Hej Casper og Jesper!

Jeg har tilføjet lidt med blåt. Lad os som første trin prøve at trække disse informationer ud. Dernæst må vi tale om hvordan vi bedst regner den radionuklidiske renhed ud. For min skyld må vi meget gerne starte spektrum-optagning med at brugere indtaster informationer om batch-nr., dato, tid, aktivitet/koncentration, …? Som kan bruges videre i beregningen.

Hej Holger og Casper, jeg har i nedenstående markeret med rødt hvad jeg gerne vil have i rapporten. De ting jeg har markeret med **rødt og understreget** er data som vi har brug for at regne videre på.

Dvs. de skal helst trækkes ind i et excell ark som man kan taste de sidste data ind i og få den endelige konklusion. (alternativt skal disse data tastes ind allerede når man måler prøven og alt kan så trækkes ud, dog tror jeg at denne løsning vil besværliggøre at måle forskellige prøver med forskellige isotoper)

Jesper

In-vivo Report Generated On : 21-07-14 16:01:29

Report Template Last Modified : 8-14-95

Subject Name/Title :

Identification Number :

Employer, Job Code : ,

Ht, Wt, Gender, Birth Date : 0.0 , 0.0 , ,

CWT : 0.0 (cm)

Count Type :

Automatic Count?, Questionable? : ,

Count Reason, Frequency : ,

Comment: Proever til vand bassin

Facility :

Counter :

Arrangement :

Detector Group Analyzed :

Identification Energy Tolerance : 2.000 keV

Intake Date :

Reference Date :

Vi skal starte med en passende title/overskrift.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\* W H O L E B O D Y C O U N T I N G A N A L Y S I S \*\*\*\*\*

\*\*\*\*\* Analysis of radionuclide purity – QC sample \*\*\*\*\*

\*\*\*\*\* Full analysis report can be found in ...file... \*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Acquisition Started : 11-09-13 15:51:11**

**Live Time : 43200.0 seconds**

**Real Time : 43508.2 seconds**

**Dead Time : 0.71 %**

**Spectrum File Name : C:\GENIE2K\CAMFILES\Casper\kopi-fra-jj\18F**

Energy Calibration Done On : 19-03-13 15:20:17

Efficiency Calibration Done On : 01-12-94 08:48:40

Operator Name :

Reviewed by : Holger Jensen

\*\*\*\*\* D E T E C T O R C O U N T R A T E R E P O R T \*\*\*\*\*

Detector Number Detector Name % Of Counts CPS

1 HPGE 0.0 0.0

Count Rate Range (in channels) : 1 - 8192

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\*\*\*\*\* P E A K L O C A T E R E P O R T \*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Subject Name/Title :

Identification Number :

Acquisition Started : 11-09-13 15:51:11

Peak Locate Performed on : 21-07-14 16:01:29

Peak Locate From Channel : 10

Peak Locate To Channel : 1024

Peak Search Sensitivity : 10.00

Peak Locate Library : C:\GENIE2K\CAMFILES\HJJ\HJJ\_lib.

Peak Centroid Centroid Energy Peak

No. Channel Uncertainty (keV) Significance

1 44.30 <NA> 11.25 <NA>

2 490.11 <NA> 122.44 <NA>

3 510.74 <NA> 127.59 <NA>

4 547.90 <NA> 136.87 <NA>

5 1284.36 <NA> 320.68 <NA>

6 1388.71 <NA> 346.74 <NA>

7 2049.97 <NA> 511.72 <NA>

8 2984.86 <NA> 745.14 <NA>

9 3121.51 <NA> 779.23 <NA>

10 3251.91 <NA> 811.78 <NA>

11 3348.45 <NA> 835.90 <NA>

12 3396.36 <NA> 847.86 <NA>

13 3407.60 <NA> 849.96 <NA>

14 3465.26 <NA> 865.00 <NA>

15 3752.12 <NA> 936.65 <NA>

16 4161.19 <NA> 1038.75 <NA>

17 4711.62 <NA> 1176.04 <NA>

18 4965.01 <NA> 1239.38 <NA>

19 4997.26 <NA> 1247.36 <NA>

20 5347.21 <NA> 1334.78 <NA>

21 5453.95 <NA> 1361.44 <NA>

22 5523.65 <NA> 1378.83 <NA>

23 5750.18 <NA> 1435.38 <NA>

24 6715.15 <NA> 1676.19 <NA>

25 6734.21 <NA> 1680.99 <NA>

26 7047.35 <NA> 1759.13 <NA>

27 7102.55 <NA> 1772.91 <NA>

28 7696.04 <NA> 1921.11 <NA>

29 8079.73 <NA> 2016.80 <NA>

30 8157.72 <NA> 2036.30 <NA>

Errors quoted at 2.000 sigma

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\*\*\*\*\* P E A K A N A L Y S I S R E P O R T \*\*\*\*\*

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Subject Name/Title :

Identification Number :

Acquisition Started : 11-09-13 15:51:11

Peak Analysis Performed on : 21-07-14 16:01:29

Peak Analysis From Channel : 30

Peak Analysis To Channel : 8192

Peak Locate Library : C:\GENIE2K\CAMFILES\HJJ\HJJ\_lib.

