

Comal County
OFFICE OF COMAL COUNTY ENGINEER

License to Operate On-Site Sewage Treatment and Disposal Facility

Issued This Date: 05/31/2019 Permit Number: 108024

Location Description: 1731 WESTVIEW COURT DR
CANYON LAKE, TX 78133

Subdivision: Canyon Lake Forest
Unit: 1
Lot: 249
Block:
Acreage:

Type of System: Aerobic
Drip Irrigation

Issued to: Acequia Properties, LLC

This license is authorization for the owner to operate and maintain a private facility at the location described in accordance to the rules and regulations for on-site sewerage facilities of Comal County, Texas, and the Texas Commission on Environmental Quality.

The license grants permission to operate the facility. It does not guarantee successful operation. It is the responsibility of the owner to maintain and operate the facility in a satisfactory manner.

Alterations to this permit including, but not limited to:

- Increase in the square feet of living area
- Increase in the number of bedrooms
- A change of use (i.e. residential to commercial)
- Relocation of system components (including the relocation of spray heads)
- Installation of landscaping
- Adding new structures to the system

may require a new permit. **It is the responsibility of the owner to apply for a new permit, if applicable.**

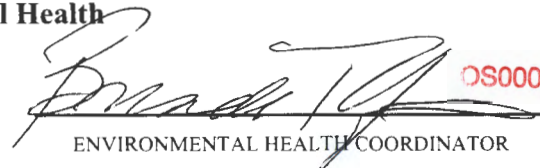
Inspection and licensing of a facility indicates only that the facility meets certain minimum requirements. It does not impede any governmental entity in taking the proper steps to prevent or control pollution, to abate nuisance, or to protect the public health.

This license to operate is valid for an indefinite period. The holder may transfer it to a succeeding owner, provided the facility has not been remodeled and is functioning properly.

Licensing Authority
Comal County Environmental Health

OS0032485


ENVIRONMENTAL HEALTH INSPECTOR


ENVIRONMENTAL HEALTH COORDINATOR OS0007722

Comal County Environmental Health OSSF Inspection Sheet

Installer Name: Keahol Const. / Dennis Varhol OSSF Installer #: 05 003132
 1st Inspection Date: 2/21/19 2nd Inspection Date: _____ 3rd Inspection Date: 5-31-19 *final*
 Inspector Name: Mike T. Inspector Name: _____ Inspector Name: Connor
 Permit#: 108024 Address: C.L. Forest / 1731 Westview Ct. Dr.

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)		2/21/19		
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)(iii)(I)				
7	PRETREATMENT Grease Interceptors if required for commercial		285.34(d)				

MT-2/21/19

Tank set, leveled
operational ✓
Ready For Cover & sod

Covered 5-31-19 JC

**Comal County Environmental Health
OSSF Inspection Sheet**

Final

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)(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)		2/21/19 		
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 Environmental Health OSSF Inspection Sheet

Installer Name: Keabol Const. / Dennis Varhol OSSF Installer #: _____

1st Inspection Date: 2/21/19 2nd Inspection Date: _____ 3rd Inspection Date: _____

Inspector Name: Mike T. Inspector Name: _____ Inspector Name: _____

Permit#: 108024 Address: C.L. Forest / 1731 Westview Ct. Dr.

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)		2/21/19		
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)				


MT- 2/21/19

Tank set, leveled
operational ✓
Ready For Cover & sod

**Comal County Environmental Health
OSSF Inspection Sheet**

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	✓		600	2/21/19		
15	AEROBIC TREATMENT UNIT Manufacturer AEROBIC TREATMENT UNIT Model Number	✓		No Water			
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)				

**Comal County Environmental Health
OSSF Inspection Sheet**

No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
19	DISPOSAL SYSTEM Drip Irrigation		285.33(a)(1) 285.33(a)(3) 285.33(a)(4) 285.33(a)(2)		2/21/19		
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
OSSF Inspection Sheet**

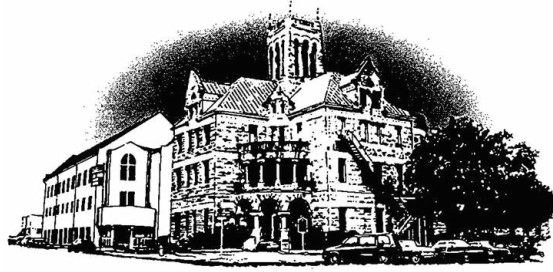
No.	Description	Answer	Citations	Notes	1st Insp.	2nd Insp.	3rd Insp.
32	<p>EFFLUENT DISPOSAL SYSTEM Utilized Only by Single Family Dwelling</p> <p>EFFLUENT DISPOSAL SYSTEM Topographic Slopes < 2.0%</p> <p>EFFLUENT DISPOSAL SYSTEM Adequate Length of Drain Field (1000 Linear ft. for 2 bedrooms or Less & an additional 400 ft. for each additional bedroom)</p> <p>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</p> <p>EFFLUENT DISPOSAL SYSTEM Lateral Drain Pipe (1.25 - 1.5" dia.) & Pipe Holes (3/16 - 1/4" dia. Hole Size) 5 ft. Apart</p>		<p>285.33(b)(3)(A)</p> <p>285.33(b)(3)(A)</p> <p>285.33(b)(3)(B)</p> <p>285.91(13)</p> <p>285.33(b)(3)(D)</p> <p>285.33(b)(3)(F)</p>				
33	<p>AEROBIC TREATMENT UNIT Is Aerobic Unit Installed According to Approved Guidelines.</p>	✓	285.32(c)(1)		2/21/19		
34	<p>AEROBIC TREATMENT UNIT Inspection/Clean Out Port & Risers Provided</p> <p>AEROBIC TREATMENT UNIT Secondary restraint system provided</p> <p>AEROBIC TREATMENT UNIT Riser permanently fastened to lid or cast into tank</p> <p>AEROBIC TREATMENT UNIT Riser cap protected against unauthorized intrusions</p>	✓					
35	<p>AEROBIC TREATMENT UNIT Chlorinator Properly Installed with Chlorine Tablets in Place.</p>	✓					
36	<p>PUMP TANK Is the Pump Tank an approved concrete tank or other acceptable materials & construction</p> <p>PUMP TANK Sampling Port Provided in the Treated Effluent Line</p> <p>PUMP TANK Check Valve and/or Anti- Siphon Device Present When Required</p> <p>PUMP TANK Audible and Visual High Water Alarm Installed on Separate Circuit From Pump</p>						
37	<p>PUMP TANK Inspection/Clean Out Port & Risers Provided</p> <p>PUMP TANK Secondary restraint system provided</p> <p>PUMP TANK Riser permanently fastened to lid or cast into tank</p> <p>PUMP TANK Riser cap protected against unauthorized intrusions</p>						
38	<p>PUMP TANK Secondary restraint system provided</p>						

