

**Experiment Number:** 20614 - 02  
**Test Type:** CHRONIC  
**Route:** DOSED FEED  
**Species/Strain:** RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
Perfluorooctanoic Acid  
**CAS Number:** 335-67-1

**Date Report Requested:** 07/24/2018  
**Time Report Requested:** 12:59:13  
**First Dose M/F:** 07/27/09 / NA  
**Lab:** BAT

Final 1\_Core Only

<b>NTP Study Number:</b>	C20614B		
<b>Lock Date:</b>	01/10/2012		
<b>Cage Range:</b>	ALL		
<b>Date Range:</b>	ALL		
<b>Reasons For Removal:</b>	25021 TSAC	25020 NATD	25019 MSAC
<b>Removal Date Range:</b>	ALL		
<b>Treatment Groups:</b>	Include ALL		
<b>Study Gender:</b>	Male		
<b>TDMSE Version:</b>	3.0.2.3_002		
<b>PWG Approval Date:</b>	07/24/2018		



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

HARLAN SPRAGUE DAWLEY RATS MALE 0/0 ppm	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 7 4 3	0 7 4 3	0 7 4 7	0 7 4 7	0 7 1 8	0 7 4 5	0 6 7 5	0 7 4 7	0 6 8 9	0 7 4 5	0 6 7 4	0 6 7 3	0 7 7 3	0 7 1 8	0 3 0 4	0 7 4 4	0 7 4 5	0 7 4 4	0 5 8 4	0 7 4 6	0 7 4 6	0 7 4 4	0 7 4 4	0 7 4 3			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0 0 0 1	males (cont...)	

Stomach, Glandular

+ +

**CARDIOVASCULAR SYSTEM**

Blood Vessel

+ +

Heart

+ +

Lymphoma Malignant

X

**ENDOCRINE SYSTEM**

Adrenal Cortex

+ +

Leukemia Mononuclear

X

Lymphoma Malignant

X

Adrenal Medulla

+ +

Pheochromocytoma Benign

X

X

Pheochromocytoma Benign, Multiple

X

Bilateral, Pheochromocytoma Benign

X

X

Islets, Pancreatic

+ +

Adenoma

X

Parathyroid Gland

+ M M + M + + M + + + + + + M + + + + + + + + + M

Pituitary Gland

+ +

Pars Distalis, Adenoma

X

Thyroid Gland

+ + + + M +

Bilateral, C-cell, Adenoma

X

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
|   | 0743        | 0743 | 0747 | 0747 | 0748 | 0745 | 0755 | 0767 | 0767 | 0769 | 0765 | 0767 | 0769 | 0773 | 0773 | 0778 | 0775 | 0774 | 0774 | 0776 | 0774 | 0774 | 0774 | 0774 | 0774 |                    |
| ANIMAL ID                                     | 0001        | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 |                    |
| Leukemia Mononuclear                          |             |      |      | X    |      |      |      | X    | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Lymphoma Malignant                            |             |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Lymph Node, Mesenteric                        | +           | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |
| Leukemia Mononuclear                          |             |      |      | X    |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Lymphoma Malignant                            |             |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Spleen  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |
| Leukemia Mononuclear                          |             |      |      | X    |      |      |      | X    | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Lymphoma Malignant                            |             |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |
| Thymus  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |
| Lymphoma Malignant                            |             |      |      |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |

INTEGUMENTARY SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibroadenoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basal Cell Adenoma                |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Keratoacanthoma                   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| Subcutaneous Tissue, Fibroma      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Subcutaneous Tissue, Fibrosarcoma |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

MUSCULOSKELETAL SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | males<br>(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    |
|   | 7           | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7         |                    |
|   | 4           | 4 | 4 | 4 | 1 | 4 | 7 | 4 | 8 | 4 | 2 | 9 | 4 | 1 | 0 | 4 | 4 | 4 | 4 | 8 | 4 | 4 | 4 | 4 | 4 | 4         |                    |
|   | 3           | 3 | 7 | 7 | 8 | 5 | 5 | 7 | 9 | 5 | 4 | 7 | 3 | 8 | 4 | 7 | 5 | 5 | 4 | 4 | 6 | 6 | 4 | 4 | 3 |           |                    |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                    |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |           |                    |
|   | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |           |                    |

|                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liposarcoma           |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant    |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nephroblastoma        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal Tubule, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Urinary Bladder | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

SYSTEMIC LESIONS

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear   |   |   |   | X |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant     |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically





Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |       |       |       |       |       |    |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
|   | 0743        | 0744  | 0747  | 0748  | 0749  | 0774  | 0775  | 0776  | 0777  | 0778  | 0779  | 0780  | 0781  | 0782  | 0783  | 0784  | 0785  | 0786  | 0787  | 0788  | 0789  | 0790  | 0791  | 0792  | 0793  |          | 0794  | 0795  | 0796  | 0797  | 0798  | 0799  | 0800  |       |       |    |
| ANIMAL ID                                     | 00026       | 00027 | 00028 | 00029 | 00030 | 00031 | 00032 | 00033 | 00034 | 00035 | 00036 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046 | 00047 | 00048 | 00049 | 00050 | 00051    | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 |    |
| Stomach, Glandular                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |
| <b>CARDIOVASCULAR SYSTEM</b>                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |    |
| Blood Vessel                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | 50    |    |
| Heart   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | 50    |    |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |
| <b>ENDOCRINE SYSTEM</b>                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       |    |
| Adrenal Cortex                                | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | 50    |    |
| Leukemia Mononuclear                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |
| Adrenal Medulla                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | 50    |    |
| Pheochromocytoma Benign                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 6  |
| Pheochromocytoma Benign, Multiple             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |
| Bilateral, Pheochromocytoma Benign            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |
| Islets, Pancreatic                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |
| Adenoma                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 5  |
| Parathyroid Gland                             | M           | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | 41 |
| Pituitary Gland                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50 |
| Pars Distalis, Adenoma                        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 5  |
| Thyroid Gland                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | +     | +     | +     | +     | +     | 49 |
| Bilateral, C-cell, Adenoma                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |       |       |       |       |       | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
|   | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>4<br>3<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>6<br>9<br>7      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>3<br>0<br>2      | 0<br>7<br>4<br>6      | 0<br>1<br>3<br>7      | 0<br>7<br>4<br>4      | 0<br>1<br>9<br>5      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      |                       |                       |          |
| ANIMAL ID                                     | 0<br>0<br>0<br>2<br>6 | 0<br>0<br>0<br>2<br>7 | 0<br>0<br>0<br>2<br>8 | 0<br>0<br>0<br>2<br>9 | 0<br>0<br>0<br>3<br>0 | 0<br>0<br>0<br>3<br>1 | 0<br>0<br>0<br>3<br>2 | 0<br>0<br>0<br>3<br>3 | 0<br>0<br>0<br>3<br>4 | 0<br>0<br>0<br>3<br>5 | 0<br>0<br>0<br>3<br>6 | 0<br>0<br>0<br>3<br>7 | 0<br>0<br>0<br>3<br>8 | 0<br>0<br>0<br>3<br>9 | 0<br>0<br>0<br>4<br>0 | 0<br>0<br>0<br>4<br>1 | 0<br>0<br>0<br>4<br>2 | 0<br>0<br>0<br>4<br>3 | 0<br>0<br>0<br>4<br>4 | 0<br>0<br>0<br>4<br>5 | 0<br>0<br>0<br>4<br>6 | 0<br>0<br>0<br>4<br>7 | 0<br>0<br>0<br>4<br>8 | 0<br>0<br>0<br>4<br>9 | 10       |
| C-cell, Adenoma                               | X                     |                       | X                     |                       | X                     |                       |                       |                       | X                     | X                     |                       |                       |                       |                       |                       |                       |                       | X                     | X                     |                       |                       |                       |                       |                       |          |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Preputial Gland        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventral, Adenoma       | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Seminal Vesicle        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Testes                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**HEMATOPOIETIC SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Iliac, Lumbar, Pancreatic, Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |    |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|
|   | 0743        | 0747  | 0754  | 0757  | 0764  | 0771  | 0776  | 0779  | 0783  | 0786  | 0790  | 0793  | 0796  | 0800  | 0803  | 0807  | 0810  | 0814  | 0817  | 0821  | 0824  | 0828  | 0831  | 0835  | 0838  |          |    |
| ANIMAL ID                                     | 00026       | 00027 | 00028 | 00029 | 00030 | 00031 | 00032 | 00033 | 00034 | 00035 | 00036 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046 | 00047 | 00048 | 00049 | 00050 |          |    |
| Leukemia Mononuclear                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3        |    |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| Lymph Node, Mesenteric                        | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 49       |    |
| Leukemia Mononuclear                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2  |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| Spleen  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |    |
| Leukemia Mononuclear                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3  |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| Thymus  | +           | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 48       |    |
| Lymphoma Malignant                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| <b>INTEGUMENTARY SYSTEM</b>                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |    |
| Mammary Gland                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |
| Fibroadenoma                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     | X     |       |       |       |       |       |       |       |          | 2  |
| Skin  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |
| Basal Cell Adenoma                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| Keratoacanthoma                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       | X     |       |       |          | 5  |
| Subcutaneous Tissue, Fibroma                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| Subcutaneous Tissue, Fibrosarcoma             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1  |
| <b>MUSCULOSKELETAL SYSTEM</b>                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |    |
| Bone  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50 |
| Skeletal Muscle                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID |  |                 |
|-------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--|-----------------|
|             | 0743                            | 0744 | 0745 | 0743 | 0744 | 0744 | 0747 | 0769 | 0773 | 0774 | 0776 | 0777 | 0778 | 0779 | 0783 | 0784 | 0786 | 0790 | 0791 | 0794 | 0795 | 0797 | 0798 | 0799 |           |  | 0800            |
| 0/0 ppm     | 0000                            | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000      |  |                 |
|             | 26                              | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   | 37   | 38   | 39   | 40   | 41   | 42   | 43   | 44   | 45   | 46   | 47   | 48   | 49   | 50        |  | <b>* TOTALS</b> |

**NERVOUS SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |           |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Brain                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |
| Glioma Malignant                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Cerebellum, Granular Cell Tumor Benign |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Cerebrum, Granular Cell Tumor Benign   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Meninges, Schwannoma Malignant         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |  | <b>1</b>  |

**RESPIRATORY SYSTEM**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |           |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Larynx                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Lung                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |
| Lymphoma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Squamous Cell Carcinoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |
| Nose                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |
| Trachea                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |

**SPECIAL SENSES SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |           |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Eye                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |
| Harderian Gland                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | <b>50</b> |
| Schwannoma Malignant, Metastatic, Brain |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |  | <b>1</b>  |
| Lacrimal Gland                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | <b>1</b>  |

**URINARY SYSTEM**

|   |                                       |
|---|---------------------------------------|
| * .. Total animals with tissue examined microscopically; Total animals with tumor | M .. Missing tissue                   |
| + .. Tissue examined microscopically  | A .. Autolysis precludes evaluation   |
| X .. Lesion present   | BLANK .. Not examined microscopically |
| I .. Insufficient tissue  |                                       |

