Reasonable Potential Analyzer

Facility Name	Amer	ican Midst	ream		
NPDES Permit Number	TX000	0485		Outfall Number	001
Proposed Critical Dilution*	100			_	

*Critical Dilution in draft permit, do not use % sign.

Enter data in yellow shaded cells only. Fifty percent should be entered as 50, not 50%.

Test Data	Enter data in yellow shaded cells only. Fifty percent should be entered as 50, 1								
Date (mm/yyyy)	Lethal NOEC	VERTEBRATE	Lethal TII	Sublethal TII	Lethal NOEC	INVERTEBRAT Sublethal NOEC		Sublethal TU	
Sep-15	23	Sublemai NOLC	4.35		23	Subjection TVOLC	4.35	Subjection 10	
Dec-15	23		4.35		23		4.35		
Mar-16	23		4.35		23		4.35		
Jun-16	23		4.35		23		4.35		
Sep-16	23		4.35		23		4.35		
Dec-16	23		4.35		23		4.35		
Mar-17	23		4.35		23		4.35		
Jun-17	23		4.35		23		4.35		
Sep-17	23		4.35		23		4.35		
Dec-17	23		4.35		23		4.35		
Mar-18	23		4.35		23		4.35		
Jun-18	23		4.35		23		4.35		
Sep-18	23		4.35		23		4.35		
Dec-18	23		4.35		23		4.35		
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			Reason	able Pote	ential An	alyzer			
Facility Name		American Midstream							
NPDES Perm	it Number	TX0000485				Outfa	all Number	001	
Proposed Critic	al Dilution*	100		-					
				ution in draft					
Test Data			Enter data in	n yellow shade	d cells only. Fi	ifty percent shoul	ld be entered	as 50, not 50%.	
Test Data		VERTEBRATE				INVERTEBRAT	E		
Date (mm/yyyy)	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC		Sublethal TU	
									
			105	WD771/01					
Count	23	0	4.35	#DIV/0!	0	0	#DIV/0!	#DIV/0!	
Mean			4.348	#DIV/0!			4.348	#DIV/0!	
Std. Dev.			0.000	#DIV/0!			0.000	#DIV/0!	
CV			0.0	0.6			0	0.6	
RPMF			#N/A	6.2	Ī		#N/A	6.2	
KI WII.		1		e Potential A	ccentance C	'riteria	#1 N // A	0.2	
Vertebrate Le	athal	#N/A	#N/A	e i otentiai A	eceptance C	пспа			
vertebrate Le	uidi	#IN/A	#1 N / <i>F</i> X	Dancanal-1	a Datantial -	viete Domnit	aniros WE	T monitorina and	1 WET
Wantalanata C	.l. 1 - 4 l 1	#D#1/01	#DIV/01	Keasonabi	e Potential e	xists, Permit re	equires WE	T monitoring and	IWEL
Vertebrate Su	methal	#DIV/0!	#DIV/0!						
Invertebrate I	_ethal	#DIV/0!	#DIV/0!						

Invertebrate Sublethal

#DIV/0!

#DIV/0!

Reasonable Potential exists, Permit requires WET monitoring and WET lir

Reasonable Potential Analyzer

Determining "Reasonable Potential" for Excursions Above Ambient Criteria Using Effluent Data Only

EPA recommends finding that a permittee has "reasonable potential" to exceed a receiving water quality standard if it cannot be demonstrated with a high confidence level that the upper bound of the lognormal distribution of effluent concentrations is below the receiving water criteria at specified low-flow conditions.

- **Step 1** Determine the number of total observations ("n") for a particular set of effluent data (concentration or toxic units [TUs]), and determine the highest value from that data set.
- Step 2 Determine the coefficient of variation for the data set. For a data set where n<10, the coefficient of variation (CV) is estimated to equal 0.6, or the CV is calculated from data obtained from a discharger. For a data set where n>0, the CV is calculate as standard deviation/mean. For less than 10 items of data, the uncertainty in the CV is too large to calculate a standard deviation or mean with sufficient confidence.
- **Step 3** Determine the appropriate ratio from the table below.
- **Step 4** Multiply the highest value from a data set by the value from the table below. Use this value with the appropriate dilution to project a maximum receiving water concentration (RWC).
- Step 5 Compare the projected maximum RWC to the applicable standard (criteria maximum concentration, criteria continuous concentration [CCC], or reference ambient concentration). EPA recommends that permitting authorities find reasonable potential when the projected RWC is greater than an ambient criterion.

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