APPENDIX K-3.

Cardiovascular Analysis Tables
Occupation, Body Fat, Total Cholesterol, HDL, and Diabetic Class Removed from Final Model

This appendix contains results of exposure analyses after occupation, percent body fat, total cholesterol, HDL cholesterol, and diabetic class have been removed from those final statistical models that used dioxin as a measure of exposure (Models 2 through 6) and contained any of these covariates. These analyses were performed to investigate the relationship of the dependent variable to dioxin without removing any effects due to these covariates. The format of these tables closely parallels the adjusted panels of Chapter 15, Cardiovascular Assessment, tables. A summary of the tables found in this appendix follows.

Appendix K-3 Table	Chapter 15 Table	Dependent Variable
K-3-1	15-3	Verified Essential Hypertension
K-3-2	15-4	Verified Heart Disease (Excluding Essential Hypertension)
K-3-3	15-5	Verified Myocardial Infarction
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Appendix K-3 Table	Chapter 15 Table	Dependent Variable
K-3-22	15-27	Leg Pulses
K-3-23	15-28	Peripheral Pulses
K-3-24	15-29	Kidney, Urethra, and Bladder (KUB) X Ray (Excluding Kidney Stones)
K-3-25	15-30	Intermittent Claudication and Vascular Insufficiency (ICVI) Index

Table K-3-1.
Analysis of Verified Essential Hypertension
Total Cholesterol, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
486	1.15 (0.98,1.34)	0.079	AGE (p=0.013) RACE (p=0.100) DRKYR (p=0.001) HRTDIS (p=0.006)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,007			AGE (p<0.001) RACE (p=0.021) DRKYR (p<0.001) HRTDIS (p<0.001)
Background RH	356	0.93 (0.71,1.23)	0.623	
Low RH	238	0.85 (0.62,1.16)	0.312	
High RH	248	1.28 (0.94,1.74)	0.112	
Low plus High RH	486	1.05 (0.83,1.33)	0.705	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-1. (Continued)
Analysis of Verified Essential Hypertension
Total Cholesterol, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	842	1.28 (1.15,1.42)	<0.001	AGE (p<0.001) RACE (p=0.219) DRKYR (p<0.001) HRTDIS (p<0.001)
5	842	1.27 (1.16,1.40)	<0.001	AGE (p<0.001) RACE (p=0.191) DRKYR (p<0.001) HRTDIS (p<0.001)
6[c]	841	1.22 (1.11,1.35)	<0.001	AGE (p<0.001) RACE (p=0.143) DRKYR (p<0.001) HRTDIS (p<0.001)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-2.
Analysis of Verified Heart Disease (Excluding Essential Hypertension)
Total Cholesterol Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
491	0.91 (0.79,1.05)	0.205	AGE (p=0.007) DRKYR (p=0.054) HRTDIS (p=0.014) PERS (p=0.939)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,034			AGE (p<0.001) PERS (p=0.086) HRTDIS (p=0.004)
Background RH	366	1.09 (0.85,1.39)	0.505	
Low RH	248	1.09 (0.82,1.46)	0.534	
High RH	256	0.79 (0.59,1.05)	0.110	
Low plus High RH	504	0.93 (0.75,1.16)	0.527	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-3.
Analysis of Verified Myocardial Infarction
Occupation, HDL, and Body Fat Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
505	1.17 (0.90,1.53)	0.239	AGE (p=0.002) RACE (p=0.054) HRTDIS (p=0.050)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,035			AGE (p<0.001) PACKYR (p=0.002) HRTDIS (p<0.001)
Background RH	365	0.94 (0.57,1.56)	0.810	
Low RH	249	0.78 (0.43,1.42)	0.408	
High RH	256	1.58 (0.93,2.71)	0.093	
Low plus High RH	505	1.11 (0.72,1.72)	0.633	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-3. (Continued)
Analysis of Verified Myocardial Infarction
Occupation, HDL, and Body Fat Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	870	1.16 (0.96,1.41)**	0.134**	CURR*RACE (p=0.049) AGE (p<0.001) PACKYR (p=0.029) HRTDIS (p=0.013)
5	870	1.15 (0.97,1.37)**	0.102**	CURR*RACE (p=0.045) AGE (p<0.001) PACKYR (p=0.030) HRTDIS (p=0.012)
6[c]	869	1.13 (0.94,1.36)**	0.200**	CURR*RACE (p=0.043) AGE (p<0.001) PACKYR (p=0.053) HRTDIS (p=0.014)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