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/0 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|   | 07          | 07   | 07   | 04   | 07   | 07   | 06   | 07   | 07   | 07   | 07   | 06   | 07   | 07   | 07   | 07   | 03   | 07   | 01   | 07   | 01   | 07   | 07   | 07   | 07   |          |
| ANIMAL ID                                     | 0006        | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 |          |
| Kidney  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50       |
| Liposarcoma                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1        |
| Lymphoma Malignant                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1        |
| Nephroblastoma                                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | X    |      |      |      | 1        |
| Renal Tubule, Adenoma                         |             |      |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1        |
| Urinary Bladder                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 49       |

SYSTEMIC LESIONS

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Lymphoma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm   | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   | ANIMAL ID | males<br>(cont...) |   |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|--------------------|---|
|   | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>2 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>0 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>8 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>9 |   |           |                    |   |
| Salivary Glands<br>Lymphoma Malignant   | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | X         |                    |   |
| Stomach, Forestomach<br>Lymphoma Malignant<br>Schwannoma Malignant  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | X                  |   |
| Stomach, Glandular<br>Lymphoma Malignant  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | X                  |   |
| <b>CARDIOVASCULAR SYSTEM</b>  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |   |
| Blood Vessel  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |   |
| Heart<br>Lymphoma Malignant<br>Schwannoma Malignant<br>Endocardium, Schwannoma Malignant                                  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  | X |
| <b>ENDOCRINE SYSTEM</b>   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |   |
| Adrenal Cortex<br>Leukemia Mononuclear<br>Lymphoma Malignant<br>Schwannoma Malignant, Metastatic, Stomach,<br>Forestomach | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  | X |
| Adrenal Medulla<br>Pheochromocytoma Benign  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  | X |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE 300/0 ppm |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |                       | ANIMAL ID | males<br>(cont...) |
|-------------|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------------------|-----------|--------------------|
|             | 0<br>7<br>4<br>3                          | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>2 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>4 | 0<br>7<br>8<br>3 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>7 | 0<br>7<br>6<br>0 | 0<br>7<br>6<br>6 | 0<br>7<br>3<br>9 | 0<br>7<br>4<br>8 | 0<br>7<br>5<br>8 | 0<br>7<br>7<br>6 | 0<br>7<br>7<br>9 |   |                       |           |                    |
|             | 0   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0 | 0<br>0<br>0<br>6<br>1 |           |                    |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Islets, Pancreatic<br>Adenoma<br>Adenoma, Multiple                                  | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + |   |
| Parathyroid Gland   | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + |   |
| Pituitary Gland<br>Lymphoma Malignant<br>Pars Distalis, Adenoma                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Thyroid Gland<br>Bilateral, C-cell, Adenoma<br>C-cell, Adenoma<br>C-cell, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis<br>Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | X |
| Preputial Gland<br>Duct, Papilloma   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate<br>Ventral, Adenoma         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm        | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | ANIMAL ID | males<br>(cont...) |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|--------------------|
|  | 07          | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 |           |                    |
|  | 4           | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  |           |                    |
|  | 3           | 3  | 5  | 5  | 7  | 7  | 4  | 2  | 5  | 5  | 6  | 6  | 4  | 3  | 6  | 6  | 7  | 7  | 0  | 6  | 3  | 9  | 8  | 8  | 6  |           |                    |
|  | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |           |                    |
|  | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |           |                    |
|  | 66          | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 |           |                    |
|  | 1           | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  |           |                    |
| Seminal Vesicle  | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                    |
| Lymphoma Malignant                                     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X  |           |                    |
| Testes   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  |           |                    |
| Mesothelioma Malignant                                 |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X  |    |    | X  |           |                    |
| Interstitial Cell, Adenoma                             |             |    |    |    |    |    |    |    | X  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| <b>HEMATOPOIETIC SYSTEM</b>                            |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| Bone Marrow  | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +         |                    |
| Sarcoma, Metastatic, Bone                              |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| Lymph Node   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| Lumbar, Mediastinal, Pancreatic, Lymphoma Malignant    |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X         |                    |
| Mediastinal, Sarcoma, Metastatic, Bone                 |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| Lymph Node, Mandibular                                 | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +         |                    |
| Lymphoma Malignant                                     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X         |                    |
| Lymph Node, Mesenteric                                 | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +         |                    |
| Lymphoma Malignant                                     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X         |                    |
| Spleen   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +         |                    |
| Leukemia Mononuclear                                   |             |    |    |    |    |    |    |    | X  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |           |                    |
| Lymphoma Malignant                                     |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X         |                    |
| Schwannoma Malignant, Metastatic, Stomach, Forestomach |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | X         |                    |
| Thymus   | +           | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +  | +         |                    |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males<br>(cont...) |   |
|   | ANIMAL ID   | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | 3 | 7 | 4 | 5 | 7 | 7 | 7 |                    | 7 |
|   |             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 4 | 4 | 4 | 4 | 6 | 6 | 3 | 7 | 6 | 4 | 6 | 3 | 9 |                    |   |
|   |             | 3 | 3 | 5 | 5 | 7 | 7 | 4 | 2 | 5 | 5 | 6 | 6 | 4 | 3 | 6 | 6 | 7 | 7 | 0 | 6 | 9 | 8 | 8 | 6 | 9 |   |                    |   |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|   |             | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8                  |   |
|   |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |                    |   |

Lymphoma Malignant X  
 Sarcoma, Metastatic, Bone

INTEGUMENTARY SYSTEM

Mammary Gland +  
 Skin +  
 Lymphoma Malignant X  
 Trichoepithelioma

MUSCULOSKELETAL SYSTEM

Bone +  
 Sarcoma X  
 Periosteum, Sarcoma  
 Skeletal Muscle +  
 Lymphoma Malignant X

NERVOUS SYSTEM

Brain +  
 Oligodendroglioma Benign X

RESPIRATORY SYSTEM

Lung +  
 Leukemia Mononuclear X  
 Lymphoma Malignant X  
 Sarcoma, Metastatic, Bone

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically





Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm                    | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              | * TOTALS |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|----------|--|
|  | 0673        | 0746  | 0484  | 0744  | 0744  | 0274  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0663  | 0374  | 0774  | 0774  | 0774  | 0774  | 0673  | 0744  | 0744         |          |  |
| ANIMAL ID  | 00086       | 00077 | 00088 | 00088 | 00088 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099        |          |  |
| Salivary Glands<br>Lymphoma Malignant                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1      |          |  |
| Stomach, Forestomach<br>Lymphoma Malignant<br>Schwannoma Malignant | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1<br>1 |          |  |
| Stomach, Glandular<br>Lymphoma Malignant                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1      |          |  |
| <b>CARDIOVASCULAR SYSTEM</b>                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              |          |  |
| Blood Vessel   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |  |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |  |
| Lymphoma Malignant   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| Schwannoma Malignant   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| Endocardium, Schwannoma Malignant                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| <b>ENDOCRINE SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              |          |  |
| Adrenal Cortex   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |  |
| Leukemia Mononuclear   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| Lymphoma Malignant   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| Schwannoma Malignant, Metastatic, Stomach,<br>Forestomach          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1            |          |  |
| Adrenal Medulla  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |  |
| Pheochromocytoma Benign  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 8            |          |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|   | 0673        | 0746  | 0484  | 0744  | 0744  | 0274  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0663  | 0377  | 0774  | 0774  | 0774  | 0774  | 0676  | 0774  | 0774  |          |
| ANIMAL ID                                       | 00086       | 00007 | 00008 | 00008 | 00009 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00009 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 |          |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Islets, Pancreatic Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma, Multiple          |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Parathyroid Gland          | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 46 |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pars Distalis, Adenoma     |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |   | X |   | X |   |   | 6  |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Bilateral, C-cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 2  |
| C-cell, Adenoma            |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  |
| C-cell, Carcinoma          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   | 3  |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Preputial Gland        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Duct, Papilloma        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Prostate               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventral, Adenoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/0 ppm        | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |  |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
|  | 0673        | 0746  | 0484  | 0744  | 0744  | 0274  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0663  | 0377  | 0774  | 0774  | 0774  | 0774  | 0667  | 0744  | 0774  |          |  |  |
| ANIMAL ID  | 00086       | 00077 | 00088 | 00088 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 | 00099 |          |  |  |
| Seminal Vesicle  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Lymphoma Malignant                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Testes   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Mesothelioma Malignant                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2        |  |  |
| Interstitial Cell, Adenoma                             |             |       |       |       |       |       |       |       | X     |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       | 3        |  |  |
| <b>HEMATOPOIETIC SYSTEM</b>                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |  |
| Bone Marrow  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Sarcoma, Metastatic, Bone                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Lymph Node   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 3        |  |  |
| Lumbar, Mediastinal, Pancreatic, Lymphoma Malignant    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Mediastinal, Sarcoma, Metastatic, Bone                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Lymph Node, Mandibular                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Lymphoma Malignant                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Lymph Node, Mesenteric                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Lymphoma Malignant                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Spleen   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50       |  |  |
| Leukemia Mononuclear                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Lymphoma Malignant                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Schwannoma Malignant, Metastatic, Stomach, Forestomach |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1        |  |  |
| Thymus   | +           | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 48       |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|-------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|             | 063                             | 074  | 084  | 074  | 074  | 024  | 074  | 074  | 074  | 074  | 074  | 074  | 074  | 074  | 074  | 063  | 037  | 074  | 074  | 074  | 074  | 067  | 074  | 074  |          |
| 300/0 ppm   | 000                             | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 000  | 1        |
| ANIMAL ID   | 0086                            | 0007 | 0008 | 0008 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 0009 | 1        |

