Reasonable Potential Analyzer

Facility Name	Cit	y of Aztec W	WTP		
NPDES Permit Number	NM0020168			Outfall Number	001
Proposed Critical Dilution*	25	%		_	

25 %
*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%.

8.929 8.929 8.929	Test Data			Enter data i	n yellow shade	d cells only. F	itty percent shoul	ld be entered	as 50, not 50%.	
te (mm/yyyy)			VERTEBRATE				INVERTEBRAT	Е		
Apr-16	Date (mm/yyyy)	Lethal NOEC		Lethal TU	Sublethal TU				Sublethal TU	
Dul-16	Jan-16	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Jul-16	Apr-16	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Jan-17		11.2	11.2			11.2	11.2	8.93	8.93	
Apr-17	Oct-16	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Jul-17	Jan-17	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Oct-17	Apr-17	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Jan-18	Jul-17	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Apr-18	Oct-17	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Sul-18	Jan-18	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Name	Apr-18	11.2	11.2			11.2	11.2			
Apr-19	Jul-18	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Apr-19	Oct-18	11.2	11.2			11.2	11.2	8.93	8.93	
11.2	Jan-19	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Note	Apr-19	11.2		8.93	8.93	11.2	11.2	8.93	8.93	
Section	Jul-19	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
Apr-20	Oct-19	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
11.2	Jan-20	11.2	11.2	8.93	8.93	11.2	11.2	8.93	8.93	
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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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