** Log_2 (current dioxin + 1)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model after deletion of this interaction; refer to Appendix Table K-4-1 for further analysis of this interaction.

Table K-3-4.
Analysis of Systolic Blood Pressure (mm Hg) (Continuous)
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Initial Dioxin Category Summary Statistics			Analysis Results for Log_2 (Initial Dioxin)[a]			
Initial Dioxin	n	Adj. Mean[a]	R^2	Adj. Slope (Std. Error)	p-Value	Covariate Remarks
Low	169	123.82	0.125	-0.057 (0.609)	0.926	AGE (p=0.001) BPMED (p=0.001)
Medium	172	125.26				
High	172	124.49				

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Mean[a]	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value	Covariate Remarks
Comparison	1,044	124.83			AGE (p<0.001) CSMOK (p<0.001) BPMED (p<0.001)
Background RH	370	123.86	-0.97 (-3.02,1.07)	0.350	
Low RH	254	124.45	-0.38 (-2.72,1.97)	0.752	
High RH	259	124.56	-0.27 (-2.62,2.08)	0.822	
Low plus High RH	513	124.51	-0.32 (-2.13,1.49)	0.726	

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-4. (Continued)
Analysis of Systolic Blood Pressure (mm Hg) (Continuous)
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
	Current Dioxin Category Adjusted Mean/(n)			Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	Low	Medium	High	R^2	Adj. Slope (Std. Error)	p-Value	Covariate Remarks
4	123.72 (292)	124.37 (294)	126.70 (297)	0.112	1.055 (0.412)	0.011	AGE ($p<0.001$) CSMOK ($p<0.001$) BPMED ($p<0.001$)
5	123.23 (297)	124.54 (291)	126.95 (295)	0.114	1.020 (0.353)	0.004	AGE ($p<0.001$) CSMOK ($p<0.001$) BPMED ($p<0.001$)
6[b]	123.45 (296)	124.52 (291)	126.69 (295)	0.113	0.901 (0.383)	0.019	AGE ($p<0.001$) CSMOK ($p<0.001$) BPMED ($p<0.001$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = > 8.1-20.5 ppt; High = >20.5 ppt.
Models 5 and 6: Low = ≤ 46 ppq; Medium = > 46-128 ppq; High = > 128 ppq.

