

**Appendix C**  
**Statistical Methods**

**TABLE C-1.**

**Summary of Statistical Analysis Situations by Dependent Variable Form,  
Serum Dioxin Estimate, Analysis Type, and Analysis Cohort**

Dependent Variable Form	Serum Dioxin Estimate	Analysis Type	Analysis Cohort	Statistical Method	Independent Variables
Continuous	Log <sub>2</sub> (Initial)	Unadjusted	Minimal Maximal	Simple Linear Regression	Log <sub>2</sub> (Initial)
		Adjusted	Minimal Maximal	Multiple Linear Regression	Log <sub>2</sub> (Initial); Cov; Log <sub>2</sub> (Initial) x Cov; Cov x Cov
		Longitudinal*	Minimal Maximal	Simple Linear Regression	Log <sub>2</sub> (Initial)
Continuous	Log <sub>2</sub> (Current) and Time	Unadjusted	Minimal Maximal	Multiple Linear Regression	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time
		Adjusted	Minimal Maximal	Multiple Linear Regression	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time; Cov; Log <sub>2</sub> (Current) x Cov; Time x Cov; Cov x Cov; Log <sub>2</sub> (Current) x Time x Cov
		Longitudinal*	Minimal Maximal	Multiple Linear Regression	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time

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**TABLE C-1. (Continued)**

**Summary of Statistical Analysis Situations by Dependent Variable Form,  
Serum Dioxin Estimate, Analysis Type, and Analysis Cohort**

Dependent Variable Form	Serum Dioxin Estimate	Analysis Type	Analysis Cohort	Statistical Method	Independent Variables
Continuous	Categorized Current Dioxin	Unadjusted	Ranch Hands and Comparisons	One-Way Analysis of Variance	DXCAT
		Adjusted	Ranch Hands and Comparisons	Multiple Linear Regression	DXCAT; Cov; DXCAT x Cov; Cov x Cov
		Longitudinal*	Ranch Hands and Comparisons	One-Way Analysis of Variance	DXCAT
Discrete	Log <sub>2</sub> (Initial)	Unadjusted	Minimal Maximal	Logistic Regression or Log-Linear Analysis	Log <sub>2</sub> (Initial)
		Adjusted	Minimal Maximal	Logistic Regression or Log-Linear Analysis	Log <sub>2</sub> (Initial); Cov; Log <sub>2</sub> (Initial) x Cov; Cov x Cov
		Longitudinal**	Minimal Maximal	Logistic Regression	Log <sub>2</sub> (Initial)

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**TABLE C-1. (Continued)**

**Summary of Statistical Analysis Situations by Dependent Variable Form, Serum Dioxin Estimate, Analysis Type, and Analysis Cohort**

Dependent Variable Form	Serum Dioxin Estimate	Analysis Type	Analysis Cohort	Statistical Method	Independent Variables
Discrete	Log <sub>2</sub> (Current) and Time	Unadjusted	Minimal Maximal	Logistic Regression or Log-linear Analysis	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time
		Adjusted	Minimal Maximal	Logistic Regression or Log-Linear Analysis	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time; Cov; Log <sub>2</sub> (Current) x Cov; Time x Cov; Cov x Cov; Log <sub>2</sub> (Current) x Time x Cov
		Longitudinal**	Minimal Maximal	Logistic Regression	Log <sub>2</sub> (Current); Time; Log <sub>2</sub> (Current) x Time
Discrete	Categorized Current Dioxin	Unadjusted	Ranch Hands and Comparisons	Logistic Regression, Chi-square, Fisher's Exact Test	DXCAT
		Adjusted	Ranch Hands and Comparisons	Logistic Regression or Log-linear Analysis	DXCAT; Cov; DXCAT x Cov; Cov x Cov
		Longitudinal**	Ranch Hands and Comparisons	Logistic Regression	DXCAT

**TABLE C-1. (Continued)**

**Summary of Statistical Analysis Situations by Dependent Variable Form,  
Serum Dioxin Estimate, Analysis Type, and Analysis Cohort**

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- Note: \*Dependent variable usually paired difference score of (1987 to 1982) dependent variable values. For some clinical areas, paired difference scores will be (1987 to 1985) differences.
- \*\*Analysis performed subject to the constraint that participant was normal at the 1982 Baseline (or 1985) examination.
- Log<sub>2</sub> (Initial) = Logarithm (base 2) of estimated initial dioxin level.
- Log<sub>2</sub> (Current) = Logarithm (base 2) of measured current dioxin level.
- Time = Time since SEA tour.
- DXCAT = Categorized current dioxin (incorporating group membership).
- Cov = Relevant covariates.