Comal County Environmental Health
OSSF Inspection Sheet

39	PUMP TANK Electrical Connections in Approved Junction Boxes / Wiring Buried	✓			2/21/19		
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**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)		2/21/19 		
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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

OFFICE OF COMAL COUNTY ENGINEER

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

Permit Number: 108024
Issued This Date: 08/30/2018
This permit is hereby given to: Acequia Properties, LLC

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

1731 WESTVIEW COURT DR
CANYON LAKE, TX 78133

Subdivision: Canyon Lake Forest
Unit: 1
Lot: 249
Block:
Acreage:

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.

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

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

Date August 6, 2018

Permit # 168024

Owner Name ACEQUIA PROPERTIES, LLC
Mailing Address PO BOX 156
City, State, Zip BULVERDE TEXAS 78163
Phone# 830-609-7955
Email clint.rostedt@gmail.com

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

All correspondence should be sent to: [] Owner [X] Agent [] Both Method: [] Mail [X] Email

Subdivision Name CANYON LAKE FOREST Unit/Phase/Section 1 Lot 249 Block

Acreage/Legal

Street Name/Address 1731 WESTVIEW COURT DRIVE City CANYON LAKE Zip 78133

Type of Development:

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[X] Single Family Residential

AUG 22 2018

Type of Construction (House, Mobile, RV, Etc.) HOUSE

Number of Bedrooms 3

COUNTY ENGINEER

Indicate Sq Ft of Living Area 1529

[] Commercial or Institutional Facility

(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: \$ 185,000 (Structure Only)

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

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

Source of Water [X] Public [] Private Well

Are Water Saving Devices Being Utilized Within the Residence? [X] Yes [] No

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.
-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 also 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 of Owner [Handwritten Signature]

Date 8/20/18

*** 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)

Gallons Per Day (As Per TCEQ Table III) 240

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

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COUNTY ENGINEER 2000

Is the property located over the Edwards Recharge Zone? [] Yes [X] 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 [X] 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? [X] Yes [] No

Is there an existing TCEQ approval CZP for the property? [] Yes [X] 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 [X] 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 [X] 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 (Handwritten Signature)

Date August 6, 2018

AFFIDAVIT



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**THE COUNTY OF COMAL
STATE OF TEXAS**

Yes

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.

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AUG 22 2018

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.

QUALITY ENGINEER

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):

1 UNIT/HASE/SECTION BLOCK 249 LOT CANYON LAKE FOREST SUBDIVISION

IF NOT IN SUBDIVISION: ACREAGE SURVEY

The property is owned by (insert owner's full name): ACEQUIA PROPERTIES, LLC

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 21 DAY OF August, 2018

CLR

[Signature]
Owner(s) signature(s)

Acequia Properties LLC, Clint Rostedt
Owner (s) Printed name (s)

Clinton Lee Rostedt
August, 2018

SWORN TO AND SUBSCRIBED BEFORE ME ON THIS 21 DAY OF

[Signature]
Notary Public Signature

THIS AREA FOR COMAL COUNTY CLERK RECORDING PURPOSES ONLY



(Notary Seal Here)

Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
08/22/2018 01:31:58 PM
TERRI 1 Page(s)
201806033078



Bobbie Koepf

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AUG 22 2018

WASTEWATER TREATMENT FACILITY MONITORING AGREEMENT

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

Permit/License Number _____
Customer ACEQUIA PROPERTIES, LLC COUNTY ENGINEER
Site Address 1731 WESTVIEW COURT DRIVE
City CANYON LAKE Zip 78133
Mailing Address P.O. BOX 156, BULVERDE, TX 78163
County COMAL Map # 355 D5
Phone 830-609-7955
Email clint.rostedt@gmail.com

2 YEAR CONTRACT
2 YEAR WARRANTY ON PARTS AND LABOR

Subd/Legal: CANYON LAKE FOREST, UNIT 1, LOT 249

I. General: This Work for Hire Agreement (hereinafter referred to as "Agreement") is entered into by and between ACEQUIA PROPERTIES, LLC (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:

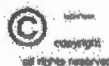
Contractor will:

- 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 within 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.

CLR
Customer's Initials

BS

Contractor's Initials



V. Disinfection:

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

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VI. Electronic Monitoring:

Electronic Monitoring is not included in this Agreement.

COUNTY ENGINEER

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):

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

CLR
Customer's Initials



BS
Contractor's Initials

THIS INDEMNIFICATION APPLIES EVEN IF SUCH LIABILITIES ARE CAUSED BY THE CONCURRENT OR RECEIVED 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.

Aug 22 2018

ENGINEER

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.

Burt S. Sidwinski
Block Creek Aerobic Services, LLC,
Contractor
MC# 000042 and MC#000002

Chris Rato 8/20/18
Customer Signature Date

CLR

Customer's Initials



BS

Contractor's Initials

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

Date Soil Survey Performed: August 06, 2018

Site Location: CANYON LAKE FOREST, UNIT 1, LOT 249

Proposed Excavation Depth: N/A

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Requirements:

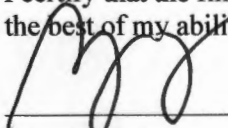
At least two soil excavations must be performed on the site, at opposite ends of the proposed disposal area.
Locations of soil boring or dug pits must be shown on the site drawing.
For subsurface disposal, soil evaluations must be performed to a depth of at least two feet below the proposed excavation 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.

