FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

Virginia 20187-3907

Phone (540) 349-2092 • Fax (540) 347-7689



DATE: 01/18/2023

TO: Ms. Alison Thompson

Department of Environmental Quality Northern Virginia Regional Office 13901

Crown Court

Woodbridge, VA 22193

SUBJECT: Remington WWTP Permit Renewal Application

REFERENCE: Remington WWTP

Permit # VA0076805

Dear Ms. Thompson:

Enclosed is the completed permit renewal application for the Remington WWTP.

If you have any questions or concerns, don't hesitate to contact me at (540) 347-7689 ex 114.

Wilas Smith

Milas E. Smith Operations Director FCWSA

Cc: Benjamin Shoemaker, Executive Director

Troy Willingham, Remington Chief Operator

File Location: S:\Operations\Permits\Wastewater Permits\02_Remington Permit

\01_Remington WWTP Permit Renewal exp 2028 VA00768805

PUBLIC NOTICE BILLING AUTHORIZATION FORM

VPDES Permi	t No. VA00	
Facility Name:		
I hereby authorize the Department of Environm to the Agent/Department shown below. The puweeks in	ublic notice will be pu	blished once a week for two consecutive
Agent/Department to be billed:		
Owner:		
Agent/Department Address:		
Address		
City, State Zip		
Agent's Telephone No.:		
I am also authorizing the above listed news	paper to send the pu	blication verification to:
G		Regional Office
		TN:
Authorizing Agent - Printed Name:		
Authorizing Agent – Signature:	Milas Smit	h
Date:		
ONLY APPLICABLE FOR INDUSTRIAL M	IINOR PERMIT AC	TIONS
For industrial minor permit actions, DEQ may p and provide the complete public notice content of checking the appropriate box below.		
Applicant or permittee agrees to utilize with the complete public notice provide		notice content in the newspaper noted above, EQ's public website.
Applicant or permittee declines to utiliz in the newspaper noted above.	e the abbreviated publ	ic notice and prefers to publish the full notice
RETURN THIS COMPLETED FORM TO:	DEQ	Regional Office
		ΓN:

VPDES Permit Application Addendum

	Entity to whom the permit is to be issued:
	Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.
2.	State Corporation Commission (SCC) Entity Identification No.:
	If the owner is required to obtain an entity identification number by law (e.g. Incorporated (Inc.), Limited Liability Companies (LLCs), Limited Partnerships (LPs) and certificates of authority). If not applicable to the owner, please indicate "NA" as your answer.
3.	Facility Design Average Flow: MGD
	Industrial Facilities - Maximum 30-day Average Production Level (include units)?
	In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels?
	If "Yes", please specify the other flow tiers (in MGD) or production levels:
4.	Nature of operations generating wastewater:
	% of flow from domestic connections/sources
	Number of private residences to be served by the wastewater treatment facility: 0 1-49 50 or more
	% of flow from non-domestic connections/sources
5.	Consent to receive electronic mail
	The Department of Environmental Quality (DEQ) may deliver permits, certifications and plan approvals to recipients, including applicants or permittees, by electronically certified mail where the recipients notify DEQ of their consent to receive mail electronically (§ 10.1-1183). Check <i>only one</i> of the following to consent to or decline receipt of electronic mail from DEQ as follows:
	Applicant or permittee agrees to receive by electronic mail the permit and any plan approvals associated with
	the permit that may be issued for the proposed pollutant management activity, and to certify receipt of such electronic mail when requested by the DEQ. Please provide email:
	Applicant or permittee declines to receive by electronic mail the permit and any plan approvals associated with the permit that may be issued for the proposed pollutant management activity.
6.	Financial Assurance/Closure
	The Financial Assurance Regulation, 9VAC25-650 applies to all privately owned sewerage systems that treat sewage generated by private residences and discharge more than 1,000 gallons per day and less than 40,000 gallons per day. A private residence is defined as any building, buildings or part of a building owned by a private entity which

7. Materials (Chemical) Storage:

Using the table below, provide a list of the chemicals used/stored at this facility, along with the volume stored and the spill/stormwater prevention measures taken to prevent the stored chemicals from reaching state waters.

Chemical	Volume Stored	Spill/Stormwater Prevention Measures

Water Permits Division



Application Form 2ANew and Existing Publicly Owned Treatment Works

NPDES Permitting Program

Note: Complete this form if your facility is a new or existing publicly owned treatment works.

EP <i>F</i>	\ Identificati	on Number	NPDES Pe	rmit Number			Facility Name		Form Approved 03/05/19 OMB No. 2040-0004
Form 2A	ê	EPA		Арр	U. olicatio	S. Environme n for NPDES I	ental Protection Aç Permit to Discharg	jency je Was	tewater
NPDES							CLY OWNED TRE		
SECTIO			ON INFORMATION	ON FOR A	LL APF	PLICANTS (40	CFR 122.21(j)(1) a	ınd (9)	
	1.1	Facility name							
		Mailing addres	ss (street or P.O.	hox)					
		Walling address	30 (311 001 01 1 10.	DONY					
		City or town					State		ZIP code
tion									
ırma		Contact name	(first and last)	Title			Phone number		Email address
Info									
Facility Information		Location addr	ess (street, route	number, o	r other	specific identif	fier) \square Same a	is maili	ng address
ш		City or town					State		ZIP code
	1.2	l_ ;; ,	ion for a facility t	,			o .		
		Yes =	See instruction requirements f] No		
	1.3	Is applicant di	ferent from entity	y listed und	der Item	n 1.1 above?			
		Yes					No → SKIP	to Item	1.4.
		Applicant nam	e						
ion		Applicant add	ess (street or P.	O. box)					
mati		City or town					State		ZIP code
Info		City of town					Sidic		Zii codc
Applicant Information		Contact name	(first and last)	Title			Phone number		Email address
Appli									
,	1.4	l '''	it the facility's ow	ner, opera		•	only one response.)	_	
		☐ Owner				Operator		Ш	Both
	1.5	To which entit	y should the NPI	DES permit	tting au	thority send co	orrespondence? (Ch	neck on	• •
		☐ Facility				Applicant			Facility and applicant (they are one and the same)
Š	1.6	Indicate below number for ea		<i>i</i> ronmenta	l permi	ts. (Check all t	hat apply and print	or type	the corresponding permit
ermi		Tiullibel for ea	UII.)		Exis	ting Environme	ental Permits		
tal P		. —	(discharges to s	urface		RCRA (hazar	dous waste)		UIC (underground injection
men		water)							control)
riron		PSD (a	r emissions)			Nonattainmer	nt program (CAA)		NESHAPs (CAA)
Env									
xisting Environmental Permits		Ocean	dumping (MPRS)	A)			(CWA Section		Other (specify)
×		I				404)		1	

EPA	Identification	on Number	NPDES Permit N	umber	Facility Nam	ne			oved 03/05/19 o. 2040-0004
	17	Dravida tha as	lla atlana a sata na lafanna	-1!					
	1.7	Municipality			ted below for the treatm Collection System Type				
		Served	Served		(indicate percentage)		Ov	wnership Sta	itus
5					% separate sanitary sewer		Own		Maintain
erve					% combined storm and sa Unknown	nitary sewer	☐ Own		Maintain Maintain
Š					% separate sanitary sewer	r	☐ Own		Maintain
latio					% combined storm and sa	nitary sewer	☐ Own		Maintain
ndo					Unknown % separate sanitary sewer		☐ Own		Maintain Maintain
P P					% combined storm and sai		☐ Own		Maintain
n ar					Unknown		☐ Own		Maintain
/stei					% separate sanitary sewer % combined storm and sa		☐ Own		Maintain Maintain
l S					Unknown	riitary sewer	□ Own		Maintain
Collection System and Population Served		Total Population Served							
		OCIVCU		Sona	rate Sanitary Sewer Sy	ıctom	Com	bined Storm	and
		Total percenta	ugo of each tune of	Зера	Tale Samilary Sewer Sy	ystem	Sa	anitary Sewe	er
		sewer line (in r	· · · · · · · · · · · · · · · · · · ·			%			%
Indian Country	1.8	<u> </u>	nt works located in Inc	dian Country	?				
ပ္ပ		Yes			□ No				
lian	1.9	ŀ	ty discharge to a rece	iving water tl	nat flows through Indian	n Country?			
Ĕ	1.10	Yes			□ No		D	-: Fl D	-4-
	1.10	Provide design	n <i>and</i> actual flow rates	s in the desig	nated spaces.	-	Des	sign Flow Ra	
-									mgd
Design and Actual Flow Rates		Two	Years Ago	Annual	Average Flow Rates (Actual)		This Year	
, Ra		1 440			Last i eai			Tills Teal	
ign and Act Flow Rates			mgd	<u> </u>		mgd			mgd
Des		Two	Years Ago	Maximi	um Daily Flow Rates (A Last Year	Actual)		This Year	
		1 990	-		Last I Gai			TIIIS TEAT	
			mgd			mgd			mgd
nts	1.11	Provide the tot			oints to waters of the Un of Effluent Discharge F				
Pe Poi			100	ai Number C		 	ype	Const	ructed
Discharge Points by Type		Treated Effl	luent Untreated	Effluent	Combined Sewer Overflows	Вура	asses	Emerg Over	gency
Dis									

EPA	Identificat	ion Number	NPDES	Permit Number			Facility Nar	me			F	Form Approved 03/05 OMB No. 2040-00	
	Outfall	s Other Than to	o Waters of the	United Stat	es								
	1.12	Does the POT	W discharge wa vaters of the Uni	stewater to b			her surface SKIP to			nts that	do not h	nave outlets for	
	1.13	Provide the loa	cation of each si	urface impou	ndment a	and associa	ated discha	arge ir	formation	on in the	e table b	pelow.	
				Surface Ir		ment Loca			arge Da	ta			
			Location			erage Dail scharged t Impound	o Surface		(Contin	uous or (check	Intermittent one)	
					/			gpd		Continu	ttent		
							7	gpd		Continu Intermi			
								gpd		Continu Intermi	Jous		
spor	1.14	ls wastowator	applied to land?)					Ш	memi	цепі		-
Meth	1.14	Yes	арріїси то іапи:			☐ No	→ SKIP t	o Item	1.16.				
osal	1.15	Provide the lar	nd application si										
ispo				Lanc	Application 1	ation Site a	and Disch	arge [Data				
Outfalls and Other Discharge or Disposal Methods		Loca	ition	4	Size		Avera	ge Da Appl	ily Volu ied	ıme		Intermittent (check one)	
Discha						aeres				gpd	☐ Ir	Continuous ntermittent	
Other						acres				gpd	□ Ir	ntermittent	
s and						acres				gpd		Continuous ntermittent	
utfalls	1.16	Is effluent tran Yes	sported to anoth	ner facility for	treatme	•	lischarge? → SKIP		n 1 21				
O	1.17		neans by which	the effluent is	s transpo					_			-
	1.17	Describe the fi	neuris by which	uro om u oni i	o transpe	ortou (c.g.,	tarik track,	/ pipe).		/_			
							\nearrow	4	//	$/\!\!\!\!/$	_		
	1.18	Is the effluent Yes	transported by a	party other	than the		→ SKIP to	. Item	1 20				\dashv
	1.19		nation on the trai	nsnorter helo	\\\\		2 Sixii to) IICIII	1.20.		V		
	1.17	T TOVIGE HHOLL	iation on the trai	isporter belo		Transporte	er Data						
		Entity name				_	Mailing a	ddress	s (street	or P.O.	box)		
		City or town		7/			State	_	_		ZIP coo	de	
		Contact name	(first and last)		//		Title			1			
		Phone number	r	,			Email add	dress					\supset

EPA	\ Identificat	ion Number	NP	DES Permit Nur	mber		Facility Name				roved 03/05/19 No. 2040-0004
	1.20	In the table bel receiving facilit		e the name, a				number, an	d avera	age daily flow	rate of the
pe		Facility name	Remingtor	n WWTP	K	eceiving r	acility Data Mailing addr	ess (street o	r P.O.	box)	
ontinu		City or town	Remingtor				State	VA		ZIP code 227	24
ods Cc		Contact name		st)	llingham		Title	ef Operator		221.	
Metho		Phone number	540439-		9		Email addres	SS	ham@f	fcwsa.org	
sposal		NPDES numbe	er of receivi	ng facility (if a	any) 🗆	None	Average dail		1.0	<u> </u>	mgd
Outfalls and Other Discharge or Disposal Methods Continued	1.21	Is the wastewa have outlets to				ndergroun —	d percolation, u	ınderground			at do not
schar	1 22	Provide information	ation in the	table below	on those oth		lo → SKIP to I	tem 1.23.			
er Di	1.22	Provide inionia		table below			r Disposal Me				
and Oth		Disposal Method Description		cation of posal Site		ze of osal Site	Annual A Daily Dis Volu	charge	Cont	tinuous or Int (check one	
utfalls					1	acr		l bop		Continuous Intermittent	
0						acr	95/	ו מממ ו		Continuous Intermittent	
						acr	es	gpd [☐ C	Continuous Intermittent	
Variance Requests	1.23	Do you intend to Consult with you Discharge Section Not appl	our NPDES ges into ma 301(h))		uthority to d	etermine w Wa		needs to b	e subm	itted and whe	n.)
	1.24	Are any operat the responsibili			pects (relat	ed to wast	ewater treatme	nt and efflue	nt qual	lity) of the trea	tment works
		☐ Yes				☐ No	→SKIP to Se	ction 2.			
	1.25	Provide locatio and maintenan						description	of the c	ontractor's op	erational
				Cou	ntractor 1	ontractor	nformation Contrac	tor 2		Contract	or 3
ion		Contractor nan		COI	iliactor i		Contrac	/		Contract	.01 3
format		(company nam	S					/	+		
ctor In		(street or P.O. City, state, and code							$ \wedge $		
Contractor Information		Contact name last)	(first and		_/			Z	4	\-	
		Phone number				/				\downarrow	
		Email address									
		Operational an maintenance responsibilities contractor									

OMB No. 2040-0004 SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2)) **Outfalls to Waters of the United States** Design Flow Does the treatment works have a design flow greater than or equal to 0.1 mgd? 2.1 No → SKIP to Section 3. Inflow and Infiltration Average Daily Volume of Inflow and Infiltration 2.2 Provide the treatment works' current average daily volume of inflow and infiltration. gpd Indicate the steps the facility is taking to minimize inflow and infiltration. **Topographic** Have you attached a topographic map to this application that contains all the required information? (See instructions for 2.3 specific requirements.) Yes No 2.4 Have you attached a process flow diagram or schematic to this application that contains all the required information? Diagram Flow (See instructions for specific requirements.) Yes No 2.5 Are improvements to the facility scheduled? No → SKIP to Section 3. Yes Briefly list and describe the scheduled improvements. Scheduled Improvements and Schedules of Implementation 1. 2. 3. 4. 2.6 Provide scheduled or actual dates of completion for improvements. Scheduled or Actual Dates of Completion for Improvements Affected Attainment of Scheduled **Begin** End Begin **Outfalls** Operational Improvement Construction Construction Discharge Level (list outfall (MM/DD/YYYY) (MM/DD/YYYY) (from above) (MM/DD/YYYY) number) (MM/DD/YYYY) 1. 2. 3. 4. 2.7 Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response. Yes No None required or applicable Explanation:

EPA Identification Number

NPDES Permit Number

Facility Name

Form Approved 03/05/19

EPA	\ Identifica	tion Number NPD	ES Permit Number		Facility Name		Form Approv OMB No	ed 03/05/19 . 2040-0004
SECTIO		ORMATION ON EFFLUENT					II	
	3.1	Provide the following inform	Outfall Number				Outfall Numbe	
		State						
s		County						
Description of Outfalls		City or town						
ion of		Distance from shore		ft.		ft.		ft.
script		Depth below surface		ft.		ft.		ft.
De		Average daily flow rate		mgd		mgd		mgd
		Latitude	0 /	"	0 1 11		0 /	"
		Longitude	0 /	"	0 1 11		o /	"
ū	3.2	Do any of the outfalls descri	ribed under Item 3.1 hav	e seasonal	or periodic discharges?	?		
e Dat		Yes			□ No → Sk	(IP to Ite	m 3.4.	
arg	3.3	If so, provide the following	information for each apr	olicable outfa	الد			
Ĕ		·	1	nicable datie	лі. Т		Т	
Discha			Outfall Number		Outfall Number _		Outfall Numb	er
odic Disch		Number of times per year					Outfall Numb	er
Periodic Disch		Number of times per year discharge occurs Average duration of each					Outfall Numb	er
ial or Periodic Disch		Number of times per year discharge occurs Average duration of each discharge (specify units)		<u> </u>				
asonal or Periodic Disch≀		Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge	Outfall Number			mgd		er
Seasonal or Periodic Discharge Data		Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge Months in which discharge	Outfall Number	<u> </u>				
Seasonal or Periodic Disch	3.4	Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge	Outfall Number	mgd	Outfall Number _			
Seasonal or Periodic Disch	3.4	Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge Months in which discharge occurs	Outfall Number	mgd	Outfall Number _	mgd		
	3.4	Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge Months in which discharge occurs Are any of the outfalls lister	Outfall Number d under Item 3.1 equipper type at each applicable	mgd mgd ed with a difference outfall.	Outfall Number _	mgd		
		Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge Months in which discharge occurs Are any of the outfalls listed Yes	Outfall Number	mgd mgd ed with a difference outfall.	Outfall Number _	mgd		mgd
Diffuser Type Seasonal or Periodic Disch≀		Number of times per year discharge occurs Average duration of each discharge (specify units) Average flow of each discharge Months in which discharge occurs Are any of the outfalls listed Yes	Outfall Number d under Item 3.1 equipper type at each applicable	mgd mgd ed with a difference outfall.	Outfall Number _ fuser? No → SKIP to	mgd	5.	mgd

Yes

□ No →SKIP to Section 6.

EP	A Identifica	lion Number	NPDES	S Permit Number		Facili	ty ivame			OMB No. 2040-	
	3.7	Provide the re	ceiving water a	and related infor	mation (if knowr	n) for ea	ch outfall.				
				Outfall Nur	mber	Ou	tfall Number		0	utfall Number	_
		Receiving wat	er name								
ioi		Name of water or stream syst	em				/				
Receiving Water Description		U.S. Soil Cons Service 14-dig code				1					
g Water		Name of state management/i									
Receiving		U.S. Geologica 8-digit hydrolo cataloging uni	gic			/					
		Critical low flo	(acute)		cfs			cfs			cfs
		Critical low flo	w (chronic)	/	cfs			cfs			cfs
		Total hardness			mg/L of CaC O ₃			mg/L of CaCO₃		Ca	J/L of aCO ₃
	3.8	Provide the fol	llowing informa	tion describing	he treatme <mark>n</mark> t pr	ovided 1	for discharge	from each	outfa	ıll.	
				Outfall Nui	mber	Ou	ıtfall Number		0	utfall Number	
ç		Highest Leve Treatment (ch apply per outfa	neck all that	☐ Primary ☐ Equivale seconda ☐ Seconda ☐ Advance ☐ Other (sp	ry ry st		Primary Equivalent to secondary Secondary Advanced Other (specify			Primary Equivalent to secondary Secondary Advanced Other (specify)	
Description		Design Remo Outfall	oval Rates by								
		BOD ₅ or CBO	D ₅		%			%			%
Treatment		TSS			%			%			%
		Phosphorus		□ Not a	pplicable %		☐ Not application	able %		☐ Not applicable	%
		Nitrogen		□ Not a	pplicable %		□ Not application	able %		☐ Not applicable	%
		Other (specify)	☐ Not a	pplicable		☐ Not application	able		☐ Not applicable	%

					Facility Name		OMB	No. 2040-0004
Treatment Description Continued	3.9	Describe the type of disinfe season, describe below.	ction used for the efflu	ent from each	outfall in t	he table belov	w. If disinfection varie	s by
on Col			Outfall Number	er	Outfall	Number	Outfall Nur	mber
cripti		Disinfection type						
nt Des		Seasons used						
atmei		D. J.	<u> </u>					
Tre		Dechlorination used?	☐ Not applicab ☐ Yes	ole	☐ No , ☐ Ye	ot applicable	☐ Not a	pplicable
			□ No)	□ No	
	3.10	Have you completed monito	oring for all Table A pa	rameters and	attached th		the application packaç	je?
	3.11	Have you conducted any W			o the date	="	tion on any of the fac	ility's
		discharges or on any receiv	ling water near the dis	charge/points		SKIP to	Item 3.13.	
	3.12	Indicate the number of acut discharges by outfall number	e and chronic WET tester or of the receiving w	sts conducted	since the I	ast permit rei points.	ssuance of the facility	l'S
	111		Outfall Num			Number	Outfall Nur	mber
			Acute	/ Chronic /	Acute	Chro	onic Acute	Chronic
		Number of tests of discharg water	je /	/				
		Number of tests of receiving water				\		
	3.13	Number of tests of receiving		ater than or eq		mgd? → SKIP to	Item 3.16.	
g Data	3.13	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring	nave a design flow greater and the for disinfection, use	chlorine elsev	☐ No	→ SKIP to		have
Festing Data		Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompany.	nave a design flow greater and the for disinfection, use	chlorine elsevifluent?	Nowhere in the	e treatment p		
uent Testing Data		Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompany.	nave a design flow greater and the for disinfection, use tharge chlorine in its efable B, including chlori	chlorine elsev fluent? ne.	Note the Note in the	⇒ SKIP to e treatment p→ Complet	orocess, or otherwise te Table B, omitting cl	nlorine.
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discussion Yes → Complete Tall Have you completed monitor package? Yes	nave a design flow great ne for disinfection, use tharge chlorine in its ef able B, including chlori pring for all applicable	chlorine elsev fluent? ne. Table B pollut	Note the Note in the	SKIP to e treatment pComplet ttacked the re	orocess, or otherwise te Table B, omitting cl	nlorine.
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discuss Yes → Complete Tall Have you completed monitor package?	nave a design flow greater and the for disinfection, use tharge chlorine in its efable B, including chloring for all applicable blowing conditions applications.	chlorine elsev fluent? ne. Table B pollut	Nowhere in the North No	SKIP to e treatment pComplet ttacked the re	orocess, or otherwise te Table B, omitting cl	nlorine.
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Yes Does one or more of the foll The facility has a design	nave a design flow greater than or proved pretreatment provided to the provided that is a design flow greater than or proved pretreatment provided the pretreatment provided the pretreatment provided the pretreatment provided the pretreatment provided pretreatment pretre	chlorine elsevifluent? ne. Table B pollut y? equal to 1 mg	Note the inclusion of t	SKIP to e treatment p Complet ttacked the re	te Table B, omitting clesults to this application	nlorine. on
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Yes Does one or more of the foll The facility has a designation of the POTW has an approximate the potential to discomplete the potential the potential to discomplete the potential	nave a design flow greater than or parameters (Table D authority has informed apparameters (Table D average chlority has informed parameters (Table D average characters (Table D average characters)	chlorine elsevifluent? ne. Table B pollut. y? equal to 1 mg	Nowhere in the Nowher	SKIP to e treatment p Complete ttacked the re develop such sample for th	te Table B, omitting clesults to this application approgram. The parameters in Table program.	nlorine. on e C, must
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Yes Does one or more of the foll The facility has a designation of the POTW has an approximate of the readditional each of its discharge of the possible process.	nave a design flow greater than or or oved pretreatment provided by authority has informed authority has informed parameters (Table Doutfalls (Table E).	chlorine elsevifluent? ne. Table B pollut. y? equal to 1 mg rogram or is red the POTW to	Nowhere in the Nowher	SKIP to e treatment p Complete ttacked the re develop such sample for the f WET tests for	te Table B, omitting clesults to this application a program. The parameters in Table or acute or chronic to	nlorine. on e C, must
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Yes Does one or more of the fole The facility has a designer. The POTW has an apple of the readitional each of its discharge of the supplicable.	nave a design flow greater than or proved pretreatment provided authority has informed authority has informed parameters (Table Doutfalls (Table E). Tables C, D, and E as e.	chlorine elsevifluent? ne. Table B pollut. y? equal to 1 mg rogram or is re d the POTW to	Note the intervention of t	SKIP to e treatment p Complete ttacked the re develop such sample for the f WET tests for SKIP to	te Table B, omitting clesults to this application a program. The parameters in Table for acute or chronic to Section 4.	e C, must xicity for
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Have you completed monitor package? Yes Does one or more of the fole The facility has a designer. The POTW has an apple of the readditional each of its discharge of the package? Yes Complete applicable Have you completed monitor package?	nave a design flow greater than or proved pretreatment provided authority has informed authority has informed parameters (Table Doutfalls (Table E). Tables C, D, and E as e.	chlorine elsevifluent? ne. Table B pollut. y? equal to 1 mg rogram or is re d the POTW to	Nowhere in the Nowher it must be results of Nowhere in the Nowhere in	SKIP to e treatment p Complet ttached the re develop such sample for th f WET tests for SKIP to ttached the re	te Table B, omitting clesults to this application a program. The parameters in Table for acute or chronic to Section 4.	e C, must xicity for
Effluent Testing Data	3.14	Number of tests of receiving water Does the treatment works h Yes Does the POTW use chloring reasonable potential to discompleted monitor package? Yes → Completed monitor package? Yes Does one or more of the fole The facility has a designer of the POTW has an applicable of its discharge of the potential to discompleted monitor package? Yes The POTW has an applicable of its discharge of the potential to discharge	nave a design flow greater than or proved pretreatment provided parameters (Table Doutfalls (Table E). Tables C, D, and E as expering for all applicable oring for all applicable	chlorine elsevifluent? ne. Table B pollut. y? equal to 1 mg rogram or is re d the POTW t), or submit th	Note the property of the prope	SKIP to e treatment p Complete ttached the re develop such sample for the f WET tests for SKIP to ttached the re	te Table B, omitting clesults to this application a program. The parameters in Table or acute or chronic to Section 4.	e C, must xicity for

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	3.19		N conducted either (1) minimum of for four annual WET tests in the past 4.		ests for one year	preceding this permit application
\		☐ Yes			No → Comple Item 3.2	te tests and Table E and SKIP to 26.
	3.20	·	viously submitted the results of the a	bove tests to your I		authority? results in Table E and SKIP to
	2.21	Yes Yes	also the data was a least to all a second	NDDEC'H'	Item 3.2	6.
	3.21		ates the data were submitted to your rate(s) Submitted	NPDES permitting	Summary of	
			(MM/DD/YYYY)			
9						
Effluent Testing Data Continued						
ata C	3.22	Regardless of toxicity?	how you provided your WET testing	data to the NPDES	S permitting author	rity, did any of the tests result in
ing D		Yes			No → SKIP to	Item 3.26.
t Test	3.23	Describe the o	cause(s) of the toxisity:			
ffluen						
<u></u>						
	3.24	Has the treatn	nent works conducted a toxicity redu	ction evaluation?	No → SKIP to	Item 3.26.
	3.25	Provide details	s of any toxicity reduction evaluation	s conducted.		
)	/			
	3.26	Have you com	npleted Table E for all applicable out	falls and attached t	Not applicable	because previously submitted
SECTIO	N 4 IND		CHARGES AND HAZARDOUS WAS	TES (40 CFR 122	information to t	he NPDES permitting authority.
O_COTIC	4.1	Does the POT	W receive discharges from SIUs or	NSCIUs?		
S	4.2	☐ Yes	umber of SIUs and NSCIUs that disc	harge to the POTV	No → SKIP to It	em 4.7.
Waste		maioate the n	Number of SIUs	narge to the Fort		ber of NSCIUs
snop	4.2	December DOT	70/ 1			
lazar	4.3	Yes	W have an approved pretreatment p	orogram?	No	
and F	4.4	Have you sub	mitted either of the following to the N		uthority that conta	
arges			at required in Table F: (1) a pretreatr (2) a pretreatment program?	nent program annu	al report submitte	d within one year of the
Disch		☐ Yes			No → SKIP to It	em 4.6.
Industrial Discharges and Hazardous Wastes	4.5	Identify the titl	e and date of the annual report or pr	etreatment prograr	n referenced in Ite	em 4.4. SKIP to Item 4.7.
lnd	4.6	Have you com	npleted and attached Table F to this	application package	e?	\
		□ Yes			No	\

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	4.7				it been notified tha wastes pursuant to		,	ruck, rail, or dedicate		s that are
	4.8	Vf yes, provide	the follow	wina info	mation·					
		Hazardous Numbe	Waste	ining initial	Waste	Transport Me			Annual Amount of Waste Received	Units
		\			Truck		R	Rail		
ontinued					Dedicated pipe		0 	Other (specify)		
es C					Truck		R	Rail		
Industrial Discharges and Hazardous Wastes Continued				A	Dedicated pipe		0	Other (specify)		
zard					Truck	/	R	Rail		
s and Ha					Dedicated pipe		0 -	Other (specify)		
ischarge	4.9	Does the POT including thos	W receiv e underta	e, or has	it been notified tha uant to CERCLA a	t it will receive nd Sections 30	, wast 004(7)	tewaters that origina or 3008(h) of RCR		ctivities,
iai 🗆		☐ Yes		/			/	No → SKIP to Secti		
Industr	4.10	specified in 40) CFR 26	1.30(d) a	nd 261.33(e)?	than 15 kilogr		per month of non-ac	ute hazardous was	tes as
			SKIP to		\ /	<u> </u>	_ \	No		
1	4.11	site(s) or facili	ty(ies) at	which the	e wastewater origin	ates; the ident	ities o	plication: identificati of the wastewater's hefore entering the F	nazardous constitu	
ALC:		Yes				// [No		
SECT	ON 5. CO	MBINED SEWE	R OVER	FLOWS	(40 CFR 122.21(j)(<mark>8</mark>))				
Ε	5.1	Does the treat	tment wor	ks have	a combined sewer	system?				
agra		Yes			/			No → SKIP to Secti	on 6.	
id b	5.2	Have you atta	ched a C	SO syste	m map to this appli	cation? (See i	nstruc	ctions for map requir	rements.)	
ıp an		☐ Yes						No		
CSO Map and Diagram	5.3	Have you atta	ched a C	SO syste	m diagram to this a	pplication? (S	ee ins	structions for diagrar	m requirements.)	
)SS		☐ Yes						No		

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5.4	For each CSO outfall, prov	ide the following information. (A	ttach additional sheets as neces	sary.)						
		CSO Outfall Number	CSO Outfall Number	CSO Outfall Number						
	City or town									
	State and ZIP code									
	County									
	Latitude	0 / "	o , , , , , ,	o , ,,						
	Longitude	o , , , , , ,	o , "	o , "						
	Distance from shore	ft.	ft.	ft.						
	Depth below surface	ft.	ft.	ft.						
5.5	Did the POTW monitor any	POTW monitor any of the following items in the past year for its CSO outfalls?								
CSO Monitoring		CSO Outfall Number	CSO Outfall Number	CSO Outfall Number						
	Rainfall	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No						
	CSO flow volume	Yes No	☐ Yes ☐ No	☐ Yes ☐ No						
	CSO pollutant concentrations	☐ Yes ☐ No	□ yes □ No	☐ Yes ☐ No						
	Receiving water quality	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No						
	CSO frequency	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No						
	Number of storm events	☐ Yes ☐ No	Yes 🗆 No	☐ Yes ☐ No						
5.6	Provide the following inform	nation for each of your CSO out	falls.							
		CSO Outfall Number	CSO Outfall Number	CSO Outfall Number						
	Number of CSO events in the past year	events	events	events						
	Average duration per	hours	hours	hours						
	Event			☐ Actual or ☐ Estimated						
	Average volume per event			million gallons						
	Minimum rainfall causing			☐ Actual or ☐ Estimated inches of cainfall						
	a CSO event in last year	☐ Actual or ☐ Estimated	☐ Actual or ☐ Estimated	☐ Actual or ☐ Estimated						
	5.4	5.4 For each CSO outfall, prov City or town State and ZIP code County Latitude Longitude Distance from shore Depth below surface 5.5 Did the POTW monitor any Rainfall CSO flow volume CSO pollutant concentrations Receiving water quality CSO frequency Number of storm events 5.6 Provide the following inform Number of CSO events in the past year Average duration per event Average volume per event Minimum rainfall causing	S.4 For each CSO outfall, provide the following information. (A	S.4 For each CSO outfall, provide the following information. (Attach additional sheets as necess CSO Outfall Number Ou						

EP/	4 idenuiica	llion Number	NPDI	ES Permit Nu	mber	ет гасініў ічате			OMB No. 2040-0004
	5.7	Provide the inf	formation in th	e table bel	ow for eac	h of your	CSO outfalls.		
				CSO Out	tfall Numb	er	CSO Outfall Num	ber	CSO Outfall Number
		Receiving wat	er name						
		Name of water					/		
ers		stream system U.S. Soil Cons		1	1 Unknowr	n/	□/Unknow	/n	☐ Unknown
Wat		Service 14-dig	git	/	Onknown	/			LI OTIKITOWIT
CSO Receiving Waters		watershed cod	de /			\searrow			
Sece		Name of state							
30 1		management/i	al Survey] Unknowr	1/	□ Unknow	/n	□ Unknown
		8-Digit Hydrolo Code (if know							
		Description of	known		/				
		water quality in receiving strea							
		(see instructio							
SECTIO	N 6 CH	examples)	CERTIFICAT	ION STAT	FMFNT (4	0 CFR 12	22.22(a) and (d))		
020110	6.1	_						l are submittir	ng with your application. For
		each section, all applicants a					ou are enclosing to ale	ert the permit	ting authority. Note that not
	1.1		Column 1	provide a	laciment). 	Col	lumn 2	
			n 1: Basic App ation for All Ap		□ w	variance	request(s)		w/ additional attachments
		Section	n 2: Additional	•	□ w	topograp	ohic map		w/ process flow diagram
		Informa	ation		□ w	addition	al attachments		
		Section	n 3: Informatio	ın on		Table A			w/ Table D
art.			nt Discharges	11 011		Table B			w/ Table E
tatement		Section	n 4: Industrial		<u> </u>	Table C	NSCIU attachments	<u> </u>	w/ additional attachments w/ Table F
n Sta		☐ Discha	rges and Haz	ardous			al attachments	Ц	W/ Table I
catio		Wastes	s n 5: Combined	I Cowor		CSO ma		П	w/ additional attachments
ertifi		Overflo		i Sewei			stem diagram	_	W additional attachments
Checklist and Certification S			n 6: Checklist		□ w	attachm	ents		
list a	6.2	Certification	cation Stateme	ent					
heck	0.2			ı that this c	locument a	and all att	achments were nren:	ared under m	y direction or supervision in
0		accordance w	ith a system d	lesigned to	assure the	at qualifie	d personnel properly	gather and e	valuate the information
									persons directly responsible belief, true, accurate, and
		complete. I an	n aware that t	here are si	gnificant p				luding the possibility of fine
		and imprisonn Name (print or						Official t	itle
		Signature						Date sig	med
		"						Date sig	incu

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	Maximum Daily Discharge		Ave	erage Daily Dischar	Analytical	ML or MDL	
Pollutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)
Biochemical oxygen demand □ BOD₅ or □ CBOD₅ (report one)							□ ML □ MDL
Fecal coliform							□ ML □ MDL
Design flow rate							
pH (minimum)				_			
pH (maximum)		11					
Temperature (winter)							
Temperature (summer)							
Total suspended solids (TSS)							

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE B. EFFLUENT PARAMETE	ABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD									
	Maximum Daily Discharge		A	verage Daily Dischar	Analytical	ML or MDL				
Pollutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)			
Ammonia (as N)							□ ML □ MDL			
Chlorine (total residual, TRC) ²							□ ML □ MDL			
Dissolved oxygen							□ ML □ MDL			
Nitrate/nitrite							□ ML □ MDL			
Kjeldahl nitrogen							□ ML □ MDL			
Oil and grease							□ ML □ MDL			
Phosphorus							□ ML □ MDL			
Total dissolved solids							□ ML □ MDL			

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

² Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

TABLE C. EFFLUENT PARAMETER	DO FOR SELECTER I	OCTIVE					
TABLE C. EFFLUENT PARAMETER				D 11 D1 1			
Pollutant	Maximum Dai	lly Discharge	A	verage Daily Dischar		Analytical	ML or MDL
1 onutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)
Metals, Cyanide, and Total Phenols	3						
Hardness (as CaCO ₃)							□ ML □ MDL
Antimony, total recoverable							□ ML □ MDL
Arsenic, total recoverable							□ ML □ MDL
Beryllium, total recoverable							
Cadmium, total recoverable				/			
Chromium, total recoverable							
Copper, total recoverable		\sim		/			
Lead, total recoverable							
Mercury, total recoverable							□ ML
Nickel, total recoverable		_/		1			
Selenium, total recoverable							
Silver, total recoverable					 		
Thallium, total recoverable			/				□ MDL
Zinc, total recoverable			/				☐ MDL
			-				□ MDL □ ML
Cyanide							☐ MDL
Total phenolic compounds							
Volatile Organic Compounds							
Acrolein							☐ ML ☐ MDL
Acrylonitrile							☐ ML ☐ MDL
Benzene							☐ ML ☐ MDL
Bromoform							

ABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS									
	Maximum Da	nily Discharge	A	verage Daily Dischar	ge	Analytical	ML or MDL		
Pollutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)		
Carbon tetrachloride							□ ML □ MDL		
Chlorobenzene							□ ML □ MDL		
Chlorodibromomethane							□ ML □ MDL		
Chloroethane			/				□ ML		
2-chloroethylvinyl ether							□ ML		
Chloroform		X							
Dichlorobromomethane							□ ML		
1,1-dichloroethane									
1,2-dichloroethane									
trans-1,2-dichloroethylene		/ \ /					□ ML		
1,1-dichloroethylene	/	$\overline{}$					□ MDL		
1,2-dichloropropane			7		_		☐ MDL ☐ ML ☐ MDL		
1,3-dichloropropylene	· · · · · · · · · · · · · · · · · · ·								
Ethylbenzene									
Methyl bromide							□ ML		
Methyl chloride			/ /				□ MDL		
Methylene chloride							☐ MDL		
1,1,2,2-tetrachloroethane							☐ MDL		
Tetrachloroethylene							☐ MDL		
Toluene							□ MDL		
							□ MDL		
1,1,1-trichloroethane									
1,1,2-trichloroethane							□ MDL		

				_
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TABLE C. EFFLUENT PARAMETE	ERS FOR SELECTED	POTWS					
	Maximum Da	aily Discharge	A	verage Daily Dischar	ge	Analytical	ML or MDL
Pollutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)
Trichloroethylene							□ ML □ MDL
Vinyl chloride							□ ML
Acid-Extractable Compounds							II MOE
p-chloro-m-cresol							
2-chlorophenol							□ ML □ MDL
2,4-dichlorophenol							□ ML □ MDL
2,4-dimethylphenol			/				
4,6-dinitro-o-cresol							
2,4-dinitrophenol							□ML
2-nitrophenol							
4-nitrophenol							☐ MDL
Pentachlorophenol		 	1 /				☐ MDL
Phenol			/	A			☐ MDL
			 				☐ MDL
2,4,6-trichlorophenol		<u> </u>					☐ MDL
Base-Neutral Compounds		<u> </u>					_
Acenaphthene							□ ML □ MDL
Acenaphthylene							□ ML □ MDL
Anthracene			/				□ ML □ MDL
Benzidine							□ ML □ MDL
Benzo(a)anthracene							
Benzo(a)pyrene							
3,4-benzofluoranthene							E ML

BLE C. EFFLUENT PARAMETERS	Maximum Daily Discharge		Δ	verage Daily Dischar	de		
Pollutant	Value	Units	Value	Units	Number of	_ Analytical Method ¹	ML or MDL (include units)
	value	Office	value	Units	Samples		
Benzo(ghi)perylene							
Benzo(k)fluoranthene							
Bis (2-chloroethoxy) methane							
Bis (2-chloroethyl) ether			/				
Bis (2-chloroisopropyl) ether							
Bis (2-ethylhexyl) phthalate							
4-bromophenyl phenyl ether		. /					
Butyl benzyl phthalate		1/					
2-chloronaphthalene				\wedge			
4-chlorophenyl phenyl ether							
Chrysene			/ /-				
di-n-butyl phthalate	,	/					
di-n-octyl phthalate		/		\			
Dibenzo(a,h)anthracene				\			
1,2-dichlorobenzene				1			
1,3-dichlorobenzene		,					
1,4-dichlorobenzene							
3,3-dichlorobenzidine							
Diethyl phthalate							
Dimethyl phthalate							□ ML
2,4-dinitrotoluene							□ MI
2,6-dinitrotoluene							□ MI

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

	LKOTOK OLLEGILD FOTWO						
Dallutant	Maximum Da	aily Discharge	A	verage Daily Dischar	ge	Analytical	ML or MDL
Pollutant	Value	Units	Value	Units	Number of Samples	Method ¹	(include units)
1,2-diphenylhydrazine							□ ML □ MDL
Fluoranthene							□ ML □ MDL
Fluorene							
Hexachlorobenzene							□ ML □ MDL
Hexachlorobutadiene			1				
Hexachlorocyclo-pentadiene			/ /				
Hexachloroethane							
Indeno(1,2,3-cd)pyrene		Λ					
Isophorone							
Naphthalene							
Nitrobenzene							
N-nitrosodi-n-propylamine		/					
N-nitrosodimethylamine							
N-nitrosodiphenylamine			/ /	}			
Phenanthrene			/				
Pyrene							
1,2,4-trichlorobenzene							

¹ Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

TABLE D. ADDITIONAL POLLUTA	ANTS AS REQUIRED	BY NPDES PERMITT	ING AUTHORITY				
	Maximum Daily Discharge		Average Daily Discharge		ge	Analytical	ML or MDL
Pollutant (list)	Value	Units	Value	Units	Number of Samples	Analytical Method ¹	(include units)
☐ No additional sampling is re	equired by NPDES perr	mitting authority.					
							□ ML □ MDL
							□ ML □ MDL
							□ ML □ MDL
			/				□ ML □ MDL
							□ ML □ MDL
		\wedge					□ ML □ MDL
	/						□ ML □ MDL
				A			□ ML □ MDL
		V					□ ML □ MDL
			/				□ ML □ MDL
	V						□ ML □ MDL
							□ ML □ MDL
							□ ML □ MDL
		/		·			□ ML □ MDL
							□ ML □ MDL

¹Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE E. EFFLUENT MONITORING FOR W					
The table provides response space for one wh	ole effluent toxicity sample. Copy the table to re	port additional test results.	-		
Test Information					
	Test Number	Test Number	Test Number		
Test species					
Age at initiation of test					
Outfall number		/			
Date sample collected					
Date test started					
Duration					
Toxicity Test Methods					
Test method number					
Manual title					
Edition number and year of publication					
Page number(s)		Λ			
Sample Type					
Check one:	☐ G rab	☐ Grapb	Grab		
	24-hour composite	24-hour composite	24-hour composite		
Sample Location					
Check one:	Before Disinfection	Before Disinfection	☐ Before disinfection		
//	☐ After Disinfection	After Disinfection	☐ After disinfection		
U	☐ After Dechlorination	After Dechlorination	☐ After dechlorination		
Point in Treatment Process					
Describe the point in the treatment process at which the sample was collected for each test.					
Toxicity Type		V	_		
Indicate for each test whether the test was performed to asses acute or chronic toxicity,	☐ Acute	☐ Acute	☐ Acute		
or both. (Check one response.)	☐ Chronic	☐ Chronic	Chronic		
(, , , , , , , , , , , , , , , , , , ,	☐ Both	☐ Both	Both		

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TABLE E. EFFLUENT MONITORING FOR W	HOLE EFFLUENT TOXICITY		
The table provides response space for one wh	nole effluent toxicity sample. Copy the table to rep	port additional test results.	
	Test Number	Test Number	Test Number
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through
Source of Dilution Water	Flow-trilough	Flow-tillough	Flow-tillough
Indicate the source of dilution water. (Check one response.)	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water
If laboratory water, specify type.			
If receiving water, specify source.			
Type of Dilution Water			4
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	Fresh water Salt water (specify)	☐ Fresh water ☐ Salt water (specify)	Fresh water Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.			
Parameters Tested			
Check the parameters tested.	pH	pH Ammonia Salinity Dissolved oxygen Temperature	pH
Acute Test Results			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% confidence interval	%	%	%
Control percent survival	%	%	%

EPA Identification Number	NPDES Permit Number	Facility Nan	ne	Outfall Number		Form Approved 03/05/19 OMB No. 2040-0004
TABLE E. EFFLUENT MONITORING FOR V	WHOLE EFFLUENT TOXIC	TY				_
The table provides response space for one w	hole effluent toxicity sample	. Copy the table to rep	oort additional test resu	lts.		
	Test Numbe	r	Test Num	nber	Test Num	ber
Acute Test Results Continued						
Other (describe)					\wedge	
Chronic Test Results						
NOEC		%		%		%
IC ₂₅		/ %		%		%
Control percent survival		/ %		%		%
Other (describe)						
Quality Control/Quality Assurance						
Is reference toxicant data available?	/ \square Yes	□ No	Yes	D 1%	☐ Yes	□ No
Was reference toxicant test within acceptable bounds?	✓ □ Yes	□ No	Yes	□ No	☐ Yes	□ No
What date was reference toxicant test run (MM/DD/YYYY)?						
Other (describe)						

EPA Identification Number	NPDES Permit Number	Facility Name		Fo	orm Approved 03/05/19 OMB No. 2040-0004
TABLE F. INDUSTRIAL DISCHARGE INFO	RMATION				
Response space is provided for three SIUs. (itional SIUs.			
	SIU	SI	U	SIU	
Name of SIU					
Mailing address (street or P.O. box)					
City, state, and ZIP code					
Description of all industrial processes that affor contribute to the discharge.	ect				
List the principal products and raw materials tagget affect or contribute to the SIU's discharge.	nat				
Indicate the average daily volume of wastewardischarged by the SIU.	lter /	gpd	gpd		gpd
How much of the average daily volume is attributable to process flow?		gpd	gpd		gpd
How much of the average daily volume is attributable to non-process flow?		gpd	gpd		gpd
Is the SIU subject to local limits?	☐ Yes ☐ No	√ ☐ Yes	□ No	☐ Yes	□ No
Is the SIU subject to categorical standards?	☐ Yes ☐ No	yes	□ No	☐ Yes	Q No

EPA Identification Number NPDES Permit Number Facility Name Form Approved 03/05/19
OMB No. 2040-0004

TABLE F. INDUSTRIAL DISCHARGE INFORMATI			
Response space is provided for three SIUs. Copy the	ne table to report information for additional SIUs.		
	SIU	SIU	SIU
Under what categories and subcategories is the SIU subject?			
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	Yes No	☐ Yes ☐ No	☐ Yes ☐ No
If yes, describe.			

