
	78070 Phone: (210) 867-3569	Zip Code: 78132	felsState: Texas Phone & Fax (830)905-2778
Property Loca Lot <u>2</u> Unit Street Address		HILLS Installer Infor S Name: Company:	
Additional Inf	•		State:
			Phone
Presence of 100 Existing or prop	Slope within proposed disposal area yr. Flood Zone: bosed water well in nearby area. acent ponds, streams, water impoundment	YESNO_X YESNO_X	_

YES

YES

NO

NO

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



FIRM #2585

AEROBIC TREATMENT DRIP TUBING SYSTEM DESIGNED FOR: 4P VENTURES, LLC 12432 REBECCA CREEK RD SPRING BRANCH, TX 78070

SITE DESCRIPTION:

Located in Lake of the Hills Estates, Block 13, Lot 2, at 1155 Southline Drive, the proposed system will serve a three bedroom residence (1204sf.) situated in an area with shallow Type III soil as described in the Soil Evaluation Report. Native grasses and oak trees were found throughout this property. 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-inch SCH-40 pipe discharges from the residence into a NuWater B-550 600gpd aerobic plant containing a 353-gallon pretreatment tank, an aerobic treatment plant, and a 768gallon pump chamber containing a submersible (FPS Series 0.5HP) well pump. The well pump is activated by a time controller allowing the distribution ten times per day with an 8 minute run time with float setting at 240 gallons. A high level audible and visual alarm will activate should the pump fail. Distribution is through a self flushing 100 micron disc filter (Arkal) then through a 1" SCH-40 manifold to a 2000 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 PMR-MF 30psi 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 continuously flush the system by throttling a 1" ball valve. Solids caught in the disc filter are continuously flushed each cycle back to the pump tank. Vacuum breakers installed at the highest point on each manifold will prevent siphoning of effluent from higher to lower parts of the field. Field area will be scarified and surface rock removed and built up with 10" of Type II or Type III soil, then the drip tubing will be laid and capped with 6" of Type II or Type III soil (NOT SAND). (A minimum of twelve inches of soil required between drip tubing and rock/tank.) The field area will be sodded with grass prior to system startup. Risers are required on tank inspection ports as per 30 TAC 285.38 (9/1/2023). This includes access limitation (<65lbs lid or hardware secured lid), inspection and cleanout ports shall have risers over the port openings which extend to a minimum of two inches above grade. A secondary plug, cap, or other suitable restraint system shall be provided below the riser cap to prevent tank entry if the cap is unknowingly damaged or removed.

DESIGN SPECIFICATIONS:

Daily waste flow: 240 GPD Table III Pretreatment tank size: 353 Gal Plant Size: NuWater B550 600gpd (TCEQ Approved) Pump tank size: 768 Gal Reserve capacity after High Level: 80 Gal (1/3 day Req'd) Application Rate: Ra = 0.2 gal/sf Total absorption area: O/Ra = 240 GPD/0.20 = 1200 sf. (Actual 2000 sf.) Total linear feet drip tubing: 1000' Netifim Bioline drip tubing .61 GPH Pump requirement: 500 emitters (a) .61 gph (a) 30 psi = 5.0833gpm Pump Requirement (cont.): FPS Series 20FE05P4-2W115 0.5HP submersible well pump MINIMUM SCOUR VELOCITY (MSV) > 2 FPS IN DRIP TUBING W/ NOM. DIA. 0.55" ID MSV = 2 FPS ($\Pi d \uparrow 2$)/4*7.48 gal/cf*60 sec/min $MSV = 2(3.14159((.55/12))^2)/4)*7.48*60$ MSV = 1.5 gpm PER LINE * 3 LINES = 4.5 GPM MIN FLOW RATE IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID $MSV = 2 FPS (\Pi d^{\dagger} 2)/4*7.48 gal/cf^{*}60 sec/min$

 $MSV = 2 FPS (11d^{2})/4*7.48 \text{ gal/ct*60 sec/mm}$ $MSV = 2(3.14159((1.049/12)^{2})/4)*7.48*60$ MSV = 5.4 GPM

PIPE AND FITTINGS:

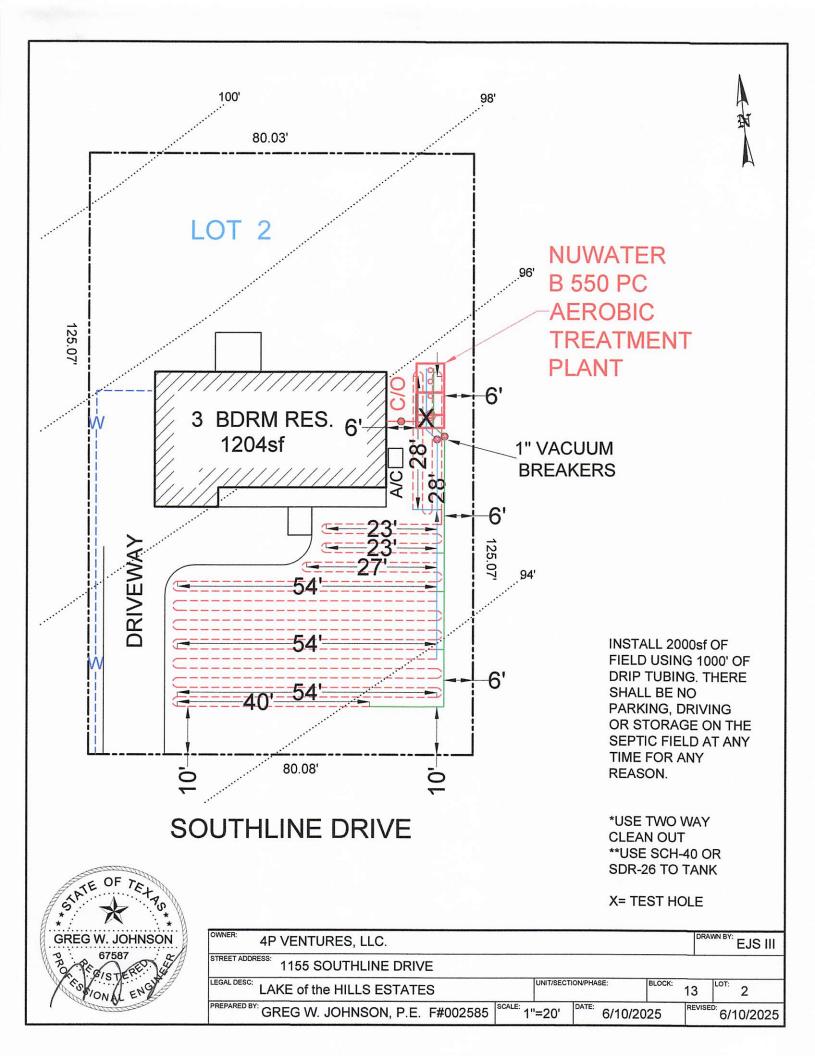
All pipes and fittings in this drip tubing system shall be 1" schedule 40 PVC. All joints shall be sealed with approved solvent-type PVC cement. Clipper type cutters are recommended to prevent PVC burrs during cutting of pipes causing possible plugging.