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SOIL BORING NUMBER		SURFACE EVALUATION					
Depth (Feet)	Texture Class	Soil Texture	Gravel Analysis	Drainage (Mottles/ Water Table)	Restrictive Horizon	Observations	
0	III	CLAY LOAM	N/A	NONE OBSERVED	LIMESTONE @ 6"	BROWN	
1							6"
2							
3							
4							
5							

SOIL BORING NUMBER		SURFACE EVALUATION					
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

08/06/18

Date

REVISED

3:43 pm, Aug 30, 2018

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
ACEQUIA PROPERTIES, LLC
P.O. BOX 156
BULVERDE, TEXAS 78163**

SITE DESCRIPTION:

Located in Canyon Lake Forest, Unit 1, Lot 249 at 1731 Westview Court Drive, the proposed system will serve a three bedroom residence (1529sf.) 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 768-gallon pump chamber containing a submersible (Franklin C1 20XC1-05P4-W115) 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 periodically flush the system by cycling a 1" ball valve. Solids caught in the spin 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 built up with ~6" 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**). The field area will be sodded with grass prior to system startup. **Tank 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:

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: $Q/Ra = 240 \text{ GPD}/0.20 = 1200 \text{ sf. (Actual 2000 sf.)}$

Total linear feet drip tubing: 1000' *Netifim Bioline* drip tubing .61 GPH

Pump requirement: 500 emitters @ .61 gph @ 30 psi = 5.0833gpm

Pump Requirement (cont.): Franklin C1 20XC1-05P4-W115 submersible well pump

MINIMUM SCOUR VELOCITY (MSV) > 2 FPS

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

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

$$\text{MSV} = 2(3.14159((.55/12)^2)/4) * 7.48 * 60$$

$$\text{MSV} = 1.5 \text{ gpm PER LINE} * 3 \text{ LINES} = 4.5 \text{ GPM MIN FLOW RATE}$$

IN RETURN MANIFOLD W/ NOM. DIA 1.049" ID

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

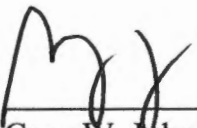
$$\text{MSV} = 2(3.14159((1.049/12)^2)/4) * 7.48 * 60$$

$$\text{MSV} = 5.4 \text{ GPM}$$

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.

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

 08/06/18

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



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10:50 am, Feb 20, 2019

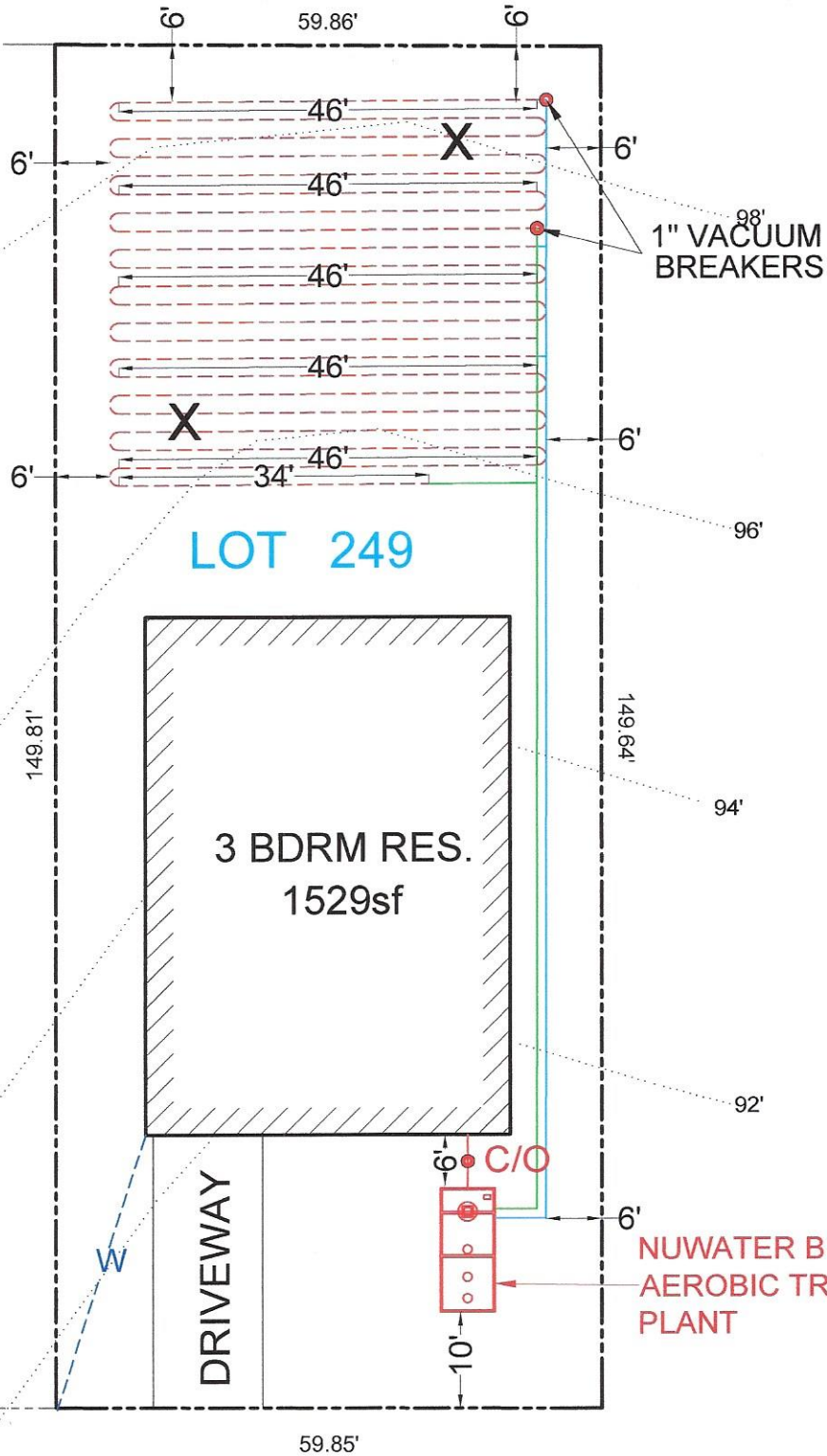
#108024

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.