What follows is the sewage sludge long form

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

detern	nine whi	ch sections to fill out.					
1.	All applicants must complete Section A (General Information).						
2.	Will	Will this facility generate sewage sludge? X Yes No					
	Will	this facility derive a material from sewage sludge?Yes _X_No					
	•	a answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material red From Sewage Sludge).					
3.	Will	this facility apply sewage sludge to the land?Yes _X_No					
	Will	sewage sludge from this facility be applied to the land? X Yes No					
	If you	If you answered No to both questions above, skip Section C.					
	If you	If you answered Yes to either, answer the following three questions:					
	a.	Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions? X_Yes_No					
	b.	Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land?Yes _X_No					
	c.	Will sewage sludge from this facility be sent to another facility for treatment or blending?Yes XNo					
	If you	answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).					
	If you	answered Yes to a, b or c, skip Section C.					
4.	Do yo	ou own or operate a surface disposal site?Yes XNo					
	If Ye	s, complete Section D (Surface Disposal).					

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1.	Facility	Information.
	a.	Facility name: Remington WWTP
	b.	Contact person: <u>Troy Willingham</u>
		Title: <u>Chief Operator</u>
		Phone: (540) 439-2225
	c.	Mailing address: 12523 Lucky Hill Road
		Street or P.O. Box:
		City or Town: Remington State: VA Zip: 22734
	d.	Facility location:
		Street or Route #: Rt. 655
		County: Fauquier
		City or Town: Remington State: VA Zip: 22734
	e.	Is this facility a Class I sludge management facility? <u>X</u> YesNo
	f.	Facility design flow rate: 2.0 mgd
	g.	Total population served: <u>2734</u>
	h.	Indicate the type of facility:
		X Publicly owned treatment works (POTW)
		Privately owned treatment works
		Federally owned treatment works
		Blending or treatment operation
		Surface disposal site
		Other (describe):
2.	Applica	ant Information. If the applicant is different from the above, provide the following:
	a.	Applicant name: Fauquier County Water and Sanitation Authority
	b.	Mailing address: 7172 Kennedy Road
		Street or P.O. Box:
		City or Town: Warrenton State: VA Zip: 20187
	c.	Contact person: Milas Smith
		Title: Director of Operations
		Phone: (540) 349-2092
	d.	Is the applicant the owner or operator (or both) of this facility?
		X owner X operator
	e.	Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
		facility X applicant
3.	Permit	Information.
	a.	Facility's VPDES permit number (if applicable): <u>VA 0076805</u>
	b.	List on this form or an attachment, all other federal, state or local permits or construction approvals received
		or applied for that regulate this facility's sewage sludge management practices:
		Permit Number: Type of Permit:
		N/A
4.	Indian	Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this
		occur in Indian Country?Yes _X_No If yes, describe:

- 5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
 - a. Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
 - b. Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

SEE ATTACHMENT A

- 6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

 SEE ATTACHMENT B
- 7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? __Yes __No If yes, provide the following for each contractor (attach additional pages if necessary).

Name: Recyc Systems Inc.

Mailing address:

Street or P.O. Box: P.O. Box 562

City or Town: Remington State: VA Zip: 22734

Phone: (540) 547-3300

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

VA 00054

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

HAUL AND LAND APPLICATION

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic	21.625	2019-2022	SW-846 6010B	4.0 mg/kg
Cadmium	14.903	2019-2022	SW-846 6010B	2.0 mg/kg
Chromium	N/A	N/A	N/A	N/A
Copper	1068	2019-2022	SW-846 6010B	2.0 mg/kg
Lead	26.75	2019-2022	SW-846 6010B	4.0 mg/kg
Mercury	0.61575	2019-2022	SW-846 7471A	0.0250 mg/kg
Molybdenum	12.075	2019-2022	SW-846 6010B	4.0 mg/kg
Nickel	49.875	2019-2022	SW-846 6010B	4.0 mg/kg
Selenium	<ql< td=""><td>2019-2022</td><td>SW-846 6010B</td><td>4.0 mg/kg</td></ql<>	2019-2022	SW-846 6010B	4.0 mg/kg
Zinc	1570	2019-2022	SW-846 6010B	4.0 mg/kg

- 9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:
 - X Section A (General Information)
 - X Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
 - Section C (Land Application of Bulk Sewage Sludge)
 - ____Section D (Surface Disposal)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title <u>Milas Smith, Director of Operations</u>

Signature Wilas Smith Date Signed 1/18/2023

Telephone number ___540-349-2092

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: Remington

VPDES PERMIT NUMBER: VA0076805

SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF A MATERIAL DERIVED FROM SEWAGE SLUDGE

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1.	Amo	unt Generated On Site.
	Total	dry metric tons per 365-day period generated at your facility: dry metric tons
2.	dispo	unt Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or sal, provide the following information for each facility from which sewage sludge is received. If you receive ge sludge from more than one facility, attach additional pages as necessary. Facility name: Vint Hill WWTP Contact Person: Griffin Golesorkhi Title: Chief Operator Phone (540) 905 - 3683
	c.	Mailing address: Street or P.O. Box: 7000 Kennedy Road City or Town: Warrenton State: VA Zip: 20187
	d.	Facility Address: 7000 Kennedy Road, Warrenton, VA 20187 (not P.O. Box)
	e. f.	Total dry metric tons per 365-day period received from this facility: approx.150 dry metric tons Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics: Aerobic Digestion and belt filter press
3.	Treat	ment Provided at Your Facility.
	a.	Which class of pathogen reduction is achieved for the sewage sludge at your facility? Class AX_Class BNeither or unknown
	b.	Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:
	c.	Which vector attraction reduction option is met for the sewage sludge at your facility? Option 1 (Minimum 38 percent reduction in volatile solids) X Option 2 (Anaerobic process, with bench-scale demonstration) Option 3 (Aerobic process, with bench-scale demonstration) Option 4 (Specific oxygen uptake rate for aerobically digested sludge) Option 5 (Aerobic processes plus raised temperature) Option 6 (Raise pH to 12 and retain at 11.5) Option 7 (75 percent solids with no unstabilized solids) Option 8 (90 percent solids with unstabilized solids) None or unknown
	d.	Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Aerobic Digestion
	e.	Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: In addition to aerobic digestion the sludge is dewatered by a centrifuge.
4.	One o	aration of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and of Vector Attraction Reduction Options 1-8 (EQ Sludge).
	(If sev a.	Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: N/A dry metric tons
	b.	Is sewage sludge subject to this section placed in bags or other containers for sale or give-away? YesX_No

If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above

If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility

to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

i.

	j	Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land?YesNo N/A				
	k.	If yes, provide a copy of all labels or notices that accompany the product being sold or given away. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? Yes No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility. N/A				
		Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. N/A				
		IVA				
7.		Application of Bulk Sewage Sludge.				
		plete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6;				
		ete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)				
	a.	Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: 435 dry metric tons				
	b.	Do you identify all land application sites in Section C of this application? X Yes No If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in				
		accordance with the instructions).				
	c.	Are any land application sites located in States other than Virginia?Yes _X_No				
		If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the				
		States where the land application sites are located. Provide a copy of the notification.				
	d.	Attach a copy of any information you provide to the owner or lease holder of the land application sites to				
		comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples				
		may be obtained in Appendix IV).				
8.	Surfa	ce Disposal. – N/A				
		(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)				
	a.	Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal				
		sites: N/A dry metric tons				
	b.	Do you own or operate all surface disposal sites to which you send sewage sludge for disposal? YesNo N/A				
		If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.				
	c.	Site name or number:				
	d.	Contact person:				
		Title:				
		Phone: ()				
		Contact is:Site OwnerSite operator				
	e.	Mailing address.				
		Street or P.O. Box:				
		City or Town: State: Zip:				
	f.	Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal				
		site: dry metric tons				
	g.	List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of				
	•	all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface				
		disposal site:				
		Permit Number: Type of Permit:				
9.		eration. – N/A				
		plete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.) Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge				
	a.	Total dry metric tons per 303-day period of sewage studge from your facility fried in a sewage studge				

FACILITY NAME: Remington

VPDES PERMIT NUMBER: VA0076805

FACI	LITY NA	AME: Remington VPDES PERMIT NUMBER: VA0076805
		incinerator: N/A dry metric tons
	b.	Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? YesNo N/A
		If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send
		sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
	c.	Incinerator name or number:
	d.	Contact person:
		Title:
		Phone: ()
		Contact is:Incinerator OwnerIncinerator Operator
	e.	Mailing address.
		Street or P.O. Box:
	£	City or Town: State: Zip: Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge
	f.	incinerator: dry metric tons
	g.	List on this form or an attachment the numbers of all other federal, state or local permits that regulate the
		firing of sewage sludge at this incinerator:
		Permit Number: Type of Permit:
10.	Dispos	sal in a Municipal Solid Waste Landfill N/A
	-	elete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information
		h municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one
	munici	pal solid waste landfill, attach additional pages as necessary.)
	a.	Landfill name: N/A
	b.	Contact person:
		Title:
		Phone: () Contact in Landfill Owner Landfill Operator
	c.	Contact is:Landfill OwnerLandfill Operator Mailing address.
	C.	Street or P.O. Box:
		City or Town: State: Zip:
	d.	Landfill location.
		Street or Route #:
		County:
		City or Town: State: Zip:
	e.	Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:
		dry metric tons
	f.	List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the
		operation of this municipal solid waste landfill:
		Permit Number: Type of Permit:
	~	Door sowage sludge most emplicable requirements in the Virginia Solid Weste Management Regulation 0
	g.	Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
		Yes No
	h.	Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid
	11.	Waste Management Regulation, 9 VAC 20-80-10 et seq.?YesNo
	i.	Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill
	•	be watertight and covered? Yes No
		Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the
		week and time of the day sewage sludge will be transported.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE



Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or

The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or

You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1.	Ident			ontracted to Recyc, Atta	achment 3A provides amounts and locations.
	a.		name or number:		
	b.	Site le	ocation (Complete i and ii)		
		i.	Street or Route#:		
			County:		
			City or Town:	State:	Zip:
		ii.	Latitude:	Longitude:	
			Method of latitude/longi	itude determination	
			USGS map	Filed survey	Other
	c.	Topo			propriate map if a topographic map is unavailable
		that s	hows the site location.		
2.	Owne	er Inform	ation.		
	a.	Are y	ou the owner of this land ap	plication site?Yes _	_No
	b.		provide the following infor-		
		Name	-		
		Street	t or P.O. Box:		
		City o	or Town:	State:	Zip:
			e: ()		
3.	Appli	ier Inforn	nation:		
	a.			or who is responsible for a	application of, sewage sludge to this land
			cation site?YesNo	1	
	b.			mation for the person who	o applies the sewage sludge:
		Name	1		
			t or P.O. Box:		
			or Town:	State:	Zin:
			e: ()		<i>Zi</i> p.
	c.			nt the numbers of all fede	eral, state or local permits that regulate the person
	О.		applies sewage sludge to this		rui, state of focul permits that regulate the person
			it Number:	Type of Perm	it:
		1 (1111	it ivumber.	Type of Term	11.
4.			entify the type of land applic		e following:
		gricultura		clamation site	Forest
	Pu	ıblic cont	act siteOth	ner. Describe	
5.	Vecto	or Attract	ion Reduction.		
				ements met when sewage	sludge is applied to the land application site?
			No If yes, answer a and b.	monts mot when sowage	stadge is approve to the faile approvation site.
	a.		ate which vector attraction re	eduction ontion is met	
	u.		option 9 (Injection below lan		
			option 10 (Incorporation into		
	b.				eatment processes used at the land application site
	υ.		luce the vector attraction pro		

	lative Loadings and Remaining Allotments.				
	ete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates				
	s) - see instructions.)				
a.	Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993?YesNo				
	If no, sewage sludge subject to the CPLRs may <u>not</u> be applied to this site.				
	If yes, provide the following information:				
	Permitting authority:				
	Contact person:				
	Phone:()				
b.	Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20,				
	1993?YesNo If no, skip the rest of Question 6. If yes, answer questions c - e.				
c.	Site size, in hectares: (one hectare = 2.471 acres)				
d.	Provide the following information for every facility other than yours that is sending or has sent sewage				
	sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage				
	sludge to this site, attach additional pages as necessary.				
	Facility name:				
	Facility contact:				
	Title:				
	Phone: ()				
	Mailing address.				
	Street or P.O. Box:				
	City or Town: State: Zip:				
e.	Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:				
•	Cumulative loading Allotment remaining				
	Arsenic				
	Cadmium				
	Copper				
	Lead				
	Mercury				
	Nickel				
	Selenium Selenium				

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)

pH (S. U.)

Percent Solids (%)

Ammonium Nitrogen (mg/kg)

Nitrate Nitrogen (mg/kg)

Total Kjeldahl Nitrogen (mg/kg)

Total Phosphorus (mg/kg)

Total Potassium (mg/kg)

Alkalinity as CaCO₃* (mg/kg)

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.
- 9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.
- 10. Landowner Agreement Forms. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.
- 11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? ___Yes ___No

If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

- a. Provide a general location map for each county which clearly indicates the location of all the land application sites.
- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U.
 S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service Virginia Field Office P. O. Box 480 White Marsh, VA 23183 TEL: (804)693-6694

Provide a copy of the notification letter with this application form.

d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

- 1) Soil symbol
- 2) Soil series, textural phase and slope range
- 3) Depth to seasonal high water table
- 4) Depth to bedrock
- 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site.

 Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:
 - 1). Soil symbol
 - 2). Soil series, textural phase and slope range
 - 3). Depth to seasonal high water table
 - 4). Depth to bedrock
 - 5). Estimated soil productivity group (for the proposed crop rotation)

f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item e. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)

Soil pH (std. units)

Cation Exchange Capacity (meq/100g)

Total Nitrogen (ppm)

Organic Nitrogen (ppm)

Ammonia Nitrogen (ppm)

Nitrate Nitrogen (ppm)

Available Phosphorus (ppm)

Exchangeable Potassium (mg/100g)

Exchangeable Sodium (mg/100g)

Exchangeable Calcium (mg/100g)

Exchangeable Magnesium (mg/100g)

Arsenic (ppm)

Cadmium (ppm)

Copper (ppm)

Lead (ppm)

Mercury (ppm)

Molybdenum (ppm)

Nickel (ppm)

Selenium (ppm)

Zinc (ppm)

Manganese (ppm)

Particle Size Analysis or

USDA Textural Estimate (%)

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

FACILITY NAME: Remington

VPDES PERMIT NUMBER: <u>VA0076805</u>

	SEWAGE SLUDGE AF	PLICATION AGREEMENT	
This see	wage sludge application agreement is made on this da	tebetween,	
referred	to here as "landowner", and	, referred to here as the "Permittee".	
certain	oner is the owner of agricultural land shown on the material ("landowner's land") permit requirements following application of sewage DES permit number which is help	 Permittee agrees to apply and landowner agrees to comply with sludge on landowner's land in amounts and in a manner authorized 	
condition	oning to the property. Moreover, landowner acknow lealth, the following site restrictions must be adhered	sewage sludge will be beneficial in providing fertilizer and soil ledges having been expressly advised that, in order to protect to when sewage sludge receives Class B treatment for pathogen	
1.	Food crops with harvested parts that touch the seway not be harvested for 14 months after application of s	ge sludge/soil mixture and are totally above the land surface shall sewage sludge;	
2.		f the land shall not be harvested for 20 months after application of the land surface for four months or longer prior to incorporation	
3.	Food crops with harvested parts below the surface of sewage sludge when the sewage sludge remains on the into the soil;	f the land shall not be harvested for 38 months after application of the land surface for less than four months prior to incorporation	
4.	Food crops, feed crops, and fiber crops shall not be l	harvested for 30 days after application of sewage sludge;	
5.	Animals shall not be grazed on the land for 30 days	after/application of sewage sludge;	
6.		shall not be harvested for one year after application of the sewage nd with a high potential for public exposure or a lawn, unless rd;	
7.	Public access to land with a high potential for public sewage sludge;	e exposure shall be restricted for one year after application of	
8.	Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.		
9.	Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).		
specific		e of the proposed schedule for sewage sludge application and land. This agreement may be terminated by either party upon	
	Landowner:	Permittee:	
	Signature	Signature	
	Mailing Address	Mailing Address	

SECTION D. SURFACE DISPOSAL - N/A

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1.	Infori	mation on Active Sewage Sludge Units.				
	a.	Unit name or number:				
	b.	Unit location				
		Street or Route#:				
		County:				
		City or Town: State: Zip: ii. Latitude: Longitude:				
		ii. Latitude: Longitude:				
		Method of latitude/longitude determination				
		USGS map Filed survey Other				
	c.	Topographic map Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.				
	d.	Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:				
	e.	Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: dry metric tons.				
	f.	Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1 x 10 ⁻⁷ cm/sec?YesNo If yes, describe the liner or attach a description.				
	g.	Does the active sewage sludge unit have a leachate collection system?YesNo				
		If yes, describe the leachate collection system or attach a description. Also, describe the method used for				
		leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:				
		/ / /				
	,					
	h.	If you answered no to either f or g, answer the following:				
		Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface				
	i.	disposal site?YesNo If yes provide the actual dispance in meters:				
	1.	Remaining capacity of active sewage studge unit, in dry metric tons: dry metric tons Anticipated closure date for active sewage studge unit, if known: (MM/DD/YYYY)				
		Provide with this application a copy of any closure plan developed for this active sewage sludge unit.				
		Trovide with this application a copy of any closure plan developed for this active sewage studge unit.				
2.	Sewa	ge Sludge from Other Facilities.				
		vage sludge sent to this active sewage sludge unit from any facilities other than yours?YesNo				
		, provide the following information for each such facility, attach additional sheets as necessary.				
	a.	Facility name:				
	b.	Facility contact:				
		Title:				
		Phone: ()				
	c.	Mailing address.				
		Street or P.O. Box:				
		City or Town: State: Zip:				
	d.	List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other				
		federal, state or local permits that regulate the facility's sewage sludge management practices:				
		<u>Permit Number:</u> <u>Type of Permit:</u>				
	e.	Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?				
		Class AClass BNeither or unknown				
	f.	Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to				
		reduce pathogens in sewage sludge:				

FACIL	ITY NAI	ME: Remington VPDES PERMIT NUMBER: VA0076805
\	g.	Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
\	\	Option 1 (Minimum 38 percent reduction in volatile solids)
	\	Option 2 (Anaerobic process, with bench-scale demonstration)
	\	Option 3 (Aerobic process, with bench-scale demonstration)
	\	Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
	\	Option 5 (Aerobic processes plus raised temperature)
	\	Option 6 (Raise pH to 12 and retain at 11.5)
	\	Option 7 (75 percent solids with no unstabilized solids)
	\	Option 8 (90 percent solids with unstabilized solids)
	h	None or unknown
	h.	Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:
		vector attraction properties or sewage studge.
	i.	Describe on this form or another sheet of paper, any other sewage sludge treatment activities performed by
		the other facility that are not identified in e - h above:
3.	Vector A	Attraction Reduction.
	a.	Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage
		sludge unit?
		Option 9 (Injection below and surface)
		Option 10 (Incorporation into soil within 6 hours)
	b.	Option 11 (Covering active sewage sludge unit daily) Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge
	υ.	unit to reduce vector attraction properties of sewage sludge:
		unit to reduce vector attraction properties of sewage studge.
4.	Ground	Water Monitoring.
	a.	Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water
		monitoring data otherwise available for this active sewage studge unit?YesNo
		If yes, provide a copy of available ground water monitoring data. Also provide a written description of the
		well locations, the approximate depth to ground water, and the ground water monitoring procedures used to
		obtain these data.
	b.	Has a ground water monitoring program been prepared for this active sewage sludge unit? Yes No If yes, submit a copy of the ground water monitoring program with this application.
	c.	Have you obtained a certification from a qualified ground water scientist that the aquifer below the active
	C.	sewage sludge unit has not been contaminated?YesNo
		If yes, submit a copy of the certification with this application.
		The state of the s
5.	Site-Spe	ecific Limits.
		seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?
	Yes	No If yes, submit information to support the request for site-specific pollutant limits with this application.
		, X



Annual Tonnage Report January 1, 2022 to December 31, 2022

Remington WWTP

Total Wet Tons Land Applied	2487.05
December 2022 % Solids	19.28
Total Dry Tons Land Applied	479.50
Total METRIC Dry Tons Land Applied	435
Approx Acres Utilized	129
Tons to Landfill	0

Recyc Systems, Inc VPA Permit List January 14, 2023

	Permit Number	Gross Acres	Permit Date
ALBEMARLE	VPA 01574	5,889.60	11/1/21
AMELIA	VPA 00811	3,660.10	9/1/21
BRUNSWICK	VPA 00842	3,359.50	6/25/13
CAROLINE	VPA 00056	6,426.70	12/1/20
CLARKE	VPA 01572	3,550.80	8/15/22
CULPEPER	VPA 00057	22,034.00	9/1/22
DINWIDDIE	VPA 00817	7,669.40	4/1/22
ESSEX	VPA 00804	810.50	5/1/21
FAUQUIER	VPA 00054	13,120.51	6/25/10
GREENE	VPA 01577	3,095.30	5/1/21
HANOVER	VPA 00801	5,070.50	10/1/21
KING & QUEEN	VPA 00805	5,551.80	10/1/20
KING WILLIAM	VPA 00826	1,909.00	9/1/22
LUNENBURG	VPA 03010	6,121.20	3/1/22
MADISON	VPA 00061	8,578.20	9/8/11
MIDDLESEX	VPA 00820	3,417.10	8/1/21
NEW KENT	VPA 00800	196.20	5/1/20
NOTTOWAY	VPA 03003	6,984.30	9/1/21
ORANGE	VPA 00060	12,978.90	9/22/10
PRINCE GEORGE	VPA 00809	345.00	4/1/20
RICHMOND	VPA 00821	435.30	2/1/22
SPOTSYLVANIA	VPA 00058	3,056.10	9/22/10
SURRY	VPA 00818	434.40	8/1/21
SUSSEX	VPA 00827	1,698.00	12/1/22
WARREN	VPA 01573	789.50	8/1/22
WESTMORELAND	VPA 00823	2,312.40	3/1/22
total acres		129,494.31	

December 19, 2022

Farmer
Farm Address
Ruckersville Virginia 22968

Dear Farmer

Enclosed is a Nutrient Management Plan for the fields where biosolids were recently applied on your farm. The plan was written to fulfill a requirement of the biosolids regulations. Nutrient recommendations as shown on the balance sheet are based on Virginia Nutrient Management Standards and Criteria.

Application rates for biosolids are calculated with limits on nitrogen, phosphorus and lime. Biosolids regulations require that we use the Soil Buffer pH to calculate the lime loading for each field which takes into account the physical properties of the soil as well as the soil pH. Please note that results for phosphorus and soil buffer pH are different for VaTech and A&L Lab and one must have the correct chart for each lab.

- 1 -- The balance sheets shows carryover nitrogen from the biosolids and legume crops. Nitrogen needs are based on the soil productivity and crop.
- 2 -- Before additional phosphorus is applied, soil tests should taken to determine the needs.
- 3 -- Application of potash is necessary as recommended on the balance sheet to maximize plant growth.
- 4 -- Target soil pH east of I 95 is 6.5 and west of I 95 is 6.8 calculated using the Soil Buffer pH.
- 5 -- Proper soil management practices are necessary to maximize crop yields and reduce nutrient loss. For weed control, it is important to keep the pasture fields clipped and timely mowing of the hay fields.
- 6 -- Grazing of livestock and feeding of crops harvested off the field is prohibited for thirty days (sixty days for dairy cattle) after application of biosolids.
- 7 -- Access to the fields by the general public is restricted for one year after application of biosolids.

I appreciate the opportunity to work with you. Please feel free to contact me with any questions.

Sincerely,

Susan Trumbo Vice President - Technical Manager Bulk biosolids notification requirements to comply with 9VAC 25-31-530.H or 9VAC25-32-313.I.

Part II – To be completed by LAND APPLIER of biosolids and provided to the owner or lease holder of the land that receives those biosolids

Location of land application site: <u>J W Tatum, Madison County Virginia</u>	
Date and time bulk residuals were applied to the site:December 2015	
Number of acres that were applied:119	
Amount of bulk sewage sludge applied: 840 tons	

A. Pathogen Reduction (9VAC25-31-710.B & 9VAC25-32-675.B)

The residuals applied on your site meet Class B Pathogen Reduction treatment standards. In order to ensure protection of public health after residuals that meet Class B pathogen reduction have been land applied, the following site restrictions must be implemented:

TIME RESTRICTIONS FOLLOWING COMPLETION OF BIOSOLIDS/INDUSTRIAL			
RESIDUALS APPLICATION ASSOCIATED WITH CLASS B PATHOGEN REDUCTION			
	Type of A	Application	
		Injection or	
	Surface (1)	Incorporation (2)	
Control of access to sites with high potential for public contact	12 months	12 months	
Control of access to sites with low potential for public contact	30 days	30 days	
Time lapse required before above ground food crops with			
harvested parts that touch the biosolids/soil mixture can be			
harvested	14 months	14 months	
Time lapse before food crops with harvested parts below the			
land surface can be harvested	20 months	38 months	
Harvesting food crops, feed crops and fiber crops	30 days	30 days	
Harvesting feed crops for lactating dairy animals	60 days	60 days	
Grazing by farm animals	30 days	30 days	
Grazing by lactating dairy animals	60 days	60 days	
Harvesting turf for placement on land with a high potential for			
public exposure or a lawn	12 months	12 months	
(1) Remains on land surface for four months or longer prior to incorporate			
(2) Remains on land surface for less than four months prior to incorporat	ion.		

B. Vector Attraction Reduction (9VAC25-31-720.B & 9VAC25-32-685.B)

☑ The residuals applied on your site met vector attraction reduction during treatment.

The residuals applied on your site were not treated to meet vector attraction reduction; therefore, injection
or incorporation was performed at the land application site. Please indicate the option performed.
□ Option 9: Subsurface Injection
☐ Option 10: Incorporated into the soil

Revised 4/2014 Page 1 of 2

NOTICE AND NECESSARY INFORMATION

	Molybdenum: Monthly Av	verage pollutant conce	ntration (mg/kg)	(1)
	The pollutant levels in the	residuals land applied 3 or 9VAC25-32-356.0	do not meet the pollutant	
	Parameters	Loading (Lbs/Ac) ⁽²⁾	Maximum Loading (Lbs/Ac) (2)	
	Total Arsenic		36	1
	Total Cadmium		35	
	Total Copper		1,340	
	Total Lead		270	
	Total Mercury		16	7
	Total Molybdenum		NL	1
	Total Nickel		375	
	Total Selenium		89	
	Total Zinc		2,500	
		ch suggests that land ap g a cumulative pollutant deficiency in grazing an	plying residuals with a Moly loading rate below 35.5 lbs/	bdenum concentration below
Nome	and official titleSusa	n Trumbo, Technical I	Manager	
ivaille :				

What follows is the sewage sludge short form. Included as alternate to long form

VPDES Sewage Sludge Permit Application for Permit Reissuance

Instructions

WHO MUST SUBMIT THE APPLICATION - All facilities with a current VPDES Permit that authorizes the discharge of treated sewage wastewater that are applying for reissuance must complete and submit this application.

Part 1 is general information to be provided by all facilities.

Part 2 must be completed by all facilities that generate Class A or Class B biosolids that are land applied.

Part 3 must be completed by all facilities that land apply Class B biosolids.

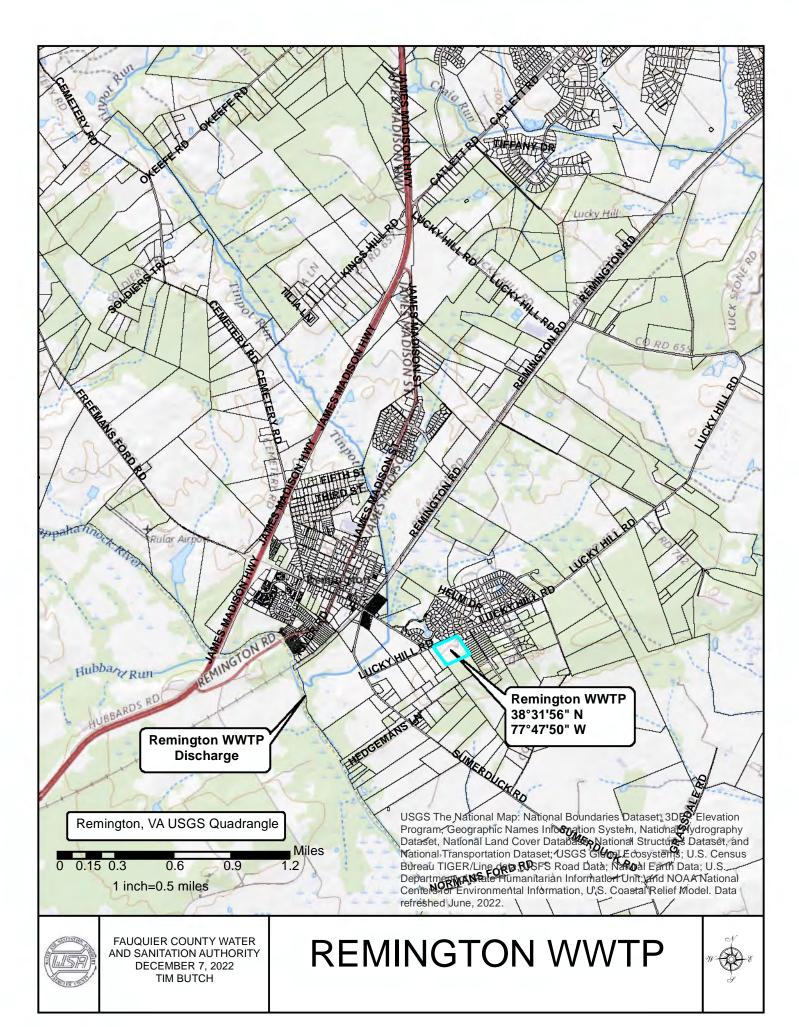
Part 1	l – Slu	dge Dis	posal Ma	anagement	(To I	be comp	oleted b	y all facilities	5)
--------	---------	---------	----------	-----------	-------	---------	----------	------------------	----

Fa	cility Name: VPDES Permit No:		
1.	Shipment Off Site for Treatment or Blending		
	Is sewage sludge from your facility sent to another facility that provides treatment or blending? If you send sewage sludge to more than one facility, attach additional sheets as necessary. Shipment off site is: The primary method of sludge disposal a. Receiving Facility Name	Yes	□ No
	b. Receiving Facility VPDES Permit No.		
	c. Include an acceptance letter from the Receiving Facility.d. Receiving Facility's ultimate disposal method for sewage sludge		
2.	Disposal in a Municipal Solid Waste Landfill		
	Is sewage sludge from your facility placed in a municipal solid waste landfill?	Yes	□ No
	If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary. Landfilling is: The primary method of sludge disposal a. Landfill Name b. Landfill Permit No.		
	c. Include an acceptance letter from the landfill.		
3.	Incineration Is sewage sludge from your facility fired in a sewage sludge incinerator? Incineration is: The primary method of sludge disposal A back up method of sludge disposal	Yes	□ No
	a. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? If yes, provide the Air Registration No.	☐ Yes	□ No
	If no, complete items b - d for each incinerator that you do not own or operate. b. Facility Name		
	c. Air Registration No.		
	d. Include an acceptance letter from the Incinerator.		
4.	Class A Biosolids		
	Do you produce Class A biosolids for land application or distribution and marketing? If yes, complete Part 2. Are Class A biosolids from your facility land applied in bulk? Do you sell or give away Class A biosolids in a bag or other container for application to the land? If yes, provide the VDACS certification number?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
5.	Class B Biosolids		
	Do you produce Class B biosolids? If yes, complete Part 2. Are Class B biosolids from your facility land applied land applied under the authorization of this VPDES Permit? If yes, complete Part 3.	☐ Yes ☐ Yes	□ No
6.	Land Application Under a Separate Permit		
	Are biosolids from your facility land applied under the authorization of a permit other than your VPDES Permit? Biosolids are land applied under the authorization of a VPA permit Another VPDES Permit Out of State Complete items a - c for each VPA permit authorized to land apply biosolids from your facility. a. Permittee Name b. Permit No.	☐ Yes	□ No
	c. Include copy of any information you provide to the Receiving VPDES or VPA Permittee to comply with the "notice	and necessa	rv
	information" requirement of 9VAC25-31-530 F.		- 5

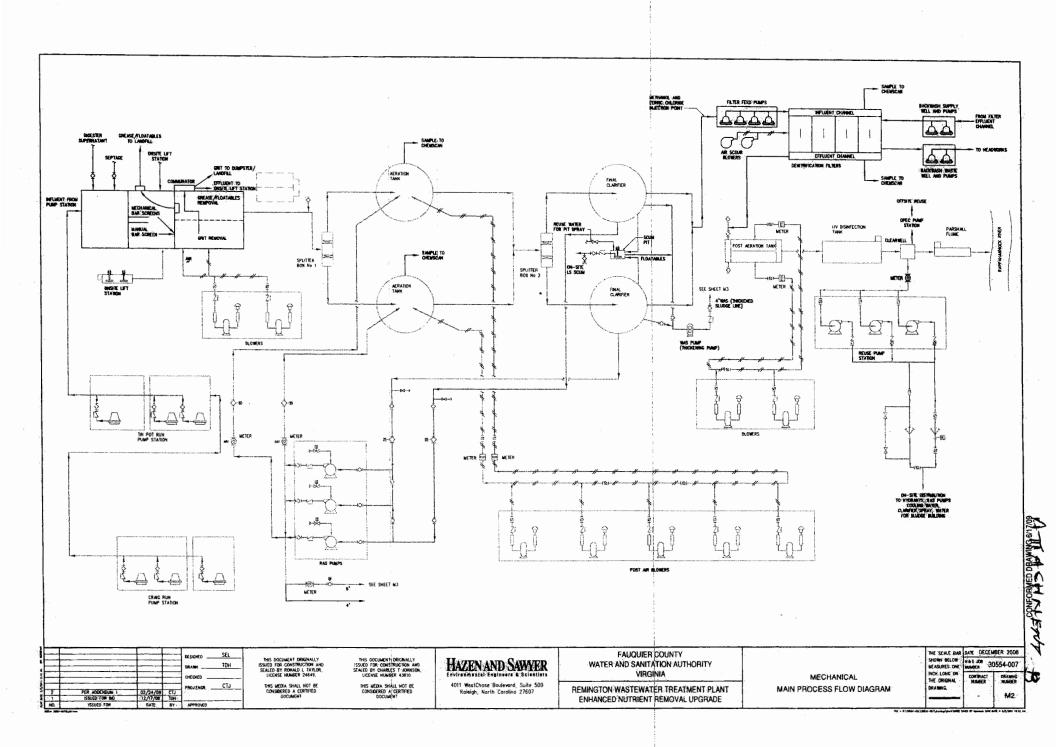
E	VPDES Sewage Sludge Permit Application for Permit Reissuance	
Pa	art 2 – Biosolids Characterization (To be completed by all facilities that generate biosolids that are land appl	lied.)
1.	Have there been changes to sludge treatment processes or storage facilities since the previous permit issuance/reissuance?	☐ Yes X No
2.	Do the biosolids generated under this permit that will be land applied meet one of the Class A pathogen requirements in 9VAC25-31-710 A 3 through A 8 or Class B pathogen requirements in 9VAC25-31-710 B 1 through B 4?	X Yes No
	Identify the pathogen reduction option utilized to demonstrate compliance with the pathogen reductions requirements and proving that demonstrate compliance with the applicable alternative. See attachment C	vide the data
3.	Do the biosolids generated under this permit that will be land applied meet one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10?	X Yes No
	Identify the vector attraction reduction option utilized to demonstrate compliance with the vector attraction reductions required provide the data that demonstrate compliance with the applicable alternative. See attachment C	ments and
4.	Do the biosolids to be land applied meet the ceiling/pollutant concentrations in 9VAC25-31-540 B?	X Yes No
	Has data from the most recent 3 samples for pH (S.U.), Percent Solids (%), Ammonium Nitrogen (mg/kg), Nitrate Nitrogen (mg/kg), Total Kjeldahl Nitrogen (mg/kg), Total Phosphorus (mg/kg), Total Potassium (mg/kg), Alkalinity as CaCO ₃ (mg/kg), Arsenic (mg/kg), Cadmium (mg/kg), Copper (mg/kg), Lead (mg/kg), Mercury (mg/kg), Nickel (mg/kg), Selenium (mg/kg), Zinc (mg/kg) been submitted to DEQ? The samples shall be no more than 4½ years old and each sampling date shall be at least 1 month apart	▼ Yes No
	If no, provide the data with this application.	ND APPLIES
Pa	art 3 – Land Application of Class B Biosolids (To be completed by all facilities that land apply Class B biosol	lids.)
	Provide to DEQ and to each locality in which biosolids are to be land applied, written evidence of financial responsibility. Ev responsibility shall be provided in accordance with 9VAC25-31-100 P 9.	
2.	For each site, provide a properly completed landowner agreement for each landowner, using the most current Land Applicatio Biosolids Form (VPDES Sewage Sludge Permit Application Form – Attachment to Section C).	n Agreement -
3.	Are any new land application fields proposed at this reissuance?	☐ Yes ☐ No
	If yes, contact the DEQ Regional Office for additional submittal requirements.	
4.	For the currently permitted land application fields, are the previously submitted site booklets, maps and acreage accurate.	☐ Yes ☐ No
	If no, contact the DEQ Regional Office for additional submittal requirements.	
5.	Does the facility's Biosolids Management Plan on file with DEQ include the following minimum information?	Yes No
	a. An odor control plan that addresses the abatement of odors resulting from the storage and/or land application of biosol	
	b. A description of the transport vehicles to be used. RECYCI	LAND APPLIES
	 Procedures for biosolids offloading at the land application site including spill prevention, cleanup (including vehicle cl reclamation, and emergency notification and cleanup measures. 	eaning), field
	 d. A description of the land application equipment including procedures for calibrating equipment to ensure uniform distribution appropriate loading rates. 	ribution and
	e. Procedures used to ensure that land application activities address notification requirements, signage requirements, slop operation limitations during periods of inclement weather, soil pH requirements, buffer zone requirements, and site res	
	f. Any other information necessary to ensure compliance with the requirements of the Biosolids Program of the VPDES (9VAC25-31-420 through 720).	Permit Regulation
Ce	ertification	
de: wh be:	certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordant signed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the penalties the system or those persons directly responsible for gathering the information, the information is, to the best of my kelief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the dimprisonment for knowing violations.	erson or persons mowledge and
	Name and Official Title	_
	Signature Wilas Smith	
	Telephone number / Email () /	
	Date signed	
(Ba	ased on a review of this information, it may be necessary to submit additional information to meet other legal or technical review requirements.)

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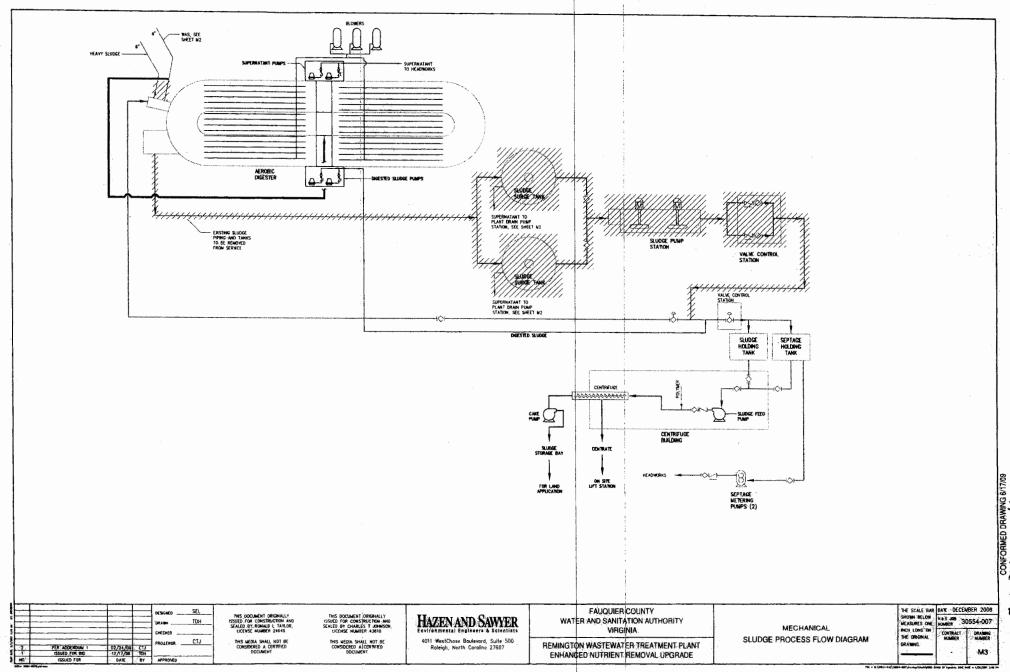
Attachment A



Attachment B







SECTION 3.0

DESCRIPTION OF WWTP AND PUMP STATIONS

A. AVERAGE AND PEAK FLOW VALUES

The Remington WWTP is owned and operated by the Fauquier County Water and Sanitation Authority and discharges into the Rappahannock River Basin under VPDES Permit No. VA0076805. The current permitted capacity of the Remington WWTP is 2.0 mgd. The Virginia Department of Environmental Quality (VDEQ) has established nutrient waste load allocations in accordance with the Chesapeake Bay Initiative Program to reduce significant discharges to the Chesapeake Bay watershed. The nutrient waste load allocations for this facility allow a maximum annual nutrient discharge of 24,364 lbs/yr and 1,827 lbs/yr for total nitrogen (TN) and total phosphorus (TP), respectively. These waste load allocations equate to effluent concentrations 4.0 mg/L of TN and 0.3 mg/L of TP at a design flow of 2.0 mgd.

The P-1 pumps, located in Activated Sludge Pump Station PS-1, are used for RAS (return activated sludge) and WAS (waste activated sludge). Each of these pumps are rated 450-675 GPM. With two pumps in operation at full speed (and one in standby) the WWTP has a recycle rate of 1350 gpm (1.94 mgd) or about 100% of design flow. At a peak flow of 5.0 mgd and full recycle rate of 2.0 mgd, the peak flow to the T-3 Aeration Tanks and T-4 Settling Tanks would be 7.0 mgd.