Table K-3-5.
Analysis of Systolic Blood Pressure (Discrete)
HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	1.03 (0.85,1.23)	0.788	AGE (p=0.032)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,046			AGE (p<0.001) BPMED (p<0.001) CSMOK (p=0.033)
Background RH	370	0.87 (0.61,1.24)	0.434	
Low RH	254	0.93 (0.64,1.37)	0.728	
High RH	259	1.11 (0.76,1.64)	0.580	
Low plus High RH	513	1.02 (0.76,1.37)	0.904	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-5. (Continued)
Analysis of Systolic Blood Pressure (Discrete)
HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	883	1.16 (1.02,1.33)	0.027	AGE (p=0.002) BPMED (p<0.001)
5	883	1.14 (1.02,1.28)	0.025	AGE (p=0.002) BPMED (p<0.001)
6[c]	882	1.16 (1.02,1.31)	0.025	AGE (p=0.002) BPMED (p<0.001)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-6.
Analysis of Heart Sounds
Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
504	0.98 (0.83,1.17)**	0.847**	INIT*AGE (p=0.023) HRTDIS (p=0.055)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-2 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,042			DXCAT*AGE (p=0.037) PACKYR (p=0.119) CSMOK (p=0.004)
Background RH	368	1.01 (0.74,1.37)**	0.963**	
Low RH	253	1.10 (0.78,1.54)**	0.592**	
High RH	259	1.10 (0.78,1.56)**	0.578**	
Low plus High RH	512	1.10 (0.84,1.43)**	0.481**	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-2 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-6. (Continued)
Analysis of Heart Sounds
Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	868	1.07 (0.95,1.21)	0.249	AGE (p=0.007) CSMOK (p=0.020) HRTDIS (p=0.051)
5	868	1.07 (0.96,1.18)	0.225	AGE (p=0.007) CSMOK (p=0.019) HRTDIS (p=0.051)
6[c]	866	1.08 (0.96,1.20)	0.186	AGE (p=0.001) PACKYR (p=0.048) HRTDIS (p=0.057)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-7.
Analysis of Overall Electrocardiograph (ECG)
Total Cholesterol and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	1.02 (0.85,1.21)	0.840	AGE ($p<0.001$) RACE ($p=0.036$)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,044			AGE ($p<0.001$) RACE ($p=0.003$)
Background RH	371	0.63 (0.46,0.86)	0.004	
Low RH	254	0.90 (0.64,1.25)	0.524	
High RH	259	0.81 (0.56,1.17)	0.263	
Low plus High RH	513	0.86 (0.66,1.12)	0.263	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin $\leq$ 10 ppt.
Background (Ranch Hand): Current Dioxin $\leq$ 10 ppt.
Low (Ranch Hand): Current Dioxin $>$ 10 ppt, 10 ppt $<$ Initial Dioxin $\leq$ 143 ppt.
High (Ranch Hand): Current Dioxin $>$ 10 ppt, Initial Dioxin $>$ 143 ppt.

Table K-3-7. (Continued)
Analysis of Electrocardiograph (ECG)
Total Cholesterol and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	884	1.15 (1.02,1.31)	0.024	AGE ($p<0.001$) RACE ($p=0.089$) CSMOK ($p=0.139$)
5	884	1.14 (1.02,1.27)	0.018	AGE ($p<0.001$) RACE ($p=0.083$) CSMOK ($p=0.142$)
6[c]	883	1.12 (1.00,1.26)	0.054	AGE ($p<0.001$) RACE ($p=0.077$) CSMOK ($p=0.154$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-8.
Analysis of ECG: Right Bundle Branch Block (RBBB)
Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	1.35 (0.79,2.29)**	0.287**	INIT*PACKYR (p=0.041) AGE (p=0.008) CSMOK (p=0.111)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-3 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			AGE (p=0.028) RACE (p=0.125) PACKYR (p=0.095)
Background RH	370	0.54 (0.15,1.89)	0.332	
Low RH	254	0.92 (0.30,2.85)	0.886	
High RH	259	1.58 (0.56,4.49)	0.388	
Low plus High RH	513	1.20 (0.51,2.81)	0.671	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-9.
Analysis of ECG: Non-Specific ST- and T- Wave Changes
Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
512	1.04 (0.85,1.27)	0.676	AGE ($p<0.001$) RACE ($p=0.006$) PERS ($p=0.080$)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			DXCAT*PACKYR ($p=0.031$) AGE ($p<0.001$) RACE ($p<0.001$)
Background RH	370	0.70 (0.47,1.03)**	0.067**	
Low RH	254	0.97 (0.66,1.43)**	0.892**	
High RH	259	1.04 (0.69,1.57)**	0.849**	
Low plus High RH	513	1.00 (0.74,1.37)**	0.981**	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01<p\leq0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-4 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-9. (Continued)
Analysis of ECG: Non-Specific ST- and T- Wave Changes
Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	883	1.25 (1.08,1.44)	0.003	AGE (p<0.001) RACE (p=0.016) PACKYR (p=0.008)
5	883	1.22 (1.07,1.39)	0.012	AGE (p<0.001) RACE (p=0.014) PACKYR (p=0.008)
6[c]	882	1.20 (1.05,1.39)	0.009	AGE (p<0.001) RACE (p=0.012) PACKYR (p=0.009)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-10.
Analysis of ECG: Bradycardia
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
499	0.51 (0.27,0.94)	0.018	AGE (p=0.014) PERS (p=0.009) DRKYR (p=0.115)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,045			DXCAT*PERS (p=0.014) AGE (p=0.013)
Background RH	371	2.25 (1.18,4.28)**	0.013**	
Low RH	253	1.49 (0.65,3.39)**	0.346**	
High RH	259	0.48 (0.14,1.64)**	0.242**	
Low plus High RH	512	0.96 (0.46,2.00)**	0.905**	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-5 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-10. (Continued)
Analysis of ECG: Bradycardia
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	863	0.71 (0.53,0.94)**	0.014**	CURR*PERS (p=0.002) DRKYR (p=0.042)
5	863	0.73 (0.59,0.91)**	0.005**	CURR*PERS (p=0.016) AGE (p=0.083) DRKYR (p=0.047)
6[c]	862	0.76 (0.60,0.96)**	0.023**	CURR*PERS (p=0.019) AGE (p=0.114) DRKYR (p=0.061)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