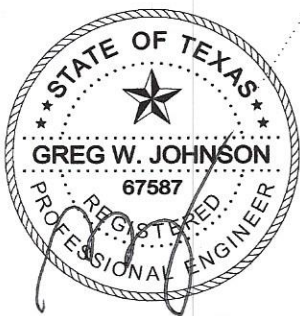
*USE TWO WAY CLEANOUT
**USE SCH-40 OR SDR-26 TO TANK

X= TEST HOLE

LOT 248



WESTVIEW COURT DRIVE



OWNER: ACEQUIA PROPERTIES, LLC.		DRAWN BY: EJS III	
STREET ADDRESS: 1731 WESTVIEW COURT DRIVE			
LEGAL DESC: CANYON LAKE FOREST	UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 249
PREPARED BY: GREG W. JOHNSON, P.E. F#002585	SCALE: 1"=20'	DATE: 8/7/2018	REVISED: 2/20/2019



TANK NOTES:

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

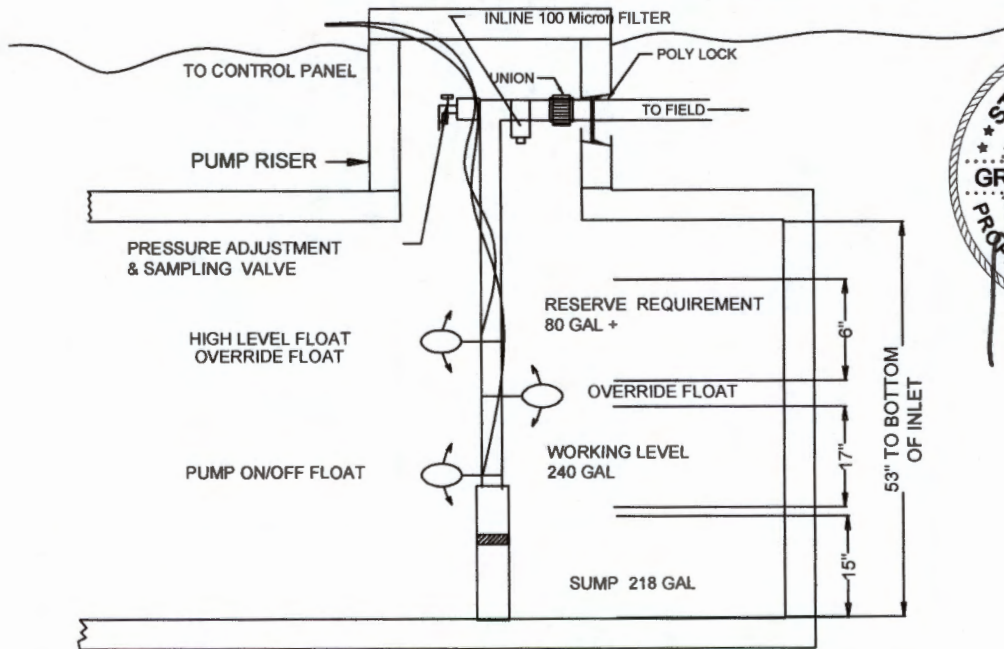
Tightlines to the tank shall be SCH-40 PVC.

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

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ALL WIRING MUST BE IN COMPLIANCE WITH
THE MOST RECENT NATIONAL ELECTRIC CODE



F2595
05/31/18

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

Arkal 1" Super Filter

Catalog No. 1102 0 _ _ _

Features

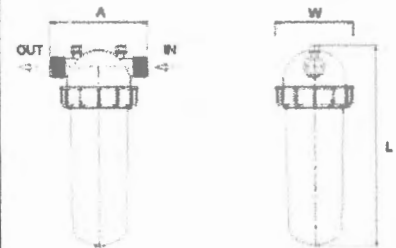
- ♦ A "T" shaped filter with two 1" male threads.
- ♦ A "T" volume filter for in-line installation on 1" pipelines.
- ♦ The filter prevents clogging due to its enlarged filtering area that collects sediments and particles.
- ♦ Manufactured entirely from fiber reinforced plastic.
- ♦ A cylindrical column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



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Technical Data

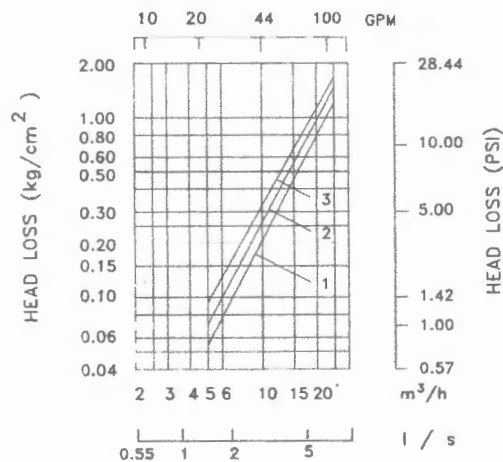
Inlet/outlet diameter	1" BSPT (male)	1" NPT (male)
	25.0 mm – nominal diameter	
	33.6 mm – pipe diameter (O. D.)	
Maximum pressure	10 atm	145 psi
Maximum flow rate	8 m ³ /h (1.7 l/sec)	35 gpm
General filtration area	500 cm ²	77.5 in ²
Filtration volume	600 cm ³	37 in ³
Filter length L	340 mm	13 13/32"
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)

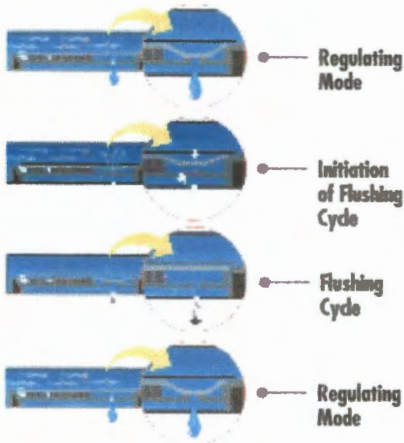
Head Loss Chart





Bioline® Dripperline

Pressure Compensating Dripperline 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, dog free operation, year after year.