Plant effluent is discharged to the Rappahannock River by a 20" outfall. Peak flow capacity is 5.0 mgd, when the Rappahannock River is at its 100 Year Flood Elevation. Hydraulic capacity is higher at lower river elevations.

The wastewater collection system for the Remington/Bealeton Service Area has two main pump stations:

- Tinpot Run Pump Station, and
- Craig Run Pump Station

In addition, the service area has two minor pump stations, which are not discussed in detail, in this document:

- Bealeton Shopping Station Pump Station, and
- Marsh Run Pump station

The Marsh Run Pump Station and Bealeton Shopping Center Pump Station are tributary to the Craig Run Pump Station. The Craig Run Pump Station is tributary to the Tinpot Run Pump Station. The Tinpot Run Pump Station discharges to the Remington WWTP.

FLOW DATA SUMMARY:

Wastewater Treatment Plant: 2.0 mgd design flow rate; and 5.0 mgd

peak flow rate

Tinpot Run Pump

Craig Run Pump

Station:

5.0 mgd peak flow

Variable Frequency **Drives**

rate

3.25 mgd peak flow

Variable Frequency

Station:

rate

Drives

The majority of the original Remington Wastewater Treatment Plant was abandoned in 1995 and replaced with new treatment units that included: preliminary treatment facilities, two 122-foot diameter Schreiber activated sludge tanks, two 65-foot diameter secondary clarifiers, a new post aeration facility, and an ultraviolet (UV) light disinfection system. In 2006 a new ferric chloride storage and feed facility was constructed for chemical phosphorus removal. In 2010 the plant design capacity was expanded to 2.0 mgd with the addition of denitrification filters and modifications to the aeration tanks and aerobic digesters. The WWTP provides full nitrification and provides biological nutrient removal (phosphorus and nitrogen).

Discussion of the WWTP process is divided into six areas:

- Main Flow
- Preliminary Treatment
- Activated Sludge Process
- Denitrification Filter
- Waste Sludge Processing
- Utility Water

A discussion of the pump stations follow:

- Tinpot Run Pump Station
- Craig Run Pump Station

B.1 MAIN FLOW

Flow enters the WWTP via a 16" force main from the Tinpot Run Pump Station. Preliminary treatment starts at the T-1 Automated Bar Screen and continues at the T-2 Grit/Grease Removal System (Refer to Section B.2, below).

The wastewater then flows to the SB-1 Splitting Box, which is used to control flow to the T-3A and T-3B Aeration Reactors. The K-1(A through E) Blowers provide compressed air to the air diffusers mounted on a rotating bridge in each T-3 Aeration Tank. The compressed air maintains dissolved oxygen levels and provides mixing. K-1 blowers A through E were overhauled and upgraded during the Enhanced Nutrient Removal Upgrade to provide 1,100 scfm @ 7.6 psig. DO (Dissolved Oxygen) probes continuously monitor DO levels and control the amount of air delivered to the T-3 Aeration Tanks.

Mixed liquor from the Aeration Reactors then flows to the T-4A and T-4B Final Clarifiers, where suspended solids settle to the bottom by gravity. The settled solids, referred to as activated sludge, are pumped back to the T-3 and T-4 Aeration Tanks (return activated sludge) to maintain an adequate level of biomass, or are pumped to the aerobic digester (waste activated sludge) for volatiles stabilization. (Refer to B.3 and B.4, below). Final Clarifier effluent flows to the Denitrification Filters where it is feed through the filters by five (5) filter feed

pumps. Each Filter Feed Pump is designed to provide 1,045 gpm at 14.1' tdh. Methanol is added to the final clarifier effluent to provide a carbon source for denitrification. The filter effluent flows to the post aeration tanks for re-aeration prior to UV disinfection. The filters are cleaned by a backwash cycle and the backwash waste is diverted to the end of the influent bar screens.

The dissolved oxygen level of the clarified effluent is then elevated in the T-5A and T-5B Post Aeration Tanks. The K-3A and K-3B Blowers, located on the B-3 blower pad and each rated 140 scfm @ 14.7 psig, deliver compressed air to submerged diffusers in the T-5A and T-5B Post Aeration Tanks. Post Aeration Tank T-5A or T-5B can be taken out of service by use of Sluice Gate S-5A or Sluice Gate S-5B, respectively.

The final treatment step is the T-6 Ultraviolet Irradiation Tank to disinfect the effluent. Three banks of UV lamps are installed in the 3'-0" wide channel. A 6" wide reduction baffle has been installed next to each bank of lamps. When peak flow increases to 4.2 mgd, the baffles will be removed and larger lamp racks will be installed. The level in the T-6 UV Tank is currently controlled by a fixed effluent weir. When peak flows of 2.1 mgd are reached at the WWTP, the fixed weir system will have excessive head loss and may promote bypassing of the UV lamps; At that time, the fixed weir system will need to be replaced by a tilting weir system.

The flow then enters the T-7 Utility Water Clearwell (Refer to Section B.5, below).

The final step is the PF-1 Parshall Flume, where flow is measured prior to its discharge to the Rappahannock River. The PF-1 Parshall Flume has a range of 0 to 5.0 mgd.

B.2 PRELIMINARY TREATMENT

The Preliminary Treatment section of the WWTP includes the following units:

- T-1 Automated Bar Screen
- T-2 Grit/Grease Removal System, and
- K-2(A through E) Blowers (on the B-1 Blower Pad).

Raw sewage from the Tinpot Run Pump Station is discharged into an open channel leading to the Automated Bar Screen in structure T-1. The Bar Screen is a series of 3/8 wide stainless steel vertical bars on 1" centers in the wastewater channel, installed 80° from the horizontal, that screens out coarse wastewater debris. When adequate wastewater debris is caught on the bar screen, the head loss through the screen increases and the water level upstream of the bar screen increases. A float switch detects the elevated water level and starts the bar screen rake mechanism. The rake removes the screenings and discharges them into a self dumping container. After the screenings are removed, the water level should become lower and the bar screen will become inactive until the next cycle. A Manual Bar Screen is installed in a channel parallel to the above described Automated Bar Screen. It is identical n operation, except that screenings must be removed by hand rake, and disposed of manually. The Manual Bar Screen would normally be used in the event that the Automated Bar Screen is taken out of service for maintenance or repair.

Raw wastewater can be directed to either the Automated Bar Screen or the Manual Bar Screen (or both) by operation of the S-1, S-2, S-3, and S-4 slide gates in the T-1 structure. Screenings are carted away for disposal at a local landfill.

Effluent from the Bar Screens flows to the Grit/Grease Removal System in structure T-2. Flow enters a 51'-0" long x 5'-3" wide x 9'-9" deep " shaped" chamber, where diffused air washes organics from grit, allowing the grit to settle to the bottom and keeping the organics in suspension. The grit is removed from the bottom of the chamber by a grit pump (100 gpm @ 10" TDH), which is mounted on a traveling bridge. The traveling bridge moves along the length of the T-2 tank when activated by a timer or when operated in a manual mode. The grit is discharged to the 16" wide Grit Discharge Trough on the North side of the T-2 structure. The Grit Discharge Trough drains to a Grit Classifier, which separates the grit from the wastewater. Grit is conveyed to a dumpster and the remaining wastewater drains to the plant drain system, which flows to Pump Station PS-2.

A grease removal chamber is located parallel to the grit removal chamber. The grease floats to the surface and is removed by a scum boom, which is mounted on the same traveling bridge that the grit pump is mounted on. The scum boom moves the floating grease to West end of the grease removal chamber, where it is removed by a grease hoist. The grease hoist lifts the grease to a grease chute, which discharges to a grease dumpster.

If the Grit/Grease Removal System needs to be taken out of service, it can be bypassed by closing slide gate S-2 in the T-2 structure and opening the 16" plug valve on the south side of the T-2 structure.

Diffused air to the Grit/Grease Removal System comes from the K-2a and K-2b Blowers on the B-1 Blower Pad. Each blower is rated 62 scfm @ 3.4 psig. One unit is normally in operation and the other unit is standby. Wastewater effluent from the Preliminary Treatment units T-1 and T-2 flows to the SB-1 Splitting Box and then to the T-3 Aeration Tanks.

B.3 ACTIVATED SLUDGE PROCESS

Underflow from the T-4A and T-4B Final Clarifiers is withdrawn by Return Activated Sludge Pumps P-1A, P-1B or P-1C or by Heavy Sludge Pump P-2, all of which are located in the lower level of the PS-1 Activated Sludge Pump Station. Each of the P-1 Pumps are rated 450 to 675 gpm @ 12' to 13' TDH, and receives flow from the T-4 sludge rapid withdrawal system. The P-1 Pumps can be used to increase biomass in the T-3 Aeration Tanks by returning sludge (Return Activated Sludge) to them, or to remove solids from the system by wasting sludge (Waste Activated Sludge) to the ET-1 Aerobic Digester. The P-2 Heavy Sludge Pump withdraws sludge from a hopper on the bottom of the T-4 Final Clarifiers and wastes sludge (Waste Activated Sludge) to the ET-1 Aerobic Digester. The P-2 Heavy Sludge Pump should be used occasionally, to remove heavy solids that are not readily withdrawn by the T-4 sludge rapid withdrawal system. The P-2 Heavy sludge Pump is rated 150 gpm @ 36' TDH.

The dissolved oxygen, nitrate and ammonia concentrations in the aeration basins are automatically monitored and provide automatic control for the aeration blowers. DO is monitored via luminescent dissolved oxygen sensors located within the aeration basin. Nitrate and ammonia are monitored by the process analyzer located in the sampling building. Two (2) 25 gpm @ 23 psi progressive cavity pumps are provided for transporting aeration basin sample to the process analyzer. Sample effluent is returned to the aeration tank splitter box.

B.4 DENITRIFICATION FILTERS

Final clarifier effluent flows by gravity through 24" pipe to the denitrification filter feed well. Five (5) filter feed pumps feed final clarifier effluent to the top of the filter influent channel. The filter feed pumps are each rated for 1,045 gpm @ 14.1' TDH. The filter influent channel feeds four (4) denitrification filters. Filtered effluent flows through a 24" pipe to the post aeration tanks. Methanol may be added to the final clarifier effluent as a supplementary carbon source for denitrification. Two (2) methanol metering pumps are provided with a capacity of 0.33 – 20 gph @ 100 psig.

The filters may be operated in rising or constant filter level modes. In rising filter level operating mode the influent and effluent valves are in the fully open position. When the water level reaches a high alarm a backwash sequence will be automatically initiated. In constant level mode the filter influent valve is in the fully open position and the filter effluent valve will modulate to maintain a level setpoint in the filter. When the filter effluent valve reaches 100% open a backwash sequence will be automatically initiated.

Two (2) filter backwash pumps are provided to feed filtered effluent up through the bottom of the filters during backwash cycles. The filter feed pumps are rated for 1,045 gpm @ 21' TDH. A backwash supply well is provided to maintain a steady source of filtered effluent water for backwash. Backwash waste is collected in the backwash waste well and is pumped to the head of the plant by one of two (2) backwash waste pumps. The backwash waste pumps are rated for 75 gpm @ 40' TDH.

B.5 WASTE SLUDGE PROCESSING

As a result of the Enhanced Nutrient Removal Upgrade the sludge surge tanks, sludge pump station and valve control station are no longer in use. The surface aerators and concrete walls have been removed from the aerobic digester. New walls were installed with influent gates to isolate the digester halves. The ET-1 Aerobic Digester stabilizes the WAS (waste activated sludge) pumped from the T-4 Final Clarifiers. Waste activated sludge is pumped from the final clarifiers to the aerobic digester where it can be diverted to either half of the digester. The aerobic digester is aerated by 6" air diffuser headers and three (3) 1,400 scfm positive displacement blowers. Supernatant is decanted from the digester and is pumped to the headworks by two (2) 200 gpm submersible non-clog supernatant pumps. Thickened sludge is then pumped to the sludge holding tanks by two (2) 200 gpm submersible non-clog supernatant pumps. Sludge is pumped from the sludge storage tank to the centrifuge for dewatering.

Sludge from the ET-3A Sludge Holding Tank or the ET-3B Septage Holding Tank is transferred by Pump EP-9 in Building EB-3 to the Centrifuge for dewatering. In the event that the centrifuge is off line, a limited quantity of solids can be held in the system, or the EB-2 Sludge Drying Beds can be used to dewater the sludge. Sludge from Septage Holding Tank ET-3B can also be returned to the T-1 Bar Screen by the P-10A and B-10B Sludge Pumps in Building EB-5. The P-10 Sludge Pumps are each rated 135 gpm @ 6' TDH.

Dewatered sludge is trucked to a land application site.

B.6 UTILITY WATER

Plant effluent is the source of the non-potable utility water used in process units:

- Yard hydrant water
- Seal water system for pumps.

The Utility Water System of the WWTP includes the following units:

- T-7 Utility Water Well
- P-1A, P-1B and P-1C Utility Water Pumps (in Pump Station PS-1)
- Motor Operated Strainer (in Pump Station PS-1)
- Manually Operated Strainer (in Pump Station PS-1)
- 3" Utility Water Flow Meter (in Pump Station PS-1)

Water from the T-7 Utility Water Well is piped to the suction side of the P-1A, P-1B and P-1C Utility Water Pumps in the basement of the PS-1 Activated Sludge Pump Station. Each Utility Water Pump is rated 60 gpm @ 140' TDH. Under low demand conditions, one (1) Utility Water Pump is in operation. When the Utility Water Flow Meter registers a threshold flow of 60 gpm, a second pump comes on line to meet the higher demand. To protect equipment and prevent clogging of piping, utility water passes through a strainer box at the bottom of the T-7 Utility Water Well and a Motor Operated Strainer located on P-1 pump discharge piping in PS-1, which removes large solids. If the Motor Operated Strainer needs to be taken out of service, the two (2) 4" butterfly isolation valves can be closed and the two (2) 4" butterfly isolation valves to the Manually Operated Strainer can be opened.

In addition to providing water to the yard hydrant system, the Utility Water System provides the following pumps (in the basement of the PS-1 Activated Sludge Pump Station) with seal water:

- P-1A Return Activated Sludge Pump
- P-1B Return Activated Sludge Pump
- P-1C Return Activated Sludge Pump
- P-2 Heavy Sludge Pump

B.7 REGIONAL PUMP STATIONS

The 3,500 gpm (gallons per minute) Tinpot Run Pump Station will serve the Remington area and the 2,250 gpm Craig Run Pump Station will serve the Bealeton area. Both pump stations utilize variable frequency drives and standby power generators.

Table 3.1: Wastewater Treatment Plant Technical Data Summary

T-1	Bar Screens (2)	1 - Mechanically cleaned, 5/8" openings 1 - Manually cleaned, 5/8" openings
T-2	Grit Chamber (1)	51' long x 5'-3" wide x 10' depth
T-2	Grease Chamber (1)	51' long x 4' 8" wide
K-2A, B	Blowers (2)	62 scfm
T-3A, B	Aeration Reactor (2)	122' diameter x 14' sidewater depth
K-1A, B, C, D, E	Blowers (5)	1,100 scfm
T-4A, B	Final Clarifiers (2)	65' diameter x 14' sidewater depth
T-5A, B	Post Aeration Tanks (2)	21' long x 6' wide x 15' sidewater depth
K-3A, B	Blowers (2)	140 scfm
T-6	UV Disinfection Tank	41'-6" long x 3' long x 2' depth 3 banks of UV lamps @ 8 kw each
T-7	Utility Water Clearwell	
PF-1	Parshall Flume for	
	effluent metering	
P-3A, B, C	Utility Water Pumps	
ET-1	Aerobic Digester	294' long x 17'-6" wide x 9' sidewater depth
K-4A, B, C	Blowers (3)	1,400 scfm
	Digester Supernatant Pumps (2)	200 gpm @ 20' TDH
	Thickened Sludge Pumps (2)	200 gpm @ 20' TDH
ET-2A, B	Gravity Thickeners	
P-8A, B	Sludge Recirculation Pumps	
ET-3A	Septage Pumps in Existing Building (EB-5)	
ET-3B	Sludge Pumps	

P-10A, B	Polymer Pumps	
EP-9, 10	Standby Power	500 KVA, 400 KW
	Generator	
	Denitrification Filters	9.5' wide
	(4)	18.25' long
		2.0 mgd Average Flow
		2.0 gpm/sf Average
		Filtration Rate
		6.0 mgd Peak Flow
		6.0 gpm/sf Peak Filtration
		Rate
	Filter Feed Pumps (5)	1,045 gpm @ 14.1' TDH
	Backwash Supply	1,45 gpm @ 21' TDH
	Pumps (2)	
	Backwash Waste	75 gpm @ 40' TDH
	Pumps (2)	

Tinpot Run Pump Station Technical Data

Wastewater Pumps

3 - submersible pumps (1736 gpm @ 95' TDH each)

Standby Power Generator

250 KVA, 200 KW

Craig Run Pump Station Technical Data

Wastewater Pumps

3 - submersible pumps (1125 @ 110' TDH each)

Standby Power Generator 250 KVA, 200 KW

C. EXPECTED WWTP INFLUENT/ EFFLUENT CONCENTRATIONS

The estimated wastewater quantity and characteristics are based on the existing wastewater plus estimated characteristics of future wastewater. Population equivalents are used to estimate design load to the wastewater treatment process.

BOD₅ Design Load 1.

The 2008 Enhanced Nutrient Removal Upgrade was designed around a maximum month BOD5 concentration of 264 mg/L and an annual average BOD5 concentration of 221 mg/L, with a 2.0 mgd flow this equates to daily loadings of 4,400 and 3,690 lbs/day respectively.

2. Suspended Solids Loading

The 2008 Enhanced Nutrient Removal Upgrade was designed around a maximum month TSS concentration of 245 mg/L and an annual average TSS concentration of 205 mg/L, with a 2.0 mgd flow this equates to daily loadings of 4,090 and 3,420 lbs/day respectively.

Table 3.2: Design Loads

Parameter	Annual Average	Maximum Month
COD, mg/L	460	551
BOD ₅ , mg/L	221	264
Volatile Suspended Solids, mg/L	183	219
Total Suspended Solids, mg/L	205	245
Total Kjeldahl Nitrogen, as N, mg/L	44.6	53.6
Ammonia Nitrogen, as N, mg/L	31.1	37.3
Total Phosphorus, mg/L	6.6	7.8
Ortho-Phosphate, as P, mg/L	4.4	5.3
Alkalinity, mg/L as CaCO ₃	300	300
Temperature, °C	17.5	10

3. Effluent Requirements

The effluent requirements for the designed facilities are:

CBOD₅, mg/l	20
SS, mg/l	20
pH, su	6 to 9
DO, mg/l	6.5 or greater any time
Total Nitrogen, lbs/year	24,364
Total Phosphorus	1,827

D. DETAILED UNIT PROCESS DESCRIPTIONS

1. Final Clarifiers (T-4A and T-4B)

Two clarifiers, T-4A and T-4B, are each 65 feet in diameter (total of 6,637 ft²) and fourteen feet side water depth.

Final clarifier hydraulic loadings for both 2.0 mgd permitted flow and 2.5 mgd design flow are summarized in Table 3.3.

Table 3.3: Secondary Clarifier Design Criteria

	-	l Permitted low	_	d Future ow
	Average Flow	Peak Flow	Average Flow	Peak
				Flow
Influent Flow, mgd	2.0	6.0	2.5	7.5
RAS Flow, mgd	2.0	2.0	2.5	2.5
Surface Overflow Rate,				
gpd/ft ²				
-all clarifiers in service	301	904	377	1,130
-one clarifier out of	603	1,808	753	2,260
service				
Weir Loading Rate,				
gpd/ft				,
-all clarifiers in service	4,897	14,691	6,121	18,364
-one clarifier out of	9,794	29,382	12,143	36,728
service				
Solids Loading Rate,				
lbs/hr-ft ²				
-all clarifiers in service	0.4	1.0	0.6	1.5
-one clarifier out of	8.0	1.9	1.2	3.0
service				

A solids flux analysis was performed to determine the maximum MLSS concentration that can be applied to the existing 65-foot diameter clarifiers at the maximum month and maximum day flows. The solids flux analysis was based on the 95th percentile sludge volume index (SVI) over the period from December 2004 through July 2006,

which was 133 mL/g. A peak day flow of 2.5 times the influent flow was assumed for the analysis. The maximum operational MLSS concentrations predicted by the solids flux analysis are presented in Table 3.4.

Table 3.4: Maximum MLSS Concentrations

A STATE OF THE STA	Maximum Month	Maximum Day
2.0 mgd Permitted Flow		
Influent Flow, mgd	2.0	5.0
Maximum MLSS, mg/L		
-all clarifiers in service	7,500	4,300
-one clarifier out of service	5,800	3,000
2.5 mgd Future Flow		
influent Flow, mgd	2.5	6.25
Maximum MLSS, mg/L		
-all clarifiers in service	7,100	4,000
-one clarifier out of service	5,200	2,300

The existing secondary clarifiers have sufficient capacity to treat the 2.0 mgd design flow, assuming both clarifiers are in service during peak flow and loads. Care should be taken to limit MLSS concentrations to less than 3,000 mg/L during peak flow events if one clarifier is out of service to prevent solids breakthrough.

Hydraulic and solids loading rates on the existing secondary clarifiers will be excessive during peak flow events associated with the 2.5 mgd design flow, particularly if one clarifier is out of service. The existing clarifier capacity is adequate for the expected range of flows and MLSS concentrations at the maximum month load at a 2.5 mgd design flow. However, the flux analysis indicates that the clarifiers are expected to fail during maximum day conditions if one clarifier is out of service, and may become critically loaded with both clarifiers in service.

Implementation of wet weather flow strategies and/or construction of a third secondary clarifier to accommodate an expansion to 2.5 mgd are necessary to ensure adequate performance during sustained peak hydraulic flows, particularly if a clarifier is out of service.

2. Aeration Basin Volume (T-3A and T-3B)

1992 Plant Design

The aeration volume of the two existing Schreiber aeration tanks was determined through modeling of the activated sludge process. A discussion of mathematical model relationships and results are presented in Appendix F. In addition to the design parameters, inputs to the model include the clarification underflow area and the reaction temperature. Other inputs are reaction kinetic rates and constants for sludge settling characteristics (presented in Appendix F-1).

In pages 1 through 6 of Appendix F-2, process performance is estimated as the aeration volume is increased. Nitrification is the parameter of primary concern, and it is examined as the nitrification safety factor (NSF). NSF is the ratio of sludge age divided by the generation time for nitrification bacteria. The ratio must be greater than 1.0 for the potential for nitrification to exist. The influent to the process have diurnal variability, and the nitrification process will not become stable until the NSF value is about equal to or greater than the variability. Thus, a NSF 2.0 to 2.5 is desirable. A safety factor of 2.5 is attained with an aeration volume of about 1.8 mg when the mixed liquor solids are maintained conservatively low at 3,500 mg/l (Appendix F-2, pages 1 and 2).

Modeling on pages 7 and 8 of Appendix F-2, process performance is estimated with one clarifier out of service, with an aeration volume of 1.8 mg, and a mixed liquor concentration of 3,500 mg/l. The resulting NSF is 2.2, and nitrification would remain stable.

On pages 9 and 10 of Appendix F-2, process performance is estimated when one aeration basin is out of service. The mixed liquor concentration remains at 3,500 mg/l.

The NSF of 1.1 is not acceptable. On pages 11 and 12, the mixed liquor is increased to 4,000 mg/l. The increase of NSF to 1.3 is not adequate.

On pages 13 and 14 of Appendix F-2, the aeration volume is increased 2.4 mg

(1.2 mg in one basin). The estimated NSF is 1.8 which is marginal for a stable nitrification process at the April conditions, but this condition is acceptable for the infrequent event of one aeration basin out of service in April. Figure 4 shows the change in NSF for different aeration volumes for April performance.

2008 Enhanced Nutrient Removal Upgrade and Expansion to 2.0 mgd

In order to meet the future design flow capacity and nutrient discharge limits Remington WWTP will be required to operate the existing aeration basins aerobically and construct new anaerobic/ pre-anoxic facilities upstream of the existing basins.

The future design capacity flow of 2.0 mgd was modeled through steady state simulations to predict operational criteria and effluent quality under annual average and maximum month conditions. A NRCY rate of 400% of the influent flow (8.0 mgd) was assumed for the evaluation. Since the deep bed filters will primarily be used for solids removal and nitrate trim, reduced hydraulic loading rates are appropriate under these alternatives. A hydraulic loading rate of 3.0 gpm/ft² was considered in the evaluation. Significantly better effluent quality was predicted with the upstream anaerobic/pre-anoxic zone in comparison to the current CSR configuration, particularly during maximum month conditions.

Table 3.5: Predicted Operations and Effluent Quality Annual Average Conditions

	Annual	Maximum
Parameter	Average	Month
	Conditions	Conditions
Aerobic SRT, days	15	15
MLSS (2.0 mgd design), mg/L	1,900	2,300
MLSS (2.5 mgd design), mg/L	2,400	2,900
Effluent NH ₃ -N, mg/L	0.5	1.0
Effluent TKN, mg/L	2.5	3.2
Secondary Effluent NO ₃ -N, mg/L	3.8	4.5
Effluent NO ₃ -N, mg/L	< 1.5 ²	$< 0.8^2$
Effluent TN, mg/L	4.0 ²	4.0^{2}
Effluent PO ₄ -P, mg/L ³	< 0.2	< 0.2
Effluent TP, mg/L ³	0.3	0.3
Effluent CBOD ₅ , mg/L	< 5.0	< 5.0
Effluent TSS, mg/L	< 5.0	< 5.0

^{1 2.0/2.5} mgd design flows

The aeration system required increased capacity to provide for enhanced nutrient removal for the permitted 2.0 mgd flow. The diffusers and header holder assembly were replaced in the recent upgrade to provide sufficient aeration capacity.

The air demand calculations are provided in Appendix F. 672 diffusers have been provided for each of the 8 rotating headers per aeration tank resulting in a total of 10,752 diffusers to meet maximum aeration demand. The aeration blowers have been upgraded to provide five (5) positive displacement blowers with a capacity of 1,100 scfm each. To meet the 2.0 mgd flow air demand.

² After nitrate trim at deep bed filters

³ After chemical phosphorus trim at deep bed filters

⁴ Assumes Methanol Addition

3. Oxygen Transfer (B-2)

The peak hour 2.0 mgd oxygen requirement is 12,216 lb O_2 /day. The maximum air requirement is 4,550 scfm. Accordingly, the aeration blowers have been upgraded to provide five (5) positive displacement blowers with a capacity of 1,100 scfm each. See Appendix F for a more detailed description of air demand calculations.

4. Design for Denitrification Filters

Denitrification filters are designed to reduce nitrate levels coming from the secondary process. The deep bed denitrification filters have a design filter loading rate of 2 gpm/sf. Four 173 ft² filters provide a total area of 692 ft² and would meet this recommended loading rate at the 2.0 mgd design flow. Additional filters may be added to expand capacity to 2.5 mgd in the future.

New methanol storage and feed facilities provide supplemental carbon for enhanced denitrification. The storage and feed facilities may also accommodate alternative carbon sources such as sugar water. Methanol feed pumps provide methanol feed to the influent to the denitrification filters.

5. UV Irradiation (T-6)

The Virginia Department of Health provides the following guidelines for UV disinfection units.

- Effluent filtered to consistently provide a quality of (K)AB (base e) of no more than 0.4/cm
- Spacing between lamps not greater than 8 cm
- At least 90% of light output at 253.7 nm
- 120 μW/cm² at 1 meter from source
- Minimum average UV dose of 30,000 µWatt-seconds/cm² after 7,500 hours
- E value to be no more than 100 cm²/second
- Contact time (RTD dimensionless variable): 10 seconds
- Fecal coliform level to be consistently maintained at 200/100 ml or less.

The proposed UV irradiation system is a single channel with three modules. The channel is 36 feet long by 27 inches wide by 48 inches deep. One module is a standby module.

6. Post Aeration Basins (T-5A and T-5B)

If the wastewater entering the basin is devoid of oxygen, the transfer capacity must increase the DO to 6.5 mg/l at any time. At a flow of 5 mgd, the required oxygen transfer is 271 lb/day. For maximum efficiency, reaeration should be a plug flow process, and fine-bubble aeration is proposed.

The plug-flow reaction can be divided into logarithmic intervals because the completion of reaction will be first order. Since, logarithmically, the reaction is never completed, it is convenient to model the reaction as partly complete. For example, use a piece of semilog graph paper and divided 90 percent completion of the reaction into 14 equal intervals (each one-half inch on the linear scale). Specifically, designate 10 on the log-y scale as "100% of the reaction remaining" and draw a straight line that has a negative slope across the width of the semilog paper, to the right side, to one on the log scale (ten percent of the reaction remaining).

The reaction in this case is reaeration at 25°C. In a 15 foot deep basin, the expected DO saturation value at 25°C is about 9.7 mg/l. The reaction increases the DO toward 9.7 mg/l, and the 14 one-half inch intervals on the graph paper increase the DO to 90 percent or 9.7 or 8.75 mg/l. In the following table, each interval is designated as a

reaction stage. The objective DO of 6.5 is exceeded in the seventh stage.

Table 3.6: Post AerationDO

Stage	Percent of Reaction	Outlet Do mg/l
1	15	1.5
2	28	2.7
3	39	3.8
4	48	4.7
5	56	5.4
6	63	6.1
7	68	6.6

The first stage completes fifteen percent of the reaeration (about 41 lb/day of oxygen transfer). Each following stage will achieve an equal percentage of the reaction remaining, and each stage will require the same amount of aeration effort (the same air flow). Thus, when the oxygen transfer is sized for the first stage, six addition stages that have the same oxygen transfer capability are required to bring the DO to 6.5 mg/l as 25 °C.

Air/stage, scfm =
$$\frac{41}{1440 \times 0.0752 \times 0.209 \times 0.09}$$

Air/stage, scfm = 20.1

The proposed reaeration basin is 6 feet wide, 21 feet' long, and had a 15-foot SWD. About 6.7 scfm of air is provide per foot of basin length. For example, if Envirex fine-bubble diffusers are used, there should 14 diffusers located as two across the tank and in seven rows down the tank., spaced at three-foot intervals. The maximum flow rate per diffuser would be 10 scfm which would be required at a peak flow of 5 mad.

There should be two reaeration basins so that one can be taken out of service for maintenance and cleaning. The reaeration basins should be located before the UV disinfection units.

7. Aerobic Digestion of Sludge (ET-1)

Oxidation Ditch No. 3 was previously converted to an aerobic digester and the plant had also been using associated 25-foot I.D. clarifiers to provide about 489,000 gallons of storage volume. The Schreiber biological treatment reactor that had been utilized for aerobic stabilization was required for liquid treatment as flows to the treatment facility increase to 2.0 mgd. Additionally, the previous practice of intermittently operating secondary clarifier solids removal equipment for sludge thickening has been discontinued as flows and effluent nutrient removal expectations increase resulting in a more dilute solids concentration feeding the aerobic digestion process. The loss of aerobic stabilization volume associated with one of the Schreiber tanks, combined with a more dilute solids stream, and has resulted in a significant reduction in the aerobic stabilization

reactor hydraulic residence time.

Estimated oxidation ditch residence times are approximately 10.5-days and 9.0days, respectively, under annual average and maximum month loading conditions at the 2.0 mgd permitted flow based on expected solids production rates and a 0.75% (7,500 mg/L) waste activated sludge feed solids concentration. Under winter operating conditions with a liquid feed temperature of 11.5°C, the digestion intensity is approximately 121 °C-days under average annual loading conditions which is well below the 800-900 °C-days recommended in 40 CFR 503 for aerobic stabilization processes under the Process to Significantly Reduce Pathogen (PSRP) requirements. The anticipated winter volatile solids reduction rates are estimated at 17.5% and 15.0%, respectively, under average annual and maximum month design loading rates. Therefore, it is expected that using the existing oxidation ditch to provide residuals stabilization of the unthickened waste activated sludge will not achieve the Class B pathogen reduction or vector attraction reduction requirements to land apply the dewatered residuals. Gravity belt thickening facilities will be required to thicken waste activated sludge to 4.0% TS to achieve Class B pathogen reduction and vector attraction reduction at the 2.0 mgd design flow. However, the installation of fine bubble diffusers to provide additional oxygen transfer capacity and decanting equipment to the oxidation ditch to improve aerobic stabilization will allow sludge to be thickened to approximately 2.0 percent and support operation for influent flows up to 1.2 mgd without installing the gravity belt thickening facilities. Current flow projections indicate the Remington WWTP will approach 1.2 mgd in 2017. When the average plant flow approaches 1.2 mgd, FCWSA should proceed with design and construction of the gravity belt thickening facilities or evaluate treatment alternatives to provide a Class A residual product.

The aerobic stabilization liquid feed volumes and performance are estimated based on a thickened waste activated sludge feed concentration of 4.0% from the future gravity belt thickening facility and the existing oxidation ditch total volume of 430,000 gallons. Winter and summer operating conditions are estimated based on operating temperatures of 11.5°C and 25.0°C, respectively. Aerobic stabilization system feed

volumes and loading rate criteria are summarized in Table 3.6.

Table 3.7: Aerobic Digester Loading Rates

	Average Annual	Maximum Month
Pre-Digestion Mass Rate, lbs TS/day	2,560	3,000
Pre-Digestion Volatile Fraction, %VS	65%	65%
Pre-Digestion Mass Rate, lbs VS/day	1,664	1,950
Volatile Solids Loading, lb/day-ft ³	0.029	0.034
TWAS Flow (at 4.0% TS), gallons/day	7,674	8,993
Hydraulic Retention Time, days	56.0	47.8

Oxidation ditch volume (430,000 gallons) is approximately 22% of the 2.0 mgd permitted average annual flow which is in excess of the minimum 20% volume fraction under the requirements of 9 VAC 25-790-560 (B)(2) and the anticipated volatile solids loading rates are well below the 0.10 to 0.20 lb/day-ft³ rate range under the requirements of 9 VAC 25-790-560 (C).

Aerobic digester reactor performance is estimated as shown in Table 3.7. Estimated volatile solids reduction in the aerobic digestion system is based on typical operating data for aerobic digestion systems (WEF, MOP-8, Figure 18.13, Volume II, page 1231, 1992).

Table 3.8: Aerobic Stabilization Performance

	Wi	nter	Summer		
	Average Annual Loading	Maximum Month Loading	Average Annual Loading	Maximum Month Loading	
Digestion Intensity, °C-days	644	550	1,401	1,195	
Volatile Solids Mass, Ibs VS/day	1,664	1,950	1,664	1,950	
Volatile Solids Reduction, %	42.6%	41.0%	51.0%	49.0%	
VS Destroyed, lbs VS/day	709	800	948	1,073	

Post-Digestion Mass, lb TS/day	1,851	2,201	1,711	2,045
Post-Digestion Solids, %TS	2.89%	2.93%	2.67%	2.73%
Post-Digestion VS Fraction, %VS	51.6%	52.3%	47.6%	48.6%

Oxygen transfer requirements are estimated for the annual average and maximum month loading conditions based on an oxygen requirement of 2.0 pounds oxygen per pound volatile solids destroyed to accommodate both volatile solids destruction and nitrification of mineralized nitrogen compounds. Oxygen transfer requirements under the maximum summer condition are estimated in Table 3.8.

Table 3.9: Aerobic Digester Oxygen Transfer Requirements Under Maximum Summer Conditions

	Average Annual	Maximum Month
Volatile Solids Loading, lbs VS/day	1,664	1,950
Volatile Solids Reduction, %VSR	57.0%	55.0%
Volatile Solids Destroyed, lbs VS/day	950	1073
Oxygen Requirement, lbs O ₂ /day	1,900	2,145
Existing Transfer Capacity, lbs O ₂ /day	1,200	1,200
Additional Transfer Capacity, lbs O ₂ /day	700	945

As shown in Table 3.8, the previous brush aerator oxygen transfer system at the oxidation ditch did not have sufficient capacity (1,200 lbs O₂/day) to meet the maximum anticipated oxygen demand for aerobic stabilization at the treatment plant capacity (2,145 lbs O₂/day). Additional oxygen transfer capacity utilizing fine bubble diffused air was added as part of the 2008 Enhanced Nutrient Removal Improvements Project to boost the available oxygen transfer capacity to meet the maximum anticipated oxygen demand.

A fine bubble aeration system was installed during the enhanced nutrient removal upgrade. Three (3) positive displacement blowers with a capacity of 1,400 scfm @ 9.5 psig provide sufficient oxygen transfer to meet the 2,145 lbs O2/day maximum

month oxygen requirement. The fine bubble aerations system consists of a total of 1,400 membrane diffusers on two grids.

E. PROCESS FLOW DIAGRAM

A process flow diagram is attached to the end of this section. The table below presents a summary of unit operation details.

Activated Sludge

Schreiber aeration basins
Oxygen transfer

SUMMARY OF WWTP PROCESS-UNIT SIZES

Blowers

Process Operation	No. of Units	Size
Grit and grease removal	1	Grit: 51-foot long by 4-foot-8-inch wide by 9-foot-9-inch SWD Grease: 51 foot long by 5 foot 3-inch wide Two 2.4-hp air blowers - 55 cfm
Activated Sludge		
Schreiber aeration basins Oxygen transfer	2	122-foot diameter, 14-foot SWD Maximum transfer of 7,800 lb/day AOR
Blowers	5	1,100 scfm
Returned sludge pumping		2 mgd for the 2.0-mgd WWTP
Tertiary (Denitrification) Filters	4	9.5' x 18.25'
Final clarifiers	2	65-foot diameter units, 14-foot SWD, rapid sludge withdrawal
Disinfection - UV irradiation	1	One 36-foot long by 48-inch deep by 27-inch wide channel. The channel contains three modules, that provide 50,160 i_tWatt-sec/cm ² at 0.5 transmission.
Reaeration basin	2	6 feet wide by 21 feet long, with 15- foot SWD. Firm air supply of 140 scfm.
Aerobic digestion	1	Oxidation Ditch No. 3 has been converted to Aerobic Digestion. Volume: 430,000 gallons Blowers: Three (3), 1,400 scfm @ 9.5 psig

Recyc Systems has prepared and submits our annual summary report of biosolids land application for the 2022 year. The monthly reports should be referenced for detailed information regarding individual land application sites.

Copies of this report have been concurrently submitted to the Virginia Department of Environment, Central Office and Regional Offices and the Local County Administrator or his designee where Recyc Systems conducted operations.

This report was prepared on behalf of Recyc Systems, Inc. by Susan Trumbo, Vice President-Technical Manager. Submitted February 2023.

GENERAL OPERATIONS:

Field Operations were conducted in accordance with DEQ Biosolids Use Regulations and DCR Nutrient Management Regulations.

Field Operations used the Operations and Management Manual submitted to Virginia Department of Environment 2008. The O&M was last revised in December 2010.

At year end, Recyc Systems has fifteen DEQ Certified Field Managers on staff. Daily field logs are signed off by a Certified Field Manager.

The monthly report was sent electronically to DEQ and localities where field operations were conducted that reporting period.

Recyc Systems prepared a Nutrient Management Plan for sites prior to application of biosolids, "target plan". After application of the biosolids, the plan was revised to show actual tons applied and the commercial fertilizer recommendations were revised accordingly, "revised plan". The revised plan was provided to the farmer with copies sent to DCR and the locality.

Recyc Systems takes soil samples of fields prior to application of biosolids. Fields with soil samples greater than three years are resampled. Lime recommendations from the lab are being used to calculate application rates.

At the request of DEQ-CO, Recyc Systems' daily notice of field operations by e-mail is sent to DEQ and all County Biosolids Monitors.

Attachment C

FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms Warrenton, Virginia 20187-3907 Phone (540) 349-2092 • Fax (540) 347-7689



January 19, 2023

Compliance Officer
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Remington WWTP VA0076805

To Whom It May Concern:

Enclosed are the 2022 Annual Sludge Program Discharge Monitoring Reports for the Remington Wastewater Treatment Plant. We have no excursions to report.

If you have any questions or require additional information, please contact me at (540) 349-2092.

Sincerely,

Milas Smith

Director of Operation

Milas Smith

Cc: Ben Shoemaker, Executive Director

Remington WWTP

File

PERMITTED FACILITY

Remington Wastewater Treatment Plant

ofo Faugulet County Water and Sewer Authority. Waterson VA.

Permit Number: VA0076805 Permit Type: Major Municipal

No Discharge:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

		MONITORING PERIOD						
	YEAR	MO	DAY		YEAR	MO	DAY	
FROM	2022	01	01	TO	2022	12	31	

RETURN TO

Department of Environmental Quality

Northern Regional Office

13901 Crown Courl, Woodbridge VA 22193

(703) 583-3800

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM AND RETURNING IT

- The order of the control		QUAN	TITY OR LOADING	3	1	OUALTRY OR COM	Y OR CONCENTRATION			Run Da	
PARAMETER		AVERAGE	MUMIXAM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	MO.	FREQUENCY OF ANALYSIS	SAMP
672 SOLIDS, TOTAL, SLUDGE	REPORTO	**7656333	thy reside		SACCIONE	18.7	*******	0/0	0	IVR	com
AS PERCENT	RECRMNT	*******	*******		*******	NL.	4 64444-00	1/6	0	1MR	COM
200 ADDENIG CILIDGE	REPORTO	*****	*****		*****	1/2	191	M6/K6	7	LIYR	Con
680 ARSENIC, SLUDGE	RECEMNT	********	ppqqqterr		459700541	41	75	MGIKG	0	1/YR	COM
CRA MOLVEDENIMA CAMBOS	REPORTO	TERROS DOS	*********		****	7.22	122	MG/KG	Ü	TAYR	COM
SB1 MOLYBDENUM, SLUDGE	REGRANT	112461644	PERSONALI		*******	NL	75	MG/KG	0	1/YR	COM
0.0 71610 CC 1 IN OF	REPORTO	********	******			911	1380	MG/KG	2	WR	
582 ZING, SLUDGE	REGRENT	Acceptant	********		********	2800	7500	MG/KG	0	10/R	COM
PARTITION CHARGO	REPORTE	AAATEKATA	*******		*******	11.63	16.5	MELKE	18	INR	
83 LEAD, SLUDGE	RECRUNT	*********	*******		-corners-	300	840	MG/KG	0	1/YR	COM
ALKHOIZE OLUMAN	REPORTO	*********	*******		P-17FBHQ46	18.03	25.6	MG/KG	0	IMR	com
84 NICKEL, SLUDGE	REGRANT	**********	*******		*******	420	420	MG/KG	0	1/YR	COM
OCCUPATION OF LIBOR	REPORTO	********			*******	0.3907	0.519	MEIKE	0	LVYR	COM
885 MERCURY, SLUDGE	REGRANT	110000000	**Femalit		P44499944	17	57	MG/KG	0	1/YR	COM
86 COPPER, SLUDGE	REPORTO	77 77 77 77 2 4	*******		*******	692	973	MG/KG	n	IMR	
od COFFER, SCUDISE	REGRAND	managed	*******	3	11/2///	1500	4300	MG/KG	0	IVR	COM
87 CADMIUM, SLUDGE	REPORTO	PF41epa46	*********		*******	16.7	28.7	MOIKE	0	1/YR	-1-
ON PAYONINIAN SERVICE	REGRANT	********	********		********	39	85	MG/KG	0.	1/YR	COM
88 LEVEL OF PATHOGEN	REPORTO	113445642	111000000		**********	*********	a.	STCL#	_	1/YR	com
REQUIREMENTS ACHIEVED	REGRANT	44444444			PP4437224	********	NL	STCL#	0	1/YR	CUIT

dditional Permit Requirements (Outfall S01): omments:

PERMITTED FACILITY

Remington Wastewater Treatment Plant

c/o Fauquier County Water and Sewer Authority. Warrenton VA

Permit Number: VA0076205 Permit Type: Major Municipal

No Discharge

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

		M	OTHO	RING	PERIO	1	-
	YEAR	MQ	DAY		YEAR	MO	DAY
ROM	2022	01	01	TO	2022	13	31

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Department of Environmental Quality

Northern Regional Office

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(703) 583-3800

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Condition Y. Island	Reporting Frequency: Annual QUANTITY OR LOADING QUALITY OR CONCENTRATION									Run Dati	e: Mar 18, 2
PARAMETER		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	1-	1/2/19/0	NO.	FREQUENCY OF	SAMPLE
689 DESCRIPTION OF	REPORTO	Leddinge.	********	1	********	- AVENMOE	MUMIXAM	UNITS	EX.	ANALYSIS	TYPE
PATHOGEN OPTION USED	REGEWINT	*********	********			- Adaptates	3	ALTR#	0	MR	
TOTAL OF TOTAL	NEGRIMN I	1115446016	***************************************		********	30000018	NL.	ALTR#	0	I/YR	100004
690 VECTOR ATTRACTION	REPORTE				anneadth.		7	ALTRA	1	1110	
REDUCTION OPTION USED	RECHMNT	*******	********		*******	********	NI	ALTR#	n	LYR	*******
CONTROL OF HE WAS AND A STREET	REFORTO	******	********		*******	1400	111.00		H,		
697 SELENIUM, SLUDGE	REGRUST	********	-1100404		*****	(4.00	64.00	MG/KG	0	LIVR	COMP
	A CONTRACTOR		1,100			100	100	MG/KG	-0	1/YR	COMP

dditional Permit Requirements (Outfall Str);

comments:

PERMITTED FACILITY

Remington Wastewater Treatment Plant

of Fauquer County Water and Sewer Authority, Warrenton VA 20188

Permit Number: VA0076805 Permit Type: Major Municipal

No Discharge:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

MATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

		MONITORING PERIOD											
	YEAR	MO	CAY		YEAR	MO	DAY						
FROM	2022	01	Ol	TO	3022	12	31						

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Department of Environmental Quality

Northern Regional Office

13901 Crown Court, Woodbridge VA 22193

(703) 583-3800

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Juffall Num: SP1	Reporting F	porting Frequency: Annual Run Date Mar 1											
PARAMETER		QUANTITY OR LOADING			, and the second	QUALITY OR CON		NO.	. FREQUENCY OF	SAMPLE			
, Alsalite (EG		AVERAGE	MUMIKAM	UNITS	MEMINUM	AVERAGE	MAXIMUM	UNITS	EX.	ANALYSIS	TYPE		
693 ANNUAL SLUDGE FRODUCTION TOTAL	REPORTO	PPPARTE	474.50	OTTNIR	******	********	*******		(1)	WR	CALL		
	REGEMENT	********	NL	MINYR	HEFFERA		********		0	1/YR	CALC		
694 ANNUAL AMT SLUDGE	REPORTO	PP*******	479.50	MINYR	PARTERNA	>#1700001	*******		0	LIYR	CALC		
LAND APPLIED	REGRANT	********	NL	MINYR	********	*1555**	Antertala		a	1/VR	CALC		

dditional Permit Requirements (Outfall SP1):

comments:

- month (a min i i suprime s'ut

Remington Wastewater Treatment Plant

c/o Fauquier County Water and Sewer Authority, Warrenton VA. 20188

Permit Number: VA0076805 Permit Type: Major Mutricipal

DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NFDES) DISCHARGE MONITORING REPORT (DMR) Department of Environmental Quality

Northern Regional Office

13901 Crown Court. Woodbridge VA 22193

(703) 583-3800

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CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR SATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND MPRISONMENT FOR KNOWING VIOLATIONS.

