

DWR Data from Ash Release at Duke Energy Dan River Station Dearborn, NC

Dan R. At Milton

Parameter	PQL	Units/Hg 1631	Sampling Dates and Sample ID										Above standard or screening level										Applicable Water Quality Standard	Basis for Standard							
			2/8/2014		2/9/2014		2/10/2014		2/11/2014		2/17/2014		2/18/2014		2/19/2014		2/20/2014		2/21/2014		2/26/2014		3/5/2014		3/12/2014						
			Report #	Dissolved	AC04840	AC04860	AC04883	AC04975	AC05076	AC05057#	AC05115	AC05224	AC05262	AC05360	AC05571	AC05801	AC06103	AC04841	AC04861	AC04884	AC04976	AC05077	AC05116	AC05225	AC05263	AC05361	AC05572	AC05802	AC06105		
Chloride	1.0	mg/L	13		13		12		10		15		15		14		14		12		10							230	Aquatic Life		
Fluoride	0.4	mg/L	0.4 U		0.4 U		0.4 U		0.4 U		0.8 U,P		0.4 U		0.4 U		0.4 U		0.4 U		0.4 U							1.8	Aquatic Life		
NH3 as N	0.02	mg/L	0.04		0.04		0.04		0.06																						
NO2 plus NO3 as N	0.02	mg/L	0.34		0.32		0.32		0.33																						
P:Total P	0.02	mg/L	0.05		0.04		0.03		0.03																						
Residue_Suspended	6.2	mg/L	18		16		12		10		54		56		30		43		212		184		18		11		42	N			
Residue_Total	12	mg/L	101		94				75		153		134		119		125		248		263		91		79			N			
Sulfate	2.0	mg/L	6.7		5.3		6.4		6.3		5.5		4.5		4.5		5.7		5.0		3.6										
Total Dissolved Solids	12	mg/L					70		73		86				86		87		77		71							58			
TKN as N	0.2	mg/L	0.28		0.20		0.21		0.23																						
Turbidity	1.0	NTU	23		17		11		16		50				39		30		120		120							50	Aquatic Life		
Aluminum_Al	50	ug/L	980		750		550		610		2600		2100		1800		2000		4900		5900		1400		540		2600		87*	Aquatic Life	
Antimony_Sb	10	ug/L	10 U		10 U		10 U																						640 **	Human Health	
Arsenic_As	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.7		2.5		2.0 U		2.0 U		2.0 U		10	Human Health	
Barium_Ba	10	ug/L	40		37		33		32		50		51		40		46		110		95								200,000	Human Health	
Beryllium_Be	5.0	ug/L	5.0 U		5.0 U		5.0 U																						6.5	Aquatic Life	
Boron_B	50	ug/L	100		100		120		120		77		77		72		78		65		50 U								750,000	Aquatic Life	
Cadmium_Cd	0.50	ug/L	0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		0.5 U		0.5 U		0.50 U		2	Aquatic Life	
Calcium_Ca	0.10	mg/L	8.1		8.3		8.4		8.6		7.2		7.2		7.0		7.0		7.4		6.2										
Chromium_Cr	10	ug/L	10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U		10 U							50	Aquatic Life
Cobalt_Co	50	ug/L	50 U		50 U		50 U																						4	Human Health	
Copper_Cu	2.0	ug/L	2.2		2.0 U		2.0 U		2.0 U		3.6		3.7		2.2		2.9		9.0		7.7		2.0 U		2.0 U		2.7		7	Aquatic Life	
Iron_Fe	50	ug/L	1400		1100		1000		920		2600		2500		2200		2500		4900		6900		1600		870		2800		1000	Aquatic Life	
Lead_Pb	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.3		2.3		2.0 U		2.0 U		5.9		5.4								25	Aquatic Life	
Lithium_Li	25	ug/L	25 U		25 U		25 U																								
Magnesium_Mg	0.10	mg/L	3.0		3.1		3.1		3.1		3.0		3.0		3.0		2.9		3.3		3.0										
Manganese_Mn	10	ug/L	40		46		41		41		65		64		49		59		120		170										
Mercury_Hg 245.1	0.2	ug/L	0.20 U		0.20 U		0.20 U																						0.012	Aquatic Life	
Mercury_Hg 1631 Low Level	0.001	ug/L	0.004		0.003		0.002				0.010				0.005		0.007		0.023									0.0057	0.012	Aquatic Life	
Molybdenum_Mo	10	ug/L	10 U		10 U		10 U																						2000	Human Health	
