

Environmental Services - Water Quality
Onsite Wastewater Scan Data Entry Form

PERMIT #: 0015513

PIN #: 1778263189

OP DATE: 0412811993

SYSTEM USE:

- ☒ House
☐ Mobile Home
☐ Business
☐ Other

SEWAGE TYPE:

- ☒ Domestic
☐ Industrial

PUMP/SIPHON?:

- ☒ Yes
☐ No

PRESSURE MANIFOLD:

- ☐ Yes
☒ No

SYSTEM TYPE:

- ☐ I
☐ II
☐ III
☒ IV
☐ V
☐ VI
☐ Other

SUB TYPE:

- ☒ A
☐ B
☐ C
☐ D
☐ E
☐ F
☐ G

NBR BEDROOMS:

- ☐ 1
☐ 2
☒ 3
☐ 4
☐ 5
☐ 6
☐ Other

MAINT. SCHEDULE:

- ☒ Yes BK 5581
☐ No PG 0160

CERT. OPERATOR

- ☒ Yes
☐ No

GT ST PT SIZE

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|------------------|
| ☐ | ☐ | ☐ | 750 |
| ☐ | ☐ | ☐ | 900 |
| ☐ | ☒ | ☒ | 1,000 |
| ☐ | ☐ | ☐ | 1,200 |
| ☐ | ☐ | ☐ | 1,500 |
| ☐ | ☐ | ☐ | 1,800 |
| ☐ | ☐ | ☐ | 2,100 |
| ☐ | ☐ | ☐ | 2,500 |
| ☐ | ☐ | ☐ | 3,000 |
| ☐ | ☐ | ☐ | 4,000 |
| ☐ | ☐ | ☐ | 5,000 |
| ☐ | ☐ | ☐ | 8,000 |
| ☐ | ☐ | ☐ | 10,000 |
| ☐ | ☐ | ☐ | Other |
| ☒ | ☐ | ☐ | None/NA GT or PT |

DRAINFIELD SIZE(SQ. FT.)

02400

DRAIN TYPE:

- ☒ Stone
☐ EZ Flow
☐ Infiltrator
☐ Biodiffuser
☐ Cultec
☐ Drip
☐ Hancor
☐ Large Dia. Pipe
☐ Multi-Pipe
☐ Other

MAX DEPTH (IN.):

- ☒ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ 26 in. or less
☐ 28 in. or less
☐ 30 in. or less
☐ 32 in. or less
☐ 36 in. or less
☐ Other

STONE DEPTH (IN.):

- ☒ 8 in. or less
☐ 12 in. or less
☐ 18 in. or less
☐ 24 in. or less
☐ Other

TRENCHES:

- ☒ Individual
☐ Bed

TRENCH WIDTH (IN.):

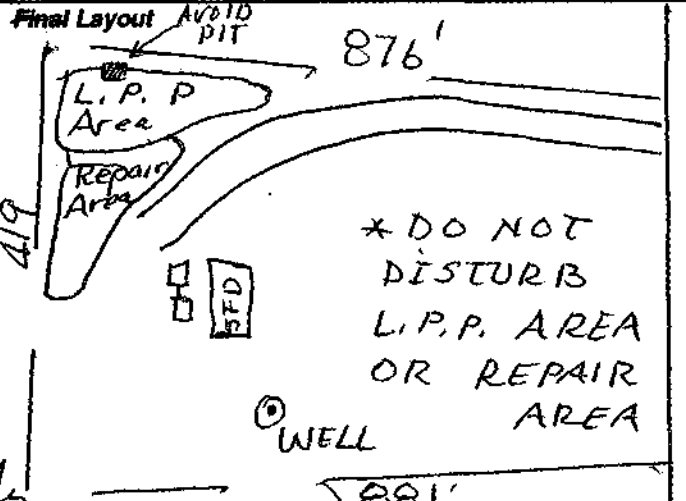
- ☒ 12 in. or less
☐ 18 in.
☐ 24 in.
☐ 36 in.
☐ 6 ft. or less
☐ 9 ft. or less
☐ Other

WAKE COUNTY HEALTH DEPARTMENT WELL AND SEWAGE SITE, LOCATION PERMIT

ALL PERMITS VOID 60 MONTHS FROM DATE OF ISSUANCE

Tax Map No. 291 Parcel No. 26(5) Improvement Permit
 Zoning Wake Township Wake Forest Well Permit No. **C 15513**
 Owner/Contractor: James D. Francisco Operation Permit ☒
 Location/Address: 3836 Quarry Rd Date: 9-21-92
 S.R. # 2305