BYPA	SS AND OVERFLOWS	>
TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BODS(K.G.)
Ø	Ø	Ø

	OPERATOR IN RESPONSIBLE CHARGE		DATE			
Troy Willington	TrafWillingham	1965006730	2023	10	18	
TYPED OR PRINTED NAME	YPED OR PRINTED NAME SIGNATURE		YEAR	MO.	DAY	
PRINCIPAL EXECUTIVE	DFFICER OR AUTHORIZED AGENT	TELEPHONE				
Milas Smith	Milas Smith	540-349-2092	2023	01	18	
TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY	





March 18, 2022

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the first quarter vector (2022) attraction study for the Remington WWTP from 2/8/2022 to 3/9/2022. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLVSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 2/8/2022 3/9/2022	% Sludge = MLSS 17800 13300	1.78% MLVSS 12700 9310 Reduction	% Volatile 71.3% 70.0%	Fecal Coliform 78700 ≤ 180
Vessel B Date 2/8/2022 3/9/2022	% Sludge > MLSS 16700 12200	1.67% MLVSS 12100 8550 Reduction	% Volatile 72.5% 70.1% 2.4%	Fecal Coliforn 32300 < 180
	Average Re	duction for 30	Day Period	1.9%

The average intal volatile reduction of Vessels A and B during the 30 day period was calculated to be 1.9%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 1.9% reduction after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody



218 Horin Main St. 9 P.C. Box 520 4 Culpaper, Virginia 22701 4 Tel: (540) 825-5660 4 Fox: (540) 825-4961 4 Syntham Services, com-

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1846

Report Date

02/18/2022

Report #

64025

Job#

0010022

Customer #:

998

Customer PO#

Collected By.

ESS Employee

Sample Location: Quarterly Vector Study

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

This laboratory report may not be reproduced, except in full, without the written approval of ESS. If you have received this report in error, please notify ESS immediately at (540) 825-8880.

Definitions: QL = Quantitation limit is the lowest concentration of analyte that the lab can report with confidence

INIT = Analyst initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or ppb) mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Maje Woodward

Approved by

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648 Analytical Report

Report Date:

02/16/2022

Report #

64025

JOD #:

0010022

Customer #: Customer PO# 39R

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0192551

02/08/2022 / 08:40

Sample Source: Date Received: Vessel A

02/08/2022

Parameter	Results	Unit	GL	Method	Analysis Date	Time	INIT
MLSS/MLVSS				3,154616		1,11,10	1111
Mixed Liquor Susp Solids	17,800	mg/l	1.00	SM 2540 0-2011	02/10/2022	15:33	- 16
Mixed Liquor Volatile SS	12,700	mg/l	1.00	SM 2540 E-2011	02/11/2022	11:05	JI.
Fecal Coliforn	78,700	MPM/g	180	SM 9221 E+C-2006	02/08/2022	11:50	all

Sample ID#: Sample Date/Time: 0192552

02/08/2022 1 08:50

Sample Source: Date Received:

Vessel B 02/08/2022

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSSMLVSS				~		******	
Mixed Liquor Susp Solids	15,700	mg/f	1.00	SM 2540 D-2011	02/10/2022	15:37	- 11
Mixed Liquor Volatile SS	12,100	mg/l	1,00	SM 2540 E-2011	02/11/2022	11:25	41
Fecal Coliform	32,309	MPNO	180	SM 9221 E+C-2008			31
COMMENT:	35,42,834	With Tag	100	-W 355 E-C-2000	02/08/2022	12:15	11)

Results reported as make or MPNVg are reported on a dry weight basis.



218 North Main St. # P.O. Box 520 # Culpaper, Virginia 22701 # Tal. (540) 825-6550 # Fax: (540) 825-4961 # Syven.ess-services.com

Analytical Report

Fauguler County WSA Ramington WWTP 7172 Kennedy Road Warrenton, VA 20187-1645

Report Data:

03/01/2022

Report #:

64024

Job #:

0010110

Customer #:

99R

Customer PO#

Collected By:

Custamer

Sample Location: Remington WWTP

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-48 and the 2009 TNI Standard for non-potable water and solid and chemical materials or IVAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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Definitions: QL = Quantitation limit is the lowest concentration of analyte that the lab can report with confidence

INIT = Analyst Initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or pph)

mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

SU = Standard unit

umhos/cm = micrornhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

03/01/2022

Report #:

64024

Job #:

0010110

Customer #:

99R

Customer PO #: Collected By

Customer

Sample Location: Remington WWTP

Sample 10#: Sample Date/Time: 0192550

Sample Source: 02/08/2022 / 08:15 Date Received:

Sludge

02/08/2022

	2 London C. Print	SECTO		*********			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	TIMIT
Total Solids (%)	17.9	%	0.500	SM 2540 G-2011	02/11/2022	17:06	574
Arsenic, Total Recoverable	9.90	mg/kg	4.00	SW-846 60108	02/18/2022	09:08	574
Molybdenum, Total Resoverable	8.18	mg/kg	4 00	SW-846 8010B	02/18/2022	09:08	574
Zinc, Total Recoverable	836	mg/kg	4.00	SW-846 6010B	02/18/2022	20:00	574
Lead, Total Recoverable	10,6	mg/kg	4.00	SVV-846 6010B	02/18/2022	09:08	574
Nickel, Total Recoverable	34.4	mg/kg	4.00	SW-846 6010B	02/18/2022	09:08	574
Morcury, Total Recoverable	0.0519	mg/kg	0.0250	SW-846 7471A	02/21/2022	10:52	574
Copper, Total Recoverable	587	mg/kg	5.00	SW-846 6010B	02/18/2022	09:08	574
Cadmium, Total Recoverable	5.41	/hg/kg	2.00	SW-846 6010B	02/18/2022	09:0B	574
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4,00	SW-845 6010B	02/18/2022	09:08	574

Results reported as mig/kg or MPN/g are reported on a dry weight basis.

574 Samples subcuringded to VELAP ID# 460160

Li Ups	elinquianist (pg	yhondy hondy hondy			+				192550 2 8 22	1	Sampled By: 13 cm2	Customer#	Contact Scal Unitellar Address P.O. Box 881646 Address Warrenton, Virginia 20187 Phone 540-349-2092; fax 540-347	CHAIN OF CUSTODY RECORD
D Feet Office	Die	NO NO BE	++	+				\prod	22		5	5	Scal Uniteller P.O. Box 881646 Warrenton, Virginia 20187 540-349-2092; fax 540-347-7689	CU
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Amount Paid \$	es.	-			+	H	H	+	0		4		3917 Westpoint Bind Suite E Whiston-Salers, NC: 910-059-3378 Fax: 910-059-3379	
									COMMENTS				3917 Westpoint Bind Suite E Wilston-Salers, INC 27103 910-959-5378 Fax 910-959-5379	



218 North Meth Street • Post Office Box 520 • Cutpepes, Verginia 22701 • 840-541-2116 • 540-825-6660 • Fax: 540-825-1961

500 State Sheet • Post Office Box 736 • Sedford, Virginia 24523 • 540-586-54173 • Fac 540-586-530

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Sample condition "O upon receipt to lot		ı							COMMENTS			П	

Sample Condition Stamp



218 North Main St. • P.O. Box 520 • Culpeper, Virginia 22701 • Tet (540) 825-6560 • Fext (546) 825-4661 • Synwy.eas-comp

Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187 1646. Report Date:

03/16/2022

Report #:

648 8

Job #:

0010022

Customer#:

99R

Customer PO#

Collected By:

ESS Employee

Sample Location: Quarterly Vector

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the Interpretation of the analytical results contained in this report.

The signature on this enalytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009. TNI Standard for non-potable water and solid and chemical materials or TVAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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INIT = Analyst initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or ppb)

mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm).

SU . Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report

Report Date:

03/16/2022

Report#:

64818

Job #

0010022

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee

Sample Location: Quarterly Vector

Sample ID#: Sample Date/Time: 0194460

03/09/2022 / 11:40

Sample Source: Date Received

Vessel A

03/09/2022

Parameter	Results Unit QL		QL	Method	Analysie Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	13,300	ing/i	1.00	SM 2540 D-2011	03/11/2022	17:33	JI.
Mixed Liquor Volatile SS	9,310	mg/l	7.00	SM 2540 E-2011	03/14/2022	14:45	- 0
Fecal Collform	< 180	MPN/g	180	SM 9221 E+C-2008	03/08/2022	13:45	.dr

Sample ID#: Sample Date/Time. 0194481

03/09/2022 / 11:50

Sample Source: Date Received:

Vessel B 03/09/2022

Parameter	Re	sauks	Unit	QL	Wethors	Analysis Date	Time	INIT
MLSS/MLVSS								
Mixed Liquer Susp Solids		12,200	rng/l	1.00	SM 2540 D-2011	03/11/2022	17:36	ال
Mixed Liquor Volatile SS		8,550	rog/l	1.08	SM 2540 E-2011	03/14/2022	14:45	11
Fecal Coliform	~	180	MPN/g	180	S44 9221 E+C-2009	03/09/2022	14:11	31
COMMENT					10. day - 40. 10. 1	20.0.000	100	

Results reported as mg/kg of MPN/g are reported on a dry weight basis





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500 Stone Street • Post Office Box 735 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

64818

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9	Q d) Network of the						///		SESATU		
Sample condition "OK upon receipt to lob Sample Condition Stamp	Sandy 64	Ø ger	Proportion					COMMENTS	/ / /			

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G = H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remington	WWTP	Permit Number: Va. 0076805
A. Metals Limitations Sample Date(s):	***	Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)	
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	
Total Arsenic	9.90	9.90	41	75	
Total Cadmium	6.41	6.41	39	85	
Total Copper	587	587	1,500	4,300	
Total Lead	10.6	10.6	300	840	
Total Mercury	0.0519	0 0519	17	57	
Total Molybdenum	6.18	6.18	NL (i)	75	
Total Nickel	19-14	14.4	420	420	
Total Selenium	£4.00	(4:00	100	100	
Total Zinc	836	836	2,800	7,500	

(1) Values to be reported on a dry weight hasis.

(2) Sludge may not be (and applied if any pollutan) exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-3)-7) 0.8 PVAC25-32-675 B by:
☐ Alternative I: Fecal coliform testing -geometric mean of 7 samples
Alternative 2; Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
C Option I - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anaerobic digestion
□ Option 4 - Composting
C) Option 5 - Lime Stabilization
D) Other:



OF

NOTICE AND NECESSARY INFORMATION

p,	Vector Attraction Reduction (VAR)	N.	
	PVAR requirements for Class B t 9VAC25-32-685.B.1 - 8 by:	piosolids were achieved (n accordance v	vith 9VAC25-31-720.B.1 - 8 m
	☐ Option 1: ≥ 38% volatile soli ☐ Option 2: Anserobic 40 day ber ☐ Option 3: Aerobic 30 day ber ☐ Option 4: Specific Oxygen U ☐ Option 5: Aerobic process, 1- ☐ Option 6: Alkaline stabilizati ☐ Option 7: Dry to ≥ 75% T.S. ☐ Option 8: Dry to ≥ 90% T.S.	oench test nch test ptake Rate (SOUR) test 4 days @ 40°C (45°C) on w/no unstabilized ° sludges	
	OR		
	□ VAR requirements for Class B I or 9VAC25-32-685.B.1 - 8; the land application site.	viosolids were not achieved in accordar refore, Option 9 (Injection) or Option I	nee with 9VAC25-31-720(B.1 = 8 0 (Incorporation) is required at the
D.	Nutrient Concentrations		
	Sample Date(s):	Number of Sa	mples:
	Parameters	Concentr Monthly Average (mg/kg) [17]	ations Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	MIN
	Total Phosphorus as P	AHA	N/A
E.	I certify under penalty of law that the supervision in accordance with a sy- evaluate the information submitted. those persons directly responsible fi- knowledge and belief, true, accurate	is document and all acceptments were , stem designed to assure that qualified ; Based on my inquiry of the person or , or gathering the information, the inform and complete. I am aware that there ing the possibility of fine and imprison.	personnel properly gather and persons who manage the system nation is, to the best of my are significant penalties for
	mand official title Resident	sacis chief of	per-lan

Ravis≈i (0/2014 Page 2 of 2

Telephone number 540 439 2225

Date Signed 45-3-2022



July 1, 2022

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Environmental Systems Service, Ltd. (ESS) conducted the second quarter vector (2022) attraction study for the Remington WWTP from 5/10/2022 to 6/9/2022. The original 5-gallon sample was received from FCW5A was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLVSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel mixed and acrated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples collected from Vessels A and B.

Vessel A	% Sludge	1.01%	6	
Date	MLSS	MLVSS	%. Volatile	Fecal Coliforn
5/10/2022	10100	7060	69.9%	9,110
6/9/2022	7960	5420	68.1%	<180
	17.000	Reduction	1.8%	
Contractor.	% Sludge	2.000		
Vessel B	=	1.02%	9/4	
Date	MLSS	MLVSS	Volatile	Fecal Coliforn
5/10/2022	10200	7180	70.4%	16,700
8/9/2022	7400	5070	68.5%	<180
		Reduction	1.9%	1 2 2 2

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be 1.8%. According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies the vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduced by less than 15%, vector attraction reduction achieved.

Since the volatile solids reduction for the Remington WWTP found to be an average of 1.8% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SOI discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody



218 North Main St. # P.O. Box 520 . Culpeper, Virginia 22701 . Tel: (540) 825-8660 . Fax: (540) 825-4961 . Syvow ass-services.com

Analytical Report

Fauguier County WSA Remiration WWTP 7172 Kennedy Road Warrenton VA 20187-1646

Report Date:

05/19/2022

Report #:

66475

Job #

0010246

Customer#:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector Study - Remington

WWTP

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009. TNI Standard for non-potable water and solid and chemical materials or TVAC30-41 for drinking water, unless otherwise noted, For a complete list of accredited methods, visit our website at www.ess-services.com.

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INIT = Analyst Initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or ppb) mg/l = milligrams per liter (1 mg/l = 1 part per million or pom)

SU = Standard unit.

umhos/cm = micromhos per centimeter @25°C

mais Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1848 **Analytical Report**

Report Date:

05/19/2022

Report#:

66475

Job #

0010246

Customar #:

Customer PO#

99R

Collegied By:

ESS Employee

Sample Location: Vector Study - Remington

WWTP

Sample IDA: Sample Date/Time: 0199875

05/10/2022 / 08:20

Sample Source: Data Received:

Vessei A

05/10/2022

						THE REAL PROPERTY.	
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSSMLVSS						- 1	
Missed Liquor Susp Solids	10,100	mg/l	1.00	SM 2540 D-2011	05/12/2022	14:59	- 0
Mixed Liquor Volalile SS	7,060	mg/l	1.00	SM 2540 E-2011	05/13/2022	09:25	BH
Feeal Coliform	9,110	MPN/g	180	SM 9221 E+C-2006	05/10/2022	12:15	JI
Samula IDE	0100676		Samula Source	Vege el D			

Sample Date/Time:

05/10/2022 / 08:30

Date Received:

05/10/2022

Parameter	Results	Unit	QL	Method	Analysis Date	Timo	WIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	10,200	mg/l	1.00	SM 2540 D-2011	05/12/2022	15:02	21
Wixed Liquor Volsifie 3S	7,180	mg/i	1.00	SM 2540 E-2011	05/13/2022	09:25	BH
Fecal Collidin	16,708	MPN/g	180	SM 9221 E+C-2008	06/10/2022	1295	di

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



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C) Fact Ex	H	Sto 25	17		A	0850	*	0920		IJ.	ONG	<u></u>	GVIS!	Residents	71.72 Kennedy Rd. Warrenton, Virginia 20187 349-2092, 347-7649 (fax)	Fauguler County WSA		5
To Hamil Dollware		Silva	Resolved by			NESSEL	1	Vestera	C (Others	A females	Vanada	-	CC^*y	WWTP - 459-222	20187 (530)	/SA		N. N.
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218 North Main St. # P.O. Box 520 # Culpaper, Virginia 22701 # Tel. (549) 825-6660 # Fex; (540) 825-4961 # swww.ess-services.comp

Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Report Date:

06/17/2022

Report#:

67293

JOD 彩

0010246

Customer #:

99R

Customer PO #

Collegted By:

ESS Employee

Sample Location Quarterly Vector Study

The test results issued in this report relate only to the samples received by Environmental Systems Service, Utd (ESS).

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The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009. TNI Standard for non-potable water and solid and chemical materials of 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

is abodinario

Approved by:

A. Woodward/Technical Director

Reviewers Initials





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1846 Report Date:

06/17/2022

Raport #:: Job #: 67293 0010246

Customer#:

99R

Customer PO#

I FU#

Collected By: E

ESS Employee

Sample Location: Quarterly Vector Study

	a contract of				V. Carrier and American Contract of the Contra	-	The Contract of
Sample ID#: Sample Date/Time:	0202015 08/09/2022	/ 06;45	Sample Source: Date Received:	Vessel A 06/09/2022			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS						-	
Mixed Liquor Susp Solids	7,960	mg/l	1,00	SM 2540 D-2011	06/09/2022	15:41	BH
Mixed Liquor Volatile SS	5,420	mgA	1.00	SM 2540 E-2011	08/10/2022	10:31	BH
Fecal Coliform	< 180	MPN/g	180	SM 9221 E+C-2006	06/09/2022	12:50	الہ
Sample ID#: Sample Date/Time:	0282016 06/09/2022	/ 06:55	Sample Source: Date Received:	Vessel B ()6/09/2022			
Farameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSSMLVSS							
Mixed Liquor Susp Solide	7,400	mg/l	7.00	SM 2540 D-2011	06/09/2022	15:48	BH
Mixed Liquor Volume SS	5,070	mg/l	1.00	SM 2540 E-2011	08/10/2022	10:21	BH
Fazal Coliform COMMENT:	< 150	MPM/g	180	SM 9221 E+C-2006	06/09/2025	13:20	0)

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



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218 North Main St. # P.O. Box 520 # Culpeper, Virginia 22701 # Tet (540) 825-6650 # Fex: (540) 825-4961 # Subriu ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warranton, VA 20167-1646 Report Date: 05/19/2022
Report #: 86475
Joh #: 0010246
Customer #: 99R

Customer PO#:

Collected By: ESS Employee

Sample Location: Vector Study - Remington

WWTP.

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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Definitions: QL = Quantitation limit is the lowest concentration of analyte that the lab can report with confidence

INIT * Analyst Initials

ug/l = mlcrograms per liter (1 ug/l = 1 part per billion or pph)
mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials

VELAP LIND ID #460019 VA DW LAB ID# 00115



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

05/19/2022

Report #:

68475

Job #:

0010246

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector Study - Remington

WWTP

Sample ID#: Sample Date/Time: 0199675

05/10/2022 / 08:20

Sample Source: Date Received:

Vessel A

05/10/2022

resultant expression in trees.	SETTINGED TO						
Parameter	Results	Unit	QL_	Method	Analysis Date	Time	TIME
MLS8/MLVSS							
Mixed Liquar Susp Solids	16,100	mg/l	1.00	SM 2540 D-2011	05/12/2022	14:58	JI
Mixed Liquor Volatile SS	7,060	mg/l	1.00	SM 2540 E-2011	05/13/2022	09:25	BH
Fecal Coliforn	9,110	MPNVg	180	SM 9221 E+C-2005	05/10/2022	12:15	J.
Sample ID#:	0199676	74.00	Sample Source:	Vessel B			

Sample Date/Time:

05/10/2022 / 08:30

Date Received: 05/10/2022

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSSMLVSS							
Mixed Liquor Susp Solids	10,200	mp/l	1.00	SM 2540 D-2011	(15/12/2022	15:02	20
Mixed Liquor Volable SS	7,180	ma/l	1.00	SM 2540 E-2011	05/13/2022	09:25	BH
Fecal Coliforn	16,700	MPN/g	180	SM 9221 E+C-2006	R5/10/2022	12:45	11
COMMENT:			7.4		Act Country	3-07	

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

05/26/2022

Report #:

66474

Job#

0010343

Customer #.

99R

Customer PO#

Collected By:

Customer

Sample Location: Remington WVVTP

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Grego Woodward

Approved by:

A. Woodward/Technical Director.

Reviewer's Initials





Analytical Report

Fauguier County WSA. Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

05/26/2022

Report Job #

68474 0010343

Customer #:

99R

Customer PO#:

Collected By: Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time:

0199673 05/10/2022 / 07:40 Sample Source: Date Received: 05/10/2022

Studge

Parameter	Results	Unit	QL.	Method	Analysis Date	Time	INIT
Total Solids (%)	19.4	%	0.600	SM 2640 G-2011	05/12/2022	14:54	574
Arsenic, Total Recoverable	4.52	mg/kg	4.00	SW-846 6010B	05/17/2022	09:30	574
Molybdenum, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	05/17/2022	09:30	574
Zinc, Total Recoverable	458	mg/kg	4.00	SVV-846 6010B	05/17/2022	09:30	574
Leed, Total Recoverable	7 02	mg/kg	4.00	SW-846 60108	05/17/2022	09:30	574
Nickel, Total Recoverable	12.1	mg/kg	4.00	SW-646 6010B	05/17/2022	09:30	574
Mercury, Total Recoverable	0,337	mg/kg	0.0250	SW-8467471A	05/24/2022	10:52	574
Copper, Total Recoverable		mg/kg	2.00	SW-846 6010B	05/17/2022	09:30	574
Cadmium, Total Recoverable	3.49	mg/kg	2.00	SW-846 6010B	05/17/2022	09:30	674
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4.00	SW-846 6010B	05/17/2022	09:30	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP IDN 450 (60.

Company Fauguler County Water and Sanitation Authority Contact Scot Unitedlar Address F.O. Box 881846 Address F.O. Box 881846 Address F.O. Box 881846 Contact F. County 2082; fax 840-347-7689 Customer # Contract # Project Name/Site Reminional Contract # Project Name Name Name Name Name Name Name Name
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SDO Starm St. Prot Colors Box 736 Baction, VA. 24029 S40,098-54113 Fox S40,098-54000 X
× An.Mo.Zii × Ph.Mi.Hg Cu.Cd, See 1. 201-217-2022
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NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530 F - G or 9VAC25-32-313 G - II.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives. those biosolids

Facility Name: Remny ton wwTP	Permit Number. Va. 0076805
A. Metals Limitations Sample Date(s):	Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
Total Arsenic	4.52	4.52	41	75
Total Cadmium	345	3 49	39	35
Total Copper	379	379	1,500	4,300
Total Lead	7.02	7.02	300	840
Total Mercury	0-337	0-337	17	57
Total Molybdenum	< H.00	< 400	NL (1)	75
Total Nickel	121	12.1	420	420
Total Selenium	< 4.00	< 4 00	100	100
Total Zinc	458	458	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction	requirements were achieved in accordance with 9VAC25-31-710 B or
9VAC25-32-675.B by:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

☐ Alternative	Fecal coliform testing -geometric mean of 7 sam	ples

a-		
W	Alternative 2	Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below
		Division of the state of the st

IN Option 1 - Aerobic digestion

☐ Option 2 - Air drying beds ☐ Option 3 - Anaerobio digestion

☐ Option 4 - Composting

Option 5 - Lime Stabilization

Other:



 ⁽²⁾ Sludge may not be land applied if any pollutant exceeds these values.
 (3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

0	Vector Attraction Reduction (VAR)						
	PVAR requirements for Class B in 9VAC25-32-685.B.I - 8 by:	piosolids were achieved in accordance	e with 9VAC25-31-720.B.1 - 8 to				
	☐ Option 1: ≥ 38% volatile soli ☐ Option 2: Anserobic 40 day be ☐ Option 3: Aerobic 30 day be ☐ Option 4: Specific Oxygen U ☐ Option 5: Aerobic process, 1 ☐ Option 6: Alkaline stabilizati ☐ Option 7: Ory to ≥ 75% T.S. ☐ Option 8: Dry to ≥ 90% T.S.	oencl) test och test optake Rate (SOUR) test 4 days @ 40°C (45°C) on					
	OR						
D	VAR requirements for Class B to ar 9VAC25-32-685.B.1 – 8; the land application site. Numient Concentrations	niosolids were not achieved in accord refore, Option 9 (Injection) or Option	lance with 9VAC25-31-720/B.1 — 10 (Incorporation) is required at 1				
Life.		140770	A . 70				
	Sample Date(s): Number of Samples:						
		Conce	ntrations				
	Parameters	Monthly Average (mg/kg) (1)	Muximum (mg/kg) [1]				
	Total Nitrogen as N	N/A	N/A				
	Total Phosphorus as P	NLA	N/A.				
	Publies to be reported on a dry weight be Certification I certify under penalty of law that the supervision in accordance with a sys valuate the information submitted. those persons directly responsible for inowledge and belief, true, accurate submitting false information, including the and official title	is document and all attachments wer tem designed to assure that qualified Based on my inquiry of the person of r gathering the information, the info and complete. I am aware that ther ng the possibility of fine and impriso	d personnel property gather and or persons who manage the system ormation is, to the best of my se are significant penalties for				
8	eture ALA SW	Date Signed	7/5/2022				
ele	phone number 540 434 2225	5					



September 22, 2022

Mr. Lewis FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Mr. Lewis,

Environmental Systems Service, Ltd. (ESS) conducted the third quarter vector (2022) attraction study for the Remington WWTP from 8/15/2022 to 9/14/2022. The original 5-gallon sample was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel Λ and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLVSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels Λ and B at both the start test date and after the 30-day period. Each vessel mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period expired a second round of MLSS, MLVSS, and Fecal Coliform samples collected from Vessels A and B.

Vessel A Date 8/15/2022 9/14/2022	0,000	0,83% MLV\$\$ 5190 7400 Reduction	% Volatile 62.3% 62.7% -0.4%	Fecal Coliform 648 <180		
Vessel B Date 8/15/2022 9/14/2022	and the second	0.88% MLVSS 5310 7310 Reduction	% Volable 60.1% 62.5% -2.3%	Fecal Coliform 396 < 180	7	40
	Average Re	duction for 30	Day Period	-1.4%		

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be -1.4%. According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduced by less than 15% vector attraction reduction

Since the volatile solids reduction for the Remington WWTP found to be an average of 1.4% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SOI discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SOI DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Scan Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

1 1 11 -





218 North Main St. ▼ P.O. Box 520 ▼ Culpeper Virginia 22701 ▼ Tel (540) 825-6660 ▼ Fax (540) 825-3961 ▼ www.ess-services.com>

Analytical Report

Fauguier County WSA. Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date 09/02/2022 Report # 69100

Job# 0010467 Customer# 99R

Customer PO#

Collected By ESS Employee Sample Location Vector Study

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SU = Standard unit

umhas/cm = micromhas per centimeter @25 C

Angre Woodwara

Approved by

A. Woodward/Technical Director





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA. 20167-1646

Report Date
Report #
Job #
Customer #

69100 0010467 99R

09/02/2022

Customer PO#

Collected By ESS Employee Sample Location Vector Study

Sample ID#: Sample Date/Time:	0205750 08/15/2022	7 09 30	Sample Source: Date Received:	Vessel A 08/15/2023			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS		- '					77200
Mixed Liquor Susp Solids	8,330	mg/l	DO. Y	SM 2540 D-2011	08/18/2022	12.13	30
Mixed Liquor Volatile SS	5,190	mg/l	1.00	SM 2540 E-2011	08/19/2022	11 30	JL
Fecal Collorm	648	MPN/g	180	SM 9221 E+C-2006	08/15/2022	12.50	1
Sample ID#: Sample Date/Time:	0205752 08/15/2022	/ 09.40	Sample Source: Date Received:	Vessel 8 08/15/2022	910	,	
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS					100		
Mixed Liquor Susp Solids	8,830	mg/l	1.00	SM 2540 D-2011	08/18/2022	12.20	30.
Mixed Equor Volatile SS	5,310	mg/l	1.00	SM 2540 E-2011	08/19/2022	11.30	31
Fecal Coliform	396	MPN/g	180	SM 9221 E+C-2006	06/15/2022	13 15	-0.
						14 10	200

Results reported as mg/kg or MPN/g are reported on a dry weight basis

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Normal Rush Nead Results by Estis charges will apply for Rush 741			N. X	Northa X	SAMPLE PRESERVATIVE (13	Quarter Vector	CHAIN OF CUSTODY RECORD Additional Notes/ Comments/ Special Instructions:	minni ser-services com	Culpener, Virgans 22*11 = 1x: 540-825-4961
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218 North Main St. # P.D Box 520 # Culpeper, Virginia 22701 # Tel (640) 625-6660 # Fax (540) 825-4961 # swww.oss-services.com

Analytical Report

Fauguler County WSA Reminaton WWTP 7172 Kennedy Road Warrenton, VA 20187-1648 Report Date:

09/21/2022

Report #

69913

Job#

0010467

Customer #.

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by

A Woodward/Technical Director

Reviewer's Initials





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1645 Analytical Report

Report Date:

09/21/2022

Report #

69913 0010467

Customer #

99R

Customer PO # Collected By

ESS Employee

09/14/2022

12:20

di

Sample Location

SM 9221 E+C-2006

Quarierly Vector

Sample ID#: Sample Date/Time:	0207399 09/14/2022	/ 08 00	Sample Source: Date Received:	Vessel A 09/14/2022			
²arameter	Results	Unit	QL.	Method	Analysis Date	Time	IMIT
MILSS/MLVSS				10110-0	* 21 21 2	111100	0.00
Mixed Liquar Susp Solids	11,500	rng#	1 00	SM 2540 D-2011	09/16/2022	15 48	31
viixed Liquor Volalile SS	7,400	mg/l	1.00.	SM 2540 E 2011	09/18/2022	13.25	JI
Fecal Collorm	< 180	MPN/g	180	SM 922 F E+C-2006	09/14/2022	11:25	d)
Sample ID#: Sample Date/Time:	0207400 09/14/2022	/ 08 10	Sample Source: Date Received:	Vessel B 09/14/2022			
'srameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS						THE STATE OF THE S	-
Alxed Liquor Susp Solids	11,700	mgA	1.00	SM 2540 D-2011	09/16/2022	15:49	- 6
dixed Liquor Volatile SS	7,310	mg/l	1.00	SM 2540 E-2011	09/18/2022	13-25	d.

180

Results reported as mg/kg or MPN/g are reported on a dry weight basis

< 180

MPN/g

ecal Colitora

:OMMENT:

tions Through Quality Service

218 North Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-54*- 2116 • \$40-825-8660 • Fax: 540-825-4961

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ริกเตป. หญิงเชิดรระชองอยร ดอก

With Septembers and

TADAL 4/22 48/14 4 0800 COLLECTION DATE TIME Sike Combag ton 0810 Post Office 13 193 100 Z Part Mane) GEST PURENT JUNE 2180 VOSET A To Hand Delivery NOW! H FXC-KSK SAMPLE W W Repended @ AL - 4 C Under 2 hours **CHAIN OF CUSTODY RECORD** 125 17 123 200 CONTAINERS SIZE GP # *O.# 500 0 70 Additional Notes/ Comments/ Special Instructions: 1 GRAH iguished by Madd Rosults by

Enic charges will apply longuon Tell Pundi баме 2 546 SHO 4 SOUPLE PROSERVATIVE Sher Sin Park | Mad Liques 9/1/200 John # 100 # Feel 1 (+ CALL PARTY ANALYSES ALD BY Sample condition "C upon receipt to ic Dis Chart Presurvative COMMENTS

Sample Condition Stamp

NOTICE AND NECESSARY INFORMATION.

Biosolids notification requirements to comply with 9VAC25-31-530 F -- G or 9VAC25-32-313.G -- H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Nume: Remington	WWTP	Permit Number: VA 0076805
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations [7]
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (12
Total Arsenic	[9/]	19.1	41	75
Total Cadmium	28.7	28.7	39	85
Total Copper	973	973	1,500	4,300
Total Lead	16.5	165	3.00	840
Total Mercury	0.519	0.519	17	57
Total Molybdenum	12.2	122	NL (3)	75
Total Nickel	20.0	20.0	420	420
Total Selenium	< 400	< 4,00	100	100
Total Zinc	1,380	1,380	2,800	7,500

(1) Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of support deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B	300
9VAC25-32-675.B by:	

M	Alternative	1. Fees	coliform	testing	-peometric	mean of 7	samples

V	Alternative 2:	Process to S	significantly	Reduce I	athogens (P.	SRP) - i	selected,	indicate	process be	low.
---	----------------	--------------	---------------	----------	--------------	----------	-----------	----------	------------	------

Option I - Aerobic digestion

☐ Option 2 - Air drying beds

D Option 3 - Anaerobic digestion

☐ Option 4 - Composting

D Option 5 - Lime Stabilization

☐ Other



NOTICE AND NECESSARY INFORMATION

C	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B to 9VAC25-32-685.B.1 - 8 by:	piosolids were achieved in accordance	with 9VAC25-31-720.B.1 - 8 c
	Deption 1: ≥ 38% volatile solid Deption 2: Anserobic 40 day be Deption 3: Aerobic 30 day ber Deption 4: Specific Oxygen U Deption 5: Aerobic process, 14 Deption 6: Alkaline stabilization Deption 7: Dry to ≥ 75% T.S.	nench test nch test ptake Rate (SOUR) test 1 days @ 40°C (45°C) on	
	OR		
n	or 9VAC25-32-685.B.1 - 8; then land application site.	icsolids were not achieved in accordancefore, Option 9 (Injection) or Option	
12.	Nutrient Concentrations	15	(market
	Sample Date(s):	Number of S	ambies:
		Concent	retions
	Parameters	Monthly Average (mg/kg) [1]	Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	MIA
	Total Phosphorus as P	M/A	A/A
В.	*Values to be reported on a dry weight b	esis.	
	supervision in accordance with a sys evaluate the information submitted, those persons directly responsible for knowledge and belief, true, accorde	r gathering the information, the inform	personnel properly gather and persons who manage the system nation is, to the best of my are significant penalties for
	ne and official title Trong W.S.	7 0	chick operator
Sign	samre Tryslillesta-	Dute Signed	1-2(-12
Tele	phone number <u>540 - 435 - 2</u>	225	





218 North Main St. # P.O. Box 520 # Gulpeper, Virginia 22701 # Tel: (540) 825-6660 # Fax: (540) 825-4961 # <www.ess-services.com>

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton VA 20187-1646

Report Date:

09/20/2022

Report #

69101

Job #

0010467

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWVTP

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Horge Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report

Report Date:

09/20/2022

Report #

69101

Job #

0010467

Customer #.

99R

Customer PO#

Customer

Collected By.

Sample Location Remington WWTP

Sample (D#: Sample Date/Time: 0205753 08/15/2022 / 07:50

Sample Source: Date Received: Sludge

08/15/2022

Paramèter	Results	Unft	QL	Method	Analysis Date	Time	INIT
Total Solids (%)	19.9	%	0.500	SM 2540 G-2011	08/18/2022	14:55	574
Arsenic, Total Recoverable	19.1	mg/kg	4.00	SW-846 6010B	09/09/2022	10:30	574
Molybderium, Total Recoverable	12.2	mg/kg	4.00	SW-846 6010B	09/09/2022	10.30	574
Zinc, Total Recoverable	1,380	mg/kg	4.00	SW-8466010B	09/09/2022	10:30	574
Lead, Total Recoverable	16.6	mg/kg	4.00	SVV 848 6010B	09/09/2022	10:30	574
Nickel, Total Recoverable	20.0	mg/kg	4.00	SW 846 60108	09/09/2022	10:30	100
Marcury, Total Recoverable	0.519	mg/kg	0.0250	SW-846 7471A	09/12/2022	11:22	574
Copper, Total Recoverable	973	mg/kg	2.00	SW-846 6010B	09/09/2022	10:30	574
Cadmium, Total Recoverable	28.7	mg/kg	2.00	SW-846 50108	09/09/2022	. 20 700	574
Selenium, Total Recoverable	< 4.00	mg/kg	4,00	SW 846 6010B	09/09/2022	10:30	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP IDW 060180

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2						1		1	TS				1



December 16, 2022

Mr. G.Lewis FCWSA-Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Mr. Lewis,

Environmental Systems Service, Ltd. (ESS) conducted the fourth quarter vector (2021) attraction study for the Remington WWTP from 11/22/2021 to 12/21/2021. The original 5-gallon sample was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period expired a second round of MLSS, MLVSS, and Feçal Coliforn samples collected from Vessels A and B.

Vessel A	% Sludge =	1,18%		E. J
Date	MLSS	MLVSS	% Volatile	Fecal Coliform
11/8/2022	11750	7590	64.6%	4000
12/7/2022	11800	7570	64.2%	1360
		Reduction	0.4%	
	% Sludge			
Vessel B		1.28%		
	www.		%	Fecal
Date	MLSS	MLVSS	Volatile	Coliferm
11/8/2022	12800	8360	65.3%	1250
12/7/2022	11300	7210	63.8%	619
		Reduction	1.5%	

Average Reduction for 30 Day Period

1.0%

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be 1.0%. According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision I cannot be met for an aerobically digested sludge. In this case, vector attraction reduction demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the luboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduced by less than 15%, vector attraction reduction achieved.

Since the volatile solids reduction for the Remington WWTP found to be an average of 1.0% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feet free to contact me at 540-823-6660.

Best regards.

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody





218 North Main St. # P.O. Box 520. + Culpener Virginia 22701 + Tel (540) 825-6860. + Fak. (540) 825-4961. + Novertes-Services comp

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187 (646 Report Date 11/16/2022
Report # 71456
Job # 0010693
Customer # 998

Customer PO#

Collected By: ESS Employee Sample Location: Vector Study

The lest results issued in this report relate only to the samples received by Environmental Systems Service. Ltd (ESS)

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mg/l = milligrams per liter (1 mg/l = 1 part per million of ppm)

ISU = Standard unit

iimhos/cm = micromhos per centimeter @25 C

Mare Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials 13





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton VA 20187-1546

Report Date

11/15/2022

Report # Job # 71456

Customer#

0010693 99R

Customer PO#

ESS Employee

Collected By Sample Location

Vector Study

Sample ID#: Sample Date/Time	0210601 11/08/2022	/ 15 50	Sample Source: Date Received:	Vessel A 11/08/2022			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Fecal Coldonn MLSS/MLVSS	4,000	MPN/g	180	SM 9221 E+C-2006	11/08/2022	18.24	SR
Mixed Liquor Susp Solids	11,750	mgA	1.00	SM 2540 D-2011	11/14/2022	31.40	(1)
Mixed Liquor Votallia SS	7,590	mg/l	1,00	SM 2540 E-2011	11/14/2022	16 15	B
Sample ID#: Sample Date/Time:	0210602 11/08/2022	/ 1.5 50	Sample Source: Date Received:	Vessel 8 11/08/2022			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Fecal Coliforni MLSS/MLVSS	1,250	MPN/g	180	SM 9221 E+C-2006	11/08/2022	16:30	SR
Mixed Liquor Susp Solids	12,800	mg/l	1.00	SM 2540 D-2011	11/14/2022	11:44	qî.
Mixed Liquor Volatile SS	8,360	mg/l	1.00	SM 2540 E-2011	11/14/2022	16.35	JI



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$\mathfrak{S}_{\mathfrak{M}}$ of \mathfrak{g} in \mathfrak{g} . Services, eye				nces.cam	www.ess-services.com	A) col				Service	ns Thraugh Onathy Service
71456				1969-57	Fax 540-82	6550 =	10-825	1-2116 * 5	900-541-2116 * 540-825-8560 = 85x; 540-825-4961		ment of a decision of the contract of the cont





218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tall (540) 825-6660 ♦ Fax. (540) 825-4961 ♦ www.ess.services.com/

Analytical Report

Faugurer County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1548.