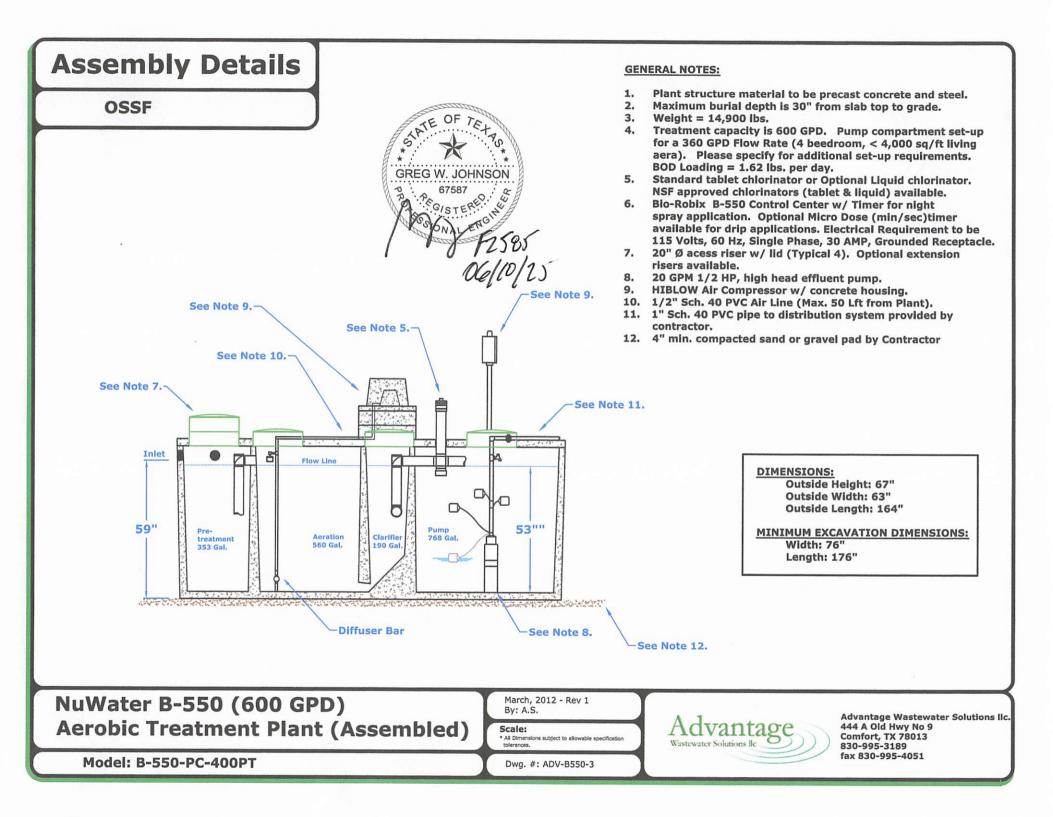
Designed in accordance with Chapter 285, Subchapter D, §285.30 and §285.40 Texas Commission On Environmental Quality. (Effective December 29,2016)

06/10/25

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







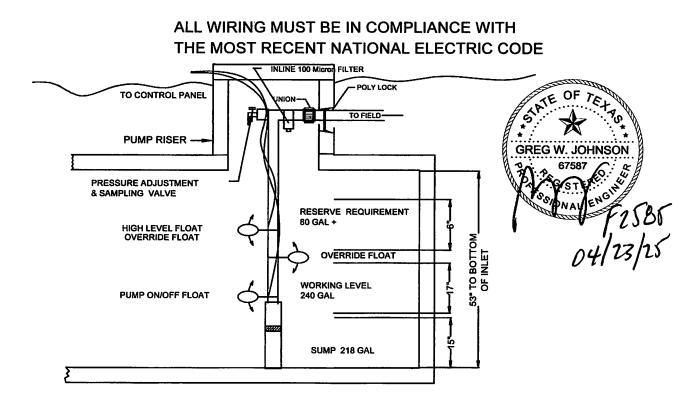
TANK NOTES:

Tanks must be set to allow a minimum of 1/4" 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

PMR-MF PRESSURE-MASTER REGULATOR - MEDIUM FLOW

Specifications

The pressure regulator shall be capable of operating at a constant, factory preset, non-adjustable outlet pressure of 6, 10, 12, 15, 20, 25, 30, 35, 40, 50, or 60 PSI (0.41, 0.69, 0.83, 1.03, 1.38, 1.72, 2.07, 2.41, 2.76, 3.45, or 4.14 bar) with a flow range between:

4 - 16 GPM (909 - 3634 L/hr) for 6 - 10 PSI models or

2 - 20 GPM (454 - 4542 L/hr) for 12 - 60 PSI models.

The pressure regulator shall maintain the nominal pressure at a minimum of 5 PSI (0.34 bar) above model inlet pressure and a maximum of 80 PSI (5.52 bar) above nominal model pressure*. Refer to the PRU performance curve to establish specific outlet pressures based on relative inlet pressure and flow rate. Always install downstream from all shut off valves. Recommended for outdoor use only. Not NSF certified.

All pressure regulator models shall be equipped with one of these inlet-x-outlet configurations:

Inlet 3/4-inch Female National Pipe Thread (FNPT) 1-inch Female National Pipe Thread (FNPT) 1-inch Female British Standard Pipe Thread (FBSPT) 1-inch Female British Standard Pipe Thread (FBSPT)

Outlet 3/4-inch Female National Pipe Thread (FNPT) 1-inch Female National Pipe Thread (FNPT)

Senninger

The upper housing, lower housing, and internal molded parts shall be of engineering-grade thermoplastics with internal elastomeric seals and a reinforced elastomeric diaphragm. Regulation shall be accomplished by a fixed stainless steel compression spring, which shall be enclosed in a chamber isolated from the normal water passage.