Lymphoma Malignant  
Sarcoma, Metastatic, Bone

X

1  
1

INTEGUMENTARY SYSTEM

Mammary Gland

+ +

50

Skin  
Lymphoma Malignant  
Trichoepithelioma

+  
X

50  
1  
1

MUSCULOSKELETAL SYSTEM

Bone  
Sarcoma  
Periosteum, Sarcoma

+  
X

50  
1  
1

Skeletal Muscle  
Lymphoma Malignant

1  
1

NERVOUS SYSTEM

Brain  
Oligodendroglioma Benign

+ +

50  
1

RESPIRATORY SYSTEM

Lung  
Leukemia Mononuclear  
Lymphoma Malignant  
Sarcoma, Metastatic, Bone

+  
X  
X

50  
1  
2  
1

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST  | HARLAN SPRAGUE DAWLEY RATS MALE |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | * TOTALS |  |
|--|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|--|
|  | 063                             | 074 | 048 | 074 | 074 | 024 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 063 | 037 | 077 | 077 | 077 | 077 | 067 | 077 | 077 |          |  |
| ANIMAL ID  | 000                             | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |          |  |
| Schwannoma Malignant, Metastatic, Stomach, Forestomach |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |          |  |
| Nose   | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| Trachea  | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| <b>SPECIAL SENSES SYSTEM</b>                           |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |  |
| Eye  | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| Harderian Gland  | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| <b>URINARY SYSTEM</b>                                  |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |  |
| Kidney   | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| Liposarcoma  |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |          |  |
| Lymphoma Malignant                                     |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |          |  |
| Urinary Bladder  | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| <b>SYSTEMIC LESIONS</b>                                |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |  |
| Multiple Organ   | +                               | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | 50  |          |  |
| Leukemia Mononuclear                                   |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1   |          |  |
| Lymphoma Malignant                                     |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 2   |          |  |
| Mesothelioma Malignant                                 |                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 2   |          |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                    |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST | 0743  | 0743  | 0744  | 0771  | 0774  | 0776  | 0776  | 0775  | 0764  | 0774  | 0774  | 0774  | 0775  | 0775  | 0773  | 0773  | 0773  | 0773  | 0775  | 0775  | 0777  | 0777  | 0777  | 0777  | 0777  | 0776  | males<br>(cont...) |
|  | ANIMAL ID   | 00121 | 00122 | 00123 | 00124 | 00125 | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 |                    |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum<br>Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma<br>Lymphoma Malignant    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Histiocytic Sarcoma                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Adenoma                              | X | X |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |
| Acinus, Adenoma, Multiple                    |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   | X |   | X |   |   |   |   | X |   |   |   | X |
| Acinus, Carcinoma                            | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm                           | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ANIMAL ID | males<br>(cont...) |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------------------|
|  | 0743        | 0743   | 0744   | 0741   | 0744   | 0746   | 0746   | 0745   | 0744   | 0744   | 0744   | 0745   | 0745   | 0743   | 0743   | 0743   | 0743   | 0745   | 0745   | 0747   | 0747   | 0744   | 0745   | 0745   | 0747   |           |                    |
|  | 001121      | 001122 | 001123 | 001124 | 001125 | 001126 | 001127 | 001128 | 001129 | 001130 | 001131 | 001132 | 001133 | 001134 | 001135 | 001136 | 001137 | 001138 | 001139 | 001140 | 001141 | 001142 | 001143 | 001144 | 001145 | 001146    |                    |
| Salivary Glands  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Stomach, Forestomach<br>Histiocytic Sarcoma                              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Stomach, Glandular   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| <b>CARDIOVASCULAR SYSTEM</b>   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           |                    |
| Blood Vessel   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Heart  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| <b>ENDOCRINE SYSTEM</b>  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           |                    |
| Adrenal Cortex   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Adrenal Medulla<br>Pheochromocytoma Benign<br>Pheochromocytoma Malignant | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Islets, Pancreatic<br>Adenoma<br>Carcinoma                               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |
| Parathyroid Gland  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | M      | M      | +      | +      | +         |                    |
| Pituitary Gland<br>Pars Distalis, Adenoma                                | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         |                    |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ANIMAL ID | males<br>(cont...) |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------------------|
|  | 0743        | 0744   | 0744   | 0741   | 0744   | 0746   | 0746   | 0745   | 0744   | 0744   | 0744   | 0744   | 0745   | 0745   | 0743   | 0743   | 0743   | 0743   | 0745   | 0745   | 0747   | 0747   | 0744   | 0745   | 0746   |           |                    |
|  | 001121      | 001122 | 001123 | 001124 | 001125 | 001126 | 001127 | 001128 | 001129 | 001130 | 001131 | 001132 | 001133 | 001134 | 001135 | 001136 | 001137 | 001138 | 001139 | 001140 | 001141 | 001142 | 001143 | 001144 | 001145 |           |                    |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, C-cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| C-cell, Adenoma            |   |   |   |   |   |   |   | X | X |   |   |   | X | X | X |   |   |   |   |   |   |   |   |   |   |
| C-cell, Carcinoma          |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ventral, Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Seminal Vesicle     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Testes              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | males<br>(cont...)    |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>4      | 0<br>7<br>1<br>1      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>6      | 0<br>6<br>6<br>5      | 0<br>7<br>6<br>4      | 0<br>6<br>7<br>4      | 0<br>7<br>6<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>6<br>5<br>5      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>5      |                       |                       |                       |
|  | 0<br>0<br>1<br>2<br>1 | 0<br>0<br>1<br>2<br>2 | 0<br>0<br>1<br>2<br>3 | 0<br>0<br>1<br>2<br>4 | 0<br>0<br>1<br>2<br>5 | 0<br>0<br>1<br>2<br>6 | 0<br>0<br>1<br>2<br>7 | 0<br>0<br>1<br>2<br>8 | 0<br>0<br>1<br>2<br>9 | 0<br>0<br>1<br>3<br>0 | 0<br>0<br>1<br>3<br>1 | 0<br>0<br>1<br>3<br>2 | 0<br>0<br>1<br>3<br>3 | 0<br>0<br>1<br>3<br>3 | 0<br>0<br>1<br>3<br>4 | 0<br>0<br>1<br>3<br>5 | 0<br>0<br>1<br>3<br>6 | 0<br>0<br>1<br>3<br>7 | 0<br>0<br>1<br>3<br>8 | 0<br>0<br>1<br>4<br>9 | 0<br>0<br>1<br>4<br>0 | 0<br>0<br>1<br>4<br>1 | 0<br>0<br>1<br>4<br>2 | 0<br>0<br>1<br>4<br>3 | 0<br>0<br>1<br>4<br>4 | 0<br>0<br>1<br>4<br>5 |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mandibular                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mesenteric<br>Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen<br>Lymphoma Malignant                 | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus                                       | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

INTEGUMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland<br>Fibroadenoma  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |   |
| Skin<br>Keratoacanthoma  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Lipoma<br>Pilomatrixoma<br>Squamous Cell Papilloma<br>Subcutaneous Tissue, Fibroma |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

MUSCULOSKELETAL SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone                                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle<br>Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

NERVOUS SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |  |  | males<br>(cont...) |
|--|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|--------------------|
|  | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>1      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>6      | 0<br>7<br>6<br>6      | 0<br>7<br>6<br>5      | 0<br>7<br>6<br>4      | 0<br>7<br>6<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>5      | 0<br>7<br>7<br>5      | 0<br>7<br>7<br>3      | 0<br>7<br>7<br>3      | 0<br>7<br>7<br>3      | 0<br>7<br>7<br>3      | 0<br>7<br>6<br>5      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>4      | 0<br>7<br>7<br>5      | 0<br>7<br>7<br>5      |                       |  |  |                    |
|  | ANIMAL ID        | 0<br>0<br>1<br>2<br>1 | 0<br>0<br>1<br>2<br>2 | 0<br>0<br>1<br>2<br>3 | 0<br>0<br>1<br>2<br>4 | 0<br>0<br>1<br>2<br>5 | 0<br>0<br>1<br>2<br>6 | 0<br>0<br>1<br>2<br>7 | 0<br>0<br>1<br>2<br>8 | 0<br>0<br>1<br>3<br>9 | 0<br>0<br>1<br>3<br>0 | 0<br>0<br>1<br>3<br>1 | 0<br>0<br>1<br>3<br>2 | 0<br>0<br>1<br>3<br>3 | 0<br>0<br>1<br>3<br>4 | 0<br>0<br>1<br>3<br>5 | 0<br>0<br>1<br>3<br>6 | 0<br>0<br>1<br>3<br>7 | 0<br>0<br>1<br>3<br>8 | 0<br>0<br>1<br>3<br>9 | 0<br>0<br>1<br>4<br>0 | 0<br>0<br>1<br>4<br>1 | 0<br>0<br>1<br>4<br>2 | 0<br>0<br>1<br>4<br>3 | 0<br>0<br>1<br>4<br>4 | 0<br>0<br>1<br>4<br>5 |  |  |                    |

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Glioma Malignant |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**RESPIRATORY SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Histiocytic Sarcoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**SPECIAL SENSES SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**URINARY SYSTEM**

|                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant    |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Renal Tubule, Adenoma |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SYSTEMIC LESIONS**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST | 0743 | 0743 | 0744 | 0741 | 0746 | 0766 | 0775 | 0764 | 0774 | 0774 | 0774 | 0774 | 0775 | 0775 | 0773 | 0773 | 0773 | 0773 | 0765 | 0775 | 0774 | 0775 | 0774 | 0775 | 0774 | 0776 | males<br>(cont...) |      |
|  | ANIMAL ID   | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 |                    | 0038 |
|  |             | 1123 | 1133 | 1144 | 1155 | 1166 | 1177 | 1188 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 |                    | 1218 |

Histiocytic Sarcoma  
Lymphoma Malignant

X

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|  | 0746        | 0748  | 0745  | 0744  | 0744  | 0744  | 0744  | 0746  | 0746  | 0747  | 0747  | 0747  | 0747  | 0747  | 0747  | 0746  | 0747  | 0747  | 0746  | 0747  | 0747  | 0741  | 0747  | 0747  |          |
| ANIMAL ID                                      | 00146       | 00117 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 |          |
|  | 0           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------------|
| Esophagus  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Intestine Large, Cecum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Intestine Large, Colon   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Intestine Large, Rectum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Intestine Small, Duodenum  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Intestine Small, Ileum<br>Lymphoma Malignant   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 50<br>1                 |
| Intestine Small, Jejunum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50                      |
| Liver<br>Histiocytic Sarcoma<br>Lymphoma Malignant   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50<br>1<br>1            |
| Mesentery<br>Histiocytic Sarcoma   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | X | 1<br>1                  |
| Pancreas<br>Histiocytic Sarcoma<br>Acinus, Adenoma<br>Acinus, Adenoma, Multiple<br>Acinus, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50<br>1<br>8<br>20<br>3 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm                           | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|----------|
|  | 0746        | 0748  | 0745  | 0744  | 0744  | 0744  | 0744  | 0746  | 0746  | 0747  | 0747  | 0747  | 0747  | 0747  | 0747  | 0746  | 0747  | 0747  | 0746  | 0747  | 0747  | 0741  | 0747  | 0747  |              |          |
| ANIMAL ID  | 00146       | 00147 | 00148 | 00149 | 00150 | 00151 | 00152 | 00153 | 00154 | 00155 | 00156 | 00157 | 00158 | 00159 | 00160 | 00161 | 00162 | 00163 | 00164 | 00165 | 00166 | 00167 | 00168 | 00169 | 00170        |          |
| Salivary Glands  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |
| Stomach, Forestomach<br>Histiocytic Sarcoma                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1      |          |
| Stomach, Glandular   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |
| <b>CARDIOVASCULAR SYSTEM</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              |          |
| Blood Vessel   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |
| <b>ENDOCRINE SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |              |          |
| Adrenal Cortex   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50           |          |
| Adrenal Medulla<br>Pheochromocytoma Benign<br>Pheochromocytoma Malignant | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>3<br>1 |          |
| Islets, Pancreatic<br>Adenoma<br>Carcinoma                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>8<br>1 |          |
| Parathyroid Gland  | M           | +     | +     | +     | M     | M     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 44    |              |          |
| Pituitary Gland<br>Pars Distalis, Adenoma                                | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>6      |          |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
|  | 0746        | 0680  | 0745  | 0747  | 0774  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0679  | 0744  | 0744  | 0744  | 0666  | 0744  | 0745  | 0711  |          | 0774  |
| ANIMAL ID                                      | 00146       | 00117 | 00114 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111 | 00111    | 00111 |
| Thyroid Gland                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | 50    |
| Bilateral, C-cell, Adenoma                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1     |
| C-cell, Adenoma                                |             |       |       | X     |       |       |       |       |       |       |       |       |       |       | X     |       | X     |       |       |       |       | X     |       |       | X        | 10    |
| C-cell, Carcinoma                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        | 3     |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Preputial Gland     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventral, Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 1  |
| Seminal Vesicle     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Testes              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