Peak ROI ROI Peak Energy Net Peak % Area Continuum Libry Num

No. start end centroid (keV) Area Uncert. Counts Fit Iter

F 1 41- 54 44.56 11.25 2.098E+04 1.59 4.688E+04 572.4 6

F 2 485- 494 490.04 122.44 1.578E+05 0.59 6.304E+04 1028. 4

F 3 506- 515 510.69 127.59 1.909E+04 2.54 4.776E+04 41.7 5

F 4 543- 552 547.85 136.87 2.024E+04 2.44 4.773E+04 40.2 4

F 5 1278- 1289 1284.28 320.68 5.500E+04 1.19 5.421E+04 56.8 4

F 6 1383- 1394 1388.68 346.74 7.731E+03 5.51 4.269E+04 3.0 4

F 7 2043- 2056 2049.65 511.72 4.133E+05 0.45 3.399E+05 67.4 4

F 8 2977- 2992 2984.85 745.14 3.887E+05 0.33 2.991E+04 374.8 3

F 9 3114- 3128 3121.39 779.23 1.215E+04 2.69 1.476E+04 4.4 4

F 10 3244- 3259 3251.84 811.78 8.368E+05 0.23 5.331E+04 741.9 4

F 11 3340- 3355 3348.44 835.90 9.804E+03 2.86 1.017E+04 3.2 3

M 12 3388- 3415 3396.38 847.86 1.333E+05 0.59 1.281E+04 205.8 32

m 13 3388- 3415 3404.77 849.96 1.677E+04 2.18 1.228E+04 205.8 32

F 14 3457- 3472 3465.04 865.00 5.074E+03 4.69 9.508E+03 1.2 4

F 15 3744- 3759 3752.08 936.65 3.410E+05 0.36 2.697E+04 221.6 3

F 16 4153- 4169 4161.17 1038.75 1.513E+04 2.06 8.979E+03 8.5 3

F 17 4703- 4720 4711.19 1176.04 1.882E+03 11.63 1.140E+04 2.1 5

F 18 4956- 4973 4964.96 1239.38 6.359E+04 0.86 9.609E+03 38.0 3

F 19 4988- 5005 4996.93 1247.36 1.304E+04 2.23 7.660E+03 6.2 5

F 20 5338- 5356 5347.18 1334.78 1.463E+04 1.84 3.283E+03 9.9 3

F 21 5445- 5462 5454.00 1361.44 3.826E+03 4.18 2.419E+03 2.7 4

F 22 5514- 5532 5523.65 1378.83 2.752E+04 1.29 3.401E+03 18.8 3

F 23 5741- 5759 5750.23 1435.38 2.664E+05 0.40 1.552E+04 165.3 3

M 24 6705- 6743 6715.02 1676.19 2.565E+03 4.62 1.180E+03 2.1 4

m 25 6705- 6743 6734.24 1680.99 1.351E+03 7.24 1.288E+03 2.1 4

F 26 7037- 7057 7047.29 1759.13 1.763E+03 5.81 1.023E+03 1.2 4

F 27 7092- 7112 7102.49 1772.91 1.141E+04 1.96 1.202E+03 13.0 4

F 28 7685- 7706 7696.24 1921.11 3.842E+03 3.47 6.544E+02 4.0 4

F 29 8069- 8090 8079.62 2016.80 1.971E+03 5.11 6.235E+02 1.6 4

F 30 8147- 8168 8157.76 2036.30 5.044E+03 2.98 6.587E+02 2.7 3

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 2.000 sigma

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\*\*\*\*\* N U C L I D E I D E N T I F I C A T I O N R E P O R T \*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Subject Name/Title :

Identification Number :

Acquisition Started : 11-09-13 15:51:11

Nuclide Library Used : C:\GENIE2K\CAMFILES\Jesper\JJ opdateret.

.................... IDENTIFIED NUCLIDES ....................