Subdivision Name: _____ Lot No. _____ Section or Block No. _____

Preliminary Layout <u>Conditions: Low</u> <u>Pressure Pipe Use 360 gal</u> <u>flow rate, .15 gft² appl.</u> <u>in Area shown, must</u> <u>Submit Plans w/in</u> <u>15 working days or</u> <u>Permit is void</u> <u>3-19-93 Need Cert of Mgmt Agreement only</u>	Final Layout 
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Sewage System Specifications 3MB
 Repair ☐ Original Permit No. _____
 Garbage Disposal Unit Yes ☐ No ☒
 House ☒ Mobile Home ☐ Business ☐
 No. of Bedrooms 3 Lot Area 7.62 AC
 Size of Tank 1000 p.t. 1000 st gal.
 Comments: _____

Nitrification Line (LPP) 2400 sq. ft.
 Depth of Stone: 12" 18" Max Depth of Trenches: 12 in.
 Riser and Baffle Required ☒ Pump Required ☒
 • Permit void if not in compliance with zoning regulations
 • Permits may be voided if site is altered or intended use changed
 Layout by: DR Parrell Jr

Date: 4/28/93 Installed By: Brantley Approved By: Heubert

Well System Individual ☒ Semi-Public ☐ Public ☐ New ☒ Replacement ☐ Repair ☐ Fee Paid: Yes ☒ No ☐ Construction Compliance Yes ☐ No ☐ Site Approved ☐ Well Head Approved ☐ Grouting Approved ☐ <u>12-8-92</u> <u>H. L. Q. R. S.</u> Date Inspected Sanitarian	Final Inspection <table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Required Slab</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Chlorinated</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Required Certificate</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Variance (Explain)</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>WCHD I.D. Affixed</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Sample Collected</td> <td>☒</td> <td>☐</td> </tr> </tbody> </table> Comments: _____		Yes	No	Required Slab	☒	☐	Chlorinated	☒	☐	Required Certificate	☐	☐	Variance (Explain)	☐	☐	WCHD I.D. Affixed	☒	☐	Sample Collected	☒	☐
	Yes	No																				
Required Slab	☒	☐																				
Chlorinated	☒	☐																				
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Variance (Explain)	☐	☐																				
WCHD I.D. Affixed	☒	☐																				
Sample Collected	☒	☐																				

Bacteriological Results
 Initial Sample: NEG. Date: 4-23-93
 * Re-Sample #1 _____ Date: _____
 * Re-Sample #2 _____ Date: _____
 * Re-chlorination as required ☐ Yes ☐ No
 * Fees for all resamples _____
 All checks payable to: **Wake County Health Department**
 Well Installed By: Goldston
4-26-93 H. L. Q. R. S.
 Date System Finalized Sanitarian

This report is based in part on information provided by the homeowner or his/her representative in the application submitted for this permit. The sanitarian is not responsible for false or misleading information contained in the application. The sanitarian is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him in the application. Neither Wake County nor the sanitarian warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

COPY TO HEALTH DEPARTMENT



FEBRUARY ASSOCIATES, INC.

P.O. Box 5427 Cary, N.C. 27511 919/467-5427

HO Copy

Sand Viper

Moisture content

Cost of operation

LPP

Check Permit w/ engineer
Phone 1/17/92

WAKE

site location QUARRY ROAD

LPP system design & specifications
date: 10-19-92

Owner JAMES D. FRANCIS
Address 3836 QUARRY RD.
ZEBULON NC 27597
Phone 554 - 2603

C-15513
Tax Map 291 Parcel 26(s) Twp WF
Soils eval. by PARNELL
Application rate .15 gal/ft²/day
Design flow 360 gal/day

Type of structure (check one)

☒ Single family dwelling with 3 bedrooms. Garbage disposal? NO
☐ Business (describe) _____ No. of employees _____
☐ Other (describe) _____

DESIGN SUMMARY

Drainfield: 2400 sq. ft.
Laterals: 480 linear ft., 1 1/4" diameter 160 psi PVC or better
Configuration: 6 @ 80' IN TWO SUBFIELDS
Supply line: 90 feet, 2" diameter Sch. 40 PVC
Manifold: (SPLIT) 45 feet, 3" diameter Sch. 40 PVC
Manifold placement: CENTER tee: UP
Septic tank: 1000 gallons
Pump tank: 1000 gallons, 22 gallons per inch
Total dosing rate 39 gpm
Dosing volume 396 gallons
Drawdown in pump tank 18 inches
Total dynamic head 7.5 feet

with Sch. 40
turnups, in
valve boxes or
sleeved in 6"
diam. pipe

Trench depth 14" - 16"
Trench width 10"
Depth of gravel in laterals 8"
Size of gravel 3/8" - 1"

Pump HYDROMATIC OSP33M1
Controls WATERGUARD TAC III-A
WITH EXTERNALLY-WEIGHTED FLOATS
OR FLOAT TREE

Check valve ONE IN PUMP TANK
Gate valve(s) TWO AT FIELD
Anti-siphon hole YES
Curtain drain OPTIONAL

