

**Table 5-10H**  
**Calculation of Non Cancer Hazards**  
**Exposure to Sediments - Shellfisherman - CT**

Scenario Timeframe:	Future
Medium:	Sediment
Exposure Medium:	Sediment
Receptor Population:	Shellfisherman
Receptor Age:	Adult

Exposure Route	Chemical of Potential Concern	Medium EPC Value	Medium EPC Units	Dermal Absorption Factor	Intake (Non-Cancer) mg/kg-day	Reference Dose (mg/kg-d)	Hazard Quotient
Ingestion (1)	ALUMINUM	13505	mg/kg	NA	1.37E-03	1.0E+00	1.37E-03
	ARSENIC	8.79	mg/kg	NA	8.94E-07	3.0E-04	2.98E-03
	IRON	20978	mg/kg	NA	2.13E-03	3.0E-01	7.12E-03
	MANGANESE	228	mg/kg	NA	2.32E-05	1.4E-01	1.66E-04
	SODIUM	7935	mg/kg	NA	8.07E-04		
	2-METHYLNAPHTHALENE	0.41	mg/kg	NA	4.17E-08	9.0E-03	4.64E-06
	ACENAPHTHYLENE	0.03	mg/kg	NA	2.54E-09		
	BENZO(A)PYRENE equivalent	3.60	mg/kg	NA	3.66E-07		
	BENZO[G,H,I]PERYLENE	1.26	mg/kg	NA	1.28E-07		
	CARBAZOLE	0.69	mg/kg	NA	7.02E-08		
	PHENANTHRENE	5.53	mg/kg	NA	5.63E-07		
Dermal (2)	ALUMINUM	13505	mg/kg	NA		1.0E+00	
	ARSENIC	8.79	mg/kg	0.03	6.12E-07	3.0E-04	2.04E-03
	IRON	20978	mg/kg	NA		3.0E-01	
	MANGANESE	228	mg/kg	NA		1.4E-01	
	SODIUM	7935	mg/kg	NA			
	2-METHYLNAPHTHALENE	0.41	mg/kg	0.13	1.24E-07	9.0E-03	1.37E-05
	ACENAPHTHYLENE	0.03	mg/kg	0.13	7.54E-09		
	BENZO(A)PYRENE equivalent	3.60	mg/kg	0.13	1.09E-06		
	BENZO[G,H,I]PERYLENE	1.26	mg/kg	0.13	3.79E-07		
	CARBAZOLE	0.69	mg/kg	0.13	2.08E-07		
	PHENANTHRENE	5.53	mg/kg	0.13	1.67E-06		
<b>Total Non Cancer HI Across All Routes of Exposure</b>							<b>1.4E-02</b>

(1) Intake Ingestion =  $EPC * (IR * CF * RAF * EF * ED) / (BW * AT * 365 \text{ day/yr})$   
= EPC \* 1.02E-07  
EPC, mg/kg  
chem-specific  
IR, mg-day 50

(2) Intake Dermal =  $EPC * (SA * AF * CF * ABS * EF * ED) / (BW * AT * 365 \text{ day/yr})$   
= EPC \* ABS \* 2.32E-06  
CF, kg/mg 0.000001  
RAF, unitless 1  
EF, day/yr 52  
AT, yr 9  
SA cm2 5700  
AF, mg/cm2 0.2  
ED, years 9  
BW, kg 70

NA = Not Applicable  
mg/kg - day = milligram/kilogram - day  
mg/kg = milligram/kilogram  
EPC = Exposure Point Concentration  
CT - Central Tendency