** Log_2 (current dioxin + 1)-by-covariate interaction ($p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-5 for further analysis of this interaction.

Table K-3-11.
Analysis of ECG: Arrhythmia
Diabetic Class and HDL Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	1.06 (0.79,1.42)**	0.719**	INIT*CSMOK (p=0.006) AGE (p=0.017)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-6 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,045			AGE (p<0.001)
Background RH	371	0.69 (0.36,1.33)	0.271	
Low RH	254	1.20 (0.65,2.20)	0.565	
High RH	259	1.49 (0.79,2.80)	0.215	
Low plus High RH	513	1.32 (0.81,2.15)	0.263	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-12.
Analysis of ECG: Evidence of Prior Myocardial Infarction
Diabetic Class, HDL, and Body Fat Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
511	1.10 (0.78,1.55)	0.586	RACE (p=0.124) CSMOK (p=0.194) PERS (p=0.029)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
Comparison	1,030			AGE (p<0.001) CSMOK (p=0.054) PERS (p=0.186) HRTDIS (p=0.029)
Background RH	365	0.92 (0.45,1.88)	0.825	
Low RH	248	0.77 (0.33,1.80)	0.547	
High RH	255	1.58 (0.77,3.26)	0.215	
Low plus High RH	513	1.12 (0.61,2.05)	0.706	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-12. (Continued)
Analysis of ECG: Evidence of Prior Myocardial Infarction
Diabetic Class, HDL, and Body Fat Removed from Final Model

c) MODELS 5 AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
5	882	1.27 (1.01,1.60)	0.043	AGE (p=0.001) RACE (p=0.131) CSMOK (p=0.008)
6[c]	880	1.13 (0.88,1.47)	0.345	AGE (p=0.002) RACE (p=0.147) CSMOK (p=0.015) PERS (p=0.153)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-13.
Analysis of ECG: Other Diagnoses
Occupation, Diabetic Class, and Body Fat Removed from Final Model

a) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	883	1.12 (0.74,1.69)	0.593	CSMOK (p=0.026) PERS (p=0.144)
5	883	1.12 (0.78,1.61)	0.545	RACE (p=0.501) CSMOK (p=0.024) PERS (p=0.146)
6[c]	882	1.11 (0.74,1.66)	0.609	CSMOK (p=0.025) PERS (p=0.147)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-14.
Analysis of Diastolic Blood Pressure (mm Hg) (Continuous)
Occupation, Cholesterol, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Initial Dioxin Category Summary Statistics			Analysis Results for Log_2 (Initial Dioxin)[a]			
Initial Dioxin	n	Adj. Mean[a]	R^2	Adj. Slope (Std. Error)	p-Value	Covariate Remarks
Low	169	73.93	0.063	0.363 (0.319)	0.255	RACE (p=0.018) BPMED (p=0.006)
Medium	172	76.10				
High	172	75.59				