**HEMATOPOIETIC SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 3  |
| Mediastinal, Histiocytic Sarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/20 ppm | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |         |    |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|---------|----|
|  | 07          | 06     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 07     | 06     | 07     | 07     | 07     | 06     | 07     | 07     | 01     |          | 07      | 07 |
| ANIMAL ID                                      | 001146      | 000114 | 000115 | 000116 | 000117 | 000118 | 000119 | 000120 | 000121 | 000122 | 000123 | 000124 | 000125 | 000126 | 000127 | 000128 | 000129 | 000130 | 000131 | 000132 | 000133 | 000134 | 000135 | 000136 | 000137   | 000138  |    |
| Lymph Node, Mandibular                         | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50      |    |
| Lymph Node, Mesenteric<br>Lymphoma Malignant   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50<br>1 |    |
| Spleen<br>Lymphoma Malignant                   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50<br>1 |    |
| Thymus   | +           | M      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | M      | +      | +        | 46      |    |
| <b>INTEGUMENTARY SYSTEM</b>                    |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |         |    |
| Mammary Gland<br>Fibroadenoma                  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 49<br>2 |    |
| Skin<br>Keratoacanthoma                        | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50<br>2 |    |
| Lipoma   |             |        |        |        |        |        | X      |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 2       |    |
| Pilomatrixoma                                  |             |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1       |    |
| Squamous Cell Papilloma                        |             |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1       |    |
| Subcutaneous Tissue, Fibroma                   | X           |        |        |        |        |        |        |        |        |        |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |          | 5       |    |
| <b>MUSCULOSKELETAL SYSTEM</b>                  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |         |    |
| Bone   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +        | 50      |    |
| Skeletal Muscle<br>Histiocytic Sarcoma         |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1<br>1  |    |
| <b>NERVOUS SYSTEM</b>                          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |         |    |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST   | HARLAN SPRAGUE DAWLEY RATS MALE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        | ANIMAL ID |              |
|---|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------|-----------|--------------|
|   | 07                              | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 07 | 06 | 07 | 07 | 01 | 07 | 07     |           |              |
| 0/20 ppm  | 4                               | 6  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4      | 001146    |              |
|   | 6                               | 0  | 5  | 7  | 7  | 4  | 4  | 6  | 6  | 7  | 7  | 7  | 7  | 6  | 6  | 9  | 6  | 4  | 4  | 6  | 6  | 5  | 5  | 6  | 3  | 3      | 001146    |              |
|   | 1                               | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1      | 001146    |              |
|   | 4                               | 4  | 4  | 4  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6  | 6      | 001146    |              |
|   | 6                               | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 001146 |           |              |
|   | <b>* TOTALS</b>                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           |              |
| Brain<br>Glioma Malignant   | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50<br>1      |
| <b>RESPIRATORY SYSTEM</b>   |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           |              |
| Lung<br>Carcinoma, Metastatic, Thyroid Gland<br>Histiocytic Sarcoma | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50<br>1<br>1 |
| Nose  | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50           |
| Trachea   | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50           |
| <b>SPECIAL SENSES SYSTEM</b>  |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           |              |
| Eye   | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50           |
| Harderian Gland   | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50           |
| <b>URINARY SYSTEM</b>   |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           |              |
| Kidney<br>Lymphoma Malignant<br>Renal Tubule, Adenoma               | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50<br>2<br>1 |
| Urinary Bladder<br>Histiocytic Sarcoma                              | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50<br>1      |
| <b>SYSTEMIC LESIONS</b>   |                                 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           |              |
| Multiple Organ  | +                               |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |        |           | 50           |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| <b>HARLAN SPRAGUE DAWLEY RATS<br/>MALE<br/>0/20 ppm</b> | DAY ON TEST | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 01 | 07 | 07 |
|   | ANIMAL ID   | 46 | 80 | 45 | 47 | 47 | 44 | 44 | 46 | 46 | 47 | 47 | 47 | 46 | 46 | 49 | 46 | 44 | 44 | 46 | 45 | 45 | 16 | 34 | 43 |
|   | ANIMAL ID   | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 |
|   |             | 14 | 44 | 44 | 44 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 77 |
|   |             | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 0  | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| <b>* TOTALS</b>   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Histiocytic Sarcoma  
Lymphoma Malignant

X

X

1

2

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males<br>(cont...) |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| DAY ON TEST                                      |  | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 2 | 5 | 6 | 6 | 6 |   |   |                    |
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm |  | 4 | 8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 3 | 9 | 8 | 8 |   |   |                    |
| ANIMAL ID  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |                    |
|  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |                    |
|  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |   |                    |
|  |  | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |                    |

**ALIMENTARY SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Cecum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Colon      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Rectum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Duodenum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Ileum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Jejunum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Liver                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hepatocellular Adenoma      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymphoma Malignant          |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mesentery                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pancreas                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Acinus, Adenoma, Multiple   | X |   |   |   | X | X | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |
| Acinus, Carcinoma           |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Salivary Glands             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                    |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST | 0745  | 0745  | 0773  | 0773  | 0774  | 0774  | 0775  | 0775  | 0774  | 0774  | 0777  | 0777  | 0775  | 0775  | 0779  | 0777  | 0774  | 0763  | 0776  | 0777  | 0773  | 0728  | 0759  | 0768  | males<br>(cont...) |
|  | ANIMAL ID   | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | 00200 | 00201 | 00202 | 00203 |                    |

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

CARDIOVASCULAR SYSTEM

|              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex                             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla<br>Pheochromocytoma Benign | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic<br>Adenoma              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland                          | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | M | M | M | + | M | + | + | + | + | + | + |
| Pituitary Gland<br>Pars Distalis, Adenoma  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland<br>C-cell, Adenoma           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS MALE | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | males (cont...) |   |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                 | 0 |
| 300/20 ppm                      | 7           | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 2 | 5 | 6               |   |
| ANIMAL ID                       | 4           | 8 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 4 | 9 | 4 | 4 | 4 | 3 | 9 | 8               |   |
|                                 | 5           | 5 | 3 | 3 | 4 | 4 | 5 | 5 | 4 | 4 | 7 | 7 | 5 | 5 | 9 | 7 | 4 | 5 | 3 | 6 | 3 | 3 | 8 | 9 | 3               |   |
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |   |
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |   |
|                                 | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2               |   |
|                                 | 8           | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0               |   |
|                                 | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4               | 5 |

NONE

### GENITAL SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + |
| Mesothelioma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| Preputial Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ventral, Adenoma            | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Seminal Vesicle             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Testes                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Interstitial Cell, Adenoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### HEMATOPOIETIC SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node                               | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant                       |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Lymphoma Malignant          |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreatic, Lymphoma Malignant           |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02  
Test Type: CHRONIC  
Route: DOSED FEED  
Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
Perfluorooctanoic Acid  
CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
Time Report Requested: 12:59:13  
First Dose M/F: 07/27/09 / NA  
Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID | males<br>(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--------------------|
|  | 0<br>7<br>4<br>5      | 0<br>4<br>8<br>5      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>9      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>4      | 0<br>7<br>6<br>3      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>2<br>3<br>8      | 0<br>5<br>9<br>9      | 0<br>6<br>8<br>3      |                       |           |                    |
|  | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>2 | 0<br>0<br>1<br>8<br>3 | 0<br>0<br>1<br>8<br>4 | 0<br>0<br>1<br>8<br>5 | 0<br>0<br>1<br>8<br>6 | 0<br>0<br>1<br>8<br>7 | 0<br>0<br>1<br>8<br>8 | 0<br>0<br>1<br>8<br>8 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>1<br>9<br>9 | 0<br>0<br>2<br>9<br>0 | 0<br>0<br>2<br>9<br>0 | 0<br>0<br>2<br>9<br>1 | 0<br>0<br>2<br>9<br>2 | 0<br>0<br>2<br>9<br>3 | 0<br>0<br>2<br>9<br>4 | 0<br>0<br>2<br>9<br>5 |           |                    |

Lymphoma Malignant

X

Lymph Node, Mesenteric  
Sarcoma, Metastatic, Spleen

+ +

Spleen  
Lymphoma Malignant  
Sarcoma

+  
X

Thymus

+ +

**INTEGUMENTARY SYSTEM**

Mammary Gland  
Adenoma

+ +

Skin  
Keratoacanthoma  
Subcutaneous Tissue, Fibroma  
Subcutaneous Tissue, Lipoma, Multiple

+ + + + + + + + + + X + + + + + + + + + + + + + + + X  
X

**MUSCULOSKELETAL SYSTEM**

Bone

+ +

Skeletal Muscle  
Sarcoma, Metastatic, Spleen

**NERVOUS SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| DAY ON TEST                  | HARLAN SPRAGUE DAWLEY RATS MALE |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       | ANIMAL ID | males<br>(cont...) |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|------------------------------|---------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                              | 0<br>7<br>4<br>5                | 0<br>4<br>8<br>5 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>7<br>9 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>4 | 0<br>6<br>9<br>3 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>2<br>3<br>8 | 0<br>5<br>9<br>9 | 0<br>6<br>8<br>3 | 0<br>0<br>1<br>8<br>1 |           |                    | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 | 0<br>0<br>1<br>8<br>1 |
| Brain                        | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Peripheral Nerve             |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           | +                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Spinal Cord                  |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           | +                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>RESPIRATORY SYSTEM</b>    |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Lung                         | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Nose                         | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Trachea                      | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>SPECIAL SENSES SYSTEM</b> |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Eye                          | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Harderian Gland              | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Zymbal's Gland               |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           | +                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Carcinoma                    |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           | X                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>URINARY SYSTEM</b>        |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Kidney                       | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Urinary Bladder              | +                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>SYSTEMIC LESIONS</b>      |                                 |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       |           |                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>HARLAN SPRAGUE DAWLEY RATS</b><br><b>MALE</b><br><b>300/20 ppm</b> | DAY ON TEST | 07   | 04   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 07   | 06   | 07   | 07   | 07   | 02   | 05   | 06   |      |
|   | ANIMAL ID   | 45   | 85   | 43   | 43   | 44   | 44   | 45   | 45   | 44   | 44   | 47   | 47   | 45   | 45   | 39   | 47   | 44   | 36   | 94   | 44   | 44   | 33   | 88   | 99   | 83   |
|   |             | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 |

males  
(cont...)