(Other equipment which meets or exceeds specifications may be substituted)

Comments _____

LATERAL	ELEVATION (FT)	ELEV. DIFF. (FT)	HEAD (FT)	HOLE SIZE (IN)	FLOW PER HOLE (GPM)	LENGTH (FT)	SPAC- ING (FT)	NO. HOLES	FLOW PER LATERAL (GPM)	1ST AND LAST HOLE (FT)	INST FLOW RATE (GPM /FT)
(1	102.40	0.00	2.0	5/32	0.407	40	4.0	9	3.66	4.0	0.092
2	102.40	0.00	2.0	5/32	0.407	40	4.0	9	3.66	4.0	0.092
(3	102.10	0.30	2.3	5/32	0.437	40	4.0	8	3.50	6.0	0.087
4	102.10	0.30	2.3	5/32	0.437	40	4.0	8	3.50	6.0	0.087
(5	101.90	0.50	2.5	3/16	0.655	40	6.0	5	3.28	8.0	0.082
6	101.90	0.50	2.5	3/16	0.655	40	6.0	5	3.28	8.0	0.082
(1	101.60	0.00	2.0	5/32	0.407	40	4.5	8	3.26	4.3	0.081
2	101.60	0.00	2.0	5/32	0.407	40	4.5	8	3.26	4.3	0.081
(3	101.30	0.30	2.3	5/32	0.437	40	5.0	7	3.06	5.0	0.077
4	101.30	0.30	2.3	5/32	0.437	40	5.0	7	3.06	5.0	0.077
(5	101.10	0.50	2.5	5/32	0.455	40	6.5	6	2.73	3.8	0.068
6	101.10	0.50	2.5	5/32	0.455	40	6.5	6	2.73	3.8	0.068

OR END

FIELD NUMBER = 2

TOTAL LENGTH = $\sqrt{480}$ FT

TOTAL FLOW = $\sqrt{38.98}$ GPM

MAXIMUM REDUCTION OF FLOW BETWEEN LATERALS = 26.09%
Press any key to continue...

NOTES:

For center-manifold systems, the flow chart shows each half of each lateral. For example, an 80-foot lateral appears in the chart as two 40-foot segments, with each segment having the same elevation, size & number of holes, and spacing.

Spacing and 1st-&-last are given as decimal fractions of a foot, and the quarters are rounded up. For example, a spacing appearing in the chart as 4.3' actually represents 4.25', or 4'3". 4.8' represents 4.75', or 4'9".

CALCULATIONS

Total dosing rate: 39 gallons per minuteReduction of flow: 26.1 %Slope: 4.3 %Manifold cross-sectional area: 7.4 in²Lateral cross-sectional area: 1.8 in² each3 laterals/manifold, area: 5.4 in²Ratio: 7.4 / 5.4 = 1.37Top lateral elevation: 102.4Pump-off elevation: 100.3Elevation head: 2.1'Design head: 2.0'Friction loss: 2.8'Fittings loss: .6'

(20% friction loss)

TOTAL DYNAMIC HEAD: 7.5'supply line: 90 ' of 2 " = 2.6manifolds: 45 ' of 3 " = .2

$$= \frac{.00113 L Q^{1.35}}{D^{4.87}}$$

L = length
Q = dosing rate
D = actual inside diameter
(assumes NEW pipe)

Draining manifold & supply line: length 45 ' x 38.4 gal/100' = 17.3 gallons
length 90 ' x 17.4 gal/100' = 15.7 gallons = 33

Lateral volume : length 480 ' x 9 gal/100' = 43.2 gallons

Dosing volume : min: (5lat vol + drain) 249 gallons
max: (10lat vol + drain) 465 gallons USE: 396 gallons

Pump run time: 10.2 minutes Volume to pressurize: 76.2 gallons
19.2 % dosing volume delivered under gravity

Drawdown:

Interior dimensions of pump tank: length 101 inches X width 50 inches X 1"