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: Low = 39-98 ppt; Medium = >98-232 ppt; High = >232 ppt.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Mean[a]	Difference of Adj. Mean vs. Comparisons (95% C.I.)	p-Value	Covariate Remarks
Comparison	1,035	73.51**			DXCAT*HRTDIS (p=0.029) CSMOK (p<0.001) PACKYR (p=0.105) BPMED (p<0.001)
Background RH	364	72.82**	-0.70 (-1.83,0.44)**	0.228**	
Low RH	249	72.88**	-0.63 (-1.93,0.67)**	0.343**	
High RH	256	73.68**	0.16 (-1.13,1.45)**	0.805**	
Low plus High RH	505	73.28**	-0.23 (-1.23,0.77)**	0.653**	

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted mean, difference of adjusted means, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-7 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-14. (Continued)
Analysis of Diastolic Blood Pressure (mm Hg) (Continuous)
Occupation, Cholesterol, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED							
	Current Dioxin Category Adjusted Mean/(n)			Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	Low	Medium	High	R^2	Adj. Slope (Std. Error)	p-Value	Covariate Remarks
4	74.28 (292)	73.84 (294)	75.63 (297)	0.072	0.529 (0.227)	0.020	AGE (p=0.142) RACE (p=0.109) CSMOK (p<0.001) BPMED (p<0.001)
5	73.96 (297)	73.89 (291)	75.94 (295)	0.074	0.543 (0.195)	0.005	AGE (p=0.142) RACE (p=0.109) CSMOK (p<0.001) BPMED (p<0.001)
6[b]	74.33 (296)	73.97 (291)	75.66 (295)	0.078	0.383 (0.211)	0.070	AGE (p=0.101) RACE (p=0.081) CSMOK (p<0.001) BPMED (p<0.001)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Note: Model 4: Low = ≤ 8.1 ppt; Medium = >8.1-20.5 ppt; High = >20.5 ppt.
Models 5 and 6: Low = ≤ 46 ppq; Medium = >46-128 ppq; High = >128 ppq.

Table K-3-15.
Analysis of Diastolic Blood Pressure (Discrete)
Occupation, HDL, and Body Fat Removed from Final Model

a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,034			DXCAT*HRTDIS (p=0.009) PACKYR (p=0.013) PERS (p=0.049) BPMED (p=0.034)
Background RH	364	****	****	
Low RH	248	****	****	
High RH	256	****	****	
Low plus High RH	504	****	****	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

**** Categorized dioxin-by-covariate interaction ($p \leq 0.01$); adjusted relative risk, confidence interval, and p-value not presented; refer to Appendix Table K-4-8 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

b) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	882	1.13 (0.87,1.49)	0.363	AGE (p=0.155) PACKYR (p=0.123) BPMED (p=0.012)
5	882	1.11 (0.88,1.42)	0.380	AGE (p=0.145) PACKYR (p=0.118) BPMED (p=0.012)
6[c]	881	1.15 (0.89,1.49)	0.297	AGE (p=0.166) PACKYR (p=0.143) BPMED (p=0.011)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1)
Model 5: Log_2 (whole-weight current dioxin +1)
Model 6: Log_2 (whole-weight current dioxin +1)

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-16.
Analysis of Funduscopic Examination
Occupation, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
509	1.16 (0.91,1.47)**	0.236**	INIT*RACE (p=0.014) CSMOK (p=0.070)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-9 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,032			AGE (p=0.001) RACE (p=0.024) PACKYR (p=0.013) HRTDIS (p=0.002)
Background RH	363	1.26 (0.75,2.11)	0.382	
Low RH	246	0.99 (0.54,1.80)	0.961	
High RH	255	1.87 (1.10,3.20)	0.021	
Low plus High RH	501	1.38 (0.88,2.15)	0.159	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-16. (Continued)
Analysis of Funduscopic Examination
Occupation, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4 AND 5: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	864	1.25 (1.04,1.50)	0.021	AGE (p=0.011) PACKYR (p=0.039) HRTDIS (p=0.032)
5	864	1.23 (1.04,1.45)	0.014	AGE (p=0.011) PACKYR (p=0.043) HRTDIS (p=0.032)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).