Nuclide Id Energy Yield Activity % Action Action

Name Confidence (keV) (%) (nCi) Uncertainty Level1 Level2

CR-51 0.986 320.08\* 10.08 9.52516E+01 7.06 0.00 0.00

MN-52 0.924 346.02\* 0.99 1.47444E+02 8.26 0.00 0.00

399.57 0.18

502.06 0.21

600.16 0.39

647.47 0.41

744.23\* 90.60 1.70631E+02 4.48

848.18\* 3.35 1.78488E+03 4.89

935.54\* 94.90 1.76664E+02 3.45

1246.28 4.23

1247.88\* 0.38 2.19134E+03 21.28

1333.65\* 5.07 1.96188E+02 3.35

1434.09\* 100.00 1.93771E+02 2.82

Mn-54 0.956 834.83\* 99.97 4.34192E+00 4.83 0.00 0.00

CO-56 0.923 733.72 0.19

787.88 0.32

846.76\* 99.93 5.98325E+01 3.87

977.48 1.43

997.33 1.41

1037.84\* 14.10 5.79776E+01 4.30

1140.28 0.13

1175.10\* 2.30 4.94927E+01 36.74

1238.29\* 68.40 5.90088E+01 3.51

1335.56\* 0.13 7.77089E+03 9.83

1360.21\* 4.32 6.13052E+01 5.55

1442.75 0.17

1771.35\* 15.50 6.57641E+01 7.53

1810.77 0.63

1963.71 0.72

2015.18\* 3.18 6.33458E+01 12.02

2034.76\* 8.13 6.40677E+01 11.66

2113.11 0.38

2212.92 0.42

2276.36 0.12

2598.46 17.40

3009.60 0.84

3201.95 3.03

3253.42 7.60

3273.00 1.81

3451.15 0.90

3547.93 0.20

CO-57 0.993 122.06\* 85.90 1.90444E+01 6.15 0.00 0.00

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Nuclide Id Energy Yield Activity % Action Action

Name Confidence (keV) (%) (nCi) Uncertainty Level1 Level2

CO-57 0.993 136.47\* 10.33 2.01105E+01 6.26 0.00 0.00

692.41 0.16

NI-57 0.938 127.19\* 16.20 1.21301E+01 9.54 0.00 0.00

1046.40 0.13

1377.59\* 80.00 2.40978E+01 4.86

1757.48\* 6.10 2.56185E+01 10.28

1919.43\* 13.60 2.74196E+01 11.20

2803.90 0.14

CO-58 0.960 810.78\* 99.45 3.62589E+02 4.04 0.00 0.00

863.96\* 0.68 3.39458E+02 6.80

1674.73\* 0.52 4.18267E+02 6.85

TC-96x 0.854 314.27 2.43

316.50 1.40

434.71 0.75

460.04 0.43

535.78 0.41

568.88 0.92

591.30 0.11

719.50 0.20

721.50 0.12

778.22\* 99.76 5.05071E+00 4.98

812.54\* 82.00 4.39741E+02 10.56

849.86\* 98.00 7.69371E+00 9.27

1091.30 1.10

1126.85 15.20

1200.17 0.37

\* = Energy line found in the spectrum.

@ = Energy line not used for Weighted Mean Activity

Energy tolerance used was 2.000 keV

Nuclide confidence index threshold = 0.30

Errors quoted at 2.000 sigma

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\*\*\*\*\* I N T E R F E R E N C E C O R R E C T E D R E P O R T \*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Nuclide Wt mean Wt mean**

**Nuclide Id Activity Activity % Action Action**

**Name Confidence (nCi) Uncertainty Level1 Level2**

**CR-51 0.986 9.5251635E+01 7.06 0.00 0.00**

**MN-52 0.924 1.8660350E+02 1.52 0.00 0.00**

**Mn-54 0.956 4.3419236E+00 4.83 0.00 0.00**

**CO-56 0.923 5.8538947E+01 1.53 0.00 0.00**

**CO-57 0.993 1.9539546E+01 4.39 0.00 0.00**

**NI-57 0.938 1.9257748E+01 3.95 0.00 0.00**

**CO-58 0.960 3.6328089E+02 2.96 0.00 0.00**

**TC-96x 0.854 5.9919935E+00 3.37 0.00 0.00**

**X RE-186 0.360**

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

@ = nuclide contains energy lines not used in Weighted Mean Activity

Errors quoted at 2.000 sigma

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**\*\*\*\*\*\*\*\*\*\* U N I D E N T I F I E D P E A K S \*\*\*\*\*\*\*\*\*\***

Peak Locate Performed on: 21-07-14 16:01:29

Peak Locate From Channel: 10

Peak Locate To Channel: 1024

**Peak Energy Peak Size in Peak CPS Activity (nCi)**

**No. (keV) Counts per Second % Uncertainty (at 100% yield)**

**F 1 11.25 4.85533E-01 1.59 4.62442E+08**

**F 7 511.72 9.56717E+00 0.45 1.14399E+02**

**m 25 1680.99 3.12838E-02 7.24 1.14486E+00**

M = First peak in a multiplet region

m = Other peak in a multiplet region

F = Fitted singlet

Errors quoted at 2.000 sigma