Report Date

12/15/2022

Report #

72210

Job #

Customer #:

0010693 99R

Customer PO#

Collected By:

ESS Employee

Sample Location: Quarterly vector

The test results issued in this report relate only to the samples received by Environmental Systems Service, Etd (ESS)

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Angie Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials





Analytical Report

Pauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton VA 20187-1646

Report Dale 12/15/2022
Report # 72210
Job # 0010693
Customer #: 99R

Customer #:

Collected By ESS Employee Sample Location Querterly Vector

Sample ID#: Sample Date/Time:	0212160 12/07/2022	/ 07-15	Sample Source: Date Received:	Vessel A 12/07/2022			
² arameter	Results	Unit	QL	Method	Analysis Date	Time	MIT
MLSSAMLVSS							-
Mixed Liquar Susp Solids	11,800	mg/l	1 00	SM 2540 D-2011	£2/07/2022	15 25	di
Vixed Liquor Volatile SS	7,570	mg/l	1 00	SM 2540 E-2011	12/08/2022	11.40	11
Facal Coliform	1,360	MPM/g	180	SM 9221 E+C-2006	12/07/2022	11:08	SR
Sample ID#: Sample Date/Time:	0212161 12/07/2022	/ 07.30	Sample Source: Date Received:	Vessel B 12/07/2022	-		
^j arameler	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS						2.50(39)	11010
Vixed Liquor Susp Solids	11 300	mg/l	1.00	SM 2540 D-2011	12/07/2022	15 28	31
vixed Liquor Volalile SS	7,210	mg/l	1.00	SM 2540 E-2011	12/08/2022	11.40	11
ecal Coliform	619	MPN/g	180	SM 9221 E+C-2006	12/07/2022	1137	SR

Results reported as mg/kg or MPN/g are reported on a dry weight basis



utions (mough Quality Service

218 North Nam Street = Post Office Box 520 = Culpaper, Virginia 22701 = 800-541-2116 = 540-825-660 = Fax: 540-825-4951

00075200AJB4456456

72210

- PARTIES

Email infa@ess-services.co

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Sample Condition Stamp

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218 North Main St. ♦ P.O. Box 520 Culpeper, Virginia 22701 Fel: (540) 825-6660 Fax: (640) 825-4961 ★ SWWW.895-980/ICES.com>

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

12/07/2022

Report #

71420

Job #

0010757

Customer#

99R

Customer PO#

Curk

Collected By

Customer

Sample Location Remington WWTP

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Maie Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials

Tril XE





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date,

12/07/2022

Report #

71420 0010757

Customer #

99A

Collected By

Castome

Sample Location:

Remington WWTP

Sample ID#: Sample Date/Time: 0210540 11/08/2022 / 08:20 Sample Source: Date Received:

Sludge 11/08/2022

The state of the s		No. and Automatical	133.0 (34 537 434)	,			
Parameter	Results	Unit	QL.	Method	Analysis Date	Time	INIT
Total Solids (%)	17.7	%	0.500	SM 2540 G-2011	11/11/2022	16:00	574
Arsenic, Total Recoverable	11.1	mg/kg	4,00	SW-846 6010B	11/14/2022	11:42	574
Molybdenum, Total Recoverable	10.5	mg/kg	4.00	SW-846 6010B	11/14/2022	11:42	574
Zinc, Total Recoverable	969	mg/kg	4.00	SW-846 6010B	11/14/2022	11:42	574
Lead, Total Recoverable	12.4	mg/kg	4,00	SW-846 6010B	11/14/2022	11:42	574
Nickel, Total Recoverable	25.6	mg/kg	4.00	SW-846 6010B	11/14/2022	11:42	574
Mercury, Total Recoverable	0.255	mg/kg	0.0250	SW-8467471A	11/18/2022	14:32	574
Copper, Total Recoverable	827	mg/kg	2.00	SW-846 6010B	11/14/2022	11:42	574
Cadmium, Total Recoverable	26.2	mg/kg	2.00	SW-846 8010B	11/14/2022	11:42	574
Salenium, Total Regoverable COMMENT:	< 4.00	mg/kg	4,00	SW-846 6010B	11/14/2022	11:42	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP IDN 468160

☐ Fed Ex		Down Time Processed by		22 abiza Shidge	CHECKOL	(Piles Names)	Constract #	x 861646 on, Virginia 20187 1-2092, fax 540-347-7689	er County Water and Samission Authority keler	SUSTODY RECORD
Received @ 3 - 1	· >	1 collect		88 82 63	m = 0 8355 \$630#2#800	Record to			horay	
C: Normal Need Results by Edits chalces may	Refinguished by	1		1 x sludge	GRAIL	1	Lift maybe consists	CLUMPONT, VA 22701 B00:541:2116 S40:825:5860	218 North Math St. Prost Offices Blay 520	
Normal Rush Normal Rush Read Results by Edits challes may sock for Rush TAT		Mex		none X	Sold and an action of the colors of the colo			Bedford, VA 24523 540-586-5473 Fax 540-586-9530	500 Stone St. Post Offical Box 736	ENVIRONMENTA
W.O.# 1075	1/8/22 13/8	32.18		×	As,Mo, Pb,NI,F	Zn lg	A	301-817-880 Pau 301-817-3426	8924 Lettenest Road Leuret, MD 20723	ENVIRONMENTAL SYSTEMS SERVICE, LID.
Amount Paid \$ Check #	Recoved for Laboration by	Received by			COMMENTS	////	ANALYSES	Winuson-Selem, NC 27103 910-856-3378 6 Fax 810-656-3379	Sum E	CE, LIJE.

sample condition "OK" upon receipt to lab

Biosolids notification requirements to comply with 9VAC25-31-530,F - G or 9VAC25-32-313,G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives

Facility Name: Remington wwT	Permit Number: V4. 00 76 805
A. Metals Limitations Sample Date(s):	Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (17	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
Total Arsenic	11.1	11.1	41	
Total Cadmium	28.2	2.85	39	75
Total Copper	758	758	1,500	85
Total Lead	124	12.4	300	4,300
Total Mercury	0.255	0 255	17	840
Total Molybdenum	10.5	10.5	NL (3)	57
Total Nickel	25.6			75
Total Selenium		256	420	420
Total Zinc	969	< 4.00	100	100
THE COLUMN TWO IS NOT THE OWNER.	d on a dry weight basis	969	2,800	7,500

(2) Sludge may not be land applied if any pollutant exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction 9VAC25-32-675.B by:	requirements were achieved in accordance with 9VAC25-31-710.B or

□ Al	lternative 1:	Fecal	coliform	resting	-geometric	mean of 7	samples
------	---------------	-------	----------	---------	------------	-----------	---------

ID-Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:

- Option | Aerobic digestion
- D Option 2 Air drying beds
- ☐ Option 3 Anaerobic digestion
- ☐ Option 4 Composting
- ☐ Option 5 Lime Stabilization
- Other:

Vector Attraction Reduction (VAR)	1	
VAR requirements for Class B 9VAC25-32-685.B.1 - 8 by:	biosolids were achieved in accordance	ce with 9VAC25-31-720.B.1
Di Option 1: ≥ 38% volatile soli Di Option 2: Anaerobic 40 day 8 Di Option 3: Aerobic 30 day ber Di Option 4: Specific Oxygen U Di Option 5: Aerobic process, 14 Di Option 6: Alkaline stabilization Di Option 7: Dry to ≥ 75% T.S. 1 Di Option 8: Dry to ≥ 90% T.S.	bench test nch test ptake Rate (SOUR) test 4 days @ 40°C (45°C)	
OR		
 VAR requirements for Class B b or 9VAC25-32-685.B.1 - 8; then land application site. Nutrient Concentrations 	iosolids were not achieved in accord afore, Option 9 (Injection) or Option	fance with 9VAC25-31-720(B. 10 (Incorporation) is required
Sample Date(s):		Samples:
	Concer	otrations
Parameters	Monthly Average (mg/kg) (17)	Maximum (mg/kg) (1)
Total Nitrogen as N Total Phosphorus as P	N// A	NIA
*Values to be reported on a dry weight be	MIA	M/A
Certification I certify under penalty of law that this supervision in accordance with a syste evaluate the information submitted. B those persons directly responsible for incoming accurate a numbrishing false information, including	m designed to assure that qualified ased on my inquiry of the person or gathering the information, the infor- nd complete. I am aware that the	personnel properly gather and persons who manage the syste mation is, to the best of my
ne and official title _ Chief Ope		~
nature and hillinghow.	Data Signer 10	W.75



Annual Tonnage Report January 1, 2022 to December 31, 2022

Remington WWTP

Total Wet Tons Land Applied	2487,05
December 2022 % Solids	19.28
Total Dry Tons Land Applied	479,50
Total METRIC Dry Tons Land Applied	435
Approx Acres Utilized	129
Tons to Landfill	0

P.O. Box 562

Remington, Virginia 22734

(540)547-3300

FAX (540)547-3361

FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms Warrenton, Virginia 20187-3907 Phone (540) 349-2092 • Fax (540) 347-7689



February 6, 2020

Compliance Officer
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Remington WWTP VA0076805

To Whom It May Concern:

Enclosed please find the 2019 Annual Sludge Program Discharge Monitoring Reports and the Pathogen Reduction Study Summary for the Remington Wastewater Treatment Plant. We have no excursions to report.

Should you have any questions or require additional information please feel free to contact me at (540) 349-2092.

Sincerely,

Cheryl St. Amant

Associate General Manager Operations

Cc: Ben Shoemaker, Executive Director

Remington WWTP

File

PERMITTEE NAME/ADDRESS(INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME

ADDRESS

FACILITY

Remington Wastewater Treatment Plant

C/O Fauquier County Water and Sewer Authority

Warrenton VA 20188

LOCATION 12523 Lucky Hill Rd

Sommonia Performance of Management DEPARTMENT OF ENVIRONMENTAL QUALITY NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES) DISCHARGE MONITORING REPORT(DMR)

	VA	00768	05][S01		
	PER	MIT MUI	MBEA		DISCHAR	GE NU	MBER
		PERMIT NUMBER MOI YEAR MO DAY			NG PERIO	מכ	
	YEAR	МО	DAY		YEAR	MO	DAY
FROM	2019	01	01	то	2019	1Z	31

Municipal Major

02/12/2010

DEPT. OF ENVIRONMENTAL QUALITY (REGIONAL OFFICE)

Northern Regional Office 13901 Crown Court

Woodbridge

VA 22193

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANT	TTY OR LOADING			QUALITY OR CO	NCENTRATION		NO.	FREQUENCY	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MUMIXAM	UNITS	EX.	OF ANALYSIS	
672 SOLIDS, TOTAL, SLUDGE	REPORTO	******	*****		******	19.3	******	%		1/YK	Comp
AS PERCENT	REQRMNT	*****	******		******	NE	****	*		1/YR	COMP
680 ARSENIC, SLUDGE	REPORTD	*****	******		******	7.15	10.2	mc/KC		1/YR	Comp
	REQRMNT	****	*****		******	41	75	MG/KG		1/YR	COMP
81 MOLYBDENUM, SLUDGE	REPORTO	******	*****		*****	******	10.0	mG/KC	-	1/4R	COMP
	REQRMNT	******	*****		******	******	75	MG/KG		1/YR	COMP
582 ZINC, SLUDGE	REPORTD	*****	****		*******	1293	1620	mG/KC		VIYR	Comp
	RECAMNT	*******	****		******	2800	7500	MG/KG		1/YR	COMP
83 LEAD, SLUDGE	REPORTD	*******	*****		******	23.4	28.4	MC/KC		1/42	Comp
	REQRMNT	*******	*******		*******	300	840	MG/KG		1/YR	COMP
84 NICKEL, SLUDGE	REPORTD	*****	*****		*****	203	26.8	ME/KC		1/4R	Comp
	REQRMNT	****	*****		******	420	420	MG/RG			COMP
85 MERCURY, SLUDGE	REPORTD	******	****		******	0.369	0.624	mc/ke		1/48	Comp
	REQRMNT	*******	*******		****	17	57	MG/KG			COMP
86 COPPER, SLUDGE	REPORTD	*****	****		*****	924	1070	mc/KC		1/4R	COMP
	REQRMNT	******	*******		******	1500	4300	MG/KG			COMP

BYPASSES AND	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BODS(K.G.)	OPERAT		DATE					
OVERFLOWS	0	0	0	Raymond Searls	Rul Sul	1965006247	20	Olo			
		THIS DOCUMENT AND ALL VISION IN ACCORDANCE		TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY		
	ESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE BE IMPOUNDATION SUBMITTED. BASED ON MY IMQUIRY OF THE PERSON OR PERSONS			PRINCIPAL EXECUTIVE OF							
4B INFORMATION, 1	THE INFORMATION SUB	NS DIRECTLY RESPONSIE NUTTED IS TO THE BEST	OF MY MONOWLEDGE	CHERYLST, AMONT	(/wto	540-349-2092	20 02		06		
OD BELIEF TRUE, ACCURATE AND CUMPLETE, I AN AMARE THAT THERE ARE [CHIFICANT PENALTIES FOR SUBMITTING FALSE IMPORTATION, INCLUDING THE ESSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.				TYPED OR PRINTED NAME	SIGNATURE		YEAR MO.		DAY		
									1		

PERMITTEE NAME/ADDRESS(INCLUDE

FACILITY NAME/LOCATION IF DIFFERENT)

Remington Wastewater Treatment Plant NAME ADDRESS

c/o Fauquier County Water and Sewer Authority

Warrenton VA 20188

FACILITY LOCATION 12523 Lucky Hill Rd

DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES) DISCHARGE MONITORING REPORT(DMR)

	VA	00768	05	7	901					
	PERI	NUI TIN] [DISCHARGE NUMBER						
			MON	TORI	NG PERI	OD				
	YEAR	МО	DAY		YEAR	МО	DAY			
ROM	2019	01	01	то	2019	12	31			

Municipal Major

02/12/2010

DEPT. OF ENVIRONMENTAL QUALITY (REGIONAL OFFICE)

Northern Regional Office 13901 Crown Court

Woodbridge

VA 22193

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANT	TTY OR LOADING			QUALITY OR CO	NCENTRATION		NO.	FREQUENCY OF	SAMPLE TYPE
		AVERAGE	MUMIXAM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX.	ANALYSIS	11172
587 CADMIUM, SLUDGE	REPORTO	*****	******		******	6.93	10.5	mc/kc		1142	COMP
	REQRMNT	****	****		****	39	85	MG/KG		1/YR	CDMP
588 LEVEL OF PATHOGEN	REPORTO	*****	*******		******	*******	2	STCL#		1142	
REQUIREMENTS ACHIEVED	REQRMNT	****	******		*******	*****	NL	STCL#		1/YR	*****
889 DESCRIPTION OF	REPORTO	*****	******	Ţ	*****		2	ALTR#		1142	
ATHOGEN OPTION USED	REQRMNT	*****	*****		******	******	NL	ALTR#		1/YR	******
90 VECTOR ATTRACTION REDUCTION OPTION USED	REPORTO	*****	******		******		2	ALTE#		1181	
	REQRMNT	***	*****		******	*****	NL	ALTR#		1/YR	*****
97 SELENIUM, SLUDGE	REPORTD	****	******		******	KQL	ZQL	MG/KC		1/8/2	Comp
	REQRMNT	****	******		*******	100	100	MG/KG		1/YR	COMP
	REPORTO										
	REQAMNT									*****	
· · · · · · · · · · · · · · · · · · ·	REPORTD										
	REQRMNT									****	
	REPORTD						100				
	REQRMNT									*****	

OTTONAL PERMIT REQUIREMENTS OF COMMENTS

BYPASSES. AND	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERAT	OR IN RESPONSIBLE CHARGE		OATE		
OVERFLOW6	0	Ō	0	Raymond Sparls	12 Sul	1965006247	20	02	06
		THIS DOCUMENT AND ALL		TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
CONED TO ASSURT	E THAT QUALIFIED PER	SOUNCE PROPERLY GATE	HER AND EVALUATE	PRINCIPAL EXECUTIVE OFF	ICER OR AUTHORIZED AGENT	TELEPHONE			
MANAGE THE SYS	STEM OR TROSE PERSON	OSE PERSONS DIRECTLY RESPONSIBLE FOR CATHERING ATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE		CHERYLST: AMA-7	(/ un-	540-349-2092	20	02_	0-6
	UE, ACCURATE AND CUMPLETE, I AN AMARE THAT THERE ARE EMALTIES FOR SUBMITTING FALSE IMPORMATION, INCLUDING THE			TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY
SIBILITY OF PLA	CE AND IMPRISONMENT	FOR KNOWING VIOLATIO	NES.						

PERMITTEE NAME/ADDRESS(INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

MME

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM(NPDES) DISCHARGE MONITORING REPORT(DMR)

Municipal Major

02/08/2008

DEPT. OF ENVIRONMENTAL QUALITY (REGIONAL OFFICE)

Northern Regional Office 13901 Crown Court

Woodbridge

VA 22193

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

ADDRESS o	temington Wastewater !/o Fauquier County /arrenton				VA0076		! ├──	SP1 IARGE N	JMBER
ACILITY 3.0CATION 3	2523 Lucky Hill Rd			FROM	YEAR MC 2019 01	DAY	ORING P YE	AR MO	DAY
PARAMETE	R		OUANTITY O	RLOADING			a	UALITY	OR CO
		AVERA	GE	MAXIMUM	UNITS	MINIM	UM	AVEF	RAGE

			7.10.2				<u> </u>				
PARAMETER		OUANTI	TY OR LOADING			QUALITY OR CO	NCENTRATION		NO.	FREQUENCY OF	SAMPLE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX.	ANALYSIS	TYPE
693 ANNUAL SLUDGE	REPORTO	*******	466,54	MTUYR	*******	******	******			118R	CHLC
PRODUCTION TOTAL	REQRMNT	*******	NL	MTNYR	*******	*******	*******			1/YR	CALC
694 ANNUAL AMT SLUDGE	REPORTD	*****	466154	MTHYR	******	*******	*******	_	Ì	1/4R	CALC
LAND APPLIED	REQRMNT	******	NL	MINYR	******	******	*******			1/YR	CALC
	REPORTO										
	REQRMNT									*****	
<u> </u>	REPORTD						-				
	REQRANT						•			*****	
	REPORTD										
	RECIRMNT									*****	
	REPORTO				'				Ĭ		
	REGRANT									*****	
	REPORTO									_	
	REQRMNT									*****	
	REPORTO						_				
	REQRMNT									*****	
DOITIONAL PERMIT REQUIREMENTS OR	COMMENTS										

BYPASSES AND	TOTAL OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOD5(K.G.)	OPERATOR IN I	OPERATOR IN RESPONSIBLE CHARGE			E	
OVERFLOWS	0	0	0	Raymonb Starls	Raymont Starls TZWASNA 196500626		20	02	06
.2PARED INGER N	O DIRECTION OR SUPER	THIS DOCUMENT AND ALL (VISION IN ACCORDANCS) PROPERLY GATHER AND 3V	GENELED MITERS A HITT	TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PARITTED. BASES	ON MY INQUIRY OF TH	IE PERSON OR PERSONS WI		PRINCIPAL EXECUTIVE OFFICE	R OR AUTHORIZED AGENT	TELEPHONE			
APITED IS TO	THE HEET OF MY KNOW	EDGE AND BELIEF TAUE.	ACCURATE AND COMPLETE.	CHERYLST. AFTER	(1.11-	540-349-2092	70	02	06
CLUDING THE PO	WEIBILITY OF FINE A		WING VIOLATIONS. SEE 18		SIGNATURE	•	YEAR	MO.	DAY
			n 6 months and 5 years.)		/				

January 1, 2019 to December 31, 2019

WSA Remington

Total Wet Tons	2,311.89
Dec 2019 % Solids	20.18%
Total Dry Tons	466.54
Approx Acres Utilized	231.189
Tons to Landfill	0

o report truthfully can result in civil penalties of \$32,500 per violation, per day and felony prosecutions which can ca uned by your vruts permit and by law. (See, e.g., the Code of Virginia of 1950 §62.1-44.5 and 9 VAC 25-31-50.) Fall

DISCHARGE MONITORING REPORT (DMR) - GENERAL INSTRUCTIONS

form in permanent ink or indelible pencil. The use of 'correction fluid/tape' is not allowed.

r the dates for the first and last day of the period covered by the report on the form in the space marked "Monitoring Period"

neters where the "permit requirement" spaces have a requirement or limitation, provide data in the "reported" spaces in

ge and maximum quantities and units in the "reported" spaces in the columns marked "Quantity or Losding". centration (mg/L) x Flow (MGD) x 3.785 G/D (Grams/Day) = Concentration (mg/L) x Flow (MGD) x 3785

n, minimum, and/or average concentrations and units in the "reported" spaces in the columns marked "Quality or Concentration"

hould consult the permit for what constitutes an exceedance and report accordingly. ximum 7-Day Average and Maximum Weekly Average violations in this field. Permittees with continuous pH, or temperature moers enter the number of samples which do not comply with the maximum and/or minimum permit requirements in the "reported" fumn marked "No. Ex." (Number of Exceedances). If none, enter "0". Do NOT include monthly average violations in this field,

id to sample (at a minimum) according to the Sample Frequencies and Sample Types specified in your permit

I frequency of analysis for each parameter (number of times per day, week, month, etc.) in the "reported" space in the column

I required data or comments in the space marked "additional permit requirements or comments". If additional required data or speended to the DMR, reference appanded correspondence in this field.

type of sample (Grab, 8HC, 24HC, etc) collected for each parameter in the "reported" space in the column marked "Sample Type

ber of bypasses during the month, the total flow in million gallons (MG) and BOD5 in kilograms (KG) in the proper columns in th "Bypasses and Overflows"

responsible charge of the facility should review the form and sign in the space provided. If the plant is required to have a licens e operator in responsible charge of the facility is a licensed operator, the operator's signature and certificate number must be

secutive officer then reviews the form and must sign in the space provided and provide a telephone number where he/she can be page of the DMR must have an original signature

fled in the permit. eted form(s) with original signatures to your Department of Environmental Quality Regional Office by the 10th of each month unl

to retain a copy of the report for your records.

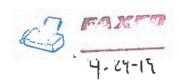
is taken. Reference each seperate violation by date s of permit requirements are reported, attach a brief explanation in accordance with the permit requirements decribing causes ar

questions, contact the Department of Environmental Quality Regional Office listed on the DMR.

Biosolids notification requirements to comply with 9VAC25-31-530.F-G or 9VAC25-32-313.G-H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

	Metals Limitations Sample Date(s):			Number of S	Samples:
		Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
	Total Arsenic	(4.00	< 4.00	41	75
	Total Cadmium	4.98	4.98	39	85
	Total Copper	909	809	1,500	4,300
	Total Lead	28.4	28.4	300	840
	Total Mercury	0.223	0.223	17	57
	Total Molybdenum	8.39	8.39	NL ⁽³⁾	75
	Total Nickel	18.7	18.7	420	420
	Total Selenium	<4.00	<4.00	100	100
	Total Zinc	1020	1,020	2,800	7,500
	monthly average m deficiency in grazion Class B Pathogen Re-	ge concentration for molybdenum concentrating animals.	olybdenum is curre ion below 40 mg/k	ently under study by USEP g may be appropriate to re-	duce the risk of copper
В.					a⊾ በፕ/ለ <i>ጦባር 31 ግ</i> ነበ D /
В.	9VAC25-32-675.B b		urements were ac	chieved in accordance wi	ith 9VAC25-31-710.B



☐ Option 5 - Lime Stabilization ☐ Other: _____

		1	
C.	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B biog 9VAC25-32-685.B.1 – 8 by:	solids were achieved in accordance	with 9VAC25-31-720.B.1 - 8 or
	Option 1: ≥ 38% volatile solids Option 2: Anaerobic 40 day ben Option 3: Aerobic 30 day bench Option 4: Specific Oxygen Upta Option 5: Aerobic process, 14 d Option 6: Alkaline stabilization Option 7: Dry to ≥ 75% T.S. w/n Option 8: Dry to ≥ 90% T.S.	ich test i test ake Rate (SOUR) test lays @ 40°C (45°C)	
	OR		
	□ VAR requirements for Class B bio or 9VAC25-32-685.B.1 8; theref land application site.		nce with 9VAC25-31-720.B.1 – 8 10 (Incorporation) is required at the
D.	Nutrient Concentrations		
	Sample Date(s):	Number of S	amples:
		Concent	rations
	Parameters	Monthly Average (mg/kg) [1]	Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	N/A
	Total Phosphorus as P) / A	N/H
	*Values to be reported on a dry weight bas	sis.	
Е.	Certification		
	I certify under penalty of law that this supervision in accordance with a syste evaluate the information submitted. Be those persons directly responsible for knowledge and belief, true, accurate a submitting false information, including	m designed to assure that qualified ased on my inquiry of the person or gathering the information, the infor nd complete. I am aware that there	personnel properly gather and persons who manage the system or mation is, to the best of my are significant penalties for
	me and official title Raymond	Searls Chief	operator
Sig	nature The Co	Date Signed	1-29-19
		2225	

Revised 10/2014 Page 2 of 2



2-13-19

Sludge

218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fex (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Report Date:

03/04/2019

Report #

34480

Job #:

0007405

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials



Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

03/04/2019

Report #: Job #.

34480 0007405

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0124477

02/13/2019 / 10:55

Sample Source: **Date Received:**

Sludge

02/13/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	19.2	%	0.500	SM 2540 G-2011	02/19/2019	17:20	574
Arsenic, Total Recoverable	< 4.00	mg/kg	4.00	SW-848 6010B	02/19/2019	09:17	574
Moiybdenum, Total Recoverable	8.39	mg/kg	4.00	SW-846 6010B	02/19/2019	09:17	574
Zinc, Total Recoverable	1,020	mg/kg	4.00	SW-848 6010B	02/19/2019	09:17	574
Lead, Total Recoverable	28.4	mg/kg	4.00	SW-846 6010B	02/19/2019	09:17	574
Nickei, Total Recoverable	16.7	mg/kg	4.00	SW-846 6010B	02/19/2019	09:17	574
Mercury, Total Recoverable	0.223	mg/kg	0.0250	SW-8467471A	02/19/2019	12:40	574
Copper, Total Recoverable	909	mg/kg	2.00	SW-846 6010B	02/19/2019	09:17	574
Cadmium, Total Recoverable	4.98	mg/kg	2.00	SW-846 6010B	02/19/2019	09:17	574
Selenium, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	02/19/2019	09:17	57

574 Samples subcontracted to VELAP ID# 460160



218 North Main Street • Post Office Box 620 • Culpaper, Virginia 22701 • 800-541-2116 • 540-825-8660 • Fax: 540-825-4861

500 Stone Street • Post Office Box 736 • Bedford, Vrights 24523 • 540-588-5413 • Fac 540-586-5530



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Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I – To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: 17emin	gton WW-	آ 	Permit Number: Va.	2076805
A. Metals Limitations Sample Date(s):			Number of S	Samples:
	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)
	Monthly Average	Maximum	Monthly Average	Maximum

Parameters	Concent Monthly Average (mg/kg) (1)	rations Maximum (mg/kg) (1)	PC/CPLR Limitations Monthly Average (mg/kg) (1)	Ceiling Limitations ⁽²⁾ Maximum (mg/kg) ⁽¹⁾
Total Arsenic	10.2	5-0	41	75
Total Cadmium	10.5	10.5	39	85
Total Copper	1,070	1 070	1,500	4,300
Total Lead	21.6	21.6	300	840
Total Mercury	0.624	129.0	17	57
Total Molybdenum	7.28	7.28	NL ⁽³⁾	75
Total Nickel	20.2	20.2	420	420
Total Selenium	< 4.00	< 4.00	100	100
Total Zinc	1,620	1,620	2,800	7,500

Values to be reported on a dry weight basis.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B o 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples ☐ Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below: ☐ Option 1 - Aerobic digestion
☐ Option 2 - Air drying beds ☐ Option 3 - Anaerobic digestion
□ Option 4 - Composting
☐ Option 5 - Lime Stabilization
☐ Other:



⁽²⁾ Sludge may not be land applied if any pollutant exceeds these values.

⁽³⁾ The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

C.	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B bios 9VAC25-32-685.B.1 – 8 by:	solids were achieved in accordance	with 9VAC25-31-720.B.1 - 8 or
	☐ Option 1: ≥ 38% volatile solids in Option 2: Anaerobic 40 day bend ☐ Option 3: Aerobic 30 day bench ☐ Option 4: Specific Oxygen Upta ☐ Option 5: Aerobic process, 14 day in Option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/s ☐ Option 8: Dry to ≥ 90% T.S.	ch test test ke Rate (SOUR) test ays @ 40°C (45°C)	
	OR		
	□ VAR requirements for Class B biosof 9VAC25-32-685.B.1 - 8; therefoland application site.		ance with 9VAC25-31-720 B.1 - 8 10 (Incorporation) is required at the
D.	Nutrient Concentrations		
	Sample Date(s):	Number of S	Samples:
		/h	
	Parameters	Concent Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	N/A
	Total Phosphorus as P	MA	N/A
	*Values to be reported on a dry weight bas	is.	
E.	Certification		
	I certify under penalty of law that this a supervision in accordance with a system evaluate the information submitted. Ba those persons directly responsible for g knowledge and belief, true, accurate an submitting false information, including	m designed to assure that qualified used on my inquiry of the person or gathering the information, the infor nd complete. I am aware that there	personnel properly gather and persons who manage the system or mation is, to the best of my are significant penalties for
Nan	ne and official title Ray mond Sa	earls chief opera	nter
Sign	nature 72 1A Co. 9.	Date Signed	-1-19
Tele	ephone number 540 439 22	25	



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginta 22701 ♦ Tel: (540) 825-8660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

06/25/2019

Report#

37389

Job #

0007686

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials #10



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Analytical Report

Report Date:

06/25/2019

Report #:

37389

Job #:

0007686

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0130823

08/05/2019 / 10:15

Sample Source: Date Received:

Sludge 06/05/2019

Parameter	Results	Unit	Report Limit	Method	Analyels Date	Time	INIT
Total Solids (%)	19.0	%	0.500	SM 2540 G-2011	08/07/2019	13:30	574
Arsenic, Total Recoverable	10.2	mg/kg	4.00	SW-848-6010B	08/11/2019	08:25	574
Molybdenum, Total Recoverable	7.2B	mg/kg	4.00	SW-848-6010B	06/11/2019	08:25	574
Zinc, Total Recoverable	1,820	mg/kg	4.00	SW-848-6010B	06/11/2019	08:25	574
Lead, Total Recoverable	21.6	mg/kg	4.00	SW-846-6010B	06/11/2019	08:25	574
Nickel, Total Recoverable	20.2	mg/kg	4.00	SW-846-6010B	06/11/2019	08:25	574
Mercury, Total Recoverable	0.624	mg/kg	0.0250	SW-848-7471A	06/11/2019	12:59	574
Copper, Total Recoverable	1,070	mg/kg	2.00	SW-846-6010B	06/11/2019	08:25	574
Cadmium, Total Recoverable	10.5	mg/kg	2.00	SW-846-6010B	06/11/2019	08:25	574
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4.00	SW-846-6010B	06/11/2019	08:25	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160

84

y ... Fauquier County Water and Sanitation Authority

Post Office Box 520

Post Office Box 738

Leuret, MD 20723

Suito Fi

3917 Wastpoint Blvd.

373

Winston-Salem, NC 27

8321 Leishear Road

SSD Stone St.

Bedford, VA 24523

218 North Main St.

ENVIRONMENTAL SYSTEMS SERVICE, LTD.

Culpaper, VA 22701

N OF CUSTODY RECORD

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3:2014

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I – To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Fac	ility Name: Reminston	WWFP_	Permit Number:	VA 00 76805
	Metals Limitations Sample Date(s):		N	umber of Samples:

	Concent	rations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
Total Arsenic	9.47	9.47	41	75
Total Cadmium	6.91	6-97	39	85
Total Copper	1040	1040	1,500	4,300
Total Lead	24-1	24.7	300	840
Total Mercury	0.178	0.178	17	57
Total Molybdenum	10	10	NL (3)	75
Total Nickel	26.8	26.8	420	420
Total Selenium	44.0	54.D	100	100
Total Zinc	1480	1480	2,800	7,500

(1) Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids patho	gen reduction r	equirements we	re achieved in	accordance with	ı 9VAC25-31-710.B	or
9VAC25-32-675.B by:						

Li Alternative 1: Fecal coliform testing -geometric mean of 7 samples	
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate pro	ocess below:
Option 1 - Aerobic digestion	
☐ Option 2 - Air drying beds	

☐ Option 3 - Anaerobic digestion ☐ Option 4 - Composting

Option 5 - Lime Stabilization

U Other: _____

9-27-19

C.	Vector Attraction Reduction (VAR)		
	□ VAR requirements for Class B bio 9VAC25-32-685.B.I - 8 by:	osolids were achieved in accordance	with 9VAC25-31-720.B.1 – 8 or
	☐ Option 1: ≥ 38% volatile solids ☐ Option 2: Anaerobic 40 day bence ☐ Option 3: Aerobic 30 day bence ☐ Option 4: Specific Oxygen Upt ☐ Option 5: Aerobic process, 14 color option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/☐ Option 8: Dry to ≥ 90% T.S.	nch test n test ake Rate (SOUR) test lays @ 40°C (45°C)	
	OR		
	□ VAR requirements for Class B bid or 9VAC25-32-685.B.1 - 8; theres land application site.	solids were not achieved in accordations, Option 9 (Injection) or Option	nce with 9VAC25-31-720(B.1 - 8 10 (Incorporation) is required at the
Đ.	Nutrient Concentrations		
	Sample Date(s):	Number of Se	amples:
		Concent	rations
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
	Tatal Mitages - NT		
	Total Nitrogen as N	1///	
	Total Phosphorus as P	NA	NA
		ris.	NA
E.	Total Phosphorus as P	ris.	NA
	Total Phosphorus as P *Values to be reported on a dry weight bas	document and all attachments were m designed to assure that qualified ased on my inquiry of the person or gathering the information, the inforn nd complete. I am aware that there	personnel properly gather and persons who manage the system o nation is, to the best of my are significant penalties for
Nan	*Values to be reported on a dry weight base Certification I certify under penalty of law that this supervision in accordance with a syste evaluate the information submitted. But those persons directly responsible for sknowledge and belief, true, accurate as submitting false information, including the and official title	document and all attachments were m designed to assure that qualified assed on my inquiry of the person or gathering the information, the information that there the possibility of fine and imprison	personnel properly gather and persons who manage the system on nation is, to the best of my are significant penalties for ment for knowing violations.
Nan	*Values to be reported on a dry weight base Certification I certify under penalty of law that this supervision in accordance with a syste evaluate the information submitted. But those persons directly responsible for a knowledge and belief, true, accurate a submitting false information, including	document and all attachments were m designed to assure that qualified assed on my inquiry of the person or gathering the information, the information that there the possibility of fine and imprison	personnel properly gather and persons who manage the system on nation is, to the best of my are significant penalties for ment for knowing violations.
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Nan Sigr	Total Phosphorus as P *Values to be reported on a dry weight base Certification I certify under penalty of law that this supervision in accordance with a system evaluate the information submitted. But those persons directly responsible for submitting false information, including the and official title The submitting false information including the persons of the submitting false information.	document and all attachments were m designed to assure that qualified assed on my inquiry of the person or gathering the information, the information, the information complete. I am aware that there the possibility of fine and imprison Sand Sand Date Signed	personnel properly gather and persons who manage the system on nation is, to the best of my are significant penalties for ment for knowing violations.

Revised 10/2014 Page 2 of 2



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218 North Main St. ◆ P.O. Box 520 ◆ Cutpeper, Virginia 22701 ◆ Tet (540) 825-6660 ◆ Fax (540) 825-4981 ◆ Swww.esa-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

09/06/2019

Report #

39472

Job #:

0007852

Customer #:

99R

Customer PO#.

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials _ /



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Sample Condition OK
Upon Receipt



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

09/06/2019

Report #.

39472

Job #:

0007852

Customer #:
Customer PO #:

99R

Collected By:

lv:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0135261 08/20/2019 / 07:15 Sample Source: Date Received: Sludge 08/20/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	TINI
Total Solids (%)	19.6	%	0.500	SM 2540 G-2011	08/23/2019	16:00	574
Arsenic, Total Recoverable	9.42	mg/kg	4.00	SW-846 6010B	08/27/2019	08:41	574
Molybdenum, Total Recoverable	10.0	mg/kg	4.00	SW-846 6010B	08/27/2019	08:41	574
Zinc, Total Recoverable	1,480	mg/kg	4.00	SW-846 6010B	08/27/2019	0B:41	574
Lead, Total Recoverable	24.7	mg/kg	4.00	SW-846 6010B	08/27/2019	08:41	574
Nickel, Total Recoverable	26.8	mg/kg	4.00	SW-846 6010B	08/27/2019	08:41	574
Mercury, Total Recoverable	0.178	mg/kg	0.0250	SW-8467471A	08/29/2019	09:20	574
Copper, Total Recoverable	1,040	mg/kg	2.00	SW-846 6010B	08/27/2019	0B:41	574
Cadmium, Total Recoverable	8.97	mg/kg	2.00	SW-846 6010B	08/27/2019	08:41	574
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4.00	SW-846 6010B	08/27/2019	08:41	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160



Biosolids notification requirements to comply with 9VAC25-31-530.F-G or 9VAC25-32-313.G-H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

	!	Concent	rations	PC/CPLR Limitations	Ceiling Limitations (2)
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
	Total Arsenic	8.96	८.५७	41	75
	Total Cadmium	5.26	5.26	39	85
	Total Copper	677	677	1,500	4,300
	Total Lead	20.8	20.8	300	840
	Total Mercury	0.452	0.452	17	57
	Total Molybdenum	7.62	7.62	NL (3)	75
	Total Nickel	15.6	156	420	420
	Total Selenium	(4.00	< 4.00	100	100
	Total Zinc	1,050	1,050	2,800	7,500
	(2) Sludge may not be (3) The monthly avera	iolybdenum concentra	llutant exceeds thes	se values. ently under study by USEP g may be appropriate to re	A. Research suggests that a duce the risk of copper
-	Class B Pathogen Re	1			

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or

9VAC25-32-675.B by:	
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples	
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:	
Option 1 - Aerobic digestion	
☐ Option 2 - Air drying beds	
☐ Option 3 - Anaerobic digestion	
☐ Option 4 - Composting	
☐ Option 5 - Lime Stabilization	
☐ Other:	_



C.	Vector Attraction Reduction (VAR)											
	VAR requirements for Class B biosolids were achieved in accordance with 9VAC25-31-720.B.1 – 8 or 9VAC25-32-685.B.1 – 8 by:											
	☐ Option 1: ≥ 38% volatile solids reduction ☐ Option 2: Anaerobic 40 day bench test ☐ Option 3: Aerobic 30 day bench test ☐ Option 4: Specific Oxygen Uptake Rate (SOUR) test ☐ Option 5: Aerobic process, 14 days @ 40°C (45°C) ☐ Option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/no unstabilized 1° sludges ☐ Option 8: Dry to ≥ 90% T.S.											
	OR											
	□ VAR requirements for Class B biosolids were not achieved in accordance with 9VAC25-31-720.B.1 – 8 or 9VAC25-32-685.B.1 – 8; therefore, Option 9 (Injection) or Option 10 (Incorporation) is required at the land application site.											
D.	Nutrient Concentrations											
	Sample Date(s):	Number of S	amples:									
		0										
	Parameters	Concent Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)									
	Total Nitrogen as N	N/A	N/H									
	Total Phosphorus as P	N/A	N / /4									
	*Values to be reported on a dry weight bas	is.										
E.	Certification											
	I certify under penalty of law that this a supervision in accordance with a syste evaluate the information submitted. But those persons directly responsible for s knowledge and belief, true, accurate a submitting false information, including	m designed to assure that qualified ased on my inquiry of the person or gathering the information, the infor nd complete. I am aware that there	personnel properly gather and persons who manage the system or mation is, to the best of my are significant penalties for									
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Revised 10/2014 Page 2 of 2



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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

11/20/2019

Report #

41676

Job #:

0007965

Customer#:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials ______





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

11/20/2019

Report #:

41676

Job #:

0007965

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0139903

11/06/2019 / 08:15

Sample Source: Date Received:

Sludge

11/06/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	19.5	%	0.500	SM 2540 G-2011	11/08/2019	12:00	574
Areenic, Total Recoverable	8.98	mg/kg	4.00	SW-848 6010B	11/11/2019	09:06	574
Cadmium, Total Recoverable	5.26	mg/kg	2.00	SW-846 6010B	11/11/2019	09:06	574
Copper, Total Recoverable	677	mg/kg	2.00	SW-848 6010B	11/11/2019	09:06	574
Lead, Total Recoverable	20.8	mg/kg	4.00	8W-846 6010B	11/11/2019	09:08	574
Molybdenum, Total Recoverable	7.62	mg/kg	4.00	SW-848 6010B	11/11/2019	09:06	574
Nickel, Total Recoverable	15.6	mg/kg	4.00	SW-846 6010B	11/11/2019	09:06	574
Selenium, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	11/11/2019	09:06	574
Zinc, Total Recoverable	1,050	mg/kg	4.00	SW-846 6010B	11/11/2019	09:06	574
Mercury, Total Recoverable COMMENT:	0.452	mg/kg	0.0250	SW-848 7471A	11/13/2019	11:55	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160

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hand Delvery		77							Sludge	Name)	outract #	2018/ 40-347-7889		Water and Santiation	STODY RECORD
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C Norred	Relinquished by:	R. F.							ıb M	The state of the s	Pau 500-825-498M	540-825-6660	Culpeper, VA 22701	218 North Main St. Post Office Box 520	
/AA tearls	Depo	al c							×	% solids		Pax 540-588-5530	Bedford, VA 24523	500 Stone St. Post Ciline Box 736	ENVIRONMENTAL
	20	a5:11 61							×	PD, NI, HO	Ath	301-817-8522 Fax 301-817-3428		6027 Leishisar Road Leimel, MD 20723	ENVIRONMENTAL SYSTEMS SERVICE, LTD.
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March 20, 2019

Mr. Raymond Searls FCWSA-Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the first quarter vector (2019) attraction study for the Remington WWTP from 2/11/2019 to 3/13/2019. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 2/11/2019 3/13/2019	% Sludge = MLSS 18400 14600	1.84% MLVSS 12800 9760 Reduction	% Volatile 69.6% 68.8% 2.7%	Fecal Coliform 59,800 < 180
Vessel B Date	% Sludge = MLSS	1.80% MLVSS	% Volatile 70.0%	Fecal Coliform
2/11/2019 3/13/2019	18000 1 72 00	12600 11500 Reduction	19,400 < 180	
	2.9%			

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be 2.9%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 2.9% reduction after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

ESS



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.comp-

Analytical Report

Fauguier County WSA Reminaton WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

03/19/2019

Report #

35192

Job #:

0007444

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Remington - Quarterly Vector

Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials ______



Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

03/19/2019

Report #:

35192

Job #:

0007444

Customer #: Customer PO#: 99R

Collected By:

ESS Employee

Sample Location:

Remington - Quarterly Vector

Sample ID#: Sample Date/Time: 0126012

03/13/2019 / 15:30

Sample Source: Date Received:

Vessel A

03/13/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	< 180	MPN/g	180	SM 9221 E+C-2006	03/13/2019	17:20	JI
Mixed Uquor Susp Solids	14,600	mg/l	1.00	SM 2540 D-2011	03/14/2019	13:28	J1
Mixed Liquor Volatile SS	9,760	mg/l	1.00	SM 2540 E-2011	03/15/2019	11:30	J!

Sample ID#: Sample Date/Time: 0126013 03/13/2019 / 15:40

Sample Source: Vessel B Date Received:

03/13/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	< 180	M:PN/g	180	SM 9221 E+C-2006	03/13/2019	17:40	Jt
Mixed Liquor Susp Solids	17,200	mg/i	1.00	SM 2540 D-2011	03/14/2019	13:44	JI
Mixed Liquor Volatile SS	11,500	mg/l	1.00	SM 2540 E-2011	03/15/2019	11:30	JI

Results reported as mg/kg or MPN/g ere reported on a dry weight basis.



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500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

35192

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218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tet: (540) 825-6660 ♦ Fax (540) 825-4981 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

08/01/2019

Report #

34378

Job #:

0007554

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials HW

0



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

03/01/2019

Report #:

34378

Job #

0007554

Customer #:

99R

Customer PO#

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0124260

02/11/2019 / 09:15

Sample Source: Date Received:

Vessel A

02/11/2019

				OD 11/2010			
Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	59,800	MPN/g	180	SM 9221 E+C-2008	02/11/2019	12:30	TS
Mixed Liquor Susp Solids	18,400	mg/l	1.00	SM 2540 D-2011	02/15/2019	17:51	JI
Mixed Liquor Volatile SS	12,800	mg/l	1.00	SM 2540 E-2011	02/16/2019	14:35	JI
Sample ID#:	0124261		Sample Source:	Vessel B			

Sample Date/Time:

02/11/2019 / 09:25

Date Received:

02/11/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	TIme	INIT
Fecal Coliform	19,400	MPN/g	180	SM 9221 E+C-2006	02/11/2019	13:10	TS
MLSS/MLVSS Mixed Liquor Susp Solids	18,000	mg/li	1.00	SM 2540 D-2011	02/15/2019	17:54	JI
Mixed Liquor Volatile SS COMMENT:	12,600	mg/J	1.00	SM 2540 E-2011	02/18/2019	14:55	JI

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



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500 Stane Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-585-5413 • Fax: 540-585-530

34378

0	CHAIN OF CUSTODY RECORD
1/20 April 20 James	Additional Notes/ Comments/ Special Instructions:
	(Description Study (15th 2019)
ame/Site	P.O.# ANALYSES
Sean Minavio	_
(Print Name)	
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June 27, 2019

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the second quarter vector (2019) attraction study for the Remington WWTP from 5/13/2019 to 6/12/2019. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 5/13/2019 6/12/2019	% Sludge = MLSS 12700 9100	1.27% MLVSS 8400 7220 Reduction	% Volatile 66.1% 79.3% -13.2%	Fecal Coliform 866 <198
Vessel B Date 5/13/2019 6/12/2019	% Sludge = MLSS 13300 10300	1.33% MLVSS 8890 6670 Reduction	% Volatile 66.8% 64.8%	Fecal Coliform 1,050 <180
	Average Re	duction for 30		-5.6%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be -5.6%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of -5.6% reductions after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

(ESS)



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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

05/31/2019

Report #

36766

Job #:

0007595

Customer #.