[b] Relative risk for a twofold increase in current dioxin.

Table K-3-17.
Analysis of Carotid Bruits
Occupation and Total Cholesterol Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
492	0.86 (0.48,1.52)**	0.586**	INIT*PACKYR (p=0.002) INIT*HRTDIS (p=0.041) AGE (p=0.029) DRKYR (p=0.039)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interactions ($p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of these interactions; refer to Appendix Table K-4-10 for further analysis of these interactions.

b) MODELS 4 AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	884	0.83 (0.55,1.23)	0.342	AGE (p=0.009)
6[c]	850	****	****	CURR*HRTDIS (p=0.003) AGE (p=0.003) PACKYR (p=0.137) DRKYR (p=0.032)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

**** Log_2 (current dioxin)-by-covariate interaction ($p \leq 0.01$); adjusted relative risk, confidence interval, and p-value not presented, refer to Appendix Table K-4-10 for further analysis of this interaction.

Table K-3-18.
Analysis of Femoral Pulses
Body Fat and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
512	0.54 (0.27,1.07)	0.045	CSMOK (p=0.003) PERS (p=0.022)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,044			CSMOK (p=0.001)
Background RH	371	0.61 (0.07,5.39)	0.657	
Low RH	254	6.41 (1.91,21.60)	0.003	
High RH	259	1.63 (0.30,8.83)	0.571	
Low plus High RH	513	3.89 (1.23,12.30)	0.020	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-18. (Continued)
Analysis of Femoral Pulses
Body Fat and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	883	1.09 (0.72,1.66)	0.681	CSMOK (p=0.016) PERS (p=0.066)
5	883	1.12 (0.78,1.60)	0.545	CSMOK (p=0.016) PERS (p=0.065)
6[c]	883	1.04 (0.70,1.55)	0.834	CSMOK (p=0.024)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-19.
Analysis of Popliteal Pulses
Occupation, Body Fat, and Diabetic Class and Body Fat Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	0.92 (0.56,1.51)	0.740	AGE ($p<0.001$) CSMOK ($p<0.001$)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			AGE ($p<0.001$) CSMOK ($p<0.001$)
Background RH	371	0.40 (0.08,2.03)	0.267	
Low RH	254	2.78 (1.01,7.68)	0.049	
High RH	259	4.14 (1.55,11.10)	0.005	
Low plus High RH	513	3.38 (1.45,7.84)	0.005	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin $\leq$ 10 ppt.
Background (Ranch Hand): Current Dioxin $\leq$ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin $\leq$ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-19. (Continued)
Analysis of Popliteal Pulses
Occupation, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	884	1.42 (1.01,2.01)	0.049	AGE ($p<0.001$) CSMOK ($p<0.001$)
5	884	1.48 (1.08,2.01)	0.013	AGE ($p<0.001$) CSMOK ($p<0.001$)
6[c]	883	1.32 (0.94,1.85)	0.112	AGE ($p<0.001$) CSMOK ($p=0.001$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-20.
Analysis of Dorsalis Pedis Pulses
Occupation, Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
512	1.12 (0.88,1.43)	0.359	AGE (p=0.042) PACKYR (p=0.001)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			DXCAT*AGE (p=0.048) PACKYR (p=0.005) CSMOK (p=0.043)
Background RH	369	1.11 (0.71,1.71)**	0.651**	
Low RH	254	0.95 (0.56,1.61)**	0.853**	
High RH	258	1.48 (0.91,2.41)**	0.116**	
Low plus High RH	512	1.19 (0.80,1.76)**	0.389**	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-11 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-20. (Continued)
Analysis of Dorsalis Pedis Pulses
Occupation, Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5 AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	881	1.11 (0.94,1.31)	0.235	AGE ($p<0.001$) PACKYR ($p<0.001$)
5	881	1.08 (0.94,1.25)	0.279	AGE ($p<0.001$) PACKYR ($p<0.001$)
6[c]	880	1.10 (0.94,1.29)	0.224	AGE ($p<0.001$) PACKYR ($p<0.001$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-21.
Analysis of Posterior Tibial Pulses
Occupation, HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
505	0.89 (0.57,1.38)**	0.595**	INIT*PACKYR (p=0.019) AGE (p<0.001) CSMOK (p<0.001) HRTDIS (p=0.806)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-12 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			DXCAT*CSMOK (p=0.030) AGE (p<0.001) RACE (p=0.011)
Background RH	371	0.97 (0.44,2.15)**	0.949**	
Low RH	254	1.69 (0.77,3.70)**	0.187**	
High RH	259	3.14 (1.51,6.55)**	0.002**	
Low plus High RH	513	2.29 (1.24,4.23)**	0.008**	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