Outlet pressure and flow shall be clearly marked on each regulator.

The pressure regulator shall carry a two-year manufacturer's warranty on materials, workmanship, and performance. Each pressure regulator shall be water tested for accuracy before departing the manufacturing facility.

The pressure regulator shall be manufactured by Senninger Irrigation in Clermont, Florida. Senninger is a Hunter Industries Company.

Physical

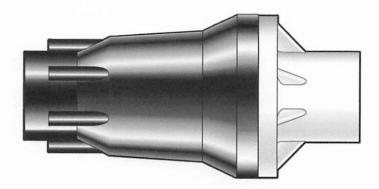
3/4" FNPT x 3/4" FNPT model (shown on right)

Overall Length	5.2 inches (13.1 cm)
Overall Width	2.5 inches (6.4 cm)

1" FNPT x 1" FNPT model

1" FBSPT x 1" FBSPT model

Overall Length	5.8 inches (14.6 cm)
Overall Width	2.5 inches (6.4 cm)



* Please consult factory for applications outside of recommended guidelines.

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.

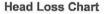
Technical Data

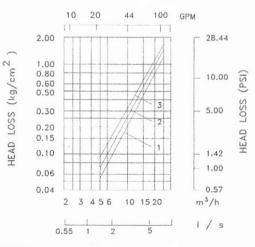
	1" BSPT (male)	1" NPT (male)	
Inlet/outlet diameter	25.0 mm – nominal diameter		
- All	33.6 mm – pipe diameter (O. D.)		
Maximum pressure	10 atm	145 psi	
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm	
General filtration area	500 cm ²	77.5 in ²	
Filtration volume	600 cm ³	37 in ³	
Filter length L	340 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)



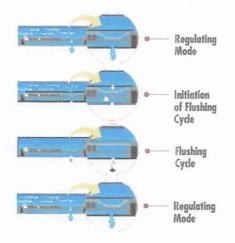


Disc filter, irrigation systems, irrigationglobal.com

Bioline® Dripperline

NETAFIM

Pressure Compensating Dripperline for Wastewater



BioLine's Self-Cleaning, Pressure Compensating Dripper is a fully selfcontained 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"*

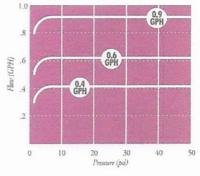
Recommended filtration: 120 mesh

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



Cross Section of Bioline Dripperline

et Effluent St.