Product Advantages

The Proven Performer

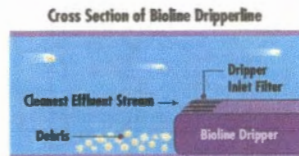
- Tens of millions of feet used in wastewater today.
- Bioline is permitted in every state allowing drip disposal.
- Backed by the largest, most quality-driven manufacturer of drip products in the U.S.
- Preferred choice of major wastewater designers and regulators.
- Proven track record of success for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



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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"*

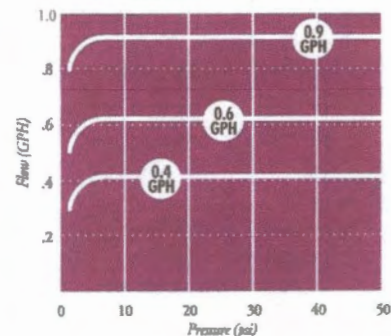
Recommended filtration: 120 mesh

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

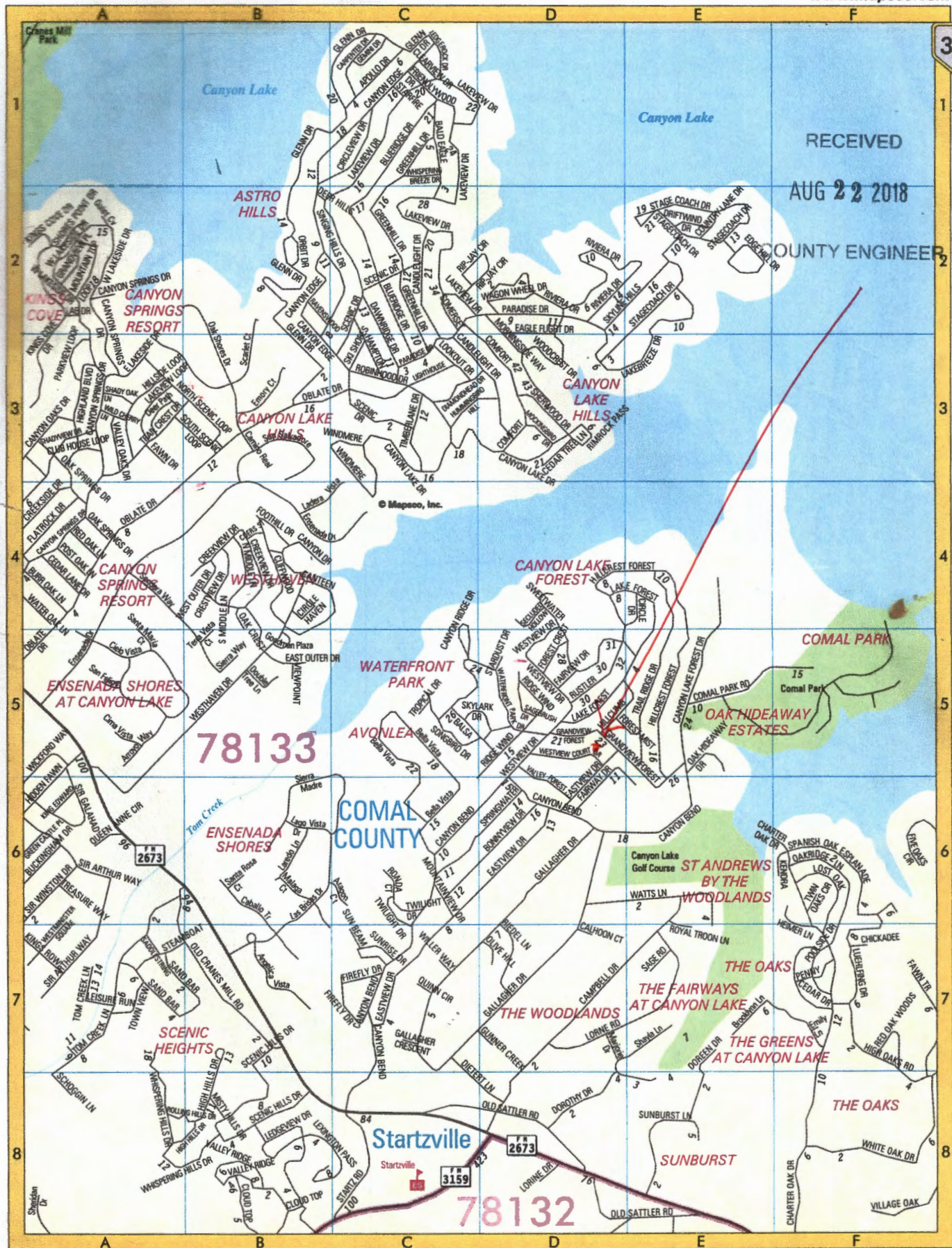
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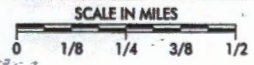
COUNTY ENGINEER



