TOWNSHIP OF BONNECHERE VALLEY
WATER AND SEWAGE DEPARTMENT

EGANVILLE SEWAGE TREATMENT PLANT
SLUDGE MANAGEMENT REPORT

YEAR: 2016

ANALYSIS FOR MONTHLY GRAB SAMPLE OF ACTIVATED SLUDGE FROM AEROBIC DIGESTER																
	SLUDGE	PHOS.	TOTAL	VOLATILE	AMMONIA	Arsenic	Cadm.	Cobalt	Chrom.	Copper	Merc.	Moly	Nickel	Lead	Selen.	Zinc
MONTH	Processed		SOLIDS	SOLIDS	NITRATE	As	Cd	Co	Cr	Cu	Hg	Mo	Ni	Pb	Se	Zn
	m3	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
JAN.	28	206	16,000	9,940	0.46	0.10	0.03	0.03	0.18	6.16	0.010	0.06	0.15	0.1	0.10	3.19
FEB.	162	599	20,200	12,700	8.26	0.10	0.03	0.03	0.20	7.35	0.007	0.07	0.17	0.2	0.10	3.72
MAR.	37	709	23,700	15,000	3.59	0.10	0.03	0.03	0.23	8.56	0.010	0.07	0.20	0.2	0.10	4.20
APR.	66	859	25,300	25,300	25.70	0.10	0.03	0.03	0.21	6.64	0.008	0.06	0.19	0.1	0.10	3.85
MAY	127	520	16,600	10,200	20.40	0.10	0.03	0.03	0.21	6.68	0.005	0.05	0.16	0.1	0.10	3.39
JUN.	146	677	20,300	12,300	5.78	0.10	0.03	0.03	0.23	6.31	0.013	0.05	0.16	0.1	0.10	3.51
JUL.	67	319	9,430	5,340	0.50	0.10	0.03	0.03	0.12	3.20	0.044	0.05	0.08	0.1	0.10	1.78
AUG.	80	605	20,800	12,100	7.36	0.10	0.03	0.03	0.24	7.22	0.010	0.06	0.16	0.1	0.10	3.61
SEPT.	91	641	20,200	16,800	2.10	0.10	0.03	0.03	0.22	6.16	0.014	0.05	0.14	0.2	0.10	3.81
OCT.	30	609	22,300	13,100	0.91	0.10	0.03	0.03	0.32	8.73	0.009	0.07	0.21	0.2	0.10	5.51
NOV.	161	409	15,400	9,130	4.41	0.10	0.03	0.03	0.17	4.84	0.005	0.05	0.11	0.1	0.10	2.90
DEC.	42	643	22,900	14,700	11.90	0.10	0.03	0.03	0.27	8.79	0.010	0.08	0.16	0.2	0.10	4.34
TOTAL	**1037**															
AVG.	**86**	**566**	**19428**	**13051**	**7.78**	**0.10**	**0.03**	**0.03**	**0.22**	**6.72**	**0.01**	**0.06**	**0.16**	**0.14**	**0.10**	**3.65**

ANALYSIS FOR COMPOSITE SAMPLE OF DEWATERED SLUDGE PRIOR TO REMOVAL FROM GEOTUBES																
Geotube	**Volume**	**% Solids**	**% V.S.**	**Total P**	**Ammonia (N)**	**As**	**Cd**	**Co**	**Cr**	**Cu**	**Hg**	**Mo**	**Ni**	**Pb**	**Se**	**Zn**
	m3			**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
2 A (7)	**63.9**	**11.9**	**56.8**	**37500**	**4130**	**2.00**	**0.50**	**1.00**	**15.00**	**340.00**	**0.38**	**3.0**	**11.0**	**9.0**	**2.0**	**220.0**
2 B (5)	**62.2**	**14.3**	**53.8**	**36700**	**3450**	**2.00**	**0.50**	**1.00**	**15.00**	**365.00**	**0.51**	**3.0**	**10.0**	**11.0**	**2.0**	**272.0**
TOTAL	**126.1**															
AVG.		**13.10**	**55.30**	**37100**	**3790**	**2.00**	**0.50**	**1.00**	**15.00**	**352.50**	**0.45**	**3.00**	**10.50**	**10.00**	**2.00**	**246.00**

EGANVILLE SEWAGE TREATMENT PLANT
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METALS	MAXIMUM PERMISSIBLE METAL CONCENTRATION (mg/kg of solids)		METAL CONCENTRATION IN DIGESTER SLUDGE (mg/kg of solids)		METAL CONCENTRATION IN GEOTUBE SLUDGE (mg/kg of solids)				
					2A(7)	2B(5)			AVG
ARSENIC (As)	170		5		2.00	2.00			2.00
CADMIUM (Cd)	34		1.54		0.50	0.50			0.50
COBALT (Co)	340		1.54		1.00	1.00			1.00
CHROMIUM (Cr)	2800		11.15		15.00	15.00			15.00
COPPER (Cu)	1700		345.9		340.00	365.00			352.50
MERCURY (Hg)	11		0.62		0.38	0.51			0.45
MOLYBDENUM (Mo)	94		3.09		3.00	3.00			3.00
NICKEL (Ni)	420		8.11		11.00	10.00			10.50
LEAD (Pb)	1100		7.29		9.00	11.00			10.00
SELENIUM (Se)	34		5.15		2.00	2.00			2.00
ZINC (Zc)	4200		187.92		220.00	272.00			246.00
e.coli					800	5600			
	8,000,000 / AVG. SLUDGE SOLIDS (mg/L)								
	412 m3 per hectare per 5 years								

DEWATERED BIOSOLIDS HAULED TO SAND ROAD WASTE DISPOSAL SITE				
DATE		**Geotube#**	**VOLUME**	
			m3	
Oct.19,2016		2A(7)	63.89	
Oct.19,2016		2B(5)	62.22	
TOTAL			**126.11**	