** Categorized dioxin-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-12 for further analysis of this interaction.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin < 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin < 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-21. (Continued)
Analysis of Posterior Tibial Pulses
Occupation, HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	884	1.19 (0.91,1.55)	0.204	AGE (p<0.001) RACE (p=0.102) CSMOK (p<0.001)
5	884	1.22 (0.97,1.53)	0.093	AGE (p<0.001) RACE (p=0.093) CSMOK (p<0.001)
6[c]	883	1.14 (0.89,1.47)	0.303	AGE (p<0.001) RACE (p=0.075) CSMOK (p<0.001)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-22.
Analysis of Leg Pulses
Occupation, HDL, Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED

Analysis Results for Log_2 (Initial Dioxin)[a]

n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
511	1.14 (0.90,1.45)**	0.278**	INIT*PERS (p=0.021) AGE (p=0.010) PACKYR (p=0.001)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-13 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED

Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,028			AGE (p=0.002) RACE (p=0.075) PACKYR (p<0.001) DRKYR (p=0.110)
Background RH	363	1.13 (0.74,1.73)	0.566	
Low RH	248	0.83 (0.49,1.41)	0.480	
High RH	251	1.59 (0.99,2.53)	0.054	
Low plus High RH	499	1.16 (0.79,1.70)	0.450	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-22. (Continued)
Analysis of Leg Pulses
Occupation, HDL, Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	881	1.09 (0.93,1.29)	0.289	AGE ($p<0.001$) PACKYR ($p<0.001$)
5	881	1.07 (0.93,1.23)	0.329	AGE ($p<0.001$) PACKYR ($p<0.001$)
6[c]	880	1.09 (0.94,1.27)	0.271	AGE ($p<0.001$) PACKYR ($p<0.001$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-23.
Analysis of Peripheral Pulses
Occupation, HDL, Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
511	1.14 (0.90,1.45)**	0.278**	INIT*PERS (p=0.021) AGE (p=0.010) PACKYR (p=0.001)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

** Log_2 (initial dioxin)-by-covariate interaction ($0.01 < p \leq 0.05$); adjusted relative risk, confidence interval, and p-value derived from a model fitted after deletion of this interaction; refer to Appendix Table K-4-14 for further analysis of this interaction.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,043			AGE (p<0.001) RACE (p=0.068) PACKYR (p=0.004) CSMOK (p=0.045)
Background RH	369	1.08 (0.71,1.64)	0.717	
Low RH	254	0.85 (0.51,1.42)	0.537	
High RH	258	1.55 (0.98,2.46)	0.061	
Low plus High RH	512	1.16 (0.80,1.68)	0.448	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin > 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin > 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-23. (Continued)
Analysis of Peripheral Pulses
Occupation, HDL, Body Fat, Total Cholesterol, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	881	1.08 (0.92,1.28)	0.328	AGE ($p<0.001$) PACKYR ($p<0.001$)
5	881	1.07 (0.93,1.22)	0.369	AGE ($p<0.001$) PACKYR ($p<0.001$)
6[c]	880	1.08 (0.93,1.26)	0.310	AGE ($p<0.001$) PACKYR ($p<0.001$)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.