CONTINUED ON MAP 356

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78132



AUG 22 2018

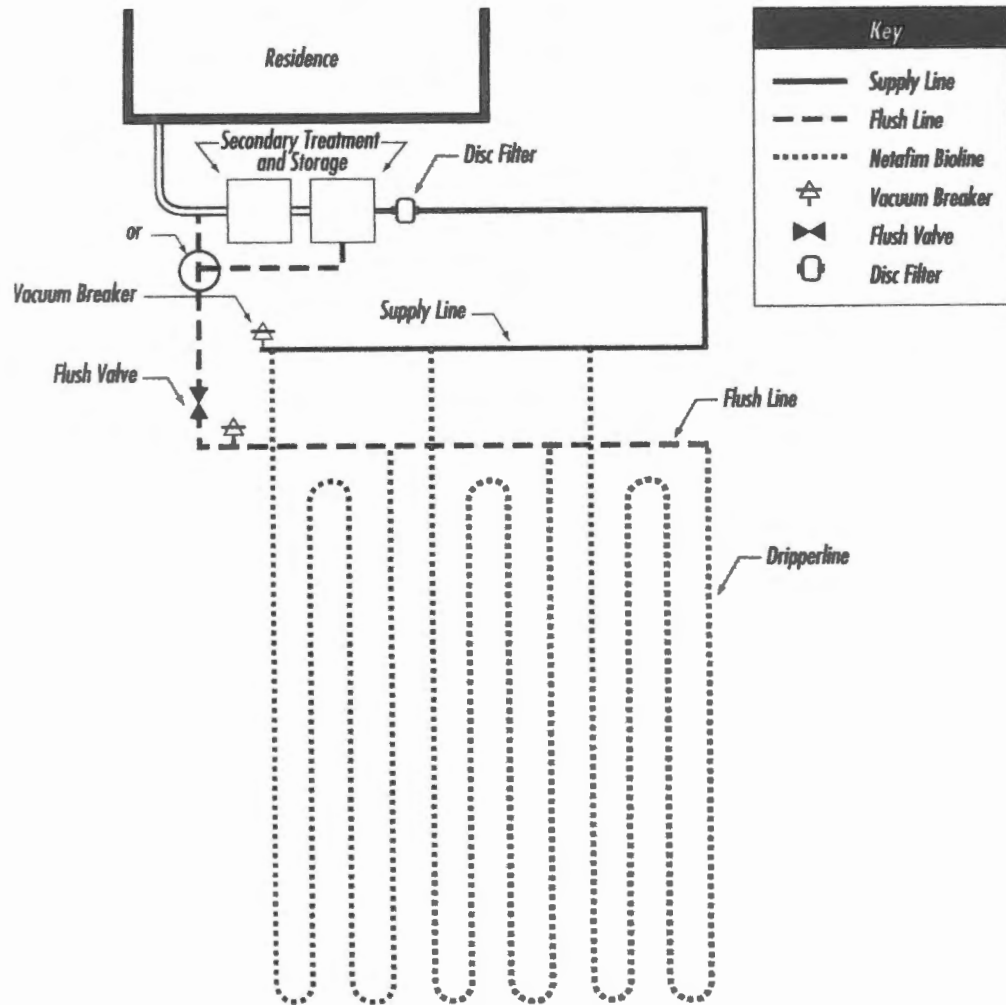
SAMPLE DESIGNS

SINGLE TRENCH LAYOUT

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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



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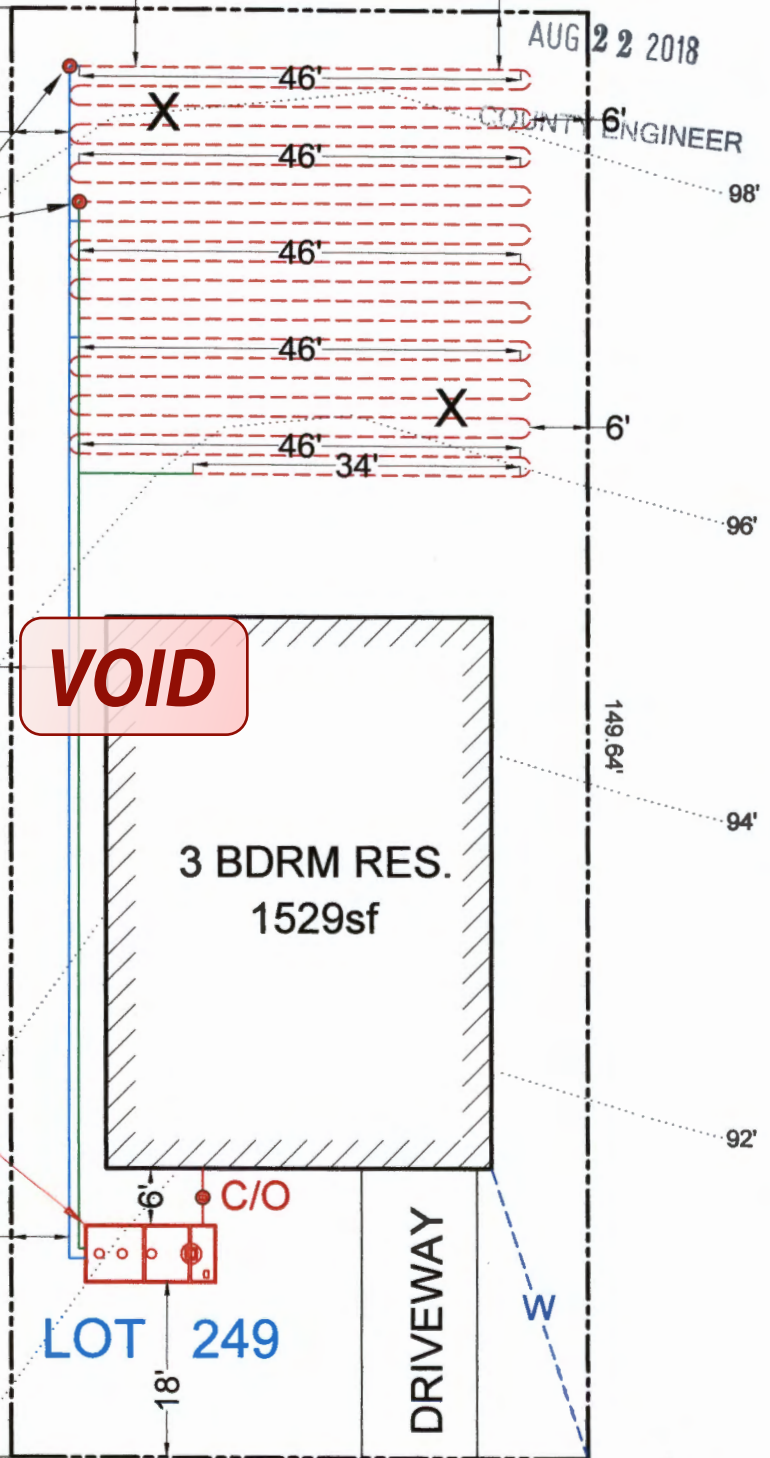
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AUG 22 2018

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.

1" VACUUM BREAKERS

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

X= TEST HOLE



LOT 248

VOID

3 BDRM RES.
1529sf

NUWATER B 550 PC
AEROBIC TREATMENT
PLANT

LOT 249

DRIVEWAY

WESTVIEW COURT DRIVE



OWNER: ACEQUIA PROPERTIES, LLC.		DRAWN BY: EJS III	
STREET ADDRESS: 1731 WESTVIEW COURT DRIVE			
LEGAL DESC: CANYON LAKE	UNIT/SECTION/PHASE: 1	BLOCK:	LOT: 249
PREPARED BY: GREG W. JOHNSON, P.E. #002585	SCALE: 1"=20'	DATE: 8/7/2018	REVISED:


VOID

From: [Hernandez, Sandra](#)
To: ["Greg Johnson"](#)
Subject: 108024 deficiency comment
Date: Thursday, August 30, 2018 3:03:07 PM

RE: Canyon Lake Forest, Unit 1, Lot 249

Greg,

We received planning materials for the referenced permit application on August 22, 2018 and found those planning materials to be deficient. In order to continue processing this permit, we need the following information:

 Your site description indicates a lot number than what it shown on the recorded deed.

If you have any questions, you can email me or call the office.