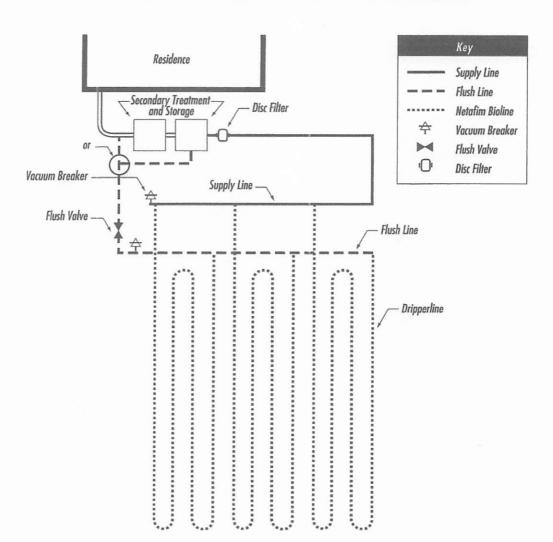
Inlet Filt

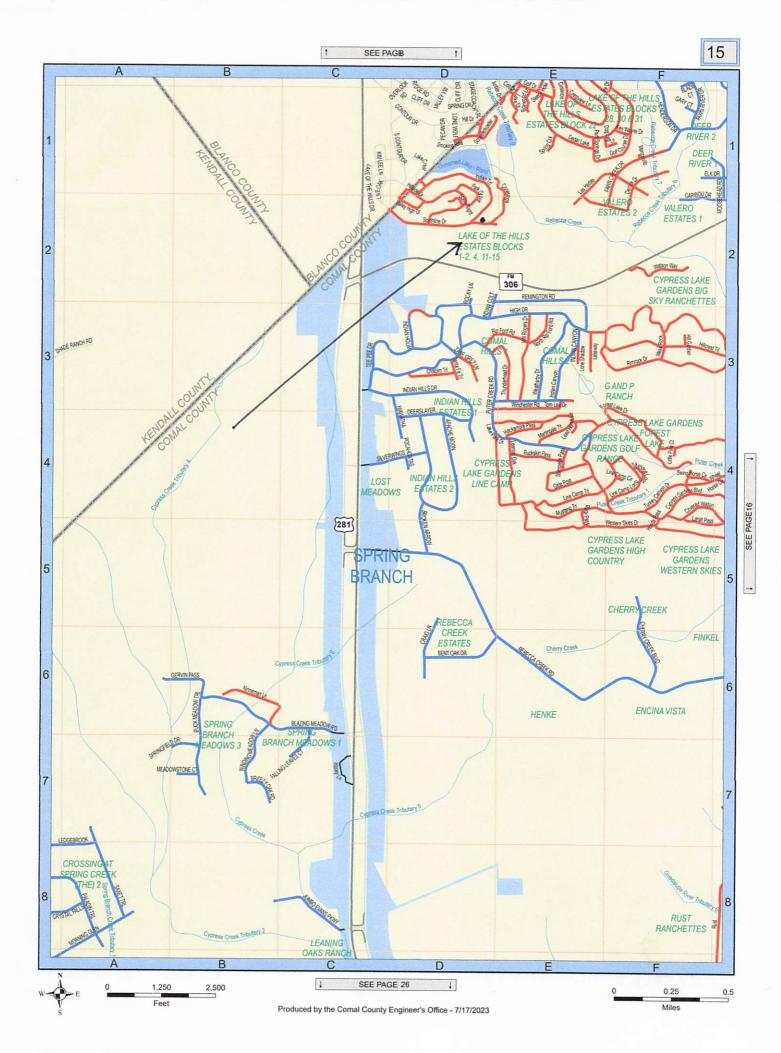
SAMPLE

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





NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL 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 SEGURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

GENERAL WARRANTY DEED

§

THE STATE OF TEXAS

§ KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

THAT KIMBERLY A. TODD, a single woman, hereinafter called Grantor, for and

in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) cash and other good and valuable consideration in hand paid by 4P VENTURES, LLC, hereinafter called Grantee, the receipt and sufficiency of which is hereby acknowledged;

HAS GRANTED, SOLD and CONVEYED, and by these presents does GRANT,

SELL and CONVEY unto the said Grantee the following described property situated in

Comal County, Texas, to-wit:

Lots 1, 2) and 3 Block 13 of LAKE OF THE HILLS ESTATES, a subdivision in Comal County, Texas, according to the plat recorded in Volume 3, Page 70 of the Map and Plat Records of Comal County, Texas..

This conveyance is made subject to, all and singular, the restrictions, conditions, easements and covenants, if any, applicable to and enforceable against the above described property as reflected by the records of the County Clerk of Comal County, Texas.

Taxes for the current year have been prorated and are thereafter assumed by Grantee.

TO HAVE AND TO HOLD the above described premises, together with, all and singular, the rights and appurtenances thereto in anywise belonging unto the said Grantee, Grantee's heirs, executors, administrators, successors, or assigns forever.

Grantor does hereby bind Grantor, Grantor's heirs, executors, administrators, and successors to warrant and forever defend, all and singular, the said premises unto the said Grantee, Grantee's heirs, executors, administrators, successors, and assigns against any person whomsoever claiming or to claim the same or any part thereof.

DATED this the 12th day of June, 2024, but EFFECTIVE as of the 14th day of June, 2024.

Kullberly and KIMBERLY A. TODD, a single woman

STATE OF ŝ COUNTY OF

This instrument was acknowledged before me on this the _____ day of June, 2024, by KIMBERLY A. TODD, a single woman.

Notary Certificate Attached

Notary Public, State of

GRANTEE'S MAILING ADDRESS:

3009.deeds Old Republic Title Co (NF) GF #1051SG

2



OSSF DEVELOPMENT APPLICATION CHECKLIST

Staff will complete shaded items

Date Received Initials

118757

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 <u>must</u> accompany the completed application.

OSSF F	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.

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

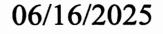
I affirm that I have provided all information required for my OSSF Development Application and that this application constitutes a completed OSSF Development Application.

Signature of Applicant

COMPLE	TE APPI	

Check No.

Receipt No.



Date

INCOMPLETE APPLICATION — (Missing Items Circled, Application Refeused)

Revised: September 2019