Multiple Organ  
 Lymphoma Malignant  
 Mesothelioma Malignant

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|  | 04          | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    |          |
| ANIMAL ID  | 00206       | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077 | 00077    |
|  | 8           | 3     | 3     | 3     | 3     | 6     | 6     | 7     | 7     | 6     | 1     | 4     | 4     | 5     | 5     | 6     | 6     | 5     | 1     | 6     | 6     | 4     | 4     | 7     | 9        |

**ALIMENTARY SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Liver                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Acinus, Adenoma, Multiple   |   |   |   | X | X | X |   | X | X |   | X |   | X |   | X |   | X |   | X |   |   | X |   | X | 18 |
| Acinus, Carcinoma           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 2  |
| Salivary Glands             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
|  | 04          | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    |          |  |
| ANIMAL ID  | 00206       | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | 00029 | 00030 |          |  |
| Stomach, Forestomach                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Stomach, Glandular                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| <b>CARDIOVASCULAR SYSTEM</b>                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |
| Blood Vessel                                     | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| <b>ENDOCRINE SYSTEM</b>                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |
| Adrenal Cortex                                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Adrenal Medulla                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Pheochromocytoma Benign                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       | X     |       | 5     |          |  |
| Islets, Pancreatic                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Adenoma  |             |       |       | X     |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     | X     |       | 8     |          |  |
| Parathyroid Gland                                | +           | +     | M     | +     | M     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | M     | +     | 39    |          |  |
| Pituitary Gland                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Pars Distalis, Adenoma                           |             | X     |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 8     |          |  |
| Thyroid Gland                                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| C-cell, Adenoma                                  |             |       |       |       |       | X     | X     | X     |       |       | X     | X     |       |       |       | X     |       |       |       |       | X     |       | X     |       | 11    |          |  |

GENERAL BODY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | * TOTALS |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
|  | 04          | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  |          |
| ANIMAL ID  | 008         | 003 | 003 | 003 | 003 | 006 | 006 | 007 | 007 | 006 | 001 | 004 | 004 | 005 | 005 | 006 | 006 | 005 | 001 | 004 | 004 | 004 | 004 | 007 | 39       |
|  | 002         | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 23       |
|  | 000         | 000 | 000 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 3        |
|  | 006         | 007 | 008 | 009 | 000 | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 000 | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 0        |

NONE

**GENITAL SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Preputial Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Ventral, Adenoma            |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   | 3  |
| Seminal Vesicle             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Testes                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Interstitial Cell, Adenoma  |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Lymphoma Malignant                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mediastinal, Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mediastinal, Sarcoma, Metastatic, Spleen |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Pancreatic, Lymphoma Malignant           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
|  | 0478        | 0743  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  | 0773  |          |  |
| ANIMAL ID  | 00206       | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | 00029 | 00030 |          |  |
| Lymphoma Malignant                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |  |
| Lymph Node, Mesenteric                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Sarcoma, Metastatic, Spleen                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       | 1     |          |  |
| Spleen   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Lymphoma Malignant                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |  |
| Sarcoma  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       | 1     |          |  |
| Thymus   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | 49    |          |  |
| <b>INTEGUMENTARY SYSTEM</b>                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |
| Mammary Gland                                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Adenoma  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       |       | 1     |          |  |
| Skin   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Keratoacanthoma                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       |       |       |       | 3     |          |  |
| Subcutaneous Tissue, Fibroma                     | X           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       |       | 3     |          |  |
| Subcutaneous Tissue, Lipoma, Multiple            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     |       | 1     |          |  |
| <b>MUSCULOSKELETAL SYSTEM</b>                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |
| Bone   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50    |          |  |
| Skeletal Muscle                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |          |  |
| Sarcoma, Metastatic, Spleen                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X     | 1     |          |  |
| <b>NERVOUS SYSTEM</b>                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | * TOTALS |     |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|
|  | 04          | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  | 07  |          |     |
| ANIMAL ID  | 008         | 003 | 003 | 003 | 003 | 006 | 006 | 007 | 007 | 006 | 001 | 004 | 004 | 005 | 005 | 006 | 006 | 005 | 001 | 006 | 006 | 004 | 004 | 004 | 007 | 003      | 009 |
| Brain  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Peripheral Nerve                                 |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          | 1   |
| Spinal Cord                                      |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          | 1   |
| <b>RESPIRATORY SYSTEM</b>                        |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |
| Lung   | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Nose   | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Trachea  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| <b>SPECIAL SENSES SYSTEM</b>                     |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |
| Eye  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Harderian Gland                                  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Zymbal's Gland                                   |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          | 1   |
| Carcinoma  |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          | 1   |
| <b>URINARY SYSTEM</b>                            |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |
| Kidney   | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| Urinary Bladder                                  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +        | 50  |
| <b>SYSTEMIC LESIONS</b>                          |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                 |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/20 ppm | DAY ON TEST | 0478  | 0743  | 0773  | 0773  | 0773  | 0776  | 0776  | 0777  | 0777  | 0777  | 0277  | 0777  | 0777  | 0777  | 0476  | 0776  | 0776  | 0776  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | <b>* TOTALS</b> |
|  | ANIMAL ID   | 00206 | 00078 | 00089 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | 00029 | 00030 |                 |
|  |             | 08    | 03    | 03    | 03    | 06    | 06    | 07    | 07    | 06    | 01    | 04    | 04    | 05    | 05    | 06    | 06    | 05    | 06    | 05    | 01    | 04    | 04    | 04    | 07    |                 |

Multiple Organ  
Lymphoma Malignant  
Mesothelioma Malignant

+ +

**50**  
**1**  
**2**

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                    |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST | 0747  | 0777  | 0777  | 0777  | 0777  | 0757  | 0777  | 0727  | 0777  | 0737  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0727  | 0777  | 0777  | 0777  | males<br>(cont...) |       |
|  | ANIMAL ID   | 00241 | 00242 | 00243 | 00244 | 00245 | 00246 | 00247 | 00248 | 00249 | 00250 | 00251 | 00252 | 00253 | 00254 | 00255 | 00256 | 00257 | 00258 | 00259 | 00260 | 00261 | 00262 |                    | 00263 |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum<br>Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma                       |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |
| Hepatocellular Adenoma, Multiple             |   |   |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant                           |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant                           |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Adenoma                              |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Acinus, Adenoma, Multiple                    | X | X |   |   | X |   |   |   |   |   |   |   | X | X | X | X | X | X | X | X |   |   | X | X |   |
| Acinus, Carcinoma                            |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Salivary Glands                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant                           |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                       | ANIMAL ID             | males<br>(cont...)    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>2<br>5 | 0<br>7<br>4<br>3 | 0<br>7<br>3<br>6 | 0<br>5<br>3<br>5 | 0<br>7<br>4<br>3 | 0<br>2<br>4<br>1 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>3<br>1<br>4 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>2<br>4<br>3 | 0<br>7<br>1<br>8 | 0<br>7<br>4<br>5 | 0<br>7<br>0<br>0 | 0<br>7<br>4<br>3      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|  | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0<br>0<br>2<br>4<br>1 | 0<br>0<br>2<br>4<br>1 | 0<br>0<br>2<br>4<br>3 | 0<br>0<br>2<br>4<br>5 | 0<br>0<br>2<br>4<br>6 | 0<br>0<br>2<br>4<br>7 | 0<br>0<br>2<br>4<br>8 | 0<br>0<br>2<br>4<br>9 | 0<br>0<br>2<br>5<br>0 | 0<br>0<br>2<br>5<br>1 | 0<br>0<br>2<br>5<br>2 | 0<br>0<br>2<br>5<br>3 | 0<br>0<br>2<br>5<br>4 | 0<br>0<br>2<br>5<br>5 | 0<br>0<br>2<br>5<br>6 | 0<br>0<br>2<br>5<br>7 | 0<br>0<br>2<br>5<br>8 | 0<br>0<br>2<br>5<br>9 | 0<br>0<br>2<br>6<br>0 | 0<br>0<br>2<br>6<br>1 | 0<br>0<br>2<br>6<br>2 | 0<br>0<br>2<br>6<br>3 | 0<br>0<br>2<br>6<br>4 | 0<br>0<br>2<br>6<br>5 |

Myoepithelioma

Stomach, Forestomach  
Lymphoma Malignant

Stomach, Glandular  
Lymphoma Malignant

CARDIOVASCULAR SYSTEM

Blood Vessel

Heart

ENDOCRINE SYSTEM

Adrenal Cortex  
Lymphoma Malignant

Adrenal Medulla  
Lymphoma Malignant  
Pheochromocytoma Benign

Islets, Pancreatic  
Adenoma  
Adenoma, Multiple

Parathyroid Gland

Pituitary Gland

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | males<br>(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
|  | 0747        | 0747  | 0747  | 0747  | 0747  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  | 0753  |                    |
| ANIMAL ID                                      | 00241       | 00242 | 00243 | 00244 | 00245 | 00246 | 00247 | 00248 | 00249 | 00250 | 00251 | 00252 | 00253 | 00254 | 00255 | 00256 | 00257 | 00258 | 00259 | 00260 | 00261 | 00262 | 00263 | 00264 | 00265 |                    |
|  | 0           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                    |
|  | 7           | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     | 7     |                    |
|  | 4           | 4     | 4     | 2     | 4     | 3     | 3     | 4     | 4     | 4     | 1     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 4     | 1     | 4     | 0     | 4     |                    |
|  | 7           | 7     | 7     | 5     | 3     | 6     | 5     | 3     | 1     | 6     | 6     | 4     | 7     | 7     | 3     | 3     | 5     | 5     | 6     | 6     | 3     | 8     | 5     | 0     | 3     |                    |

Pars Distalis, Adenoma

X

Thyroid Gland

+ +

C-cell, Adenoma

X

X

X

C-cell, Carcinoma

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

+ +

Mesothelioma Malignant

Preputial Gland

+ +

Prostate

+ +

Lymphoma Malignant

X

Seminal Vesicle

+ +

Testes

+ +

Mesothelioma Malignant

Interstitial Cell, Adenoma

X X

X

HEMATOPOIETIC SYSTEM

Bone Marrow

+ +

Lymphoma Malignant

X

\* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                    |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST | 0747  | 0777  | 0777  | 0777  | 0777  | 0757  | 0777  | 0727  | 0777  | 0737  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0727  | 0777  | 0777  | 0777  | males<br>(cont...) |
|  | ANIMAL ID   | 00241 | 00242 | 00243 | 00244 | 00245 | 00246 | 00247 | 00248 | 00249 | 00250 | 00251 | 00252 | 00253 | 00254 | 00255 | 00256 | 00257 | 00258 | 00259 | 00260 | 00261 | 00262 |                    |

Lymph Node  
 Mediastinal, Lymphoma Malignant  
 Pancreatic, Carcinoma  
 Pancreatic, Lymphoma Malignant

+  
 X  
  
 X

Lymph Node, Mandibular  
 Lymphoma Malignant

+ +

Lymph Node, Mesenteric  
 Lymphoma Malignant

+ +

Spleen  
 Lymphoma Malignant

+ +

Thymus  
 Lymphoma Malignant

+ + + + + + + + + + + + + + M + + + + + + + + + +

INTEGUMENTARY SYSTEM

Mammary Gland  
 Fibroadenoma

+ +

Skin  
 Keratoacanthoma  
 Subcutaneous Tissue, Fibroma  
 Subcutaneous Tissue, Hemangiosarcoma

+ +

MUSCULOSKELETAL SYSTEM

Bone

+ +

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                                  |       |       |       |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------------|-------|-------|-------|
| <b>HARLAN SPRAGUE DAWLEY RATS</b><br><b>MALE</b><br><b>0/40 ppm</b> | DAY ON TEST | 0747  | 0747  | 0747  | 0724  | 0733  | 0733  | 0744  | 0744  | 0716  | 0776  | 0734  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0721  | 0774  | 0770  | 0774  | <b>males</b><br><b>(cont...)</b> |       |       |       |
|   | ANIMAL ID   | 00241 | 00242 | 00243 | 00244 | 00245 | 00246 | 00247 | 00248 | 00249 | 00250 | 00251 | 00252 | 00253 | 00254 | 00255 | 00256 | 00257 | 00258 | 00259 | 00260 | 00261 | 00262 |                                  | 00263 | 00264 | 00265 |
|   |             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                                  | 0     | 0     | 0     |

Skeletal Muscle  
Lymphoma Malignant

+  
X

**NERVOUS SYSTEM**

Brain +

Peripheral Nerve

Spinal Cord

**RESPIRATORY SYSTEM**

Lung +

Lymphoma Malignant X

Nose +

Trachea +

**SPECIAL SENSES SYSTEM**

Eye +

Harderian Gland +

**URINARY SYSTEM**

Kidney +

Urinary Bladder +

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST | 07 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 02 | 07 | 07 | 03 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 02 | 07 | 07 | 07 | 07 |
|  | ANIMAL ID   | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
|  |             | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |

males  
(cont...)