Thanks,

Sandra Ann Hernandez
Environmental Health Assistant
Comal County Engineers Office
New Braunfels, Texas 78132
830-608-2090 Office
830-608-2078 Fax
www.cceo.org

VOID

**AEROBIC TREATMENT
DRIP TUBING SYSTEM
DESIGNED FOR:
ACEQUIA PROPERTIES, LLC
P.O. BOX 156
BULVERDE, TEXAS 78163**

RECEIVED
AUG 22 2018
COUNTY ENGINEER

SITE DESCRIPTION:

Located in Canyon Lake Forest, Unit 1, Lot 228, at 1731 Westview Court Drive, the proposed system will serve a three bedroom residence (1529sf.) 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, a 768-gallon aerobic treatment plant, and a 768-gallon pump chamber containing a Franklin C1 20XC1-05P4-W115) 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 periodically flush the system by cycling a 1" ball valve. Solids caught in the spin 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 built up with ~6" 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**). The field area will be sodded with grass prior to system startup. **Tank 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:

Daily waste flow: 240 GPD Table III

Pretreatment tank size: 353 Gal

Plant Size: NuWater B550 600gpd (CEO Approved)

VOID

3/c



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NOTICE OF CONFIDENTIALTY 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 SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

GENERAL WARRANTY DEED

THE STATE OF TEXAS

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF COMAL

RECEIVED
AUG 22 2018
COUNTY ENGINEER

THAT N. STAHL PARK-KUGLEN, LLC., 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 ACEQUIA PROPERTIES, 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:

Lot 249 CANYON LAKE FOREST, UNIT 1, an addition in Comal County, Texas, according to The map or plat recorded in Volume 1, PAGE 53-54 MAP and Plat and 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.

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.

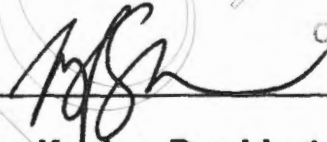
DATED this the 13th day of July, 2018

N. Stahl Park-Kuglen, LLC

RECEIVED

AUG 22 2018

By: _____



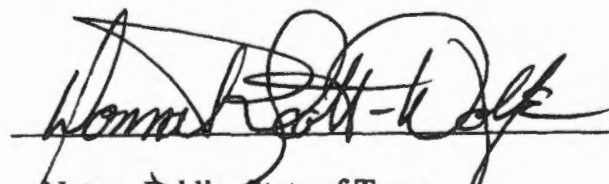
COUNTY ENGINEER

Jeffrey Kuglen, President

STATE OF TEXAS

COUNTY OF COMAL

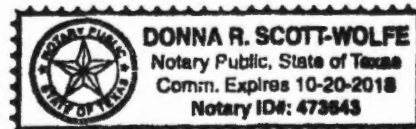
This instrument was acknowledged before me on this the 13 day of July 2018, by **Jeffrey S. Kuglen, President, N. Stahl Park-Kuglen, LLC.**



Notary Public, State of Texas

Grantee's Mailing Address:

11011 Portsmouth dr.
Spring Branch TX 78070






RECEIVED
AUG 22 2018
COUNTY ENGINEER

This page has been added to comply with the statutory requirement that the clerk shall stamp the recording information at the bottom of the last page.

This page becomes part of the document identified by the file clerk number affixed on preceding pages.

UNOFFICIAL
Filed and Recorded
Official Public Records
Bobbie Koepf, County Clerk
Comal County, Texas
07/13/2018 01:57:30 PM
JESSICA 3 Page(s)
201806027630

 *Bobbie Koepf*

Block Creek Concrete Products, LLC
444 A Old Hwy No 9
Comfort, TX 78013

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

To: Home Owner
1731 Westview Court Dr
Canyon Lake, TX 78133

Printed: 9/19/2019
Site: 1731 Westview Court Dr
Canyon Lake, TX 78133

Permit #: **108024**
Agency: Comal County
County: Comal Sub:
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic Without Chlorine System S/N: 34180
Disposal: Drip Emitters

Customer ID: 6560
Contract Dates: 5/31/2019 - 5/31/2021
Scheduled Date: 9/30/2019 Inspection 1 of 6
Installed: 1/31/2019
Warranty End: 1/31/2021
GPS Coordinates - Latitude: 29.860828 Longitude: -98.260155

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"
Entered By: Alex Seidensticker

Visit Date: 9/19/2019 Time In: 9:30 Out: 9:50

Method: Grab

Technician: Alex Seidensticker

Maint. Provider: Burt Seidensticker

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: 14

For Tank 2: 0"

For Tank 3: 0"

CFM: 2.5

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

PSI Pressure: 3.0

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. cleaned out drip system filters. Cleaned air filter on compressor. - Scum in pretreatment is 2". Spoke to home owner and explained system and our contract obligations. - Secured system in the on position with a lock bolt

Service Completed

Insp ID #: 82942

Provider: *Burt Seidensticker*

Technician: *Alex Seidensticker*

License #: MP0000002

License #: MP0001961

Expires: 9/30/2021

Burt Seidensticker

ASA

Block Creek Concrete Products, LLC
444 A Old Hwy No 9
Comfort, TX 78013

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

To: Home Owner
1731 Westview Court Dr
Canyon Lake, TX 78133

Printed: 12/17/2019
Site: 1731 Westview Court Dr
Canyon Lake, TX 78133

Permit #: **108024** Customer ID: 6560
Agency: Comal County Contract Dates: 5/31/2019 - 5/31/2021
County: Comal Sub: Scheduled Date: 1/30/2020 Inspection 2 of 6
Mfg / Brand: Advantage Wastewater LLC - Nu Water Installed: 1/31/2019
Treatment Type: Aerobic Without Chlorine System S/N: 34180 Warranty End: 1/31/2021
Disposal: Drip Emitters GPS Coordinates - Latitude: 29.860828 Longitude: -98.260155

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 12/17/2019 Time In: 12:50pm Out: 1:10pm

Entered By: Jose Luis Ramos

Method: Grab

Technician: Jose Luis Ramos

Maint. Provider: Rudy Carson

Aerators: Operational
Filters: Operational
Irrigation Pumps: Operational
Disinfection Device: Operational

Sludge Levels
For Tank 1: 12"
For Tank 2: 0"
For Tank 3: 0"

CFM: 3.0

Air Filter: Good

Tank Lid / Riser: Secured

Electric Circuits: Operational
Distribution System: Operational
Sprayfield Veg: Operational

Color: Good
Odor: Good

Alarm: Operational

PSI Pressure: 3.5

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Scum in pretreatment is 2". Cleaned drip filter, flushed lines. - Cleaned compressor filter. - Secured system in the on position with a lock bolt.