230 cubic inches per gallon

= 22 gallons per inchDrawdown = dosing volume ÷ gallons per inch = 18 inches

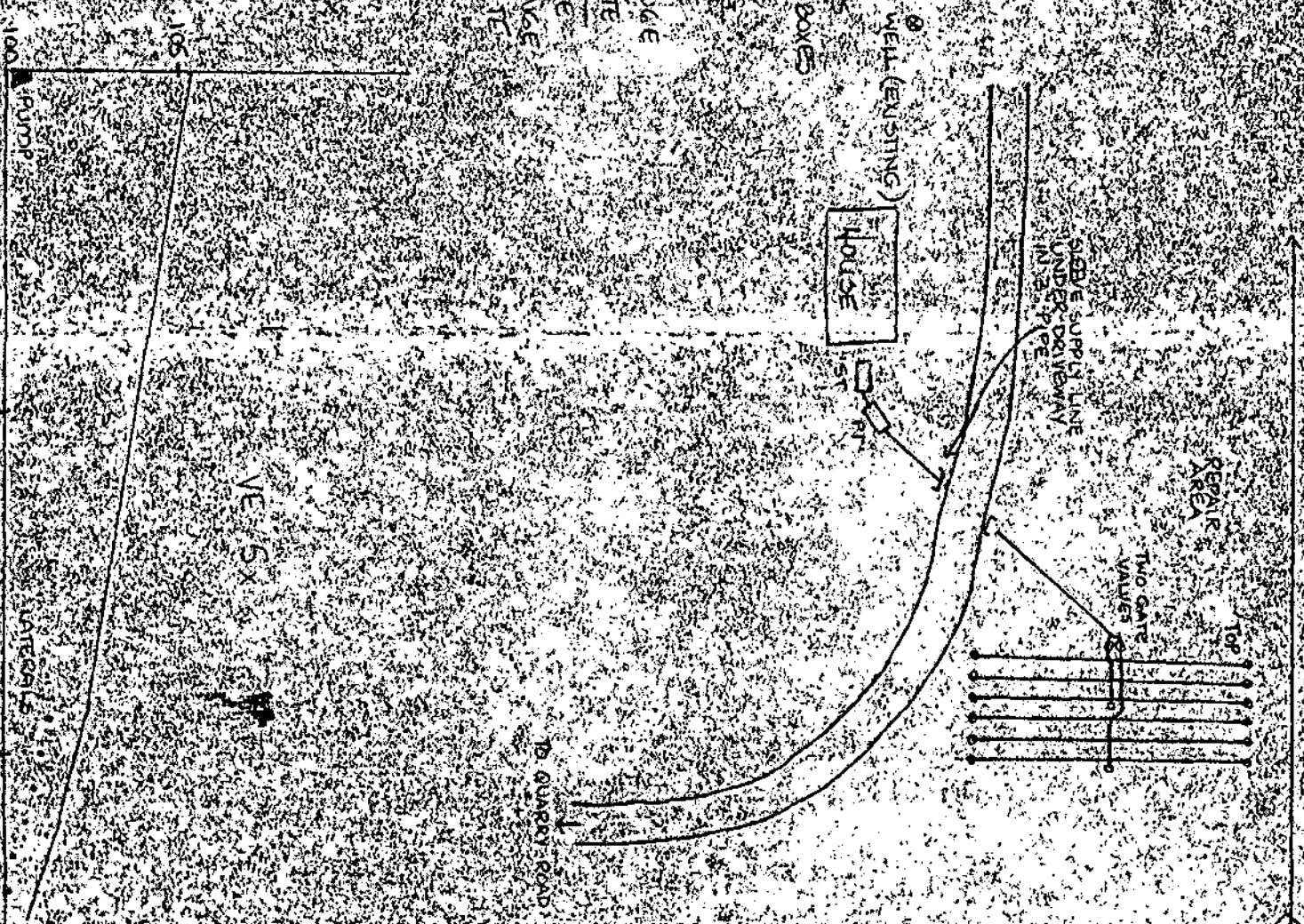
NOTE: Pump tank dimensions vary by manufacturer. Drawdown should be recalculated using dimensions of specific tank selected. A minor adjustment in the dosing volume to achieve a whole number of inches is acceptable.

VICINITY MAP (DIS)
 QUARTER
 LASTER

DESIGN SUMMARY

10000 GALLON EFFIC TANK 10000 GALLON PUMP TANK
PUMP 39 GPM @ 75 TDH
DESIGN HEAD 20'
TRENCHES 12" x 24" DEEP 10' WIDE 8' GRAVEL DEPTH
AT FIELD TWO GATE VALVES, TWO CLEANOUTS
IN PUMP TANK CHECK VALVE, 4" IN 5" PUMP HOSE
SUPPLY LINE 2" DIAM SCH 40 P.C.
MANIFOLDS 3" DIAM SCH 40 P.C.
LATERALS 1/4" DIAM 2160 PSI P.C. w/ SCH 40 TURNOUTS

ORDER	TOOL	DIFF.	HOLE SIZE	# HOLES	SPACING	IN	LAST	FLAG
1	DR	0	5/32"	3	4	3	4	Blue
2	"	3	"	16	4	3	6	Orange
3	"	5	"	10	6	3	8	White



FEBRUARY ASSOCIATES, INC.

P.O. Box 5427
Cary, NC 27513
919/467-5427

DESIGN

QUARRY ROAD

TM 291 P. 26(5)

OWNER: JAMES D FRANCIS

APPROVED

APPROVED AS NOTED

(7) DISAPPROVED

[illegible]

WAKE COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION

Date _____

11-18-92 By Michael J. Dink

417-10-22-92