Facility Name	Las Cruces					
NPDES Permit Number	NM003087	12		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%.

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	I)ata

Test Data				,		J P		
		VERTEBRATE				INVERTEBRAT	Е	
Date (mm/yyyy)	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU
8/22/23	100				100	100	1.00	1.00
5/23/23	100				100	100	1.00	1.00
2/28/23	100				100	100	1.00	1.00
11/15/22	100							
9/13/22	100			1.00	100	100	1.00	1.00
12/13/21	100				100	75	1.00	1.33
9/20/21	100				42	42	2.38	2.38
5/24/21	56		1.79		32	32	3.13	3.13
3/23/21	100	2	1.00	3.13	100	32	1.00	3.13
11/21/19	100	1.0	1.00	1.00	100 100	42	1.00	2.38
10/15/19 9/16/19	100				100	100 32	1.00	3.13
8/19/19	100				100	32	1.00	3.13
6/24/19	100				100	100	1.00	1.00
Apr-19	100				100	32	1.00	3.13
May-19	100			+	100	100	1.00	1.00
iviay-17	100	1(	1.00	7.00	100	100	1.00	1.00
			_	1				
				1				
	56	3	1.79	3.13	32	32	3.13	3.13
Count			14	1	Ī		15	15
Mean			1.056	5 1.208			1.234	1.915
Std. Dev.			0.210	0.590			0.633	0.998
CV			0.2	0.5	Ī		0.5	0.5
			•	•	•			
RPMF			1.2				1.4	1.4
			1 Reasonab	le Potential A	Acceptance C	riteria		
1 Reasonable Potential Acceptance Criteria  Vertebrate Lethal 2.143 Reasonable Potential exists, Permit requires WET monitoring and WET limit.								
, critesiate Ec	, (11.41	2.1	1 Cousella			to requires WE	i incintorii	g una WEI mine
Wall and the first term of the second								
Vertebrate Sublethal 4.375 Reasonable Potential exists, Permit requires WET monitoring and WET limit.								
Invertebrate Lethal 4.375 Reasonable Potential exists, Permit requires WET monitoring and WET limit.								
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Facility Name	Las Cruces- East Mesa						
NPDES Permit Number	NM0030872				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							
	VERTEBRATE				INVERTEBRATE		
Date (mm/yyyy) Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC Lethal TU	Sublethal TU	

## 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.

# 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.