Assay Definition-

Assay Description:
2000 pico Curie per liter count for 50 minutes. Use 2.0 mL of sample plus 10.0 mL of cocktail.

Assay Type: DPM (Single)
Report Name: Report1
Output Data Path: C:\Packard\Tricarb\Results\Bob\2000 pCi per L Count
Raw Results Path: C:\Packard\Tricarb\Results\Bob\2000 pCi per L Count\20090425_0628.results
Assay File Name: C:\Packard\TriCarb\Assays\2000 pCi per L Count.lsa

Count Conditions-

Nuclide: 3H
  Quench Indicator: tSIE/AEC
  External Std Terminator (sec): 0.5 2s%
  Pre-Count Delay (min): 0.00
Quench Set:
  Low Energy: 3H
Count Time (min): 50.00
Count Mode: Normal
Assay Count Cycles: 1 Repeat Sample Count: 1
#Vials/Sample: 1 Calculate % Reference: Off

Background Subtract: On - 1st Vial
Low CPM Threshold: Off
2 Sigma % Terminator: Off

Regions	LL	UL	Bkg Subtract
A	0.0	18.6	1st Vial
B	2.0	18.6	1st Vial
C	0.0	0.0	1st Vial

Count Corrections-

Static Controller: On Luminescence Correction: n/a
Colored Samples: Off Heterogeneity Monitor: n/a
Coincidence Time (nsec): 18 Delay Before Burst (nsec): 75

Half Life-

Half Life Correction: Off

Regions	Half Life	Units	Reference Date	Reference Time
A				
B				
C				

7/25

RP Bubbler

Cycle 1 Results

S#	Count Time	CPMA	DPM1	SIS	tSIE	MESSAGES	uCi:1
1	50.00	12	0	12.90	470.27	B	0.00e+000
2	50.00	8	30	11.22	468.78		1.36e-005

$1.36E-5 / 2 = 6.8E-6$ uCi/cc / WATER

$$\frac{6.8E-6 \text{ uci/ml (WATER)} \times 15 \text{ ml (TOTAL WATER IN BUBBLE)}}{2E5 \text{ cc (VOLUME AIR)}} = 5.1E-10 \text{ uci/cc}$$

4/25/09

(MDA 1.98E-3 pCi/L)

Samp. # 41709 RWP #: 090100 ETN/STN: CBA Other; Cond. Storage Tank
TRENCH SOUTH OF CST General Area Sample Printed: 04/25/09 07:35:15
Sample Start 04/25/09 at 2:50 Stop 04/25/09 at 5:20 Volume 6.00E+05 RESP.PF 1 Collect By JR
Sampler SN# 75894 Samp Cal Due 07/22/09 Alpha Cts 0 On #: Count tm 0 Beta Cts 24 On #:700438 Count tm 1
Total DAC Frac.: 0.00E+00 Beta Conc: <8.90E-11 Beta DACs: 0.00E+00 Gamma Part DACs: 0.00E+00 BETA COUNT BY: John Rayment

Total DAC-HRs: 0.00E+00 Alpha Conc: 0.00E+00 Alpha DACs: 0.00E+00 Gamma Char DACs: 0.00E+00 ALPHA COUNT BY:

Internal Dose: 0.0 mrem

Samp. # 41809 RWP #: 100 ETN/STN: RCA Reactor Building; 23 foot level
DELUGE SYSTEM ACTIVATION General Area Sample Printed: 04/25/09 20:26:38
Sample Start 04/25/09 at 17:00 Stop 04/25/09 at 17:25 Volume 1.50E+06 RESP.PF 1 Collect By MR
Sampler SN# 70047 Samp Cal Due 10/25/09 Alpha Cts 0 On #: Count tm 0 Beta Cts 33 On #:700488 Count tm 1
Total DAC Frac.: 0.00E+00 Beta Conc: <3.56E-11 Beta DACs: 0.00E+00 Gamma Part DACs: 0.00E+00 BETA COUNT BY: Kevin Nally

Total DAC-HRs: 0.00E+00 Alpha Conc: 0.00E+00 Alpha DACs: 0.00E+00 Gamma Char DACs: 0.00E+00 ALPHA COUNT BY:

Internal Dose: 0.0 mrem