Insp ID #: 87678

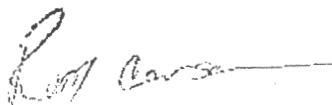
Provider: **Rudy Carson**

Technician: *Jose Luis Ramos*

License #: MP0002036

License #: MT0001770

Expires: 9/30/2022


Rudy Carson

Josef

Block Creek Concrete Products, LLC
444 A Old Hwy No 9
Comfort, TX 78013

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

To: Home Owner
1731 Westview Court Dr
Canyon Lake, TX 78133

Printed: 9/11/2020
Site: 1731 Westview Court Dr
Canyon Lake, TX 78133

Permit #: **108024**

Agency: Comal County
County: Comal Sub:
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic Without Chlorine System S/N: 34180
Disposal: Drip Emitters

Customer ID: 6560
Contract Dates: 5/31/2019 - 5/31/2021
Scheduled Date: 9/30/2020 Inspection 4 of 6
Installed: 1/31/2019
Warranty End: 1/31/2021
GPS Coordinates - Latitude: 29.860828 Longitude: -98.260155

Service Type: Scheduled Inspection

Visit Date: 9/11/2020

Method: Grab

Technician: Ronnie W Krampota

Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: n/a

For Tank 2: n/a

For Tank 3: 0"

This counts as a type of "Scheduled Inspection"

Entered By: Ronnie W Krampota

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Alarm: Operational

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Secured system in the on position with a lock bolt - Cleaned drip filter and back washed drip line - Could not get PSI reading possible bad PSI gauge - Due to Covid -19 We are only Opening the pump tank recommended by TOWA - Please complete customer information sheet and return to office so we can better serve you in the future. Thanks

Insp ID #: 98405

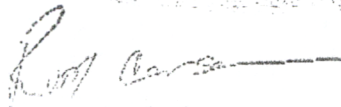
Provider: **Rudy Carson**

Technician: Ronnie W Krampota

License #: MP0002036

License #: MT0001175

Expires: 7/31/2023


Rudy Carson



Block Creek Concrete Products, LLC
444 A Old Hwy No 9
Comfort, TX 78013

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

To: Home Owner
1731 Westview Court Dr
Canyon Lake, TX 78133

Printed: 5/7/2020
Site: 1731 Westview Court Dr
Canyon Lake, TX 78133

Permit #: **108024** Customer ID: 6560
Agency: Comal County Contract Dates: 5/31/2019 - 5/31/2021
County: Comal Sub: Scheduled Date: 5/30/2020 Inspection 3 of 6
Mfg / Brand: Advantage Wastewater LLC - Nu Water Installed: 1/31/2019
Treatment Type: Aerobic Without Chlorin System S/N: 34180 Warranty End: 1/31/2021
Disposal: Drip Emitters GPS Coordinates - Latitude: 29.860828 Longitude: -98.260155

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"
Entered By: Alex Seidensticker

Visit Date: 5/7/2020 Time In: 925 Out: 940

Method: Grab

Technician: Alex Seidensticker

Maint. Provider: Rudy Carson

Aerators: Operational
Filters: Operational
Irrigation Pumps: Operational
Disinfection Device: Operational

Sludge Levels

For Tank 1: n/a
For Tank 2: n/a
For Tank 3: 0"

CFM: 2.0

Tank Lid / Riser: Secured

Electric Circuits: Operational
Distribution System: Operational
Sprayfield Veg: Operational

Odor: Good

Alarm: Operational

PSI Pressure: 2.5

Service Completed

Comments

- Technician Secured the Tank Lid and/or Riser prior to leaving location. Due to covid 19 we're only checking pump tanks, recommended by TOWA. - Cleaned compressor filter. Cleaned drip filter. - Secured system in the on position with a lock bolt.

Insp ID #: 93208

Provider: *Rudy Carson*

Technician: **Alex Seidensticker**

License #: MP0002036

License #: MP0001961

Expires: 9/30/2021

Rudy Carson
Rudy Carson

A.S

Block Creek Concrete Products, LLC
444 A Old Hwy No 9
Comfort, TX 78013

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

To: Home Owner
1731 Westview Court Dr
Canyon Lake, TX 78133

Printed: 1/25/2021
Site: 1731 Westview Court Dr
Canyon Lake, TX 78133

Permit #: **108024**

Agency: Comal County
County: Comal
Mfg / Brand: Advantage Wastewater LLC - Nu Water
Treatment Type: Aerobic Without Chlorin System S/N: 34180
Disposal: Drip Emitters

Customer ID: 6560

Contract Dates: 5/31/2019 - 5/31/2021

Scheduled Date: 1/30/2021

Inspection 5 of 6

Installed: 1/31/2019

Warranty End: 1/31/2021

GPS Coordinates - Latitude: 29.860828 Longitude: -98.260155

Service Type: Scheduled Inspection

This counts as a type of "Scheduled Inspection"

Visit Date: 1/25/2021

Time In: 115

Out: 130

Entered By: Cody Ryan Jurgensen

Method: Grab

Technician: Cody Ryan Jurgensen

Maint. Provider: Rudy Carson

Aerators: Operational

Filters: Operational

Irrigation Pumps: Operational

Disinfection Device: Operational

Sludge Levels

For Tank 1: 14"

For Tank 2: 0"

For Tank 3: 0"

CFM: 3.0

Tank Lid / Riser: Secured

Electric Circuits: Operational

Distribution System: Operational

Sprayfield Veg: Operational

Color: Good

Odor: Good

Alarm: Operational

PSI Pressure: 3.2

Comments

Service Completed

- Technician Secured the Tank Lid and/or Riser prior to leaving location. - Cleaned compressor filter - cleaned drip filter - back flushed lines - set to 24psi - Scum in pretreatment is 10" - Secured system in the on position with a lock bolt

Owner signature:

Insp ID #: 104504

Provider:

Rudy Carson

Technician:

Cody Ryan Jurgensen

License Info: MP0002036 Expires:

License Info: MT0001766 Expires: 9/30/2022