Lymphoma Malignant X

SYSTEMIC LESIONS

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant     |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

| DAY ON TEST                     | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | * TOTALS |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----------|
|                                 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 1 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 7 |  |          |
| ANIMAL ID                       | 0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | * TOTALS |
|                                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |          |
| HARLAN SPRAGUE DAWLEY RATS MALE | 4 | 5 | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 3 | 8 | 4 | 4 | 4 | 4 | 9 | 4 | 3 |  |          |
| 0/40 ppm                        | 3 | 7 | 7 | 4 | 4 | 4 | 3 | 9 | 6 | 5 | 2 | 6 | 6 | 5 | 5 | 4 | 3 | 3 | 3 | 4 | 4 | 7 | 5 | 4 |  |          |
|                                 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |          |
|                                 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |  |          |
|                                 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |          |

**ALIMENTARY SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant               |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma           | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 4  |
| Hepatocellular Adenoma, Multiple |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |
| Lymphoma Malignant               |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Pancreas                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant               |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Acinus, Adenoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | 4  |
| Acinus, Adenoma, Multiple        |   |   | X | X | X | X |   |   | X |   | X |   | X |   | X |   |   |   | X |   | X |   |   |   |   | 22 |
| Acinus, Carcinoma                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm                   | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              | * TOTALS |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|----------|
|  | 0743        | 0745   | 0747   | 0747   | 0747   | 0747   | 0755   | 0766   | 0777   | 0777   | 0755   | 0777   | 0777   | 0777   | 0777   | 0711   | 0766   | 0777   | 0777   | 0777   | 0766   | 0777   | 0755   | 0777   | 0744   |              |          |
| ANIMAL ID  | 000666      | 000667 | 000668 | 000669 | 000670 | 000671 | 000672 | 000673 | 000674 | 000675 | 000676 | 000677 | 000678 | 000679 | 000680 | 000681 | 000682 | 000683 | 000684 | 000685 | 000686 | 000687 | 000688 | 000689 | 000690 |              |          |
| Myoepithelioma   |             |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1            |          |
| Stomach, Forestomach<br>Lymphoma Malignant                       | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>2      |          |
| Stomach, Glandular<br>Lymphoma Malignant                         | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>2      |          |
| <b>CARDIOVASCULAR SYSTEM</b>                                     |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              |          |
| Blood Vessel   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50           |          |
| Heart  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50           |          |
| <b>ENDOCRINE SYSTEM</b>  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              |          |
| Adrenal Cortex<br>Lymphoma Malignant                             | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>1      |          |
| Adrenal Medulla<br>Lymphoma Malignant<br>Pheochromocytoma Benign | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>1<br>1 |          |
| Islets, Pancreatic<br>Adenoma<br>Adenoma, Multiple               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>7<br>1 |          |
| Parathyroid Gland  | +           | +      | +      | M      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | M      | M      | +      | +      | M      | M            | 38       |
| Pituitary Gland  | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50           |          |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |    |   |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|---|
|  | 0743        | 0547  | 0747  | 0744  | 0744  | 0744  | 0543  | 0659  | 0746  | 0745  | 0740  | 0746  | 0746  | 0745  | 0744  | 0744  | 0743  | 0743  | 0744  | 0744  | 0649  | 0744  | 0543  | 0744  |          |    |   |
| ANIMAL ID                                      | 00266       | 00267 | 00268 | 00269 | 00270 | 00271 | 00272 | 00273 | 00274 | 00275 | 00276 | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 | 00288 | 00289 |          |    |   |
| Pars Distalis, Adenoma                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        | 2  |   |
| Thyroid Gland                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     |          | 50 |   |
| C-cell, Adenoma                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        | 4  |   |
| C-cell, Carcinoma                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        | X  | 2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Epididymis                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Mesothelioma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  | 1 |
| Preputial Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Prostate                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Lymphoma Malignant         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  | 2 |
| Seminal Vesicle            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Testes                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Mesothelioma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X  | 1 |
| Interstitial Cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3 |

HEMATOPOIETIC SYSTEM

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Bone Marrow        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |
| Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST |    | ANIMAL ID |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |    |    |
|--|-------------|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|
|  | 07          | 05 | 07        | 07 | 07 | 07 | 05 | 06 | 07 | 07 | 05 | 07 | 07 | 07 | 07 | 01 | 06 | 07 | 07 | 07 | 06 | 07 |          | 05 | 07 |
|  | 4           | 5  | 4         | 4  | 4  | 4  | 3  | 5  | 4  | 4  | 0  | 4  | 4  | 4  | 4  | 3  | 8  | 4  | 4  | 4  | 4  | 9  | 4        | 3  | 4  |
|  | 3           | 7  | 7         | 4  | 4  | 4  | 3  | 9  | 6  | 5  | 2  | 6  | 6  | 5  | 5  | 4  | 3  | 3  | 3  | 4  | 4  | 7  | 5        | 3  | 4  |
|  | 00          | 00 | 00        | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00       | 00 | 00 |
|  | 22          | 22 | 22        | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22       | 22 |    |
|  | 66          | 67 | 68        | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88       | 89 |    |

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lymph Node                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 3  |
| Mediastinal, Lymphoma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreatic, Carcinoma           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreatic, Lymphoma Malignant  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mandibular          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |    |
| Lymphoma Malignant              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Lymph Node, Mesenteric          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |    |
| Lymphoma Malignant              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Spleen                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |    |
| Lymphoma Malignant              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |
|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Thymus                          | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |    |
| Lymphoma Malignant              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 48 |
|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**INTEGUMENTARY SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|
| Mammary Gland                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |    |
| Fibroadenoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 50 |
|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 2  |
| Skin                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |    |
| Keratoacanthoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 50 |
|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 1  |
| Subcutaneous Tissue, Fibroma         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 1  |
| Subcutaneous Tissue, Hemangiosarcoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 1  |

**MUSCULOSKELETAL SYSTEM**

|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |    |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |    |
|      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | 50 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST                            | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>HARLAN SPRAGUE DAWLEY RATS MALE</b> | 7               | 5 | 7 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 1 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 7 | 5 | 7 | 3 | 4 | 4 | 4 | 4 |
| <b>0/40 ppm</b>                        | 4               | 5 | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 3 | 8 | 4 | 4 | 4 | 4 | 9 | 4 | 3 | 3 | 4 | 3 | 4 | 4 | 4 |   |
|  | 3               | 7 | 7 | 4 | 4 | 4 | 3 | 9 | 6 | 5 | 2 | 6 | 6 | 5 | 5 | 4 | 3 | 3 | 3 | 4 | 4 | 7 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |   |
| ANIMAL ID                              | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 0               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | 2               | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|  | 6               | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
|  | 6               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|  | <b>* TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

|                    |   |
|--------------------|---|
| Skeletal Muscle    | 1 |
| Lymphoma Malignant | 1 |

NERVOUS SYSTEM

|                  |   |    |
|------------------|---|----|
| Brain            | + | 50 |
| Peripheral Nerve |   | 1  |
| Spinal Cord      |   | 1  |

RESPIRATORY SYSTEM

|                    |   |    |
|--------------------|---|----|
| Lung               | + | 50 |
| Lymphoma Malignant |   | 1  |
| Nose               | + | 50 |
| Trachea            | + | 50 |

SPECIAL SENSES SYSTEM

|                 |   |    |
|-----------------|---|----|
| Eye             | + | 50 |
| Harderian Gland | + | 50 |

URINARY SYSTEM

|                 |   |    |
|-----------------|---|----|
| Kidney          | + | 50 |
| Urinary Bladder | + | 50 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/40 ppm | DAY ON TEST | 0743  | 0577  | 0774  | 0774  | 0774  | 0563  | 0675  | 0774  | 0775  | 0776  | 0776  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0679  | 0774  | 0775  | 0777  | * TOTALS |       |
|  | ANIMAL ID   | 00266 | 00267 | 00268 | 00269 | 00270 | 00271 | 00272 | 00273 | 00274 | 00275 | 00276 | 00277 | 00278 | 00279 | 00280 | 00281 | 00282 | 00283 | 00284 | 00285 | 00286 | 00287 |          | 00288 |
|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |
| Lymphoma Malignant                             |             |       |       |       |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2        |       |

SYSTEMIC LESIONS

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant     |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST                     |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HARLAN SPRAGUE DAWLEY RATS MALE |  | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 300/40 ppm                      |  | 4 | 4 | 6 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| ANIMAL ID                       |  | 3 | 3 | 1 | 6 | 5 | 5 | 3 | 3 | 5 | 5 | 2 | 9 | 4 | 4 | 6 | 3 | 3 | 3 | 3 | 3 | 6 | 1 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
|                                 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                                 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                 |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

males (cont...)