Table K-3-24.
Analysis of Kidney, Urethra, and Bladder (KUB) X Ray (Excluding Kidney Stones)
Occupation Removed from Final Model

a) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	**n**	**Adj. Relative Risk (95% C.I.)[ab]**	**p-Value**	**Covariate Remarks**
Comparison	1,028			AGE ($p<0.001$) DRKYR ($p=0.075$) CSMOK ($p=0.014$)
Background RH	363	0.90 (0.68,1.18)	0.425	
Low RH	248	0.81 (0.59,1.11)	0.190	
High RH	251	1.00 (0.73,1.39)	0.979	
Low plus High RH	499	0.90 (0.70,1.15)	0.388	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin < 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin < 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-25.
Analysis of Intermittent Claudication and Vascular Insufficiency (ICVI) Index
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

a) MODEL 2: RANCH HANDS — INITIAL DIOXIN — ADJUSTED			
Analysis Results for Log_2 (Initial Dioxin)[a]			
n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
513	1.09 (0.74,1.62)	0.663	AGE (p=0.012) CSMOK (p=0.002)

[a] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

[b] Relative risk for a twofold increase in initial dioxin.

b) MODEL 3: RANCH HANDS AND COMPARISONS BY DIOXIN CATEGORY — ADJUSTED				
Dioxin Category	n	Adj. Relative Risk (95% C.I.)[ab]	p-Value	Covariate Remarks
Comparison	1,019			AGE (p<0.001) PACKYR (p=0.487) DRKYR (p=0.336) HRTDIS (p=0.128) CSMOK (p=0.004)
Background RH	359	1.20 (0.58,2.48)	0.696	
Low RH	243	1.44 (0.63,3.28)	0.459	
High RH	249	2.05 (0.94,4.45)	0.082	
Low plus High RH	492	1.65 (0.88,3.09)	0.121	

[a] Relative risk and confidence interval relative to Comparisons.

[b] Adjusted for percent body fat at the time of duty in SEA, change in percent body fat from the time of duty in SEA to the date of the blood draw for dioxin, and covariates specified under "Covariate Remarks" column.

Note: RH = Ranch Hand.
Comparison: Current Dioxin ≤ 10 ppt.
Background (Ranch Hand): Current Dioxin ≤ 10 ppt.
Low (Ranch Hand): Current Dioxin < 10 ppt, 10 ppt < Initial Dioxin ≤ 143 ppt.
High (Ranch Hand): Current Dioxin < 10 ppt, Initial Dioxin > 143 ppt.

Table K-3-25. (Continued)
Analysis of Intermittent Claudication and Vascular Insufficiency (ICVI) Index
Total Cholesterol, HDL, Body Fat, and Diabetic Class Removed from Final Model

c) MODELS 4, 5, AND 6: RANCH HANDS — CURRENT DIOXIN — ADJUSTED				
	Analysis Results for Log_2 (Current Dioxin + 1)			
Model[a]	n	Adj. Relative Risk (95% C.I.)[b]	p-Value	Covariate Remarks
4	884	1.11 (0.86,1.44)	0.439	AGE (p=0.003) CSMOK (p=0.008)
5	884	1.20 (0.96,1.50)	0.108	AGE (p=0.002) CSMOK (p=0.008)
6[c]	883	1.02 (0.79,1.30)	0.905	AGE (p=0.003) CSMOK (p=0.015)

[a] Model 4: Log_2 (lipid-adjusted current dioxin + 1).
Model 5: Log_2 (whole-weight current dioxin + 1).
Model 6: Log_2 (whole-weight current dioxin + 1), adjusted for log_2 total lipids.

[b] Relative risk for a twofold increase in current dioxin.

[c] Adjusted for log_2 total lipids in addition to covariates specified under "Covariate Remarks" column.