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector Attraction

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials





Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

05/31/2019

Report #:

36766

Job#:

0007595

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector Attraction

Sample ID#: Sample Date/Time: 0129405

05/13/2019 / 09:50

Sample Source: **Date Received:**

Vessel A

05/13/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	866	MPN/g	180	SM 9221 E+C-2006	05/13/2019	13:10	IJ
Mixed Liquor Susp Solids Mixed Liquor Volatile SS	12,700 8,400	mg/l mg/l	1.00 1.00	SM 2540 D-2011 SM 2540 E-2011	05/16/2019 05/17/2019	17:51 12:15	JI JI

Sample ID#: Sample Date/Time:

COMMENT:

0129406 05/13/2019 / 09:54

Sample Source: **Date Received:**

Vessel B 05/13/2019

Analysis Date Time INIT **Parameter** Unit Report Limit Method Resulte 05/13/2019 13:25 IJ SM 9221 E+C-2006 180 Fecal Coliform 1,050 MPN/g MLSS/MLVSS 17:57 JI 05/18/2019 1.00 SM 2540 D-2011 13,300 mg/l Mixed Ulquor Susp Solids JI 12:15 SM 2540 E-2011 05/17/2019 1.00 8,890 mg/i Mixed Liquor Volatile SS

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





î raugh Quait y Service

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500 Stone Street • Post Office Box 738 • Bedford, Vrighnia 24523 • 540-586-580-5413 • Fax: 540-586-5530

36766

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Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

06/21/2019

Report #

37606

99R

Job #:

0007595

Customer #:

Customer PO#: Collected By:

ESS Employee

Sample Location: Vector Attraction

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials <u>+11</u>





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

06/21/2019

Report #:

37606

Job#:

0007595

Customer #:

99R Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector Attraction

Sample ID#: Sample Date/Time: 0131243

06/12/2019 / 08:30

Sample Source:

Date Received:

Vessel A

06/12/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform	< 198	MPN/g	180	SM 9221 E+C-2006	06/12/2019	12:05	TS
MLSS/MLVSS Mixed Liquor Susp Solids	9,100	mg/l	1.00	SM 2540 D-2011	06/12/2019	13:06	јн
Mixed Liquor Volatile SS	7,220	mg/l	1.00	SM 2540 E-2011	06/13/2019	09:49	JH

Sample ID#: Sample Date/Time: 0131244 06/12/2019 / 08:40 Sample Source: Date Received:

Vessel B 06/12/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	< 180	MPN/g	180	SM 9221 E+C-2006	06/12/2019	12:25	TS
Mixed Liquor Susp Solids	10,300	mg/I	1.00	SM 2540 D-2011	06/12/2019	13:20	JН
Mixed Liquor Volatile SS	6,670	mg/l	1.00	SM 2540 E-2011	06/13/2019	09:49	JH

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



SSS STATE LAS

218 Morth Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-541-2116 • 540-825-6660 • Fax: 540-825-4861

500 Stores Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

37606

Email: Info@ess service . For

CHAIN OF CUCKNOW BEFORD

☐ Post Office	☐ Fed Ex	Date Timo Received by	Co-12- CBSD				4 0840	FI 1580 PHBOP		-	5 0830 Vesser 1A	ECTION SAMPLE LOCATION	Sean Minavio	I'm Quarer Voctor Study		wington would	
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Extra chargos will apply for Rush TAT.	ı	Raisnquistrad by	Relanquished by.				١.,	Y WW Sterra X		W	1 WW Sterry X	SAUPLE PRESERVATIVE / L			Vector Study	Additional Notes/ Comments/ Special instructions:	CHAIN OF GUSTOUT RECURD
Job#	John (7595)	Colla 1 GTime Received forth	Roceived				*			×		Fecal Miyed)/w	ANALYSES		dal instructions;	
Sample Condition Stamp	Sample Condition *OK* Upon Receipt	probaboratory by:		pH Check:	Presorvative							COMMENTS					



September 24, 2019

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Quarterly Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the 2019 third quarter vector attraction study for the Remington WWTP from 8/12/2019 to 9/12/2019. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

A lesseV	% Sludge ≃	2.64%		
Date	MLSS	MLVSS	% Volatile	Fecal Coliform
8/12/2019	26400	17000	64.4%	348
9/12/2019	23900	14800	61.9%	<180
		Reduction	2.5%	
Vessel B	% Sludge ≈	2.71%		
Date	MLSS	MLVSS	% Volatile	Fecal Collform
8/12/2019	27100	17400	64.2%	232
9/12/2098	24400	15000	61.5%	<160
		Reduction	2.7%]
	Average Re	duction for 3	0 Day Period	2.6%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be 2.6%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 2.6% reduction after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Scan Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

ESS



218 North Melin St. ♦ P.O. Box 520 ♦ Cutpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

08/16/2019

Report #

39247

Job #:

0007765

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials _





Analytical Report Report Date: 08/16/2019

Report #: Job #:

39247 0007765

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee Sample Location: Quarterly Vector

Sample ID#: Sample Date/Time:

0134799 08/12/2019 / 09:30

Fauquier County WSA

Remington WWTP

7172 Kennedy Road

Warrenton, VA 20187-1646

Sample Source: Date Received:

Vessel A

08/12/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	26,400	mg/l	1.00	SM 2540 D-2011	08/14/2019	11:06	JH
Mixed Liquor Volatile SS	17,000	mg/l	1.00	SM 2540 E-2011	08/15/2019	09:28	JH
Fecal Coliform	348	MPN/g	180	SM 9221 E+C-2006	08/12/2019	12:55	JI.
COMMENT:		_					

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

Sample ID#: Sample Date/Time: 0134800

08/12/2019 / 09:40

Sample Source: **Date Received:**

Vessei B 08/12/2019

Parameter	Results	<u>Unit</u>	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	27,100	mg/l	1.00	SM 2540 D-2011	08/14/2019	11:15	JH
Mixed Liquor Volatile SS	17,400	mg/l	1.00	SM 2540 E-2011	08/15/2019	09:28	JH
Fecal Coliform	232	MPN/g	180	SM 9221 E+C-2006	08/12/2019	13:31	J١
COMMENT:		•					

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

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500 Stone Street • Prost Office Box 736 • Bedford, Virginia 24523 • 540-586-5530

39247

☐ Fed Ex ☐	Date	ے "		+	-	CARD	CP(to	075	0930	ECTION FIME	~ ~	موري) موري		n inster	
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Sample Condition *OK* Upon Receipt Sample Condition Stamp			Pracevalivo							COMMENTS					



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6680 ♦ Fax (540) 625-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

09/17/2019

Report #

40140

Job#:

0007765

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials



Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

09/17/2019

Report #:

40140

Job #:

0007765

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0136632

09/12/2019 / 09:30

Sample Source: Date Received:

Vessel A 09/12/2019

Parameter	R	esults	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS								
Mixed Liquor Susp Solids		23,900	mg/l	1.00	SM 2540 D-2011	09/12/2019	13:19	Jŀ
Mixed Liquor Volatile SS		14,800	mg/l	1,00	SM 2540 E-2011	09/13/2019	09:48	Jŀ
Fecal Coliform	<	180	MPN/g	180	SM 9221 E+C-2008	09/12/2019	11:30	J
COMMENT						TO VOLUE OF		

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

Sample ID#: Sample Date/Time: 0136633

09/12/2019 / 09:45

Sample Source: Date Received:

Vessel B 09/12/2019

Parameter Analysis Date Time INIT Results Unit Report Limit Method MLSS/MLVSS Mixed Liquor Susp Solids 24,400 1.00 SM 2540 D-2011 mg/l 09/12/2019 13:26 Jŀ Mixed Liquor Volatile SS 15,000 1.00 SM 2540 E-2011 09/12/2019 09:48 J۴ mg/l Fecal Collform < 180 MPN/g 180 SM 9221 E+C-2006 11:55 J 09/12/2019 COMMENT:

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



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500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

40140

Sample Condition St	27/45	by for Rush TAT. Job (8	Eatra changes will apply for Rush TAT.	Under 2 hours	Post Office	JPS Overnight
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Emissi Infolgest-serv			00 4 76 (205 - 201) CO 1 (1 C.)		ovid iy Sübblans ît raugh Cusity Service	ord iy Sait tigas



December 17, 2019

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP-Fourth Quarter Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the 2019 fourth quarter vector attraction study for the Remington WWTP from 11/4/2019 to 12/4/19. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLVSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 11/4/2019 12/4/2019	% Siudge = MLSS 20,200 19,300	2.02% MLVSS 13,400 12,800 Reduction	% Volatile 66.3% 66.3% 0.0%	Fecal Coliform 4,550 < 180
Vessel B	% Sludge =	2.03%		
Date	MLSS	MLVSS	% Volatile	Fecal Coliform
11/4/2019	20,300	13,500	66.5%	8,630
12/4/2019	17,500	11,600	66.3%	< 180
		Reduction	0.2%	
	Average Re	duction for 30	Day Period	0.1%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be 0.1%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 0.1% reduction after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

- Minavia





218 North Meth St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fex (540) 825-4961 ♦ <u>www.ess-services.com</u>

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

11/08/2019

Report #

41569

Job#:

0008049

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: 4th Quarter Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

11/08/2019

Report #:

41569

Job #:

0008049

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee

Sample Location: 4th Quarter Vector Study

Sample ID#: Sample Date/Time: 0139710

11/04/2019 / 09:45

Sample Source:

Vessel A

Date Received:

11/04/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INI
MLSS/MLVSS							
Mixed Liquor Susp Solids	20,200	mg/l	1.00	SM 2540 D-2011	11/06/2019	15:32	J
Mixed Liquor Volatile SS	13,400	mg/l	1.00	SM 2540 E-2011	11/07/2019	09:28	J
Fecal Colform	4,550	MPN/g	180	SM 9221 E+C-2006	11/04/2019	12:00	
COMMENT:							

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

Sample ID#: Sample Date/Time: 0139711

11/04/2019 / 09:55

Sample Source: Date Received: Vessel B 11/04/2019

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INFI
MLSS/MLVSS							
Mixed Liquor Susp Solids	20,300	mg/l	1,00	SM 2540 D-2011	11/06/2019	15:41	Ji
Mixed Liquor Volatile SS	13,500	mg/l	1.00	SM 2540 E-2011	11/07/2019	09:28	J1
Fecal Coliform	1,080	MPN/g	180	SM 9221 E+C-2006	11/04/2019	12:25	,
COMMENT:							

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



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500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax, 540-586-5530

41569

Providing Solution: Through Quality Service **CHAIN OF CUSTODY RECORD** Company Additional Notes/ Comments/ Special Instructions: Contact Address Address Ram Quarkery Vector Study Phone 42 over Project Name/Site P.O.# ANALYSES MINAVIO ean Sampled By: (Print Name) (Signature) MARKE CONTAINERS S S SAMPLE SAMPLE ID DATE TIME LOCATION MATRIX PRESERVATIVE COMMENTS 139710 WULLA 125 P 2 Sterk 14 19 Vester B 2500 WW 125 7 W Sterle Preservative pH Check: Relivoushed by: Received by: Relinquished by: Received by: 1000 Received by: Retinquished by Received for Competory by Method of Delivery: On Ice? TAT: Received @ 23.0 .c Normal Hand Delivery D UPS Job # Sample Condition "OK" Need Results by □ UPS Overnight □ Post Office Extra charges will apply for Rush TAT. **Upon Receipt** Under 2 hours Job # Sample Condition Stamp



218 North Main Street • Post Office Box 528 • Culpaper, Virginia 22701 • 800-541-2116 • 549-825-6660 • Fact 540-825-4561

500 Stone Street ◆ Post Office Box 735 ◆ Bedford, Virginia 24523 ◆ 540-586-5413 ◆ Fax: 540-586-5530

CDC#

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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

12/10/2019

Report #

42433

Job #:

0008049

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: 4th Quarter Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials A





Fauguier County WSA

Analytical Report

09:17

JΕ

Report Date:

12/10/2019

Report #:

42433

Job #:

0008049

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

12/05/2019

Sample Location: 4th Quarter Vector Study

Sample ID#:

Parameter

Fecal Coliform

0141412

Remington WWTP

7172 Kennedy Road

Warrenton, VA 20187-1646

Sample Source:

Unit

mg/l

mg/l

Vessel A

12/04/2019

Sample Date/Time:

12/04/2019 / 08:45

19,300

12,800

Results

< 180

Date Received:

TIMI Analysis Date Time Report Limit Method MPN/g 180 SM 9221 E+C-2006 12/04/2019 11:45 Jŀ 1.00 SM 2540 D-2011 12/04/2019 14:23 JH

Mixed Liquor Volatile SS COMMENT:

MLSS/MLVSS

Mixed Liquor Susp Solids

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

Sample ID#: Sample Date/Time: 0141414

12/04/2019 / 08:55

Sample Source: Date Received:

1.00

Vessel B 12/04/2019

SM 2540 E-2011

INIT Parameter **Analysis Date** Time Method Unit Report Limit Results SM 9221 E+C-2006 12:00 J۲ Fecal Coliform < 180 180 12/04/2019 MPNG MLSS/MLVSS 14:26 J٢ 17,500 1.00 SM 2540 D-2011 12/04/2019 Mixed Liquor Susp Solids mg/lSM 2540 E-2011 12/05/2019 09:17 Jŀ Mixed Liquor Volatile SS 11,600 1.00 mg/l COMMENT:

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





218 North Main Street • Post Office Box 520 • Cutpeper, Virginia 22701 •

☐ Post Office	I Fed Ex Attand Delivery	Date Films Racewed by:	5 0900				OBJS Vessel B	0858 Vester B	ocal) vesses a	Colleges a	ECTION SAMPLE LOCATION	Sean Muraura	AM Quarter works		Men Jessis		Charles making services	A Societaria Societaria (1146
Under 2 hours Under 2 hours Principle of Results by Principle of Results by	Recoived @ 18.3c Normal Rush		Reinquished by:				2507 -	125 P 1 1 had Share	250 0 1 1 1 1	125 p 2 / law Skn	CONTAINERS B & SAMPLE SIZE GR # 50 00 00 00 00	Q.	P.O.#	Frys repair howered	Additional Notes/ Comm	CHAIN OF CUSTODY RECORD	ार भी हार देखते हे किस है जिस है ।	800-541-2116 • 540-825-6660 • Fex: S40-825-4981 500 Slone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-585-5413 • Fex: 540-586-5530
h YAY. Job #	- W* 8049	Talula do	Date Time Received by:				*	`\`\	x	×	PRESERVATIVE (LS)		ANALYSES	Strate	Additional Notes/ Comments/ Special Instructions:	ECORD	78	523 •
Upon Receipt Sample Condition Stamp	Cample Condition works	Smith		pH Check:	Praservative						COMMENTS						Elula i (h)bribess services eran	42433

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms Warrenton, Virginia 20187-3907 Phone (540) 349-2092 • Fax (540) 347-7689



February 5, 2021

Compliance Officer
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Remington WWTP VA0076805

To Whom It May Concern:

Enclosed please find the 2020 Annual Sludge Program Discharge Monitoring Reports and the Pathogen Reduction Study Summary for the Remington Wastewater Treatment Plant. We have no excursions to report.

Should you have any questions or require additional information please feel free to contact me at (540) 349-2092.

Sincerely,

Cheryl St. Amant

Associate Executive Director

Cc: Ben Shoemaker, Executive Director

Reminaton WWTP

File

E/ADDRESS (INCLUDE .OCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

VAL076805 S01
PERMIT NUMBER DISCHARGE NUMBER

| MONITORING PERIOD | YEAR MO DAY | YEAR MO

523 Lucky Hill Road

mington Wastewater Treatment Plant
Fauquier Co. Water & Sanitation Authority
arrenton VA 20187

Municipal Major 02/12/2010

DEPT. OF ENVIRONMENTAL QUA (REGIONAL OFFICE)

Northern Regional Office 13901 Crown Court

Woodbridge

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NOTE: READ PERMIT AND GENERAL INSTR BEFORE COMPLETING THIS FORM.

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		mb	QUANTITY OR LOADING	:		QUALITY OR CONCENTRATION	CENTRATION		NO.	FREQUENCY
ETER		AVERAGE	MAXIMUM	STINU	MUMINEM	AVERAGE	MADMUM	BLIND	Ŗ	ANALYSIS
L, SLUDGE	REPORTD	*******	********	!	********	18.8	********	88		1/YR
	REQRMNT	********	******		****	NL	*******	%		1/YR
DGE	REPORTD	****	*****		*****	20.03	46.1	MG/KG		1/YR
	REGRMNT	********			*******	41	75	MG/KG		1/YR
), SLUDGE	REPORTD	*******	******		********	********	23.3	MG/KG		1/YR
	REQRMNT	reserbies	********		********	经验证证证证证证	75	MG/KG		1/YR
	REPORTD	**********	********		******	1196	1700	MG/KG		1/YR
	REQRMNT	********	********		******	2800	7500	MG/KG		1/YR
111	REPORTD	*******	****		*****	24.3	32.8	MG/KG		1/YR
	REQRMNT	*********	desirable desirable desirable		******	300	840	MG/KG		1/YR
GE	REPORTD	********	desirable de desirable de de		********	42.4	126	MG/KG		1/YR
	REQRMNT	edes recent	********		*******	420	420	MG/KG		1/YR
DDGE	REPORTD	*********	*******		******	0.502	0.840	MG/KG		1/YR
	REQRMNT	*************	****		******	17	57	MG/KG		1/YR
BEC	REPORTD		*****		******	830	1150	MG/KG		1/YR
	REQRMNT	****	******		*********	1500	4300	MG/KG		1/YR
MIT REQUIREMEN	MIT REQUIREMENTS OR COMMENTS									

ity of faw that this document and all attachments were prepared under pervision in accordance with a system designed to assure that qualified gather and evaluate the information submitted. Based on my inquiry of ons who manage the system or those persons directly responsible for mation, the information submitted is to the best of my knowledge and te, and complete. I am aware that there are significant penalties for formation, including the possibility of fine and imprisonment for knowing

TYPED OR PRINTED NAME

SIGNATURE

540-344-2082

202(YEAR

₩ 0 2 TELEPHONE

TOTAL OCCURRENCES

TOTAL FLOW (M.G.)

TOTAL BOD5 (K.G.)

OPERATOR IN RESPONSIBLE CHARGE

Raymond Searls

TYPED OR PRINTED NAME

SIGNATURE

S

1966006247 CERTIFICATE NO.

2021 YEAR

Ö

2

DATE

PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

E/ADDRESS (INCLUDE LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

VAL076805 S01

PERMIT NUMBER

DISCHARGE NUMBER

 MONITORING PERIOD

 YEAR
 MO
 DAY
 YEAR
 MO
 DAY

 2020
 01
 01
 TO
 2020
 12
 31

FROM

523 Lucky Hill Road

mington Wastewater Treatment Plant
Fauquier Co. Water & Sanitation Authority
arrenton VA 20187

Municipal Major 02/12/2010

DEPT. OF ENVIRONMENTAL QUA (REGIONAL OFFICE)

Northern Regional Office 13901 Crown Court

Woodbridge

VA 22

NOTE: READ PERMIT AND GENERAL INSTR BEFORE COMPLETING THIS FORM.

			-							
		QL	QUANTITY OR LOADING			QUALITY OR CONCENTRATION	CENTRATION		No.	FREQUENCY
ETER		AVERAGE	HUMUCAM	UNITS	MUMINIMUM	AVERAGE	MUMUKAM	UNITS	EX.	ANALYSIS
JDE	REPORTD	********	******		******	6.19	******	MG/KG		1/YR
	REQRMNT	*******	***		********	36	85	MG/KG		1/YR
HOGEN	REPORTD	*******	***			**********	2	STCL#		1/YR
CHIEVED	REGRANT	*****	*******		8*2*2**********	*******	N.	STCL#		1/YR
OF	REPORTD	******	*******		20000000		2	ALTR#		1/YR
NUSED	REQRMNT	******	*******		*******	*********	N.	ALTR#		1/YR
ACTION	REPORTD	********	pekkekkek		*******		2	ALTR#		1/YR
ON COLC	REGRMNT	********	*********		*****	****	Ę	ALTR#		1/YR
UDGE	REPORTD	********	********		******	<4.00	<4.00	MG/KG		1/1/12
	REGRMNT	******	*********		*******	100	100	MG/KG		1/YR
									j	
	:									
WIT REQUIREMENTS OR COMMENTS	ITS OR COMMENTS									

T REQUIREMENTS OR COMMENTS

TOTAL TOTAL F	LOW (M.G.)	TOTAL FLOW (M.G.) TOTAL BODS (K.G.)	OPERA:	OPERATOR IN RESPONSIBLE CHARGE			DATE
0 0		0	Raymond Searls	ph such	1965006247	2021	02
aity of taw that this document and all attachments were prepared under pervision in accordance with a system designed to assure that qualified	l all attachment	s were prepared under to assure that qualified	TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	NO.
gather and evaluate the information submitted. Based on my inquiry of	tion submitted.	Based on my inquiry of	PRINCIPAL EXECUTIVE OFF	PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		
nation, the information submitted is to the best of my knowledge and to and complete I am aware that here are significant nagation for	is to the best	of my knowledge and	CHECKY ST. AMONT	() (and 5	540-349-2092 2021	7202	70
ormation, including the possibility of fine and imprisonment for knowing	of fine and im	prisonment for knowing	TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.

IE/ADDRESS (INCLUDE LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

VAL076805 SP1

PERMIT NUMBER

DISCHARGE NUMBER

 MONITORING PERIOD

 YEAR
 MO
 DAY
 YEAR
 MO
 DAY

 2020
 01
 01
 TO
 2020
 12
 31

FROM

523 Lucky Hill Road

mington Wastewater Treatment Plant Fauquier Co. Water & Sanitation Authority arrenton VA 20187

Municipal Major 02/08/2008

DEPT. OF ENVIRONMENTAL QUA

Northern Regional Office 13901 Crown Court

Woodbridge

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NOTE: READ PERMIT AND GENERAL INSTR BEFORE COMPLETING THIS FORM.

		Q.	QUANTITY OR LOADING	-		QUALITY OR CONCENTRATION	ENTRATION		NO.	FREQUENCY
ETER		AVERAGE	мишсам	STIND	MINIMUM	AVERAGE	MUMINAM	SLIND	Ŗ	ANALYSIS
JGE	REPORTO	*******	495.31	MTNYR	*******	******	*******			1/YR
AL.	REGRMNT	********	본	MTNYR	********	********				1/YR
SLUDGE	REPORTD	**********	485.31	MTNYR	非常等物件等等	*******		į		1/YR
	REGRMNT	*******	NL	MTNYR	******	***	******	:		1/YR
	REPORTD									
	REGRMNT									
	REPORTD									
	REGRMNT				ļ					
	REPORTD									
	REGRMNT							!		
	REPORTO									
	REGRMNT									
	REPORTD									
	REGRMNT									
	REPORTD					į				
	REQRMNT					:				

MIT REQUIREMENTS OR COMMENTS

TOTAL OCCURRENCES	TOTAL FLOW (M.G.)	TOTAL BODS (K.G.)	OPERA:	OPERATOR IN RESPONSIBLE CHARGE	į		DATE
0	0	0	Raymond Searls	RIASIS	1965006247	2021	02
alty of law that this doc	alty of law that this document and all attachments were prepared under pervision in accordance with a system designed to assure that qualified	s were prepared under to assure that qualified	TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.
gather and evaluate t	gather and evaluate the information submitted. Based on my inquiry of	Based on my inquiry of	PRINCIPAL EXECUTIVE OFFI	PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	TELEPHONE		
mation, the information	mation, the information submitted is to the best of my knowledge and	f my knowledge and	CHCERC ST. AMA->	(/m	540-349-20922021		o N
formation, including the	formation, including the possibility of fine and imprisonment for knowing	prisonment for knowing	TYPED OR PRINTED NAME	SIGNĂTURE			MO.



Annual Tonnage Report

January 1 2020 to December 31, 2020

Remington WWTP

Total Wet Tons Land Applied	2703.68
December 2020 % Solids	18.32
Total Dry Tons Land Applied	495.314
Approx Acres Utilized	180
Tons to Landfill	0.0

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F – G or 9VAC25-32-313.G – H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remington	WWIP	Permit Number: <u>Va 0076805</u>
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concent	rations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	< 4.00	< 4.00	41	75
Total Cadmium	2.26	2.26	39	85
Total Copper	446	446	1,500	4,300
Total Lead	14.0	14.0	300	840
Total Mercury	0.469	0.469	17	57
Total Molybdenum	4.98	भ ५६	NL (3)	75
Total Nickel	11.0	11.0	420	420
Total Selenium	<4.00	<4.00	100	100
Total Zinc	633	633	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

□ Other: _____

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
Option 1 - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anaerobic digestion
□ Option 4 - Composting
☐ Option 5 - Lime Stabilization

 ⁽²⁾ Sludge may not be land applied if any pollutant exceeds these values.
 (3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

C.	Vector Attraction Reduction (VAR)					
	VAR requirements for Class B bios 9VAC25-32-685.B.1 – 8 by:	solids were achieved in accordance v	with 9VAC25-31-720.B.1 - 8 or			
	Option 1: ≥ 38% volatile solids: Option 2: Anaerobic 40 day ben Option 3: Aerobic 30 day bench Option 4: Specific Oxygen Upta Option 5: Aerobic process, 14 d Option 6: Alkaline stabilization Option 7: Dry to ≥ 75% T.S. w/s Option 8: Dry to ≥ 90% T.S.	ch test test uke Rate (SOUR) test ays @ 40°C (45°C)				
	OR					
		solids were not achieved in accordant fore, Option 9 (Injection) or Option 1				
D.	Nutrient Concentrations					
	Sample Date(s):	Number of Sa	amples:			
		Concent	rations			
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)			
	Total Nitrogen as N	N/A	N/A			
	Total Phosphorus as P	N/A	N/A			
	*Values to be reported on a dry weight bas	is.				
E.	Certification					
	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel praperly gather and evaluate the information submitted. Based on my inquiry of the person ar persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
Nai	ne and official title Ray mon J	Searls chief	Operator			
Sig	nature // A < ~ ~ ~	Date Signed3	16-2020			
	ephone number 540 · 439 · 22					

Revised 10/2014 Page 2 of 2



March 12, 2020

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the first quarter vector (2020) attraction study for the Remington WWTP from 2/3/2020 to 3/4/2020. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 2/3/2020 3/4/2020	% Sludge = MLSS 21300 17700	2.13% MLVSS 15700 12300 Reduction	% Volatile 73.7% 69.5% 4.2%	Fecal Coliform 65700 904
Vessel B Date	% Sludge = MLSS	2.11% MLVSS	% Volatile	Fecal Coliform
2/3/2020 3/4/2020	21100 16700	15400 11600 Reduction	73.0% 69.5% 3.5%	256000 1020]
	Average Re		0 Day Period	3.9%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be 3.9%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 3.9% reduction after the additional 30 day period, the sludge does meet the vector attraction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Jan Minavier

Attachment - Analytical Report & Chains of Custody

ESS



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

02/07/2020

Report #

43979

Job #:

0008183

Customer #:

99R

Customer PO #:

Collected By:

Customer

Sample Location: Quarterly Vector Study -

Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials #M



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

02/07/2020

Report #:

43979

Job #:

0008183

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Quarterly Vector Study -

Remington WWTP

Sample ID#: Sample Date/Time: 0144765

02/03/2020 / 08:43

Sample Source: Date Received:

Vessel A

02/03/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	21,300	mg/l	1.00	SM 2540 D-2011	02/04/2020	09:12	JH
Mixed Liquor Volatile SS	15,700	mg/l	1.00	SM 2540 E-2011	02/04/2020	09:12	JH
Fecal Coliform	65,700	MPN/g	180	SM 9221 E+C-2006	02/03/2020	10:40	JH
Committee and	0444700	····	Paralle Paralle	M100			

Sample ID#: Sample Date/Time: 0144766

02/03/2020 / 08:45

Sample Source: Date Received:

Vessel B 02/03/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS	·						
Mixed Liquor Susp Solids	21,100	mg/l	1.00	SM 2540 D-2011	02/05/2020	09:32	JH
Mixed Liquor Volatile SS	15,400	mg/l	1.00	SM 2540 E-2011	02/06/2020	10:01	JH
Fecal Coliform	258,000	MPN/g	160	SM 9221 E+C-2006	02/03/2020	10:45	JH
COMMENT:		5			27.4-705(34)2		

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





218 North Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-541-2116 • 540-825-8660 • Fax: 540-825-4961

500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

43979

CHAIN OF CUSTODY RECORD

					Ì	Į						
Sample Condition Stamp	101 A # 100		Extra charges will apply for Rush TAT	charges will a	0		SILIK	Under 2 hours			Post Office	ndght 🗆
Sample Condition *OK	0-04 0-04	<u>.</u>	Rush _	mai	Normal Need Re	ດໍ	E 6	Received @ 14. (4 °C	Hand Delivery		□ Fed Ex	0
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1 1	Time	Date		j.	Refinquished by	Zelir			Received by.	849	A P	65
Preservative pH Check:				-	-		-					
							-					
							-					
		×	none	WW	×	_	250 P		Vessel 8		845	-3-20
	×		NA THIOS	ww	×	N	125 P		Vessel 8		34	3-20 845
Study		×	попе	WW	×	-	250 P		Vessel A	DA.	84.8	3-20
Vector Attraction	×		NA THIOS	WW	×		125 P		Vessel A	W	87.3	3-20
COMMENTS	Focal	MLSS/V	9-11-1-88-94-	\$ 15 m	usag onug	5.83	CONTAINERS		SAMPLE	***	HULL	COLLECTION DATE TIME
	2	88	V'		1	4	(Signature)		and for	(Print Name)	6/10	L L
ALYSES	ANAL)		#	Quarterly Vector Study - Remington WWTP P.O.#	tor Study - Remi	barly Vec		le/Site
									187	inia 201 7689 (fa	347	Varrenton, Virginia 20187 49-2092; 347-7689 (fax)
						i	-			ad.	Sear	aymond Searls 172 Kennedy Rd.
Quarterly Vector Study	Additional Notes/ Comments/ Special Instructions:	pecia	Comments/ S	Notes/		2			A	nty WS	Con	auquier County WSA



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fex (540) 825-4961 ♦ www.ess-services.com>

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

03/10/2020

Report #

44809

Job #:

0008183

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials 🛨



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

03/11/2020

Report #:

44809

Job #:

0008183

Customer#:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0146497

03/04/2020 / 07:30

Sample Source: Date Received:

Vessel A

03/04/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	17,700	mg/l	1.00	SM 2540 D-2011	03/05/2020	11:52	JH
Mixed Liquor Volatile SS	12,300	mg/l	1.00	SM 2540 E-2011	03/05/2020	16:30	JH
Fecal Coliform	904	MPN/g	180	SM 9221 E+C-2006	03/04/2020	11:30	Ji

Sample ID#: Sample Date/Time: 0146498 03/04/2020 / 07:40 Sample Source: Date Received:

Vessel B 03/04/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	16,700	mg/l	1.00	SM 2540 D-2011	03/05/2020	11:57	JH
Mixed Liquor Volatile SS	11,600	mg/l	1.00	SM 2540 E-2011	03/05/2020	16:30	DI
Fecal Coliform COMMENT:	1,020	MPN/g	180	SM 9221 E+C-2006	03/04/2020	12:00	Ji

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



manadis vene lui	800-541-2116 • 540-825-6660 • Fax: 540-825-4961 500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-886-5413 • Fax: 540-586-5530	44809
янсы Эленда Онангу Service	(MODISES) POSTANTA	Email info@esservcesco
Farming Compy both	CHAIN OF CUSTODY RECORD Additional Notes/ Comments/ Special Instructions:	Sample Condition "OK"
	Kansta wat	Sample Condition Stamp
STATE STATES	(Stangture)	
COLLECTION SAMPLE LOCATION	s O	COMMENTS
12020 0730 UCSELA	25 0 1 ~ MJ WAR X	A Committee of the Comm
4/2020 0730 VCSK1 A	250 P 1 W - X	
\$ 1755 OHO 040	125 P 2 / WW M. May X	
SI 255 OHO ONE	×	
		Proservative
Date Time Received by:	Reimquished by Date Time Rec	Received by:
Date Time Rocaived by:	Relinquished by: Date Time 5	Received by Laboratory by:
☐ Fed Ex Statend Delivery	Received @ 2 2 . Le C Normal Rush Job # Normal Strachenges will apply for Rush TAT. Job # 818.3	Amount Pald: Cash CC Check #



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tet. (540) 825-6660 ♦ Fax (540) 825-4981 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1848 Report Date:

02/26/2020

Report #

43978

doL

0008208

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials ///





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Analytical Report

Report Date:

02/26/2020

Report #:

43978

Job #.

0008208

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0144764

02/03/2020 / 08:05

Sample Source: **Date Received:**

Sludge

02/03/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	20.3	%	0,500	SM 2540 G-2011	02/06/2020	11:00	574
Arsenic, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	02/08/2020	09:04	574
Molybdenum, Total Recoverable	4.98	mg/kg	4.00	SW-846 6010B	02/06/2020	09:04	574
Zinc, Total Recoverable	633	mg/kg	4.00	SW-848 8010B	02/08/2020	09:04	574
Lead, Total Recoverable	14.0	mg/kg	4.00	SW-848 6010B	02/08/2020	09:04	574
Nickel, Total Recoverable	11.0	mg/kg	4.00	SW-846 6010B	02/08/2020	09:04	574
Mercury, Total Recoverable	0.469	mg/kg	0.0250	SW-846 7471A	02/11/2020	10:28	674
Copper, Total Recoverable	446	mg/kg	2.00	SW-846 6010B	02/06/2020	09:04	574
Cadmium, Total Recoverable	2.26	mg/kg	2.00	SW-846 6010B	02/08/2020	09:04	574
Selenium, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	02/08/2020	09:04	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 480160

	1	☐ Fed Ex Hand Delivery Received	Deto Time Received by:	Date Time Racelved by: 주고 (경)					\$ - දිය ₀ ලිල	Site Kem Indian Contract # Condy (Learn) Contract Phot Name) Contract Contract	STATE TO COME THE CASE OF THE	Tenton, Virginia 20187), Bax 861646	squier County Water and Sentiation Authority it Uniteder	F CUSTODY RECORD
		Received @ 14. 6 C Normal	No.	Rainquished by:					8 cc. G 1 x studge	(Syratus)	Feat 540-625-4961	800-541-2116 540-825-8860		Post Office Box 520	
	early for Rush TAT.	Rush							none	% solids		540-686-5413 Fex: 540-688-6530	Bedford, VA 24523	500 Stores 6t. Post Office Box 736	ENTITORIOR TATABLEMOSTIVAS
Sample Condition *OK! Upon Receipt	8088 #om		23/20 0843 C	Time					×	As,Mo,Zn Pb,Nij,Hg Cu,Cd,Se	A'JALYSES	301-617-8662 Fax 301-617-3626		6321 Letterboor Road Leurel, IAO 20723	SERVICE,
*OK: ravised 04/1/02	170	Amount Paid \$	to Ladymatory by	lby:						COMMEN	S E S	640-659-3378 Fax 640-659-3378	Windon-Salem, NC 27103	3917 Westpotni Sivil. Sužin E	

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remington	WWTP	Permit Number: Va. 0076805
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concenti	rations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	8.05	20.8	41	75
Total Cadmium	5.28	5.26	39	85
Total Copper	665	665	1,500	4,300
Total Lead	23.9	23.9	300	840
Total Mercury	0.638	0.639	17	57
Total Molybdenum	7.40	7-40	NL (3)	75
Total Nickel	12.4	12-4	420	420
Total Selenium	< 4.00	(4.00	100	100
Total Zinc	961	961	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
Option 1 - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anaerobic digestion
☐ Option 4 - Composting
☐ Option 5 - Lime Stabilization



⁽³⁾ The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

C.	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B bio 9VAC25-32-685.B.1 - 8 by:	solids were achieved in accordance	with 9VAC25-31-720.B.1 – 8 or
	☐ Option 1: ≥ 38% volatile solids ☐ Option 2: Anaerobic 40 day bench ☐ Option 3: Aerobic 30 day bench ☐ Option 4: Specific Oxygen Upta ☐ Option 5: Aerobic process, 14 d ☐ Option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/s ☐ Option 8: Dry to ≥ 90% T.S.	nch test n test ake Rate (SOUR) test lays @ 40°C (45°C)	
	OR		
	□ VAR requirements for Class B biosor 9VAC25-32-685.B.1 - 8; therefore land application site.	solids were not achieved in accordatore, Option 9 (Injection) or Option 9	nce with 9VAC25-31-720 B.1 – 8 10 (Incorporation) is required at the
D.	Nutrient Concentrations		
	Sample Date(s):	Mumbos of Co	amples:
		Number of Si	ampies.
		Concent	
	Parameters		rations Maximum (mg/kg) ⁽¹⁾
	Parameters Total Nitrogen as N	Concent	rations
	Parameters Total Nitrogen as N Total Phosphorus as P	Concent Monthly Average (mg/kg) (1) N/A	rations Maximum (mg/kg) ⁽¹⁾
Ë.	Parameters Total Nitrogen as N Total Phosphorus as P *Values to be reported on a dry weight bas. Certification I certify under penalty of law that this a supervision in accordance with a system evaluate the information submitted. Bathose persons directly responsible for a knowledge and belief, true, accurate and submitted and submitt	Concent Monthly Average (mg/kg) (1) N/A N/A is. document and all attachments were m designed to assure that qualified used on my inquiry of the person or gathering the information, the information of the complete. I am aware that there	rations Maximum (mg/kg) (1) /V/H N/A prepared under my direction or personnel properly gather and persons who manage the system or nation is, to the best of my are significant penalties for
Ē.	Parameters Total Nitrogen as N Total Phosphorus as P *Values to be reported on a dry weight bas. Certification I certify under penalty of law that this a supervision in accordance with a system evaluate the information submitted. But those persons directly responsible for a knowledge and belief, true, accurate an submitting false information, including	Concent Monthly Average (mg/kg) (1) N/A N/A is. document and all attachments were m designed to assure that qualified used on my inquiry of the person or gathering the information, the information of the possibility of fine and imprison the possibility of fine and imprison	prepared under my direction or personnel properly gather and persons who manage the system or nation is, to the best of my are significant penalties for ment for knowing violations.
Ē.	Parameters Total Nitrogen as N Total Phosphorus as P *Values to be reported on a dry weight bas. Certification I certify under penalty of law that this a supervision in accordance with a system evaluate the information submitted. Bathose persons directly responsible for a knowledge and belief, true, accurate and submitted and submitt	Concent Monthly Average (mg/kg) (1) N/A N/A is. document and all attachments were m designed to assure that qualified used on my inquiry of the person or gathering the information, the information of the possibility of fine and imprison the possibility of fine and imprison	prepared under my direction or personnel properly gather and persons who manage the system or nation is, to the best of my are significant penalties for ment for knowing violations.



July 1, 2020

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the second quarter vector (2020) attraction study for the Remington WWTP from 5/12/2020 to 6/11/2020. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vesse! A Date 5/12/2020 6/11/2020	% Sludge = MLSS 12,800 9,970	1.28% MLVSS 8,940 6,920 Reduction	% Volatile 69.8% 69.4% 0.4%	Fecal Coliform 5,470 <180
Vessel B	% Sludge ≃	1.29%		
Date	MLSS	MLVSS	% Volatile	Fecal Coliform
5/12/2020	12,900	8,980	69.6%	8,530
6/11/2020	10,200	7,170	70.3%	<180
		Reduction	-0.7%]
	Average Re	duction for 30	Day Period	-0.1%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be -0.1%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of -0.1% reduction after the additional 30 day period, the sludge does meet the vector attraction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Jaar Minavies

Attachment – Analytical Report & Chains of Custody





218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

05/20/2020

Report #

46567

Job #.