Nickel_Ni	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.7		4.6		2.0 U		2.0 U		2.0 U		88	Aquatic Life	
Potassium_K	0.10	mg/L	2.0		1.9		1.8		1.7		2.1		2.2		2.1		2.1		2.7		2.4										
Selenium_Se	5.0	ug/L	5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U						5	Aquatic Life	
Silver_Ag	1.0	ug/L	1.0 U		1.0 U		1.0 U																					0.06	Aquatic Life		
Sodium_Na	0.10	mg/L	8.9		9.1		6.9		6.7		8.5		8.5		8.1		7.9		7.0		5.6										
Strontium_Sr	10	ug/L	84		89		72		61		52		54		47		50		68		53								40,000	Human Health	
Thallium_Tl	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U							0.47 **	Human Health		
Tin_Sn	10	ug/L	10 U		10 U		10 U																					800	Human Health		
Titanium_Ti	10	ug/L	61		52		39		21		100		100		70		180		290		340										
Vanadium_V	25	ug/L	25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U		25 U								
Zinc_Zn	10	ug/L	10 U		10 U		10 U		10 U		10 U		11		10 U		10 U		13		22		10 U		10 U		12		50	Aquatic Life	
Aluminum_Al Dissolved	50	ug/L	80		57		50 U		50 U		92				50 U		220		210		100		64		50 U		50 U			No NC standards for dissolved metals	
Antimony_Sb Dissolved	10	ug/L	10 U		10 U		10 U																								
Arsenic_As Dissolved	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		
Barium_Ba Dissolved	10	ug/L	28		27		26		26		25				24		28		29		21										
Beryllium_Be Dissolved	5.0	ug/L	5.0 U		5.0 U		5.0 U																								
Boron_B Dissolved	50	ug/L	98		100		120		120		76				72		79		67		50 U										
Cadmium_Cd Dissolved	0.50	ug/L	0.50 U		0.50 U		0.50 U		0.50 U		0.50 U				0.50 U		0.50 U		0.50 U		0.50 U		0.5 U		0.5 U		0.50 U				
Calcium_Ca Dissolved	0.10	mg/L	7.9		8.2		8.1		8.5		6.7				6.7		6.8		6.8		6.7		5.4								
Chromium_Cr Dissolved	10	ug/L	10 U		10 U		10 U		10 U				10 U				10 U		10 U		10 U										
Cobalt_Co Dissolved	50	ug/L	50 U		50 U		50 U																								
Copper_Cu Dissolved	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		
Iron_Fe Dissolved	50	ug/L	140		120		72		87		110				58		370		210		130		130		71		50 U				
Lead_Pb Dissolved	2.0	ug/L	2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U										
Lithium_Li Dissolved	25	ug/L	25 U		25 U		25 U																								
Magnesium_Mg Dissolved	0.10	mg/L	2.9		3.0		3.0		3.1		2.6				2.7		2.7		2.7		2.1										
Manganese_Mn Dissolved	10	ug/L	24		31		26		28		14				13		22		19		10 U										
Mercury_Hg Dissolved	0.2	ug/L	0.20 U		0.20 U		0.20 U																								
Molybdenum_Mo Dissolved	10	ug/L	10 U		10 U		10 U																								
Nickel_Ni Dissolved	2.0	ug/L	2.0 U		2.0																										

U = Indicates that the analyte was analyzed for but not detected above the reported practical quantitation limit.
I2 = Quality control failure/ estimated reported value.

J2 = Quality control failure(estimated reported value)

N = standard per 15A NCAC 02B .0211(3)(c) - Floating solids, settleable solids, or sludge deposits: only such amounts attributable to sewage, industrial wastes or other wastes as shall not make the water unsafe or unsuitable for aquatic life and wildlife or impair the water for any designated uses.

* Aluminum is pH and hardness dependent and is based on National Recommended Water Quality Criteria.

** National Recommended Water Quality Criteria

Sediment sample also taken (AC05427)