UxC Fuel Quantity & Cost Calculator

Enter the known quantity into the appropriate box below. Then press the **Calculate** button to display the equivalent volumes in the various units. To calculate Component Volumes, type a value into one of the **Component Volumes** boxes and press **Calculate**.

Assumptions

Feed Assay	0.711	$^{w}/_{o}$
Tails Assay	0.25	$^{w}/_{o}$
Product Assay	4.50	$^{w}/_{o}$
U_3O_8 Cost	88.00	\$/lb U_3O_8
Conversion Cost	58.00	\$/kgU as UF_6
UF_6 Cost	288.00	\$/kgU as UF_6
SWU Cost	165.00	\$/SWU

UF_6 Conv. Factor

General	Cameco	ConverDyn
○2.612828	○2.61283	◉2.61285

Cost Basis ◉U_3O_8/Conv ○UF_6

Calculate

EUP Cost **$3,788.19**

Optimal Tails Results

Optimal Tails	**0.171**	$^{w}/_{o}$
EUP Cost	**$3,675.77**	\$/kgU EUP

Enrichment Equations

Feed to Product = (Xp - Xt) / (Xf - Xt)
V(x) = ((2 * x) - 100) * Ln(x / (100 - x))
SWU to Product = (V(p) - V(t)) - FtoP * (V(f) - V(t)))

SWU: Separative Work Unit
EUP: Enriched Uranium Product

Enter Component Quantity

Quantity

U_3O_8	○Pounds
UF_6	○kgU
SWU	○SWU
EUP	○kgU

Component Volumes

U_3O_8	**0.0**	pounds
UF_6	**0.0**	kgU
Enrichment	**0.0**	SWU
EUP	**0.0**	kgU

Product Ratios

Feed to Product	**9.2191**	FtoP
Function V(Feed)	**486.8883**	V(f)
Function V(Product)	**278.0094**	V(p)
Function V(Tails)	**595.9017**	V(t)
SWU to Product	**6.8711**	SWUtoP