ALIMENTARY SYSTEM

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Cecum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Colon      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Large, Rectum     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Duodenum   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Ileum      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Intestine Small, Jejunum    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Liver                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hepatocellular Adenoma      | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Pancreas                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Acinus, Adenoma             |   |   |   | X | X | X |   | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Acinus, Adenoma, Multiple   | X |   |   |   |   |   |   |   |   |   | X |   |   | X | X |   |   | X |   | X |   |   |   |   |   |   |   | X | X | X | X |   |   |   |   |   |   |   |
| Acinus, Carcinoma, Multiple |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Salivary Glands             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Schwannoma Malignant        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Forestomach        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/40 ppm | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | males<br>(cont...) |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--------------------|
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |                    |
|  | 7           | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |  |                    |
| ANIMAL ID  | 4           | 4 | 6 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 2 | 3 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 |  |                    |
|  | 3           | 3 | 1 | 6 | 5 | 5 | 3 | 3 | 5 | 5 | 2 | 9 | 4 | 4 | 6 | 3 | 3 | 3 | 6 | 1 | 4 | 4 | 6 |  |                    |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |                    |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |                    |
|  | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |  |                    |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |  |                    |
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 |  |                    |

Stomach, Glandular  
Neuroendocrine Tumor, Malignant

+ +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Adrenal Medulla  
Pheochromocytoma Benign

+ X + +

Islets, Pancreatic  
Adenoma

+ X X + +

Parathyroid Gland

+ M + + + M + + + M + + + + + + + + M + + M + + +

Pituitary Gland  
Pars Distalis, Adenoma

+ X X + +

Thyroid Gland  
Bilateral, C-cell, Adenoma  
C-cell, Adenoma

+ X X X X

GENERAL BODY SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| DAY ON TEST | ANIMAL ID        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | males<br>(cont...) |
|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
|             | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>5<br>6<br>1 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>5 | 0<br>7<br>1<br>5 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>5 | 0<br>7<br>2<br>2 | 0<br>7<br>3<br>9 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>1<br>1<br>6 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>1 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>5 |                    |

NONE

**GENITAL SYSTEM**

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Epididymis                        | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Preputial Gland                   | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Prostate Adenoma                  | +<br>X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Seminal Vesicle                   | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Testes Interstitial Cell, Adenoma | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**HEMATOPOIETIC SYSTEM**

|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow                                 | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lymph Node Pancreatic, Leukemia Mononuclear |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lymph Node, Mandibular                      | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lymph Node, Mesenteric Lymphoma Malignant   | +      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Spleen Leukemia Mononuclear                 | +<br>X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST  | HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/40 ppm |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   | ANIMAL ID | males<br>(cont...) |  |
|--|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|--------------------|--|
|  | 0<br>7<br>4<br>3                                 | 0<br>7<br>4<br>3 | 0<br>5<br>6<br>1 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>5 | 0<br>7<br>1<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>5 | 0<br>7<br>2<br>2 | 0<br>7<br>3<br>9 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>1<br>1<br>6 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>1 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>6 | 0<br>7<br>4<br>5 |   |           |                    |  |
| Lymphoma Malignant   |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |
| Thymus   | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| <b>INTEGUMENTARY SYSTEM</b>  |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |
| Mammary Gland<br>Fibroadenoma  | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | X                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| Skin<br>Hemangiosarcoma<br>Squamous Cell Papilloma<br>Subcutaneous Tissue, Fibroma | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | X                  |  |
| <b>MUSCULOSKELETAL SYSTEM</b>  |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |
| Bone   | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| <b>NERVOUS SYSTEM</b>  |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |
| Brain  | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| <b>RESPIRATORY SYSTEM</b>  |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |
| Lung   | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| Nose   | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| Trachea  | +  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | + | +         | +                  |  |
| <b>SPECIAL SENSES SYSTEM</b>   |  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   |           |                    |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically





Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/40 ppm               | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS      |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|--|
|  | 0745        | 0744  | 0774  | 0774  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  | 0777  |               |  |
| ANIMAL ID  | 00326       | 00327 | 00328 | 00329 | 00330 | 00331 | 00332 | 00333 | 00334 | 00335 | 00336 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 00350         |  |
| Stomach, Glandular<br>Neuroendocrine Tumor, Malignant          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>1       |  |
| <b>CARDIOVASCULAR SYSTEM</b>                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |  |
| Blood Vessel   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50            |  |
| Heart  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50            |  |
| <b>ENDOCRINE SYSTEM</b>  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |  |
| Adrenal Cortex   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50            |  |
| Adrenal Medulla<br>Pheochromocytoma Benign                     | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | X     | +     | +     | +     | +     | +     | +     | +     | X     | +     | +     | +     | 50<br>3       |  |
| Islets, Pancreatic<br>Adenoma                                  | +           | +     | +     | +     | +     | X     | +     | +     | +     | +     | X     | +     | +     | +     | +     | X     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>8       |  |
| Parathyroid Gland  | +           | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | M     | M     | M     | +     | 40            |  |
| Pituitary Gland<br>Pars Distalis, Adenoma                      | +           | +     | +     | +     | +     | X     | +     | +     | +     | +     | +     | X     | +     | +     | +     | +     | +     | +     | +     | +     | X     | X     | +     | +     | 50<br>9       |  |
| Thyroid Gland<br>Bilateral, C-cell, Adenoma<br>C-cell, Adenoma | +           | +     | +     | +     | +     | +     | +     | +     | +     | X     | +     | X     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50<br>2<br>13 |  |
| <b>GENERAL BODY SYSTEM</b>                                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>HARLAN SPRAGUE DAWLEY RATS MALE</b><br><b>300/40 ppm</b> | DAY ON TEST | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    | 07    |
|   | ANIMAL ID   | 00326 | 00327 | 00328 | 00329 | 00330 | 00331 | 00332 | 00333 | 00334 | 00335 | 00336 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 00350 | 00351 | 00352 | 00353 | 00354 | 00355 | 00356 | 00357 | 00358 | 00359 |
| <b>* TOTALS</b>   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |

NONE

**GENITAL SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |    |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|----|
| Epididymis                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | +  | 49 |    |    |
| Preputial Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | +  | +  | 49 |    |
| Prostate Adenoma                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |    |    |
| Seminal Vesicle                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |    |    |
| Testes Interstitial Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | +  | +  | +  | 49 |
|                                   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |    |    |

**HEMATOPOIETIC SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |   |    |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|---|----|
| Bone Marrow                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |   |   |    |
| Lymph Node Pancreatic, Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 3  |    |   |   |    |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |   |   |    |
| Lymph Node, Mandibular                      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |   |   |    |
| Lymph Node, Mesenteric Lymphoma Malignant   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X  | +  | + | + | 50 |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |   |   |    |
| Spleen Leukemia Mononuclear                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |   |   |    |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    | 1 |   |    |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| DAY ON TEST                   | HARLAN SPRAGUE DAWLEY RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |           |
|-------------------------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|-----------|
|                               | 300/40 ppm                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |
| ANIMAL ID                     | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |   |           |
|                               | 7                               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 6 | 7 | 7 |          |   |           |
|                               | 4                               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 6 | 4 | 0 | 4 | 4 | 4 | 4 |          |   |           |
|                               | 5                               | 4 | 4 | 4 | 6 | 6 | 7 | 7 | 4 | 3 | 7 | 7 | 8 | 4 | 6 | 6 | 5 | 5 | 0 | 7 | 8 | 4 | 5 | 7 |          |   |           |
|                               | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |   |           |
|                               | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |   |           |
|                               | 3                               | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |          |   |           |
|                               | 2                               | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |          |   |           |
|                               | 6                               | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |          |   |           |
| Lymphoma Malignant            |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | <b>1</b> |   |           |
| Thymus                        | +                               | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | +        | + | <b>47</b> |
| <b>INTEGUMENTARY SYSTEM</b>   |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |
| Mammary Gland                 | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| Fibroadenoma                  |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | <b>1</b>  |
| Skin                          | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| Hemangiosarcoma               |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | <b>1</b>  |
| Squamous Cell Papilloma       |                                 |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   | <b>1</b>  |
| Subcutaneous Tissue, Fibroma  |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |          |   | <b>2</b>  |
| <b>MUSCULOSKELETAL SYSTEM</b> |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |
| Bone                          | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| <b>NERVOUS SYSTEM</b>         |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |
| Brain                         | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| <b>RESPIRATORY SYSTEM</b>     |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |
| Lung                          | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| Nose                          | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| Trachea                       | +                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | <b>50</b> |
| <b>SPECIAL SENSES SYSTEM</b>  |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |           |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 | ANIMAL ID |  |
|-------------|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|-----------|--|
|             | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |           |  |
| 7           | 7                               | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 6 | 7 | 7               | 7         |  |
| 4           | 4                               | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 8 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 6 | 4 | 0 | 4 | 4 | 4 | 4               | 4         |  |
| 5           | 4                               | 4 | 4 | 6 | 6 | 7 | 7 | 4 | 3 | 7 | 7 | 8 | 4 | 6 | 6 | 5 | 5 | 0 | 7 | 8 | 4 | 5 | 5 | 7               | 7         |  |
| 0           | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               | 0         |  |
| 0           | 0                               | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               | 0         |  |
| 3           | 3                               | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3               | 3         |  |
| 2           | 2                               | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4               | 4         |  |
| 6           | 7                               | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0               | 0         |  |
|             |                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |           |  |

Eye + 50

Harderian Gland + 50

URINARY SYSTEM

Kidney + 50

Urinary Bladder + 50

SYSTEMIC LESIONS

Multiple Organ + 50

Leukemia Mononuclear 1

Lymphoma Malignant X 1

\* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 07/24/2018

Test Type: CHRONIC

Perfluorooctanoic Acid

Time Report Requested: 12:59:13

Route: DOSED FEED

CAS Number: 335-67-1

First Dose M/F: 07/27/09 / NA

Species/Strain: RATS/HSD

Lab: BAT

| DAY ON TEST                            |                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      | 0 |
|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------|---|
| <b>HARLAN SPRAGUE DAWLEY RATS MALE</b> | <b>0/80 ppm</b> | 7 | 4 | 7 | 4 | 1 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7                      | 7 |
|  |                 | 4 | 3 | 4 | 4 | 1 | 9 | 4 | 4 | 4 | 4 | 0 | 0 | 4 | 7 | 4 | 4 | 5 | 4 | 4 | 4 | 6 | 6                      | 6 |
|  |                 | 3 | 2 | 4 | 4 | 4 | 5 | 7 | 7 | 7 | 7 | 8 | 1 | 5 | 3 | 5 | 5 | 6 | 3 | 6 | 6 | 6 | 6                      | 6 |
| ANIMAL ID                              |                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      | 0 |
|  |                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      | 0 |
|  |                 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3                      | 3 |
|  |                 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7                      | 7 |
|  |                 | 1 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1                      |   |
|  |                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>males (cont...)</b> |   |

**ALIMENTARY SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Pancreas  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatocellular Adenoma           | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |
| Hepatocellular Adenoma, Multiple |   |   |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Acinus, Adenoma                  | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Acinus, Adenoma, Multiple        |   |   | X |   |   | X | X | X |   |   |   |   | X |   | X |   | X |   | X | X |   |   | X |
| Acinus, Carcinoma                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | males<br>(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
|  | 0<br>7<br>4<br>3      | 0<br>4<br>3<br>2      | 0<br>7<br>4<br>4      | 0<br>4<br>1<br>4      | 0<br>1<br>9<br>4      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>1<br>0<br>8      | 0<br>7<br>0<br>1      | 0<br>7<br>4<br>5      | 0<br>4<br>7<br>3      | 0<br>7<br>4<br>5      | 0<br>4<br>5<br>6      | 0<br>4<br>4<br>3      | 0<br>4<br>4<br>6      | 0<br>7<br>2<br>6      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>5      |                       |                    |
|  | 0<br>0<br>3<br>6<br>1 | 0<br>0<br>3<br>6<br>2 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>6<br>4 | 0<br>0<br>3<br>6<br>5 | 0<br>0<br>3<br>6<br>6 | 0<br>0<br>3<br>6<br>7 | 0<br>0<br>3<br>6<br>8 | 0<br>0<br>3<br>6<br>9 | 0<br>0<br>3<br>7<br>0 | 0<br>0<br>3<br>7<br>1 | 0<br>0<br>3<br>7<br>2 | 0<br>0<br>3<br>7<br>3 | 0<br>0<br>3<br>7<br>4 | 0<br>0<br>3<br>7<br>5 | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>7 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>7<br>9 | 0<br>0<br>3<br>8<br>0 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>3<br>8<br>2 | 0<br>0<br>3<br>8<br>3 | 0<br>0<br>3<br>8<br>4 | 0<br>0<br>3<br>8<br>5 |                    |