0008359

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector 2nd Quarter

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Reviewers Initials _____





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

05/20/2020

Report #:

46567

Job #:

Customer #:

0008359 99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Vector 2nd Quarter

Sample ID#: Sample Date/Time: 0152545

05/12/2020 / 11:15

Sample Source: Date Received:

Vessel A

05/12/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	5,470	MPN/g	180	SM 9221 E+C-2006	05/12/2020	12:47	JI
Mixed Liquor Susp Solids	12,800	mg/l	1.00	SM 2540 D-2011	05/13/2020	15:26	Di
Mixed Liquor Volatile SS	8,940	mg/l	1.00	SM 2540 E-2011	05/14/2020	13:10	JI
COMMENT:							

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

Sample ID#: Sample Date/Time: 0152546

05/12/2020 / 11:20

Sample Source: Date Received:

Vessel B 05/12/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform	8,530	MPN/a	180	SM 9221 E+C-2006	05/12/2020	12:55	Ji
MLSS/MLVSS	,				SOFFEEDED	(1.00	
Mixed Liquor Susp Solids	12,900	mg/ī	1.00	SM 2540 D-2011	05/13/2020	15:37	DI
Mixed Liquor Volatile SS	8,980	mg/l	1,00	SM 2540 E-2011	05/14/2020	13:10	J)
COMMENT:		2			001111111111111111111111111111111111111		

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



218 North Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-541-2116 • 540-825-6660 • Fax: 540-825-4961

500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

46567

nailt info@ees.si

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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

06/29/2020

Report #

47432

Job#:

0008359

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials _______

enelade



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

06/29/2020

Report #:

47432

Job#:

0008359

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0155707

06/11/2020 / 08:10

Sample Source:

Vessel A

Date Received:

06/11/2020

Conference and the second							
Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	9,970	mg/l	1.00	SM 2540 D-2011	06/12/2020	17:02	ال
Mixed Liquor Volatile SS	6,920	mg/l	1.00	SM 2540 E-2011	06/13/2020	12:45	JI
Fecal Coliform	< 180	MPN/g	180	SM 9221 E+C-2006	06/11/2020	11:17	JH
Sample ID#:	0155708		Sample Source:	Vessel B			

Sample Date/Time:

06/11/2020 / 08:20

Date Received:

06/11/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS					<u> </u>		
Mixed Liquor Susp Solids	10,200	mg/l	1.00	SM 2540 D-2011	06/12/2020	17:07	JI
Mixed Liquor Volatile SS	7,170	mg/l	1.00	SM 2540 E-2011	06/13/2020	13:00	J1
Fecal Coliform	< 180	MPN/g	180	SM 9221 E+C-2006	06/11/2020	11:35	JI
COMMENT:		•					

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



iutions Tarough Quality Service

e/Site

218 North Main Street • Post Office Box 520 • Cutpeper, Virginia 22701 • 800-541-2116 • 540-825-6660 • Fax: 540-825-4961

500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530

CHAIN OF CUSTODY RECORD

47432

Email: info@ess-services.com

11 2000 CECT 1 K-2- C820 01-30 certing COLLECTION DATE TIME Cam in was JUSC Sector ☐ Fed €x ☐ Post Office Date 1 VESSEL A Vesse A Hand Delivery 7635x c 100kB Himau o SAMPLE LOCATION \overline{a} 171 Received @ 2, L.C Under 2 hours 125 250 2500 CONTAINERS SIZE G-P # P.0.# 125 19 (Signature) -5 ر-Additional Notes/ Comments/ Special Instructions: Relinquished by نم からみをイナ < GRAB Normal_ COMP いかなかく PRESERVATIVE WW Rush 3 محلا St. F Mired his メ メ £ Date Date Job # ģ メ 私 TIMP. C#3 5259 ANALYSES Received by Sample Condition "OK" Upon Receipt Sample Condition Stamp pH Check: Proservative

COMMENTS

负



218 North Meln St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

05/29/2020

Report #

46560

Job #:

0008577

Customer #:

99R

Customer PO#: Collected By:

Customer

Sample Location: Remington Sludge

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials



Page 1 of 2



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

05/29/2020

Report #: Job #:

46560 0008577

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington Sludge

Sample ID#: Sample Date/Time: 0152534 05/12/2020 / 08:45 Sample Source: Date Received:

Sludge 05/12/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	18.5	%	0.500	SM 2540 G-2011	05/15/2020	09:11	574
Arsenic, Total Recoverable	20.8	mg/kg.	4.00	SW-846 6010B	05/19/2020	09:28	574
Molybdenum, Total Recoverable	7.40	mg/kg.	4.00	SW-846 6010B	05/19/2020	09:28	574
Zinc, Total Recoverable	961	mg/kg.	4.00	SW-848 6010B	05/19/2020	09:28	574
Lead, Total Recoverable	23.9	mg/kg.	4.00	SW-846 6010B	05/19/2020	09:28	574
Nickel, Total Recoverable	12.4	mg/kg.	4.00	SW-848 6010B	05/19/2020	09:28	574
Mercury, Total Recoverable	0.636	mg/kg.	0.0250	SW-8467471A	05/20/2020	11:23	574
Copper, Total Recoverable	665	mg/kg.	2.00	SW-846 6010B	05/19/2020	09:28	574
Cadmium, Total Recoverable	5.28	mg/kg.	2.00	SW-846 6010B	05/19/2020	09:28	574
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg.	4.00	SW-848 6010B	05/19/2020	09:28	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160

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NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F -- G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remington	WWTA	Permit Number: Va. 0076805
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concent	rations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	46.1	(IIIg/kg)	(Hig/kg)	75
Total Cadmium	9.31	9.31	39	85
Total Copper	1,150	1,150	1,500	4,300
Total Lead	32.8	32.8	300	840
Total Mercury	0.840	0.840	17	57
Total Molybdenum	23.3	23.3	NL ⁽³⁾	75
Total Nickel	126	126	420	420
Total Selenium	<4.00	< 4.∞	100	100
Total Zinc	1700	1.700	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
Option 1 - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anaerobic digestion
☐ Option 4 - Composting
☐ Option 5 - Lime Stabilization
Other:

Revised 10/2014 Page 1 of 2

11-3 20

⁽³⁾ The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

C.	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B bios 9VAC25-32-685.B.1 - 8 by:	olids were achieved in accordance w	rith 9VAC25-31-720.B.1 – 8 or
	Option 1: ≥ 38% volatile solids n Option 2: Anaerobic 40 day bench Option 3: Aerobic 30 day bench Option 4: Specific Oxygen Uptal Option 5: Aerobic process, 14 da Option 6: Alkaline stabilization Option 7: Dry to ≥ 75% T.S. w/n Option 8: Dry to ≥ 90% T.S.	ch test test ke Rate (SOUR) test sys @ 40°C (45°C)	
	OR		
	□ VAR requirements for Class B bios or 9VAC25-32-685.B.1 - 8; therefoland application site.		
D.	Nutrient Concentrations		
	Sample Date(s):	Number of Sa	mples:
		Concent	rations
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	N/A
	Total Phosphorus as P	N/A	N/A
	*Values to be reported on a dry weight basi	is.	
E.	Certification		
	I certify under penalty of law that this a supervision in accordance with a system evaluate the information submitted. Ba those persons directly responsible for g knowledge and belief, true, accurate an submitting false information, including	m designed to assure that qualified used on my inquiry of the person or gathering the information, the inform ad complete. I am aware that there	personnel properly gather and persons who manage the system or nation is, to the best of my are significant penalties for
Naı	ne and official title Raymond	Searls Chicf	operator
Sig	nature / LA G	Date Signed/	-2-2020
Tel	ephone number <u>540 - 439 - 3</u>	L725	

or

Revised 10/2014 Page 2 of 2



October 1, 2020

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the third quarter vector (2020) attraction study for the Remington WWTP from 8/25/2020 to 9/24/2020. The original 5-gallon sample that was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 8/25/2020 9/24/2020	% Sludge = MLSS 18,000 17,000	1.80% MLVSS 11,500 10,600 Reduction	% Volatile 63.9% 62.4% 1.5%	Fecal Coliform 2,220 5,410
Vessei B Date 8/25/2020 9/24/2020	% Sludge = MLSS 17,900 16,700	1.79% MLVSS 11,400 10,400 Reduction	% Volatile 63.7% 62.3% 1.4%	Fecal Coliform 3,020 <180
	Average Re	duction for 30	Day Period	1.5%

The average total volatile reduction of Vessels A and B during the 30-day period was calculated to be 1.5%. According to the bio solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 1.5% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Jean Minavio

Attachment - Analytical Report & Chains of Custody





218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

09/01/2020

Report #

49407

Job #:

0008681

Customer #: Customer PO#:

99R

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials _______



Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

09/01/2020

Report #:

49407

Job#:

0008681

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0160679

08/25/2020 / 09:00

Sample Source: **Date Received:**

Vessel A

08/25/2020

		00.00										
Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT					
MLSS/MLVSS												
Mixed Liquor Susp Solids	18,000	mg/l	1.00	SM 2540 D-2011	08/27/2020	13:26	JH					
Mixed Liquor Volatile SS	11,500	mg/l	1.00	SM 2540 E-2011	08/28/2020	14:30	JI					
Fecal Coliform	2,220	MPN/g	180			12:30	JI					
Sample ID#: Sample Date/Time:	0160680 08/25/2020 / 09:10		Sample Source: Date Received:	Vessel B 08/25/2020								
Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT					

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	17,900	mg/l	1.00	SM 2540 D-2011	08/27/2020	13:29	JH
Mixed Liquor Volatile SS	11,400	mg/t	1.00	SM 2540 E-2011	08/28/2020	14:30	JI
Fecal Coliform	3,020	MPN/g	180	SM 9221 E+C-2006	08/25/2020	12:55	JI.
COMMENT:		•		•			

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





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49407

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218 North Mein St. ♦ P.O. Box 520 ♦ Cuipeper, Virginia 22701 ♦ Tel: (540) 825-8860 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

09/30/2020

Report#

50283

Job #:

0008681

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: 3rd Quarter Vector

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials 75





Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Analytical Report

Report Date:

09/30/2020

Report #:

50263

Job #:

0008681

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: 3rd Quarter Vector

Sample ID#: Sample Date/Time: 0162367

09/24/2020 / 06:45

Sample Source: Date Received:

Vessel A

09/24/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS			· 				
Mixed Liquor Susp Solids	17,000	mg/l	1.00	SM 2540 D-2011	09/25/2020	11:42	JI
Mixed Liquor Volatile SS	10,600	mg/l	1.00	SM 2540 E-2011	09/25/2020	17:15	JI
Fecal Coliform	5,410	MPN/g	180	SM 9221 E+C-2006	09/24/2020	12:50	JI

Sample ID#: Sample Date/Time: 0162368

09/24/2020 / 07:00

Sample Source: **Date Received:**

Vessei B

09/24/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
MLSS/MLVSS							
Mixed Liquor Susp Solids	16,700	mg/l	1.00	SM 2540 D-2011	09/25/2020	11:45	Jl
Mixed Liquor Volatile SS	10,400	mg/l	1.00	SM 2540 E-2011	09/25/2020	17:15	JI
Fecal Coliform	< 180	MPN/g	180	SM 9221 E+C-2008	09/24/2020	13:10	J1
COMMENT:		·					

Results reported as mg/kg or MPN/g are reported on a dry weight basis.



218 North Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-541-2116 • 540-825-8860 • Fax: 540-825-4961

500 Stone Street • Prost Office Box 736 • Bedford, Virginia 24523 • \$40.586-540.586-5530

50263

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218 North Main St. ♦ P.O. Box 520 ♦ Cutpeper, Virginia 22701 ♦ Tel: (540) 825-6680 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

10/28/2020

Report #

50286

Job#:

0008805

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials HM)





Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

10/28/2020

Report #:

50286

Job#:

0008805

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time:

0162415 09/24/2020 / 10:36 Sample Source: Date Received: Sludge

09/24/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	17.3	%	0.500	SM 2540 G-2011	10/06/2020	15:00	574
Arsenic, Total Recoverable	46.1	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574
Molybdenum, Total Recoverable	23.3	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574
Zinc, Total Recoverable	1,700	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574
Lead, Total Recoverable	32.8	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574
Nickel, Total Recoverable	126	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574
Mercury, Total Recoverable	0.840	mg/kg	0.0250	SW-8467471A	10/07/2020	12:21	574
Copper, Total Recoverable	1,150	mg/kg	2.00	SW-846 6010B	10/07/2020	09:14	574
Cadmium, Total Recoverable	9.31	mg/kg	2.00	SW-846 6010B	10/07/2020	09:14	574
Selenium, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	10/07/2020	09:14	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160



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NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remington	WWTP	Permit Number: <u>Va. 0076805</u>
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concent	rations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) ⁽¹⁾	Maximum (mg/kg) ⁽¹⁾	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	13.2	5.81	41	75
Total Cadmium	7.99	7.89	39	85
Total Copper	1,060	1,060	1,500	4,300
Total Lead	26.6	26.6	300	840
Total Mercury	0.462	0.462	17	57
Total Molybdenum	7.32	7.32	NL ⁽³⁾	75
Total Nickel	20.3	20.3	420	420
Total Selenium	< 4.00	< 4.00	100	100
Total Zinc	1,490	1,490	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
☑ Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
☐ Option 1 - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anaerobic digestion
☐ Option 4 - Composting
☐ Option 5 - Lime Stabilization

⁽³⁾ The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

C.	Vector Attraction Reduction (VAR)		
	VAR requirements for Class B bios 9VAC25-32-685.B.1 - 8 by:	olids were achieved in accordance v	with 9VAC25-31-720.B.1 8 or
	Option 1: ≥ 38% volatile solids to option 2: Anaerobic 40 day bench Option 3: Aerobic 30 day bench Option 4: Specific Oxygen Upta Option 5: Aerobic process, 14 day option 6: Alkaline stabilization Option 7: Dry to ≥ 75% T.S. w/r Option 8: Dry to ≥ 90% T.S.	ch test test ke Rate (SOUR) test ays @ 40°C (45°C)	
	OR		
	land application site.		nce with 9VAC25-31-720 B.1 - 8 10 (Incorporation) is required at the
D.	Nutrient Concentrations		
	Sample Date(s):	Number of S	amples:
		Concent	
	Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)
	Total Nitrogen as N	N/A	N/A
	Total Phosphorus as P	N/A	N/A
	*Values to be reported on a dry weight bas	is.	
E	Certification		
٠.	<u>Continuation</u>		
	I certify under penalty of law that this c supervision in accordance with a system	m designed to assure that qualified	personnel properly gather and
	evaluate the information submitted. But those persons directly responsible for a translation and ballion translation.	gathering the information, the infor	mation is, to the best of my
	knowledge and belief, true, accurate as submitting false information, including		
Nai	ne and official title Ray mand	searls	
Sig	ne and official title Raymond S	Date Signed _/	-4-2021
Tel	ephone number <u>540 - 439 - 2</u>	225	

Revised 10/2014



December 29, 2020

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the fourth quarter vector (2020) attraction study for the Remington WWTP from 11/10/2020 to 12/10/2020. The original 5-gallon sample that was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 11/10/2020 12/10/2020	% Sludge = MLSS 18,000 16,600	1.80% MLVSS 11,500 10,900 Reduction	% Volatile 67.2% 65.7% 1.6%	Fecal Coliform 77,800 1,020
Vessel B	% Sludge =	1.90%		
Date	MLSS	MLVSS	% Volatile	Fecal Coliform
11/10/2020	19,000	12,700	66.8%	24,200
12/10/2020	15,400	10,200	66.2%	1,040
		Reduction	0.6%]
	Average Re	duction for 3	0 Day Period	1.1%

The average total volatile reduction of Vessels A and B during the 30-day period was calculated to be 1.1%. According to the bio solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period was reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 1.1% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Dear Minava

Attachment - Analytical Report & Chains of Custody





218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 227/01 ♦ Tet (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

11/13/2020

Report #

51610

Job #:

0008882

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

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If you have received this report in error, please notify ESS immediately at (540) B25-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

11/13/2020

Report #:

51610

Job#:

0008882

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0165346

11/10/2020 / 10:50

Sample Source: Date Received:

Vessel A

11/10/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	77,800	MPN/g	180	SM 9221 E+C-2008	11/10/2020	12:50	JI
Mixed Liquor Susp Solids	18,000	mg/l	1.00	SM 2540 D-2011	11/11/2020	12:01	JI
Mixed Liquor Volatile SS	12,100	mg/l	1.00	SM 2540 E-2011	11/12/2020	14:30	Ji

Sample ID#: Sample Date/Time: 0165347

11/10/2020 / 11:00

Sample Source:

Vessel B

Date Received: 11/10/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	24,200	MPN/g	180	SM 9221 E+C-2006	11/10/2020	13:20	JI
Mixed Liquor Susp Solids	19,000	mg/l	1.00	SM 2540 D-2011	11/11/2020	12:05	JI
Mixed Liquor Volatile SS	12,700	mg/l	1.00	SM 2540 E-2011	11/12/2020	14:45	JI

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





218 North Main Street • Post Office Box 520 • Culpeper, Virginia 22701 • 800-541-2116 • 540-825-6660 • Fax: 540-825-4961

500 Storre Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-550

51610

Site Site Post	Sample Condition Upon Receip	Job# 8882	1	Normal Rush Normal Rush Rush Land Results by Rush TAT		Received @ La_L °C	Hand Delivery	E	☐ Fed Ex	¥ .
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to him			40 Xoh	tery ve	Pa					
		Instructions:	mments/ Special	nal Notes/ Co	Addition		55	L	3 4	\$ 3

Sample Condition Stamp



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6660 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

12/22/2020

Report #

52480

Job #:

0008882

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials





Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

12/22/2020

Report #:

52480

Job #:

0008882

Customer #:

99R

Customer PO#:

Callected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0167128

12/10/2020 / 07:00

Sample Source:

Date Received:

Vessel A

12/10/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	1,020	MPN/g	180	SM 9221 E+C-2006	12/10/2020	11:40	JI
Mixed Liquor Susp Solids	16,600	mg/l	1.00	SM 2540 D-2011	12/14/2020	12:33	JI
Mixed Liquor Volatile SS	10,900	mg/l	1.00	SM 2540 E-2011	12/15/2020	11:00	JI

Sample ID#: Sample Date/Time: 0167129

12/10/2020 / 07:15

Sample Source:

Date Received:

Vessel B 12/10/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	1,040	MPN/g	180	SM 9221 E+C-2006	12/10/2020	11:50	JI
Mixed Liquor Susp Solids	15,400	mg/l	1.00	SM 2540 D-2011	12/14/2020	12:36	J١
Mixed Liquor Volatile SS COMMENT:	10,200	mg/l	1.00	SM 2540 E-2011	12/15/2020	11:20	JI

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





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500 Stone Street • Post Office Box 736 • Bedford, Virginia 24523 • 540-566-5413 • Fax: 540-566-5530

CHAIN OF CUSTODY RECORD

52480

	D Post Office	☐ Fed Ex Hand Detivery Receive	november of.	K	Date Time Received by:				120 0715 Vessel B	120 6715 Yesser B	0700	120 0700 Vessel A	OLLECTION SAMPLE LOCATION	(Print Name)	- 5		RASMONA Searls	
Under 2 hours	Need Results by Extra charges will apply for Rush TAT.	\$ C	- X		Relinguished by				PIX WW	125 P1 X WY Sterle	7 L	125 P 2 X WW Shent	CONTAINERS & & SAPPLE 52E GP # R 1 UATED PRE-ESVATIVE	(Signature)	P.03	- 1	Additional Notes/ Comments/ Special Instructions:	
Sample Condition Stamp		Job# #882 Sample Condition "OK"	17 10 20 0800 Received for Laboratory by		Date Time Received by pM Check:	Proservative				*		×	Fear		ANALYSES		eial Instructions:	•



218 North Main St. ♦ P.O. Box 520 ♦ Culpeper, Virginia 22701 ♦ Tel: (540) 825-6860 ♦ Fax (540) 825-4961 ♦ www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date: 12/03/2020

Report # 51602 Job #: 0008958

Customer #: 99R

Customer PO#:

Collected By: Customer

Sample Location: Remington WWTP

The test results submitted in this report relate only to the samples submitted and as received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that results meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com/resources.

This laboratory report may not be reproduced, except in full, without the written approval of ESS.

If you have received this report in error, please notify ESS immediately at (540) 825-6660.

Approved by:

A. Woodward/Technical Director

Angie Woodward

Reviewers Initials



Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

12/03/2020

Report #:

51602

Job #:

0008955

Customer #:

99R

Customer PO #

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time: 0165327

11/10/2020 / 07:50

Sample Source: Date Received:

Sludge

11/10/2020

Parameter	Results	Unit	Report Limit	Method	Analysis Date	Time	INIT
Total Solids (%)	19.1	%	0.600	SM 2540 G-2011	11/16/2020	17:20	574
Arsenic, Total Recoverable	13.2	mg/kg	4.00	SW-846 60108	11/12/2020	09:36	574
Molybdenum, Total Recoverable	7.32	mg/kg	4.00	SW-846 6010B	11/12/2020	09:36	574
Zinc, Total Recoverable	1,490	mg/kg	4.00	SW-848 6010B	11/12/2020	09:38	574
Lead, Total Recoverable	26.6	mg/kg	4.00	SW-848 6010B	11/12/2020	09:36	574
Nickel, Total Recoverable	20.3	mg/kg	4.00	SW-846 60108	11/12/2020	09:36	574
Mercury, Total Recoverable	0,482	mg/kg	0.0250	SW-848 7471A	11/17/2020	10:09	574
Copper, Total Recoverable	1,060	mg/kg	2.00	SW-846 6010B	11/12/2020	09:36	574
Cadmium, Total Recoverable	7.89	mg/kg	2.00	SW-846 6010B	11/12/2020	09:36	674
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4.00	SW-846 6010B	11/12/2020	09:36	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP ID# 460160

□ Fed Ex	Date	SE Page		1		-20 0750	TE THE	Travis G		Box 861646 artica, Virginia 20187 48-2082; fax 540-341	Linkefer	:USTO
Hand Delivery	Time Received by	Time Received by:				Sludge	in and and and	(Print Neme)	Contract #	Box 861646 artion, Virginia 20187 WB-2092; fax 540-347-7689	user County Water and Sanitation Authority Unicefor	CUSTODY RECORD
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9 0		-	+	-	\vdash	2	CONTAINERS	(Signature)	1			
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Normal Need Re Edna cha	Reinquished by:	Resinquished by:			\vdash	34	G#169 FORTH	10	- Carren	Outpeper, VA 800-641-2116 540-825-6880	218 North Mein St. Post Office Box 52	
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	1						COMMENTS			27103		

FAUQUIER COUNTY WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms Warrenton, Virginia 20187-3907 Phone (540) 349-2092 • Fax (540) 347-7689



February 11, 2022

Compliance Officer
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Remington WWTP VA0076805

To Whom It May Concern:

Enclosed please find the 2021 Annual Sludge Program Discharge Monitoring Reports and the Pathogen Reduction Study Summary for the Remington Wastewater Treatment Plant. We have no excursions to report.

Should you have any questions or require additional information please feel free to contact me at (540) 349-2092.

Sincerely,

Cheryl St. Amant

Associate Executive Director

Cc: Ben Shoemaker, Executive Director

Remington WWTP

File

PERMITTED FACILITY

Remington Wastewater Treatment Plant

c/o Fauquier County Water and Sewer Authority, Warrenton VA

20188

Parmit Number: VA0076805 Parmit Type: Major Municipal

No Discharge:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY TONAL POLLUTANT DISCHARGE SUMMATION SYSTEM (NPDE)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

	-	M	ОТИО	RING	PERIO	D	
	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2021	01	01	TO	2021	12	31

RETURN TO

Department of Environmental Quality

Northern Regional Office

13901 Crown Court, Woodbridge VA 22193

(703) 583-3800

MOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM AND RETURNING IT.

Dutfall Num: S01	Kaporting t	requency: Ann QUAN	TITY OR LOADING	3	-	QUALITY OR CON	CENTRATION	- 1	NO.	FREQUENCY OF	SAMPLE
PARAMETER		AVERAGE	MAXIMUM	UNITS	MINIMOM	AVERAGE	MAXIMUM	UNITS	EX.	ANALYSIS	TYPE
672 SOLIDS, TOTAL, SLUDGE	TEPONTO	********	200040300		Assessed	20.1	********	6/0	6.	LIYR	COMP
AS PERCENT	REGRANT	24444684	*******		*****	NL	244623337	%	0	17YR	COMP
	REPORTO	*******	********		444008446	781	11-1	MG/KG	0	INR	COMP
BBO ARSENIC, SLUDGE	REGRMNT	*******	425-6-44			41.	75	MG/KG	0	1/YR	COMP
CONTRACTOR ACCORDED	REPORTO	AAAAAAA	***>>>NHHA4		04444440	7.99	14.8	MG/KG	0	1/18	COMP
681 MOLYBOENUM, SLUDGE	REGRANT	********	********		44440000	NI	75	MG/KG	0	1/YR	COMP
Mallo e Nebe	REPORTO	******	*********		44448899	1266	1580	MG/KG	0	1/YR	comp
682 ZINC, SLUDGE	RECRMNT	*******	411000000		ANDRAGE	2800	7500	MG/KG	0	1/YR	COMP
and the land and t	REPORTO	*******	244444009	1	20000000	22.73	243	MGIKG	0	1/YR	COMP
683 LEAD, SLUDGE	REGRANT	*******	Затьяния		4444444	300	840	MG/KG	Ð	1/YR	COMP
LL YVOLDHALY CANONINAL	REPORTD		***>>>ния	IL J		1625	211	MGCKG	0	IMR	COMP
084 NICKEL, SLUDGE	REGRUNT	2444-0444	*********	1, 7 2 4 1	A4400444F	420	420	MG/KG	D	1MR	COMP
	REPORTO	201777700	24466694		******	0.260	0.480	MG/KG	0	LIVR	COMP
685 MERCURY, SLUDGE	REGRANT	THEST / PAA	240000444		\$44444444	17	57	MG/KG	0	1/YR	COMP
	REPORTO	24441190	Кудоровая	+	нечениче	1 874	1080	M6/K6	0	INB_	COMF
686 COPPER, SLUDGE	REGRANT	PERSTERNA	44144444		244400011	1500	4300	MG/KG	- 0	1/YR	COMP
-avaising primar	REPORTD	0000			-445-444-	7.42	th	MG/KG	0	INYR	COMP
687 CADMIUM, SLUDGE	REGRANT	*******	Agobbeasa		*******	39	85	MG/KG	D	1/YR	COMP
688 LEVEL OF PATHOGEN	REPORTO	773144440	SAXPPARSA		**********	4927 69649	2	STCL#	0	LIYR	COMP
REQUIREMENTS ACHIEVED	REQRMNT	******	********	165		42222444	NL	STCL#	0	1/YR	отраната

odditional Permit Requirements (Outfall S01):

Comments:

PERMITTED FACILITY

Remington Wastewater Treatment Plant

do Fauquier County Water and Sewer Authority, Warrenton VA

20189

Permit Number: VA0076805 Permit Type: Major Municipal No Discharge:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

	1	MI	DNITO	RING	PERIO	1	
	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2021	01	01	TO	2021	12	31

RETURN TO

Department of Environmental Quality

Northern Regional Office

13901 Crown Court, Woodbridge VA 22193

(703) 583-3800

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS REFORE COMPLETING THIS FORM AND RETURNING IT.

Box Dets: Mar 19 2025

		QUAN	TITY OR LOADING	3	1	QUALITY OR CON	CENTRATION		NO.	FREQUENCY OF	SAMPLE
PARAMETER		AVERAGE	MUMIXAM	UNITS	MUMINIM	AVERAGE	MAXIMUM	UNITS	EX,	ANALYSIS	TYPE
669 DESCRIPTION OF	REPORTO	*********	(entrees		78444 c e o 0	*******	1 2	ALTR#	0	LYR	
PATHOGEN OPTION USED	RECHMAT	++++>>>#2	0.20488944	1	*********	FRANCIS	NL.	ALTR#	- 0	1/YR	*******
690 VECTOR ATTRACTION	REPORTO	9444444	300000000000000000000000000000000000000	1	********	********	2	ALTRH	0	1/48	
REDUCTION OPTION USED	RECEMENT	0.0.77784	A beautiful		********	>>>=======	NL.	ALTR#	0	1/YR	AANSAGA-
	REPORTO	********	*********		******	<4.00	1400	MGKG	0.	INR	comp
697 SELENIUM, SLUDGE	REGRMNT	********	PARMAGRA		********	100	100	MG/KG	0	1/YR	COMP

idditional Permit Requirements (Outfall S01):

iomments:

PERMITTED FACILITY

Remington Wastewater Treatment Plant

c/o Fauquier County Water and Sewer Authority, Warrenton VA

20188

Permit Number: VA0076806 Permit Type: Major Municipal

No Discharge:

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

		M	ONITO	RING	PERIOR	3	
	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2021	01	01	TO	2031	12	31

RETURN TO

Department of Environmental Quality

Northern Regional Office

13901 Crown Court, Woodbridge VA 22193.

(703) 583-3800

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM AND RETURNING IT.

Die	Pinden	Mar 18.	20124	
HETRE	LEMES	MAL 10	2021	

		QUA	NTTTY OR LOADIN	lG D	4	QUALITY OR CON	CENTRATION		NO.	FREQUENCY OF	SAMPLE
PARAMETER		AVERAGE	MUMIKAM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX.	ANALYSIS	TYPE
693 ANNUAL SLUDGE	REPORTO	**********	528.36	IMTNYR!	*******	********	anaeceeka		0	INR	CALL
PRODUCTION TOTAL	REGRANT	meen.	NL	MTNYR	>>>====================================	F44477PPA	AAA44 DDAA		0	1/YR	CALC
694 ANNUAL AMT SLUDGE.	REPORTO	*******	528.36	MTNYRI	********	316444111	PHYSCAR		0	INR	CALL
LAND APPLIED	REDRAM	шын	NL	MTNYR	355E64666	*******	******	12000	0	1/YR	CALC

.ddltlonal Pennit Requirements (Outfall SP1):

comments:

Conferm C. Same - Cycetio Co.

Remington Wasiawater Treatment Plant

c/a Fauguier County Water and Sisver Authority, Warrenton VA 20189

Parmit Number; VA0076106 Permit Type: Major Municipal

DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

Department of Environmental Quality

Northern Regional Ellica

18901 Crown Court, Woodbridge VA 22197

(703) 583-3800

NOTE READ PERMIT AND GENERAL INSTRUCTIONS OF FORM CUMPLETING THIS FORM AND RETURNING IV.

CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION JUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR LATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND MPRISONMENT FOR KNOWING VIOLATIONS.

BYPA	SS AND OVERFLOWS	
TOTAL-OCCURRENCES	TOTAL FLOW(M.G.)	TOTAL BOOS(K.G.)
Ø	D	Ø

	OPERATOR IN RESPONSIBLE CHARGE			DATE	
Raymond A Scarls	12-11 Enge	1965006241	2022	07	09
TYPED OR PRINTED NAME	SIGNATURE	GENTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE	OFFICER OR AUTHORIZED AGENT	TELEPHONE			
CHERTE ST AMAN	5/ vx 40	540-349-2092	2022	02	11
TYPED OR PHINTED NAME	SIGNATURE		YEAR	MO.	DAY

DISCHARGE MONITORING REPORT (DMR) - GENERAL INSTRUCTIONS

- Complete this form in permanent ink or indelible pendi. The use of 'correction Nuldtape' is not allowed.
- 2. He sure to enter the dates for the first and test day of the period covered by the report on the form in the space market "Monitoring Period".
- 3. For those parameters where the "permit regularities" spaces have a requirement of limitation, provide data in the "reported" spaces in accordance with your permit.
- Enter the average and maximum quantities and units in the "reported" spaces in the columns marked "Quantity or Loading" KG/DAY = Concentration (mg/L) x Flow (MGD) x 3785 G/D (Grams/Day) = Concentration (mg/L) x Flow (MGD) x 3786
- 5. Effer maximum, minimum, and/or average concentrations and units in the "reported" spaces in the columns marked "Quality or Concentration".
- 6. For all parameters onter the number of samples which do not comply with the maximum and/or minimum permit requirements in the "reponed" space in the poliunin marked "No. Ex." (Number of Exc. Cances). If in income "P. Do NOT include monthly average violations in this field. Include any Maximum 7-Day Average and Maximum Weekly Average violations in this field. Permittees with continuous pH or temporature monthly income and report accordingly.
- You are required to sample (at a minimum) according to the Sample Frequencies and Sample Types specified in your permit.
- 8. Enter the actual feeduring of analysis for each parameter (number of lines per day, week, month, etc.) in the "reported" space in the column marked "Frequency of Analysis"
- 9. Enter the actual type of sample (Grob, BHC, 24HC, otc) collected for each parameter in the "reported" space in the column marked "Sample Type"
- Enjoy additional required data or comments in the space marked "additional permit requirements or comments." If ndd in all required data or comments are appended to the DMR, reference appearance in this field.
- 11. Record the number of bypasses during the month, the total flow in million gallons (MG) and BOOS in killograms (MG) in the proper columns in the section merked "Bypasses and Overflows"
- 12. The operator in responsible charge of the facility should review the foon and sign in the space provided. If the plant is required to have a ficensed operator or if the operator in insponsible charge of the facility is it illustrates the operator, the operator, the operator and certificate number must be reported in the spaces provided.
- 13. The portugal executive officer than reviews the form and must sign in the space provided and provided and
- 14. Send the completed forms) with original stocatures to your Department of Environmental Quality Regional Office by the 10th of each month unless otherwise specified in the carmit.
- 76. You are required to retain a copy of the report for your records.
- 16. Where violations of permit requirements are reported, stach a brief explanation in accordance with the permit requirement, describing causes and corrective actions taken. Reference each septimate violation by a
- 17. If you have any questions, contact the Department of Environmental Quality Regional Office limed on the DMR.



218 North Main St. * P.O. Box 520 * Culpaper, Virginia 22701 * Telt (640) 825-6680 * Farc (540) 825-4961 * www.ess-services.com/

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennady Road Warrenton, VA 20187-1866

Report Date:

02/12/2021

Report #

53772

Job #

0009158

Customer#:

89R

Customer PO#

Collected By:

Customer

Sample Location: Remington

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials

revised 04/1/02
Somple condition "United and United States and Uni



Analytical Report

Report Date:

02/12/2021

Report # Job 此

53772 0009158

Customer#:

99R

Customer PO#

Collected By:

Customer Sample Location: Remington

Sample ID#: Sample Date/Time:

0170036

Warrenton, VA 20187-1646

Fauguler County WSA

Remington WWTP

7172 Kennedy Road

02/02/2021 / 08:30

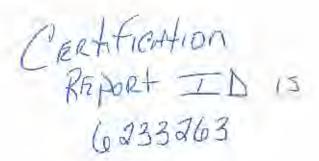
Sample Source: Date Received:

Sludge 02/02/2021

Samuel Control of		40.50	Den LANGUAGI	112/02/2021			
Perameter	Results	Unit	QL	Mathod	Analysis Date	Time	INIT
Total Solids (%)	19.5	%	0.600	SM 2540 G-2011	02/08/2021	16:10	574
Areenic, Total Recoverable	7.82	mg/kg	4.00	SW-846 8010B	02/03/2021	09:01	574
Molybdenum, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 60108	02/03/2021	09:01	574
Zinc, Total Recoverable	692	mp/kg	4.00	SW-846 60108	02/03/2021	09:01	574
Leed, Total Recoverable	18.7	mg/kg	4,00	SW-848 6010B	02/03/2021	09:01	574
Mickel, Total Recoverable	11.2	mg/kg	4.00	SW-846 6010B	02/03/2021	09:01	574
Marcury, Total Recoverable	0.247	mg/kg	0.0250	SW-8467471A	02/04/2021	09:52	574
Copper, Total Recoverable	508	mg/kg	2.00	SW-846 6010B	02/03/2021	09:01	574
Cadmium, Total Recoverable	3.39	mg/kg	2.00	SW-846 8010B	02/03/2021	09:01	574
Selenium, Total Recoverable COMMENT:	< 4.00	mg/kg	4.00	SW-848 0010B	02/03/2021	09:01	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAF ID# 480180



NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Bemington	WWTP	Permit Number, Va. 0076805
A. Metals Limitations Sample Date(s):		Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Calling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (17
Total Arsenic	7.62	762	41	75
Total Cadmium	3.39	3.39	39	85
Total Copper	506	506	1,500	4,300
Total Lead	16.7	16 1	300	840
Total Mercury	0.247	0.247	17	57
Tetal Molybdemim	(4.00	(N 00	NL (3)	75
Total Nickel	11.2	11.2	420	420
Total Setenium	(40)	(4.00	100	100
Total Zinc	588	652	2,800	7,500

Values to be reported on a dry weight basis.

☐ Option 5 - Lime Stabilization

(2) Sludge may not be land applied if any pollutant exceeds these values.

B. Class B Pathogen Reduction

Other:

Annual Control of the
Class B biosolids parhogen reduction requirements were achieved in accordance with 9VAC25-31-710.B 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below. Of Option I - Aerobic digestion
☐ Option 2 - Air drying beds
☐ Option 3 - Anserobic digestion
Option 4 - Consposting

⁽³⁾ The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

NOTICE AND NECESSARY INFORMATION

L. Vector Attraction Reduction (VAR)

	VAR requirements for Class I 9VAC25-32-685,B.T - 8 by:	3 biosolids were achieved in accordance w	rith 9VAC25-31-720.B.1 - 8 or
	 ☑ Option 1: ≥ 38% volatile so ☑ Option 2: Ansemble 40 day ☑ Option 3: Aerobic 30 day & ☑ Option 4: Specific Oxygen ☑ Option 5: Aerobic process, ☑ Option 6: Alkeline stabilize ☑ Option 7: Dry to ≥ 75% T.: ☑ Option 8: Dry to ≥ 90% T.: 	y bench test pench test Uptake Rate (SOUR) test 14 days (a) 40°C (45°C) ation S. w/no unstabilized 1° slodges	
	OR		
	□ VAR requirements for Class I or 9VAC25-32-685.B.1 ~ 8; to land application site.	3 biosolids were not achieved in accordant herefore, Option 9 (Injection) or Option 1	ce with 9VAC25-31-720.B.1 = 8 0 (Incorporation) is required at the
D,	Nutrient Concentrations		
	Sample Date(s):	Number of Sa	mples:
		Concentr	ations
	Parameters	Monthly Average (mg/kg) [1]	Maximum (mg/kg) (1)
	Total Nitrogen as N	NIA	NA
	Total Phosphorus as P	N/A	MIA
	ACCUSE AND THE REAL PROPERTY.		
E,	supervision in accordance with a ; evaluate the information submitted those persons directly responsible mowledge and belief, true, accura	this document and all attachments were p system designed to assure that qualified p d. Based on my inquiry of the person or p for gathering the information, the informate and complete. I am aware that there a uding the possibility of fine and imprison	personnel properly gather and persons who manage the system of nation is, to the best of my are significant penalties for

Telephone number _ 540434 2215



March 11, 2021

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the first quarter vector (2021) attraction study for the Remington WWTP from 2/2/2021 to 3/3/2021. The original 5 gallon sample which was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels were labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples were collected from Vessels A and B at both the start test date and after the 30 day period. Each vessel was mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30 day period, additional distilled water was added to each vessel as needed until the original test volume was maintained.

After the 30 day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples were collected from Vessels A and B.

Vessel A Date 2/3/2020	% Sludge = MLS8 20900	2.09% MLVSS 15400	% Volatile 73.7%	Fecal Coliform 44000
3/3/2020	17700	12300	70.7%	338
		Reduction	3.7%	
Vessel B	% Sludge =	2.15%		
Date	MLSS	MLVSS	% Volatile	Fecal Collorn
2/3/2020	21500	15800	73.5%	32600
3/3/2020	17400	12200	70.1%	2010
		Reduction	3.4%	
	Average Re	duction for 30	Day Period	3.5%

The average total volatile reduction of Vessels A and B during the 30 day period was calculated to be 3.5%. According to the biosolids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sawage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.

Since the volatile solids reduction for the Remington WWTP was found to be an average of 3.5% reduction after the additional 30 day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information should be submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

ESS.



218 North Main St. * P.O. Box 520 * Culpaper, Virginia 22101 * Tel: (540) 825-6660 * Fax: (540) 825-4961 * Swwy.ets-Services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1546

Report Date:

02/09/2021

Report #:

53778

Job #

D009072

Customer #:

99R

Customer PO#:

Callected By:

ESS Employee

Sample Location: Quarterly Vector Study

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SU = Standard unit

umhos/cm = micromhos per cantimeter @26°C

Mare Woodward

Approved by

A. Woodward/Technical Director

Reviewer's Initials



OF AFTERME - OCHEROCEANS



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

02/09/2021

Report #

53776

dob#

0009072

Customer #: Customer PO #: 99R

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time:

0170061 02/02/2021 / 11:20

Sample Source! Date Received;

Vessel A 02/02/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS				111111111111111111111111111111111111111	23.0.2	0 000000	350
Mixed Liquor Susp Solida	20,900	mail	1.00	SM 2540 D-2011	02/05/2021	13:15	sii
Mixed Liquor Volatile SS	(5,400	mgA	1,00	SM 2540 E-2011	02/06/2021	13:25	Ji
Fecal Collions	44,000	MPNIg	180	SM 9221 E+C-2006	02/02/2021	12:50	41
recar Collotts	44,000	MPNIg	180	SM 9221 E+C-2006	02/02/2021	12:50	

Sample ID#: Sample Date/Time: 0170062 02/02/2021 / 11:30 Sample Source: Vessel B. Date Received:

02/02/2021

			_				
Parameter	Results	Unit	- QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS	-10-7						_
Mixed Liquor Susp Solids	21,600	mali	1.00	SM 2540 D-2011	02/05/2021	13:20	41
Mixed Liquor Volatile SS	(5,800	mg/l	1.00	SM 2540 E-2011	02/06/2021	13:25	3)
Facal Coliforni	32,600	MPNO	180	8M 9221 E+C-2006	02/02/2021	13:05	3)
COMMENT	1,571.33	m. see	100	OIII SEE1 2. 0 2000	UEIUZIZUZ (13.02	41

Results reported as mg/kg or MPN/g are reported on a dry weight hasis.



218 North Main Street - Post Office Box 520 - Cubeper, Virginia 22701 -

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218 North Misin St. + P.O. Box 520 + Culpeper, Wirginia 22701 + Tel: (540) 825-8860 + Fax: (540) 825-4861 + Sweet Bervices.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1645

Report Date:

03/09/2021

Report #:

54508

Job #.

0009072

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C.

rais Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report

Report Date:

03/09/2021

Report #:

54508

Job#: Customer #. 0009072 99FL

Customer PO#

Collected By:

ESS Employee

Sample Location: Quarterly Vactor Study

Sample ID#: Sample Date/Time:

0171675

03/03/2021 / 07:00

Sample Source: Date Received:

Vessel A 03/03/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSSAMLVSS						3 0000	I AVE A
Mixed Liquor Susp Solids	18,000	mg/l	1.00	SM 2540 D-2011	03/06/2021	18:28	31
Mixed Liquor Volatile SS	11,200	rng#	1.00	SM 2540 E-2011	03/08/2021	11:40	J.
Fecal Collorn	338	MPN/g	180	SM 9221 E+C-2008	03/03/2021	12:35	1
Pennin (F)46	NATIONA	-	are all one some a	pate.		_	_

Sample ID#: Sample Date/Time:

0171676 03/03/2021 / 07:10 Sample Source: Vessel B Date Received:

03/03/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	mm
MLSSMLVSS		-		monios	Trinigona Casa	- traine	Sec.
Mixed Liquor Susp Solids	17,400	mg/l	1,00	SM 2540 D-2011	03/06/2021	18:32	- 0
Wixed Liquor Volalite SS	12,200	rog/I	1.00	SM 2540 E-2011	03/08/2021	11:40	.31
Fácal Cottorm	2,010	MPN/g	180	8M 9221 E+C-2008	03/03/2021	13:00	31
COMMENT			A- A-	Targetti and the second	out to the t	14.00	-

Results reported as marks or MPN/p are reported on a dry weight basis.





218 North Main Street « Post Office Box 520 « Culpaper, Virginia 22701 » 800-541-2116 » 540-825-9881 « Fax. 540-825-4981

500 Stone Stratt • Post Office Box 736 • Sedford, Virginia 24523 • 540-586-5413 • Fax: 540-586-5530



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218 Month Mein St. # P.O. Box 520 # Culpaper, Virginia 22701 # Tel: (540) 825-6660 # Fax: (540) 625-4981 # SWAYLESS 581/Viggs 120m>

Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

06/01/2021

Report #:

56445

Job #

0009352

Customer #:

99R

Customer PO#

Collected By:

Customer

Sample Lucation: Remington WWTP

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SU = Standard unit

umhos/cm = micromlyos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Majo Woodward

Reviewer's Initials

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Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report

Report Date:

06/01/2021

Report #:

56445

Job #:

0009352

Customer #:

99R

Customer PO #:

A

Collected By:

Customer

Sample Location: Remington WWTF

Sample ID#; Sample Date/Time: 0175966

05/10/2021 / 08:00

Sample Source: Date Received:

Sludge 05/10/2021

5,75K, 5,27K, 17KK,	estorial and	(55.00	Person transmit man	DEN TOTAL DE			
Parameter	Results	Unit	QL	Mathod	Analysis Date	Time	INIT
Total Solids (%)	23.5	%	0.500	SM 2540 G-2011	05/14/2021	12:12	574
Arsenic, Total Recoverable	7.86	mg/kg	4.00	SW-846 6010B	05/13/2021	09:31	574
Molybdenum, Total Recoverable	5.97	mg/kg	4.00	SW-846 60108	05/13/2021	09:31	574
Zinc, Total Recoverable	1,480	mg/kg	4.00	SW-846 6010B	05/13/2021	09:31	574
Lead, Total Recoverable	21.1	mg/kg	4.00	SW-846 6010B	05/13/2021	09:31	574
Nickel, Total Recoverable	14.3	mg/kg	4.00	SW-846 6010B	05/13/2021	09:31	574
Mercury, Total Recoverable	0.312	mg/kg	0.0250	SW-846 7471A	05/18/2021	09:29	574
Copper, Total Recoverable	923	mg/kg	2.00	SW-848 6010B	05/13/2021	09:31	576
Cadmium, Total Recoverable	7.82	ing/kg	2.00	SW-848 8010B	05/13/2021	09:31	574
Selenium, Total Recoverable COMMENT:	₹ 4.00	mg/kg	4.00	SW-846 6010B	05/13/2021	09:31	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Samples subcontracted to VELAP (E# 460)160

NOTICE AND NECESSARY INFORMATION

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Part I - To be completed by PREPARERS of biosouge and provided to the person who applies or receives those biosolida

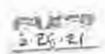
Facility Name: Remington WATP		Permit Number: Kal. 0076305	
A. Metals Limitations Sample Date(s):		Number of Samples:	

Parametera	Concempations		PC/CPLR Limitations	Cailing Limitations (2)
	Monthly Average (mg/kg) (I)	Maximum (mg/kg) (1)	Monthly Average (:ng/kg) (1)	Maximum (mg/kg) (1)
Total Arsenic	7.58	7-56	41	75
Total Cadmium	7.62	SB. C	39	85
Total Copper	923	923	1,500	4,300
Total Lasd	21-1	21-1	300	840
Tutal Mercury	215.0	0.312	17	57
Total Molybdenum	5.97	5.57	NT (3)	75
Total Nickel	14.3	14.3	420	420
Total Selenium	₹4.00	€4.00	100	100
Total Zinc	1460	1460	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

B. Class B Pathogen Reduction

CHAS TANGENT SOCIALIST
Class B biosolids pamogen reduction requirements were achieved in accordance with 9VAC25-31-710.B or 9VAC25-32-675.B by:
☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
LY Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
Option I - Aerobic digestion
□ Option 2 - Air drying beds
Cl Option 3 - Angeroble digestion
El Option 4 - Composting
D Option 5 - Lime Stabilization
□ Other



Sludge may not be land applied if any pollutant exceeds these values.
 The monthly average concentration for molybdenum is currently under analy by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriets to reduce the risk of copper deficiency in grezing enimals.

NOTICE AND RECESSARY INFORMATION

C.	Vector Attraction Reduction (VAR)			
	VAR requirements for Class B bio 9VAC25-32-685,B.1 - 8 by:	solida ware adiis	ved in accordance	with 9VAC25-31-720.F.1 - 8 ttr
	© Option 1: ≥ 38% volatile solids ☐ Option 2: Anscrobic 40 day bench ☐ Option 3: Aerobic 36 day bench ☐ Option 4: Specific Oxygen Upt ☐ Option 5: Aerobic process, 14 d ☐ Option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/ ☐ Option 8: Dry to ≥ 90% T.S.	nch test i test aka Rute (SOUR) hays @ 40°C (45°	C)	
	OR.			
	☐ VAR requirements for Class B bio or 9VAC25-32-685.B.1 — 8; theref land application site.			
D.	Mistrient Concentrations			
	Sample Date(s):		Number of	Samples:
				रोगांजाड
	Parameters		rage (mg/log) (t)	Maximum (mg/kg) [1]
	Total Nitrogen as N Total Physphorus as P	- X/	A	NIA
			A	1 747/3
E	"Values to be reported on a dry weight but Certification I certify under penalty of law that this supervision in accordance with a syste avaluate the information submitted. It those persons directly responsible for knowledge and belief, true, accurate a submitting false information, including	document and al on designed to as lased on my tropic gathering the inf and complete. I a	sure that qualifie by of the person o ormation, the info m aware that the	d personnel properly gather and or persons who manage the system ormation is, to the best of my re are significant penalties for
No	me and official title RAY MOAD	SEARLS	CHIEF	OPERHIPR.
	manne The Sans		Date Signed	6-28-21
Te	lephone number <u>540 - 435 - 22</u>			



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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date

05/18/2021

Report #:

56451

Jab#:

0009284

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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INIT = Analyst Initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or ppb)

mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

3U = Standard unit

umhos/cm = micromhos per centimater @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials 5

VELAF Late (D # 460019 VA DW Late (D # 101115



June 21, 2021

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the second quarter vector (2021) attraction study for the Remington WWTP from 5/10/2021 to 6/9/2021. The original 5-gallon sample was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period had expired a second round of MLSS, MLVSS, and Fecal Coliform samples collected from Vessels A and B.

Vessel A Dete 2/3/2020 3/3/2020	% Sludge = MLSS 23600 16700	2.36% MLVSS 16600 11800	% Volatile 70.3% 69,5%	Fecal Coliform 14800 551
		Reduction	0.9%	1
Vessel E	% Sludge =	2.33%		
Date	MLSS	MLVSS	% Volatile	Fecal Collform
2/3/2020	23200	16400	70.4%	15100
3/3/2020	17200	11800	68.6%	930
		Reduction	1.8%	
	Average Re	duction for 30	Day Period	1.3%

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be 1.3%. According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies the vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduced by less than 15%, vector attraction reduction achieved.

Since the volatile solids reduction for the Remington WWTP found to be an average of 1.3% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SOI discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SOI DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

ESS



Feuquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report

Report Date:

05/18/2021

Report#:

56451 0009284

doh#: Customer #

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0175978

05/10/2021 / 10:30

Sample Source: Date Received:

Vessel A

05/10/2021

Results	Unit	QL	Method	Analysis Date	Time	INIT
14,800	MPN/g	180	SM 9221 E+C-2006	05/10/2021	13:05	į,
23,500	mgd	1,00	SM 2540 D-2011	05/13/2021	14:35	
16,600	mg/l	1.00	SM 2540 E-2011	05/14/2021	13:15	J
	14,800	14,850 MPN/g 23,500 mg/l	14,800 MPN/g 180 23,800 mg/l 1,00	14,800 MPN/g 180 SM 9221 E+C-2006 23,800 mg/l 1,00 SM 2540 D-2011	14,800 MPN/g 180 SM 9221 E+C-2006 05/10/2021 23,800 mg/l 1,00 SM 2540 D-2011 05/13/2021	14,800 MPN/g 180 SM 9221 E+C-2006 05/10/2021 13:05 23,800 mg/l 1,00 SM 2548 D-2011 05/13/2021 14:35

Sample ID#: Sample Date/Time: 0175979 05/10/2021 / 10:40 Sample Source: Vessel B Date Received:

05/10/2021

Parameter	Results	Unit	QL	Method	Analysis Date		IMIT
Fecal Coliform MLSS/MLVSS	15,100	MPN/g	180	SM 9221 E+C-2006	06/10/2021	13:30	J
Mixed Liquor Susp Solids Mixed Liquor Volatile SS	23,200 16,400	mg/l mg/l	1,00	SM 2540 D-2011 SM 2540 E-2011	05/13/2021	14:39 13:15	d J





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500 Stone Street + Post Office Box 736 + Bedford, Virginia 24523 + 540-586-5413 + Fax: 540-586-5530

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218 North Main St. ▼ P.O. Box 520 ▼ Culpaper, Virginia 22701 ▼ Tel: (\$40) 825-6560 ▼ Fax: (\$40) 825-4981 ▼ <u>swww.ess-services.com</u>

Analytical Report

Fauguier County WGA. Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date: 08/15/2021 Report #: 57250 Job #: 0009284

Customer #: 99R

Customer PO#:

Collected By: ESS Employee

Sample Location: Quarterly Vector Study

The test results issued in this report relate only to the namples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ass-services.com.

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Definitions: QL = Quantitation limit is the lowest concentration of analyte that the lab can report with confidence

INIT = Analyst Initials

ug/l = micrograms per liter (1 ug/l = 1 part per billion or ppb) mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

SU = Standard unit

umbos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Date:

08/16/2021

Report #:

57250

Job #:

0009284

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

SM 2540 D-2011

SM 2540 E-2011

Sample Location: Quarterly Vector Study

06/10/2021

08/11/2021

14:35

18:00

39

1)

Sample ID#: Sample Date/Time:	0177792 06/09/2021	/ 05:40	Sample Source: Date Received:	Vessel A 06/09/2021			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	551	MPN/g	180	SM 9221 E+C-2006	06/09/2021	11:16	JI
Mixed Liquor Susp Solids Mixed Liquor Valatile SS	18,700 11,600	22.0	1.00 1.00	SM 2540 D-2611 SM 2540 E-2011	08/10/2021 06/11/2021	14:28 15:00	IL. IL
Sample ID#: Sample Date/Time:	0177793 08/09/2021	/ 05:50	Sample Source: Date Received:	Vessel B 08/08/2021			
Paremeter	Results	Unit	QL	Mathed	Analysis Date	Time	INFT
Fecal Coliform MLSS/MLVSS	930	MPNVg	180	SM 8221 E+C-2006	06/09/2021	12:10	all

1.00

1.00

Results reported as ring/kg or MPN/g are reported on a dry weight basis

17,200

11,800

mg#

mg/l

Mixed Liquor Susp Solids

Mixed Liquer Volable SS

COMMENT

218 North Main Street = Post Office Box 520 * Culpaper, Vegula 22701 * 500-541-2116 * 540-825-8660 = Fax: 540-825-4961

57250

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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1848

Report #: 09/10/2021 Report #: 59400 Jab #: 0009660

Customer #: Customer PO #:

Collected By: Customer

Sample Location: Remington WW/TP

99R

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

ESS assumes no responsibility, express or implied, as to the Interpretation of the analytical results contained in this report.

The signature on this analytical report certifies that methods used meet the requirements of either TVAC30-46 and the 2009 TNI Standard for non-potable water and solid and chemical materials or TVAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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BU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials 15

VELAP Lab ID # 460019 VA DW Lab ID # 00110

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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Date:

09/10/2021

Report #:

59400 0009660

Customer#:

0009660

Customer PO#

99R

Collected By:

Customer

COHECTED by.

SW-846 6010B

SW-846 6010B

Sample Location: Remington WWTP

OB/31/2021

08/31/2021

09:46

09:48

574

574

Sample Date/Time:	0182485 08/23/2021	/08:10	Sample Source: Date Received:	Sludge 08/23/2021			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Total Solids (%)	50'0	%	0.500	SM 2540 G-2011	08/27/2021	18:30	574
Arsenic, Total Recoverable	4.53	mg/kg	4.00	SW-846 6010B	08/31/2021	08:46	574
Molybdenum, Total Recoverable	11.2	mg/kg	4.00	SW-846 60108	08/31/2021	09:48	574
Zinc. Total Recoverable	1,580	mg/kg	4.00	SW-846 60108	08/31/2021	09:46	574
Lead, Total Recoverable	23.8	mg/kg	4.00	SW-848 60109	08/31/2021	09:46	574
Nickel, Total Recoverable	18.4	mg/kg	4,00	SW-846 6010B	08/31/2021	09:46	574
Mercury, Total Recoverable	0.480	mg/kg	0.0250	SVV-846 7471A	08/31/2021	12:23	574
Copper, Total Recoverable	1,080	mg/kg	2.00	SW-846 6010B	08/31/2021	09:46	574

2.00

4.00

574 Samples subcontracted to VELAP ION 450160

7.35

4.00

mg/kg

mg/kg

Cadmium, Total Recoverable

Selenium, Total Recoverable

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Yening	then work	Permit Number: Va. C	2089200
A. Metals Limitations Sample Date(s):		Number of	Samples:
	Concentrations	DC/CBY D 7 Imitations	Calling Limitations (2)

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) ⁽¹⁾
Total Arsenic	4.53	4.53	41	75
Total Cadmium	7.35	7-35	39	85
Total Copper	1,080	1,080	1,500	4,300
Total Lead	23.8	23.8	300	840
Total Mercury	0.480	0.490	17	57
Total Molybdenum	11-2	11.2	NL (5)	75
Total Nickel	18.4	18.4	420	420
Total Selenium	< 4 ou	< 4 on	100	100
Total Zinc	1580	1580	2,800	7,500

⁽¹⁾ Values to be reported on a dry weight basis.

Siturge may not be land applied if my pollmant exceeds these values.

The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25-3:	1-710.B or
9VAC25-32-675.B by:	1 1 1 1

Alternative 1: Feest coliform testing -geometric mean of 7 samples
La Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:

12 Option 1 - Aerobic digestion

- Option 2 Air drying beds
- ☐ Option 3 Ansembic digestion
- ☐ Option 4 Composting
- ☐ Option 5 Lime Stabilization
- Other:

NOTICE AND NECESSARY IMPORMATION

		biosolids were achieved in accombance t	with 9VAC25-31-72(LB, I - 8 or
	 ② Option 1: ≥ 38% volatile sol □ Option 2: Anaerobic 40 day □ Option 3: Aerobic 30 day be □ Option 4: Specific Oxygen 1 □ Option 5: Aerobic process, 1 □ Option 6: Alkaline smbilizar □ Option 7: Dry to ≥ 75% T.S. □ Option 8: Dry to ≥ 90% T.S. 	bench test ench test Uptake Rate (SOUR) test 14 days @ 40°C (45°C) don	
	OR.		
D,	☐ VAR requirements for Class B or 9VAC25-32-685 B.1 — 8; the land application site. Nutrient Concentrations	biosolids were not schieved in accordant erefore, Option 9 (Injection) or Option 1	nce with 9VAC25-31-720(B.1 -) 0 (Incorporation) is required at the
	Sample Date(s);	Number of Sa	unles:
	-		
	Parameters	Concent	
	Parameters Total Nitrogen as N	Monthly Average (mg/kg) W	Maximum (mg/kg) (1)
	Parameters Total Nitrogen as N Total Phosphorus as P	Monthly Average (mg/kg) W	Maximum (mg/kg) (1)
	Total Nitrogen as N Total Phosphorus as P	Monthly Average (mg/kg) W/A	Maximum (mg/kg) (1)
2	Total Nitrogen as N	Monthly Average (mg/kg) W/A	Maximum (mg/kg) (1)

Signature /

Name and official title Ray part

Telephone number 540 - 439 - 2225



September 30, 2021

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP- Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the third quarter vector (2021) attraction study for the Remington WWTP from 8/23/2021 to 9/22/2021. The original 5-gallon sample was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel mixed and aerated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period expired a second round of MLSS, MLVSS, and Fecal Coliforn samples collected from Vessels A and B.

	el A /2021 /2021	% Sludge = MLSS 5240 9210	0.52% MLVSS 3340 5500 Reduction	% Volatile 63.7% 59.7% 4.0%	Fecal Coliform 13400 999
1,000	el B /2021 /2021	% Sludge = MLSS 3960 9670	0.40% MLVSS 2510 5850 Reduction	% Volatile 63.4% 60.5%	Fecal Collform 23200 < 180
		Average Re	duction for 3		3.5%

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be 3.5%, According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction demonstrated by digesting a portion of the previously sewage sludge that has a percent of 2.0% or less serobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduced 64 less than 15%, vector attraction reduction achieved.

Since the volatile solids reduction for the Remington WWTP found to be an average of 3,5% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form SO1 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards,

Sean Minavio, Project Manager Environmental Services Division

Attachment - Analytical Report & Chains of Custody

ESS



218 North Main St. * P.O. Box 520 . Culpeper, Virginia 22701 . Tel: (540) 825-5550 . Fax: (540) 825-4961 . Suwww.esp-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

09/13/2021

Report#:

59403

Job #:

0009536

Customer #:

99R

Customer PO #:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that methods used most the requirements of either 1VAC30-45 and the 2009. TNI Standard for non-potable water and solid and chemical meterials or 1VAC30-41 for drinking water, unless otherwise noted. For a complete list of accredited methods, visit our website at www.ess-services.com.

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BU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Mais Woodward

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA. Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

09/13/2021

Report #:

59403

JOD #:

0009535

Customer#:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

0182491 08/23/2021	£10:45	Sample Source: Date Received:	Vessel A 08/23/2021			
Results	Unit	QL	Method	Analysia Date	Time	INIT
	-			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	-	
5,240	mg/l	1.00	SM 2540 D-2011	08/28/2021	14:50	JQ.
3,340	mg/l	1.00	SM 2540 E-2011	08/27/2021	09:43	JC
15,400	MPN/g	180	SM 9221 E+C-2006	08/24/2021	12:40	CW
0182494 08/23/2021	/11:00	Sample Source: Date Received:	Vessel B 08/23/2021			
	08/23/2021 Results 5:240 3:346 13:400	08/23/2021 / 10:45 Results Unit 5:240 mg/l 3:340 mg/l 13:400 MPN/g 0182494	08/23/2021 / 10:45 Data Received: Results Unit QL 5:240 mg/l 1:00 3:346 mg/l 1:00 16:400 MPN/g 190 0182494 Sample Source:	Results Unit QL Method 5,240 mg/l 1.00 SM 2540 D-2011 3,340 mg/l 1.00 SM 2540 E-2011 15,400 MPN/g 190 SM 9221 E+C-2006 0182494 Sample Source: Vessel B	Results Unit QL Method Analysis Date 5,240 mg/l 1.00 SM 2540 D-2011 06/26/2021 3,340 mg/l 1.00 SM 2540 E-2011 08/27/2021 15,400 MPN/g 180 SM 9221 E+C-2006 08/24/2021 0182494 Sample Source: Vessel B	Results Unit QL Method Analysis Date Time 5,240 mg/l 1.00 SM 2540 D-2011 08/26/2021 14,50 3,340 mg/l 1.00 SM 2540 E-2011 08/26/2021 09/43 15,400 MPN/g 180 SM 9221 E+C-2006 08/24/2021 12:40 0182494 Sample Source: Vessel B

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MCVS5		10. 30.				~	
Mixed Liquor Susp Solids	3,960	Ngm	1.00	SM 2540 D-2011	08/28/2021	15:00	30
Mixed Liquor Volatile SS	2,510	mg/l	1.00	SM 2540 E-2011	08/27/2021	09:43	1C
Fecal Coliform	23,200	MPN/g	180	SM 9221 E+C-2006	08/24/2021	13:50	CW
COMMENT	of the same			210,0221,025,037,037	404040	10000	-,,

Results reported as mg/kg or MPN/g are reported on a dry weight basis



AUTHOR COUNTY COM

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218 North Main St. * P.O. Box 520 * Culpaper, Virginia 22701 * Tel: (540) 825-6880 * Fex: (540) 825-4961 * www.ess-services.com

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1545

Report Date:

09/28/2021

Report #:

60235

99R

Job #

0009536

Customer #: Customer PO#:

Collected By

ESS Employee

Sample Location: Quarterly Vector

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



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Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 **Analytical Report**

Report Dale:

09/28/2021

Report #:

60235

Job#

0009536

Customer #:

PPR

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector

SM 2540 E-2011

SM 9221 E+C-2008

09/27/2021

09/22/2021

12:55

12:00

Ji

di

	ALTERNATION AND ADDRESS OF THE PARTY OF THE						
Sample ID#; Sample Date/Time:	0184231 09/22/2021	/ 08:05	Sample Source: Date Received:	Vessel A 09/22/2021			
Parameter	Results	Unit	QL.	Method	Analysis Date	Time	INIT
MLSSMIVES						- 1 1000	
Mixed Liquor Susp Sollds	9,210	mg/l	1.00	SM 2540 D-2011	09/24/2021	14:59	d
Mixed Liquor Volatile SS	5,500	rng/l	1.00	SM 2540 E-2011	09/27/2021	12:55	J
Facal Coliform	999	MPN/g	180	SM 9221 E+C-2006	09/22/2021	11:45	1
Sample ID#: Sample Date/Time:	0184232 09/22/2021	/ 08:15	Sample Source: Date Received:	Vessel B 09/22/2021			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
MLSS/MLVSS Mixed Liquor Susp Salids	9,670	mgA	1,00	SM 2540 D-2011	D9/24/2021	15:06	J

1.00

180

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

5,850

¥ 180

rog/l

MPN/g



Mixed Liquor Volatile SS

Fecal Colform

COMMENT:



218 North Main Street = Post Office Box 520 + Cuspeper, Virginia 22701 = 800-541-2116 = 540-825-8850 + Part 540-825-4961

500 Stone Strait « Post Office Box 738 « Beatland, Virginia 24523 » 540-588-5413 » Fax: 540-588-5500

60235

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218 North Mein St. 4 P.O. Box 520 Culpeper, Virginia 22761 Tal. (540) 825-5660 Fax: (540) 825-4951 Culpeper, Virginia 22761 Tal. (540) 825-5660 Fax: (540) 825-4951 Culpeper, Virginia 22761 Tal. (540) 825-5660 Fax: (540) 825-4951 Culpeper, Virginia 22761 Tal. (540) 825-5660 Fax: (540) 825-4951 Culpeper, Virginia 22761 Tal. (540) 825-5660 Fax: (540) 825-660 Tal. (540) 825-6

Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1846 Report Date:

12/23/2021

Report #:

61997

Job#

0009930

Customer #:

99R

Customer PO#:

Collected By:

Customer

Sample Location: Remington WWTP

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SU = Standard unit.

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



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Sample condition "Off" upon receipt to lab

NOTICE AND NECESSARY INFORMATION

Biosolids notification requirements to comply with 9VAC25-31-530.F - G or 9VAC25-32-313.G - H.

Part I - To be completed by PREPARERS of biosolids and provided to the person who applies or receives those biosolids

Facility Name: Remingren wwtP	Permit Number Va. co76805
A. Metals Limitations Sample Date(s):	Number of Samples:

	Concentr	ations	PC/CPLR Limitations	Ceiling Limitations (2)	
Parameters	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	Monthly Average (mg/kg) (1)	Maximum (mg/kg) (1)	
Total Arsenio	154	11.11	41	75	
Total Cadmium	11-1	11-0	39	85	
Total Copper	985	985	1,500	4,300	
Total Lead	293	28.3	300	840	
Total Mercury	<0.076	< 0.076	17	57	
Total Molybdenium	14.8	14. 8	NL (3)	75	
Total Nickel	21.1	71-12	420	420	
Total Selenium	5400	< 4 00	100	100	
Total Zine	1,330	1,330	2,300	7,500	

⁽¹⁾ Values to be reported on a dry weight basis.

(2) Sludge may not be land applied if any pollutant exceeds these values.

(3) The monthly average concentration for molybdenum is currently under study by LISEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B, Class B Pathogen Reduction

Class B biosolids pathogen reduction requirements were achieved in accordance with 9VAC25	-31-710 B or
9VAC25-32-675.B by:	21.710,020

El Alternative I: Fecal coliform testing -geometric mean of 7 samples

L'Alternative 2: Process to Significantly	Reduce Pathogens (PSRP)	if selected, indicate process below:
---	-------------------------	--------------------------------------

Delion I - Aerobic digestion

- ☐ Option 2 Air drying beds
- ☐ Option 3 Anaerobic digestion
- ☐ Option 4 Composting
- Option 5 Lime Stabilization
- Other.

15.22

NOTICE AND NECESSARY INFORMATION

C,	Vector Attraction Reduction	(VAR)
----	-----------------------------	-------

VAR requirements for Class B biosolids were echieved in accordance with 9VAC25-31-720.B.1 – 8 or 9VAC25-32-685.B.1 – 8 by:
☐ Option 1: ≥ 38% volatile solids reduction ☐ Option 2: Anaerobic 40 day beach test ☐ Option 3: Aerobic 30 day beach test ☐ Option 4: Specific Oxygen Uptake Rate (SOUR) test
☐ Option 5: Aerobic process, 14 days @ 40°C (45°C) ☐ Option 6: Alkaline stabilization ☐ Option 7: Dry to ≥ 75% T.S. w/no unstabilized 1° sludges ☐ Option 8: Dry to ≥ 90% T.S.

OR

□ VAR requirements for Class B biosolids were not achieved in accordance with 9VAC25-31-720.B.1 = 8 or 9VAC25-32-685.B, I - 8; therefore, Option 9 (Injection) or Option 10 (Incorporation) is required at the land application site.

D. Nutrient Concentrations

Sample Date(s):	Number of Sa	mples:
	Concentr	ations
Parameters	Monthly Average (mg/kg) (1)	Maximum (me/kg) (1)

No. of the last of	Conventrations						
Parameters	Monthly Average (mg/kg) [1]	Meximum (mg/kg) (1)					
Total Nitrogen as N	N/A	NIA					
Total Phosphorus as P	NIA	N/A					

Values to be reported on a dry weight basis.

E Certification

Lecrify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Bay mond sears	Chief Operator
Signature Jan A C.S.	Date Signed /-5-2022
Telephone number 540 . 439 . 2225	



218 North Main St. . P.O. Box 520 . Culpoper, Virginia 22701 . Tel: (540) 825-8660 . Fax: (540) 825-1961 . cvvvv/sssssryices.com-

Analytical Report

Fauguier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Date:

12/23/2021

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61997

Joh#

0009930 SPR

Customer #: Customer PO#:

Collected By:

Gustomer

Sample Location: Remington WWTP

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SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1546

Analytical Report

Report Date:

12/23/2021

Report #: Job #: 61997 0009930

Customer #:

99R

Customer PD#:

Collected By:

Customer

Sample Location: Remington WWTP

Sample ID#: Sample Date/Time;	0187992 11/12/2021	/ 08:10	Sample Source: Date Received:	Sludge 11/22/2021			
Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Total Solids (%)	17.4	%	0,600	SM 2540 G-2011	11/24/2021	16:53	SLV
Argenic, Total Recoverable	41.4	mg/kg	4.00	SVV-846 8010B	12/03/2021	10:05	574
Molybdenum, Total Recoverable	14.8	mg/kg	4.00	SW-846 6010B	12/03/2021	10:05	574
Zing, Total Recoverable	1,330	mp/kg	4.00	SW-846 6010B	12/03/2021	10:05	574
Lead, Total Recoverable	28.3	mg/kg	4.00	SW-848 6010B	12/03/2021	10:05	574
Mickel, Total Recoverable	21.1	mg/kg	4.00	SW-846 6010B	12/03/2021	10:05	574
Mercury, Total Recoverable	< 0.076		0.078	SW74718	12/20/2021	08:49	674
Copper, Total Recoverable	985	mg/kg	2.00	SVV-848 8010B	12/03/2021	10:05	574
Cadmium, Total Recoverable	11.1	mg/kg	2.00	SW-846 6010B	12/03/2021	10:05	574
Selenium, Total Recoverable	< 4.00	mg/kg	4.00	SW-846 6010B	12/03/2021	10:05	574

Results reported as mg/kg or MPN/g are reported on a dry weight basis.

574 Sumples subcontracted to VELAP 10# 460180



January 4, 2022

Mr. Raymond Searls FCWSA- Remington WWTP 12523 Lucky Hill Road Remington, VA 22734

Subject: Remington WWTP-Pathogen Reduction Study Summary

Dear Raymond,

Environmental Systems Service, Ltd. (ESS) conducted the fourth quarter vector (2021) attraction study for the Remington WWTP from 11/22/2021 to 12/21/2021. The priginal 5- gallon sample was received from FCWSA was immediately mixed and poured off into two (2) sample vessels. These two vessels labeled Vessel A and Vessel B (duplicate) which was contained in 4000 mL glass Erlenmeyer flasks. Mixed liquor suspended solids (MLVSS), mixed liquor volatile suspended solids (MLVSS), and Fecal Coliform samples collected from Vessels A and B at both the start test date and after the 30-day period. Each vessel mixed and agrated with a small air compressor and diffuser stone for the duration of the test period. As water evaporated out of the vessel over the course of the 30-day period, additional distilled water added to each vessel as needed until the original test volume maintained.

After the 30-day period expired a second round of MLSS, MLVSS, and Fecal Coliforn samples collected from Vessels A and B.

=	1.46%	A/	ELLA.
MLSS	MLVSS		Fecal Collform
14600	9440	64.7%	11,000
11700	7320	62.6%	2,990
2000	Reduction	2.1%	
% Sludge			
	1.47%	- 6	12.7
		100	Fecal
7.17	232.01.2.00		Californi
14700	9420	64.1%	10,900
12500	7760	62.1%	736
	Reduction	2.0%	
	11700 % Sludge = MLSS 14700	= 1.46% MLSS MLVSS 14600 9440 11700 7320 Reduction % Sludge = 1.47% MLSS MLVSS 14700 9420 12500 7760	= 1.46% MLSS MLVSS Volatile 14600 9440 64.7% 11700 7320 52.6% Reduction 2.1% % Sludge = 1.47% MLSS MLVSS Volatile 14700 9420 64.1% 12500 7760 62.1%

The average total volatile reduction of Vessels A and B during the 30-day period calculated to be 2.0%. According to the bio-solids use regulations of 9VAC 25-31 720 section B.3 the sludge satisfies vector attraction reduction requirements for land application when 38% volatile solids reduction from subdivision 1 cannot be met for an aerobically digested sludge. In this case, vector attraction reduction demonstrated by digesting a portion of the previously digested sewage sludge that has a percent of 2.0% or less aerobically in the laboratory bench scale for a period of 30 days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period reduction achieved. reduced by less than 15% vector attraction

Since the valatile solids reduction for the Remington WWTP found to be an average of 2.0% reduction after the additional 30-day period, the sludge does meet the vector attraction reduction requirements of 9VAC 25-31 720. The following information submitted on your Form SO1 discharge monitoring report. This data supports the alternative method you selected during the permit application process (Alternative 2). On a Quarterly basis, you are required to perform a bench scale demonstration of your facility's sludge quality. Copies of the bench sheets for this demonstration must be submitted with your Form S01 DMR.

Should you have any questions or concerns please feel free to contact me at 540-825-6660.

Best regards.

Cody J. Hoehna, Environmental Services Director

Environmental Services Division

Attachment - Analytical Report & Chains of Custody



218 Month Mein St. | P.O. Box 520 | Culpaper, Virginia 22701 | Tet (540) 825-6880 | Fax: (540) 825-4861 | www.ess-services.com?

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Report Dale:

12/02/2021

Report #

61998

Job #:

0009817

Customer #:

99R

Customer PO#

Collected By:

ESS Emplayer

Sample Location: Quarterly Vector Study

The lest results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

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The signature on this analytical report certifies that methods used meet the requirements of either 1VAC30-46 and the 2009. TNI Standard for non-putable water and solid and chemical materials or 1VAC30-41 for drinking water, unless otherwise noted For a complete list of accredited methods, visit our website at www.ess-services.com.

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IMIT = Analyst Initials

ug/l = micrograms per liler (1 ug/l = 1 part per billion or ppb) mg/l = milligrams per liter (1 mg/l = 1 part per million or ppm)

SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Idilials



Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646

Analytical Report

Report Date:

12/02/2021

Report #:

61998

Job#

0009817

Customer #:

998

Customer PO #:

Collected By:

ESS Employee

Sample Location:

Quarterly Vector Study

Sample ID#: Sample Date/Time: 0187993

11/22/2021 / 08:45

Sample Source: Date Received:

Vessel A

11/22/2021

				-			
Parameter	Results Unit		QL Method		Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	17,000	MPN/9	180	SM 9221 E+C-2006	11/22/2021	11:20	JI
Mixed Liquor Susp Solids	14,600	mg/l	1.00	SM 2540 D-2011	11/22/2021	16:26	41
Mixed Liquor Volatile SS COMMENT:	9,440	mg/l	1.00	SM 2540 E-2011	11/23/2021	11;20	JI

Results reported as mg/kg or MFN/g are reported on a dry weight basis.

Sample 10#: Sample Date/Time: 0187994

11/22/2021 / 08:55

Sample Source: Date Received:

Vessel B 11/22/2021

Parameter	Results	Results Unit		Mathod	Analysis Date	Time	INIT
Fecal Coliform MLSS/MLVSS	10,900	MPN/g	180	SM 9221 E+C-2006	11/22/2021	11:40	49
Mixed Liquer Susp Solles	14,700	mg/l	1.00	SM 2540 D-2011	11/22/2021	18:31	.0
Mixed Liquor Volatile SS COMMENT:	9,420	mg/L	1.00	SM 2540 E-2011	11/23/2021	11:20	TI.

Results reported as mg/kg or MPN/g are reported on a dry Weighl basis.



218 North Main Street - Post Office Box 520 - Cutheper, Virginia 22761 - 800-641-2116 - 540-825-6600 - Fart 540-825-4961

508 Share Street = Post Office Box 736 = Seafford, Virginia 24523 = 540-556-5530



61998

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Sample condition "OK" upon receipt to tab Sample Condition Stamp			1		Н		1	COM		H	
Slamp								COMMISSIES	- 10		



218 North Mein St. 9 P.O. Box 520 @ Culpeper, Virginia 22/01 4 Tel: (540) 823-5660 9 Fax: (540) 825-4961 4 SWW. 885-4901688. COSTE

Analytical Report

Fauguler County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1646 Report Dets:

12/28/2021

Report #:

62808

Job #

0009817

Customer #:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

The test results issued in this report relate only to the samples received by Environmental Systems Service, Ltd (ESS).

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SU = Standard unit

umhas/cm = micramhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Grain Woodward

Reviewer's Initials



Fauguier County W5A Remington WWTP 7172 Kennedy Road Warrenton, VA 20167-1646 **Analytical Report**

Report Date:

12/28/2021

Report #:

62B08

Job #:

0009817

Customer#:

99R

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0189734

12/21/2021 / 07:20

Sample Source: Date Received:

Vessel A

12/21/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Fecal Coliform MLSSMLVSS	5,980	(VIPN/g	180	SM 9221 E+C-2006	12/21/2021	11:30	JI
Mixed Liquer Susp Solids	11,700	mg#	7,00	SM 2540 D-2011	12/21/2021	14:36	10
Mixed Liquor Volatile SS	7,320	mg/l	1.00	SM 2540 E-2011	12/22/2021	13:00	1

Sample ID#: Sample Date/Time: 0189735 12/21/2021 / 07:30 Sample Source: Date Received:

Vessel B 12/25/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	EMIT
Facal Collions MLSS/MLVSS	736	MPN/g	180	SM 9221 E+C-2008	12/21/2021	12:00	3))
Mixed Liquor Susp Solids	12,500	mgli	1/00	SM 2540 D-2011	12/21/2021	14:43	JE
Mixed Liquor Volatile SS	7,780	mg/l	1.00	SM 2540 E-2011	12/22/2021	13:00	,d(

Results reported as mg/kg or MPN/g are remorted on a dry weight basis.





276 notes wash a seet a 1763 Unice (500.520 a Culpaper, vegina 2270) a 540-825-5650 a Fax: 540-825-9561

500 Stone Street = Post Office Box 736 = Bedford, Virginia 24523 + 540-586-5413 = Fax 540-585-5530

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	Secretary of Laborit	Flacowed					ANALYSES	to Cody
Sense rodu broo elderos								(goods)



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Analytical Report

Fauquier County WSA Remington WWTP 7172 Kennedy Road Warrenton, VA 20187-1648

Report Date:

12/28/2021

Report #:

528DB

Job #

0009817

Customer #:

99R

Customer PO#;

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

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is Woodward

SU = Standard unit

umhos/cm = micromhos per centimeter @25°C

Approved by:

A. Woodward/Technical Director

Reviewer's Initials



Fauguler County WSA Remington WWTF 7172 Kennedy Road Warrenton, VA 20187-1646 Analytical Report:

Report Date:

12/28/2021

Report #

62808

Job #:

0009817

Customer #:

SBR

Customer PO#:

Collected By:

ESS Employee

Sample Location: Quarterly Vector Study

Sample ID#: Sample Date/Time: 0189734

12/21/2021 / 97:20

Sample Source: Date Received:

Vessel A

12/21/2021

						_
Results	Unit	QL	Method	Analysis Date	Time	INIT
2,990	WPN/g	180	SM 9221 E+C-2006	12/21/2021	11:30	JI
11,700	mg/l	1.00	SM 2540 D-2011	12/21/2021	14:38	JC
7,320	mg/l	1.00	SM 2540 E-2011	12/22/2021	13:00	-31
	2,990	2,990 MPN/g 11,700 mg/l	2,890 MPN/g 180 11,700 mg/l 1.00	2,890 MPN/g 180 SM 9221 E+C-2006 11,700 mg/l 1.00 SM 2540 D-2011	2,990 MPN/g 180 SM 9221 E+C-2006 12/21/2021 11,700 mg/l 1.00 SM 2540 D-2011 12/21/2021	2,990 MPN/g 180 SM 9221 E+C-2006 12/21/2021 11:30 11,700 mg/l 1.00 SM 2540 D-2011 12/21/2021 14:36

Sample (D#: Sample Date/Time: 0189735

12/21/2021 / 07:30

Sample Source: Date Received:

Vessal B 12/21/2021

Parameter	Results	Unit	QL	Method	Analysis Date	Time	INIT
Facel Coliform MLSS/MLVSS	738	MPN/g	160	SM 9221 E+C-2008	12/21/2021	12:00	JI
Mixed Liquor Susp Solids	12,500	Trigili	1.00	SM 2540 D-2011	12/21/2021	14:43	JC
Mixed Liquar Volable SS	7,780	mg/i	1.00	SM 2540 E-2011	12/22/2021	13:00	JI

Results reported as mg/kg or MPN/g are reported on a dry weight basis.





6280	dóord, Végrinia 24523 • 6-5530	500 Stone Street - Post Office Box 736 - Be 540-586-5413 - Fax: 540-58	C
	sub-sper, Virginia 22701 = 540-325-4961	218 North Main Street • Post Office Box 520 • 1 800-541-2116 • 540-825-8660 • Fap	3

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Annual Tonnage Report January 1 2021 to December 31, 2021

Remington WWTP

Total Wet Tons Land Applied	2,548.76
December 2021 % Solids	20.73
Total Dry Tons Land Applied	528.36
Approx Acres Utilized	220
Tons to Landfill	0.0

FAUQUIER COUNTY

WATER & SANITATION AUTHORITY

7172 Kennedy Road • Vint Hill Farms Warrenton, Virginia 20187-3907 Phone (540) 349-2092 • Fax (540) 347-7689



January 19, 2023

Compliance Officer
Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

Subject: Remington WWTP VA0076805

To Whom It May Concern:

Enclosed please find the 2022 Annual Sludge Program Discharge Monitoring Reports and the Pathogen Reduction Study Summary for the Remington Wastewater Treatment Plant. We have no excursions to report.

Should you have any questions or require additional information please feel free to contact me at (540) 349-2092.

Sincerely,

Milas Smith

Milas Smith

Director of Operation

Cc: Ben Shoemaker, Executive Director

Remington WWTP

File

PERMITTEE NAME/ADDRESS INCLUDE FAGILITY NAME/LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

13901 Crown Court

MAME ADDRESS

Remington Wastewater Treatment Plant c/o Fauquier Co. Water & Sanitation Authority

Watrenton

VA

20187

LOCATION

FACILITY 12523 Lucky Hill Road

VAL076808 501 PERMIT NUMBER DISCHARGE NUMBER YEAR MO DAY YEAR 80 DAY FROM 2022 01 81 2022 TO 12 31

Municipal Major

02/12/2010

DEPT, OF ENVIRONMENTAL MUALITY (REGIONAL OFFICE)

Northern Regional Office

Woodbridge

22913

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		עום	ANTITY OR LOADING	is		QUALITY OR CON	CENTRATION		NO.	FREQUENCY	SAMPLE
(Adamerica		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAKIMUM	UNITE	EX.	ANALYSIS	TYPE
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TO F CHULLY!	RECRMNT		TERROLOG		4444444	NL	THEOREM	1/4	D.	iNR	COMP
880 ARSENIC, SLUDGE	REPORTO		**********		000229000	11,2	19.1	MG/KG	0	100R	COMP
	REGRUNT	APPRINCES	Akredore		remused	41	75	MG/KG	0>	TPE	COMP
561 MOLYBOENUM SLUDGE	REPORTD	errorme4	400000004	-	THEFT	T 28	12.2	MG/KG	0	TAR	COMP
	REQRMNT		********		********	NL	75	MG/KG	Ď.	1//R	COMP
582 ZINC, SLUDGE	REPORTO	****	******		*******	911	1390	MG/KG	0	1/YR	COMP
	RECEMENT		ARRESANA		44+5000m	2800	7500	MG/KG	0	1/48	COMP
883 LEAD SLUDGE	REPORTD	PROPERTY.	***************************************		intrakto	11.83	16.5	MG/KG	0	MYR	COMP
A	REGRMNT	annesses.	directions.		PERSONAL PROPERTY.	300	840.	MG/KG	Ų	I/YR	COMP
584 NICKEL SLUDGE	REPORTO	Participan	A		-	16.03	25.6	MG/KG	0	1YR	COMP
The state of the s	REQRMNT	201100-m.i	Torontonia		-	420	420	MG/KG	D	i/YR	COMP
85 MERCURY SLUDGE	REPORTO	Annhaner	********		hintermes	0.2907	0.519	MG/KG	0	UYR	COMP
	REGRANT	-Olove Hand			- extension	17	57	MG/KG	Ð	t/YR	COMP
86 COPPER, SLUDGE	REPORTO	\$44-885.eq	Application			692	973	MG	0	1/YB	COMP
ADDITIONAL PERMIT REQUIREME	REQRMNT	PROMPTOS	Postane.		*****	1500	4300	MGRKG	0	i/YR	COMP

BYFASSES	OCCURRENCES	TOTAL FLOW (M.G.)	70TAL BODS (K.G.)	OPERATOR	IN RESPONSIBLE CHARGE			DATE	7
OVERFLOWS	Ø	Ø	Ø	Try Willingham &	morphillips as	1965006730	2333	10	118
my direction or su	pervision in accordanc	current and all attachment we with a system designed	to assure that qualified	TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
the person of pars	ons who manage the :	the information submitted. system of those persons d n submitted is to the best o	irectly responsible for	PRINCIPAL EXECUTIVE OFFICER	OR AUTHORIZED AGENT	TELEPHONE			
belief true sucurs	te, and complete. I an	n aware that there are aign	ane and menather for	TYPED OR PRINTED NAME	SIGNATURE		YEAR	680	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

13901 Crown Court

12523 Lucky Hill Road

NAME ADDRESS

Remington Wastewater Treatment Plant c/o Fauquier Co Water & Sanitation Authority

Warrenton

FACILITY LOCATION VA 20187

VAL076805 501 PERMIT NUMBER DISCHARGE NUMBER VEAR MO DAY YEAR MO DAY FROM 2022 01 81 TO 2022 12-31

Municipal Major

02/12/2010

DEPT. OF ENVIRONMENTAL QUALITY (REGIONAL OFFICE)

Northern Regional Office

Woodbridge

22913

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PARAMETER		DU	MITTY OR LOADING			NOO RO YTUAUD	SENTRATION		1	FREQUENCY	3000
FARAMEISH		AVERAGE	MAKIRUM	UNITS	minimiter .	AVERAGE	MAXIMUM	UNITS	NO.	OP ANALYSIS	TYPE
667 CADMIUM SLUDE	REPORTO	******	*****		(Mrs.manr)	16.7	28.7	MG/KG	a	WR	COMP
The state of the s	REQREST	*******		7	Account	29	85	MG/KG-	- C	IPE	COMP
688 LEVEL OF PATHOGEN REQUIREMENTS ACHIEVED	REPORTO	14PSIDE-	- Alleganor		(Interne	*****	2	STOLIL	0	1/YB	South
	REGRIENT	Hamming	-models			PERSONAL	NL.	STOLE	0	1/YR	C19710001
689 DESCRIPTION OF	REPORTE	in subsess.			********	execution-	2	ALTRE	G	LYYR	-
PATHOGEN OPTION USED 990 VECTOR ATTRACTION	REQRANT	*******	2771111	1	Printer	Adventure	ML	ALTR#	D	1/YR	
890 VEGTOR ATTRACTION REDUCTION OPTION USED	REPORTO	******	219100000		*******	(вестикную a-	2	ALTR#	D	VYR	
EDUCTION OPTION USED	RECEMENT	**********	- Transmi		(44445000	stinator	NL	ALTR#	0	TAR	******
697 SELENIUM, SLUDGE	REPORTO	vonue diffe				<4.00	<4.80	MG/KG	0	10/8	COMP
	REGRMNT	********	**********		****	100	100	MG/KG.	/01	AVV.	COMP
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ADDITIONAL PERMIT REQUIREM											

EYPASSES AND	TOTAL	TOTAL FLOW (M.G.)	TOTAL BODS (K.G.)	OPER	ATOR IN RESPONSIBLE CHARGE			DATE	
OVERFLOWS	(S)	(5) current and all attachment	Ø	Troy will nature	Tigg dellezhan	1465006730	2023	OI	18
my direction or sup	rerviework in accordance	e with a system designed	being the published	TYPED OR PRINTED NAME	SIGNATURE	GERTIFICATE NO.	YEAR	MO:	DAY
the person or parso	ons who menage the s	the information submitted System or those persons d I submitted is to the best o	inectly responsible for	PRINCIPAL EXECUTIVE OFF	ICER OR AUTHORIZED AGENT	TELEPHONE			
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violations.	outstain united the	a beigging to the and luft	insonment for Knowing	TYPED OR PRINTED NAME	SIGNATURE		YEAR !	MO.	DAY

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

COMMONWEALTH OF VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NEOES) DISCHARGE MONITORING REPORT (DMR)

13901 Grown Court.

NAME ADDRESS

Remington Wastewater Treatment Plant c/o Fauquier Co. Water & Sanitation Authority

Warrenton

VA

20187

LOCATION

FACILITY 12523 Lucky Hill Road

FROM

VAL076805 801 PERMIT NUMBER DISCHARGE NUMBER YEAR WO DAY YEAR MO DAY 2022 01 -01 2022 TO 12 31

Municipal Major:

02/08/2008

DEPT, OF ENVIRONMENTAL QUALITY (REGIONAL OFFICE)

Northern Regional Office

Woodbridge

VA 22913

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM

PARAMETER		DUANTTY OF LOADING			QUALITY OF CONCENTRATION				NO:	FREQUENCY	SAMPLE
		AVERAGE	MANIMUM	DALLS	тилиния	AVERAGE	МАЗІМЫЛІ	UNITS	EX.	OF ANALYSIS	TYPE
693 ANNUAL SLUDGE PRODUCTION TOTAL	REPORTO	PETRONO	479.6	MINYR	148899000		akressere.		0	1/46	CALC
	REDRMAT	THERMOON	ML	MTNYR	785500000	20000000000			a.	1//10	
694 ANNUAL AMT SEUDGE LAND APPLIED	REPORTO	7111111111	479.5	MINR	hartesser	***************************************		+	0	IMR	CALC
	REGRMNT	#1 PT00000	NL.	MTNYR	ANNOUSEME	hovestal	(FINNING RES)		0/	MA	CALC
	REPORTO				-		-		-	3018	CALC
	REGRUNT		7								
	REPORTO	1					-			_	-
	REQRMNT			1					-		-
	REPORTD		1		~				-		
	RECEMENT			1					-		-
	REPORTO								-	_	
	REGRMAT			'1							
	REPORTD					-			-		
	REQRANT						-		1		-
	REPORTO										
	REGRANT		_	-			_				-

BYPASSES AND OVERFLOWS	TOTAL DOCURRENCES TOTAL FLOW (M.G.) TOTAL BODS (K.G.)			OPERATOR IN RESPONSIBLE CHARGE				DATE		
	9	Ø	Ø	Tow Wiltnahan	Frey Willington	1965006734	2003	al	19	
I carrily under panelty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified.		TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY			
personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for pathering the information, the information submitted is to the best of my knowledge and			PRINCIPAL EXECUTIVE OFF	TELEPHONE						
belief the accura	(a) and complete an	Il aware that there are stor	ificant penalties for	TO STATE OF THE ST				-		
violations raise of	ownspour worldnig the	e possibility of fine and imp	insonment for knowing	TYPED OR PRINTED NAME	SIGNATURE		YEAR	MO.	DAY	