Stomach, Forestomach

+ +

Stomach, Glandular

+ +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

Schwannoma Malignant

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Adenoma

X X

Adrenal Medulla

+ +

Islets, Pancreatic

+ +

Adenoma

X

Adenoma, Multiple

Parathyroid Gland

+ + + + + + + + + + M + M + M + M + M + + + + + M

Pituitary Gland

+ +

Pars Distalis, Adenoma

X

Thyroid Gland

+ + + + + + + + + + + + + + M + + + + + + + +

Bilateral, C-cell, Carcinoma

C-cell, Adenoma

X X

X

X X X

X

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|                                   |                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                          |  |
|-----------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|--|
| <b>HARLAN SPRAGUE DAWLEY RATS</b> | DAY ON TEST     | 7 | 4 | 7 | 4 | 1 | 7 | 7 | 7 | 7 | 7 | 1 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7                          |  |
|                                   | <b>MALE</b>     | 4 | 3 | 4 | 1 | 9 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 4 | 7 | 4 | 4 | 5 | 4 | 4 | 4 | 2 | 4 | 4                          |  |
|                                   | <b>0/80 ppm</b> | 3 | 2 | 4 | 4 | 4 | 5 | 7 | 7 | 7 | 7 | 8 | 1 | 5 | 3 | 5 | 5 | 6 | 3 | 6 | 6 | 6 | 6 | 4                          |  |
|                                   | ANIMAL ID       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                            |  |
|                                   |                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                            |  |
|                                   |                 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |                            |  |
|                                   |                 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 |                            |  |
|                                   |                 | 1 | 2 | 3 | 4 | 5 | 6 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | <b>males<br/>(cont...)</b> |  |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Epididymis       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Preputial Gland  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Ventral, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Seminal Vesicle  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Testes           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**HEMATOPOIETIC SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | M |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spleen                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | males<br>(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
|  | 0<br>7<br>4<br>3      | 0<br>4<br>3<br>2      | 0<br>7<br>4<br>4      | 0<br>4<br>1<br>4      | 0<br>1<br>9<br>4      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>1<br>0<br>8      | 0<br>7<br>0<br>1      | 0<br>7<br>4<br>5      | 0<br>4<br>7<br>3      | 0<br>7<br>4<br>5      | 0<br>4<br>4<br>6      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>6      | 0<br>2<br>4<br>6      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>5      | 0<br>7<br>4<br>4      |                       |                    |
|  | 0<br>0<br>3<br>6<br>1 | 0<br>0<br>3<br>6<br>2 | 0<br>0<br>3<br>6<br>3 | 0<br>0<br>3<br>6<br>4 | 0<br>0<br>3<br>6<br>5 | 0<br>0<br>3<br>6<br>6 | 0<br>0<br>3<br>6<br>7 | 0<br>0<br>3<br>6<br>8 | 0<br>0<br>3<br>6<br>9 | 0<br>0<br>3<br>7<br>0 | 0<br>0<br>3<br>7<br>1 | 0<br>0<br>3<br>7<br>2 | 0<br>0<br>3<br>7<br>3 | 0<br>0<br>3<br>7<br>4 | 0<br>0<br>3<br>7<br>5 | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>8<br>0 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>3<br>8<br>2 | 0<br>0<br>3<br>8<br>3 | 0<br>0<br>3<br>8<br>4 | 0<br>0<br>3<br>8<br>5 |                    |

Thymus + + + + + + + + + + + + + + + + M + + + + + + + +

INTEGUMENTARY SYSTEM

Mammary Gland Fibroadenoma + + + + + + + + + + + + + + + + + + + X + + + + +

Skin Keratoacanthoma Subcutaneous Tissue, Fibroma Subcutaneous Tissue, Fibrosarcoma Subcutaneous Tissue, Schwannoma Malignant + + + + + + + + + X + + + + + + + + + + + X

MUSCULOSKELETAL SYSTEM

Bone +

NERVOUS SYSTEM

Brain Meningioma Malignant + + + + + + + + + + + + + + + + + + + X + + + + +

RESPIRATORY SYSTEM

Lung +

Nose +

Trachea +

\* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |                    |       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST | 0743  | 0442  | 0744  | 0414  | 0774  | 0774  | 0774  | 0774  | 0774  | 0714  | 0774  | 0774  | 0447  | 0747  | 0747  | 0445  | 0747  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | 0774  | males<br>(cont...) |       |
|  | ANIMAL ID   | 00361 | 00362 | 00363 | 00364 | 00365 | 00366 | 00367 | 00368 | 00369 | 00370 | 00371 | 00372 | 00373 | 00374 | 00375 | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 |                    | 00385 |
|  |             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |                    | 0     |

**SPECIAL SENSES SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye<br>Retrolubar, Schwannoma Malignant,<br>Metastatic, Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland<br>Schwannoma Malignant, Metastatic, Skin    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney<br>Renal Tubule, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**SYSTEMIC LESIONS**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ<br>Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST | HARLAN SPRAGUE DAWLEY RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |      |
|-------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
|             | 0744                            | 0744  | 0744  | 0748  | 0761  | 0774  | 0784  | 0793  | 0796  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  | 0797  |          | 0797 |
| ANIMAL ID   | 00386                           | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | 00400 | 00401 | 00402 | 00403 | 00404 | 00405 | 00406 | 00407 | 00408 | 00409 | 00410    |      |

ALIMENTARY SYSTEM

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Pancreas  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocellular Adenoma           |   | X |   |   |   |   |   |   | X | X |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   | 8  |
| Hepatocellular Adenoma, Multiple |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 3  |
| Leukemia Mononuclear             |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   | 1  |
| Pancreas                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinus, Adenoma                  | X |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6  |
| Acinus, Adenoma, Multiple        |   | X |   |   | X |   |   | X |   | X | X | X | X | X | X |   | X | X |   | X | X | X | X |   |   | 26 |
| Acinus, Carcinoma                | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 3  |
| Salivary Glands                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|----------|
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0 |          |
|  | 7           | 7 | 7 | 4 | 1 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  | 7 |          |
| ANIMAL ID                                      | 4           | 4 | 4 | 7 | 6 | 4 | 7 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 2 | 4  |   |          |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |   |          |
|  | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4  |   |          |
|  | 8           | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  |   |          |
|  | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9  |   |          |
| Stomach, Forestomach                           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Stomach, Glandular                             | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| <b>CARDIOVASCULAR SYSTEM</b>                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |          |
| Blood Vessel                                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Heart  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Schwannoma Malignant                           |             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 1  |   |          |
| <b>ENDOCRINE SYSTEM</b>                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |          |
| Adrenal Cortex                                 | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Adenoma  |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 3  |   |          |
| Adrenal Medulla                                | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Islets, Pancreatic                             | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Adenoma  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   | X |   |   |   | 3  |   |          |
| Adenoma, Multiple                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 1  |   |          |
| Parathyroid Gland                              | +           | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 41 |   |          |
| Pituitary Gland                                | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |   |          |
| Pars Distalis, Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 2  |   |          |
| Thyroid Gland                                  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |   |          |
| Bilateral, C-cell, Carcinoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |   |          |
| C-cell, Adenoma                                |             |   |   |   |   |   |   |   |   | X | X |   |   |   | X | X |   | X |   |   |   |   |   | 12 |   |          |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | * TOTALS         |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|  | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>4<br>7<br>8      | 0<br>1<br>6<br>1      | 0<br>7<br>4<br>3      | 0<br>4<br>7<br>8      | 0<br>7<br>4<br>3      | 0<br>7<br>7<br>6      | 0<br>7<br>7<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5 | 0<br>6<br>0<br>9 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>7<br>2<br>0 | 0<br>7<br>4<br>3 |                  |
| ANIMAL ID                                      | 0<br>0<br>3<br>8<br>6 | 0<br>0<br>3<br>8<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>9<br>0 | 0<br>0<br>3<br>9<br>1 | 0<br>0<br>3<br>9<br>2 | 0<br>0<br>3<br>9<br>3 | 0<br>0<br>3<br>9<br>4 | 0<br>0<br>3<br>9<br>5 | 0<br>0<br>3<br>9<br>6 | 0<br>0<br>3<br>9<br>7 | 0<br>0<br>3<br>9<br>8 | 0<br>0<br>3<br>9<br>9 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 | 0<br>0<br>4<br>0 |
|  | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Ventral, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1  |
| Seminal Vesicle  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Testes           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

**HEMATOPOIETIC SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Spleen                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>0/80 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |         |  |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|--|
|  | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>4<br>7<br>8      | 0<br>1<br>6<br>1      | 0<br>7<br>4<br>3      | 0<br>4<br>7<br>8      | 0<br>7<br>4<br>3      | 0<br>7<br>7<br>6      | 0<br>7<br>4<br>3      | 0<br>7<br>7<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>7<br>7      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>6<br>0<br>9      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>7<br>2<br>0      | 0<br>7<br>4<br>3      |                       |         |  |
| ANIMAL ID                                      | 0<br>0<br>3<br>8<br>6 | 0<br>0<br>3<br>8<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>9<br>0 | 0<br>0<br>3<br>9<br>1 | 0<br>0<br>3<br>9<br>2 | 0<br>0<br>3<br>9<br>3 | 0<br>0<br>3<br>9<br>4 | 0<br>0<br>3<br>9<br>5 | 0<br>0<br>3<br>9<br>6 | 0<br>0<br>3<br>9<br>7 | 0<br>0<br>3<br>9<br>8 | 0<br>0<br>3<br>9<br>9 | 0<br>0<br>4<br>0<br>0 | 0<br>0<br>4<br>0<br>1 | 0<br>0<br>4<br>0<br>2 | 0<br>0<br>4<br>0<br>3 | 0<br>0<br>4<br>0<br>4 | 0<br>0<br>4<br>0<br>5 | 0<br>0<br>4<br>0<br>6 | 0<br>0<br>4<br>0<br>7 | 0<br>0<br>4<br>0<br>8 | 0<br>0<br>4<br>0<br>9 | 0<br>0<br>4<br>0<br>0 |         |  |
| Thymus   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 49      |  |
| <b>INTEGUMENTARY SYSTEM</b>                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |  |
| Mammary Gland<br>Fibroadenoma                  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50<br>1 |  |
| Skin   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |
| Keratoacanthoma                                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |  |
| Subcutaneous Tissue, Fibroma                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |  |
| Subcutaneous Tissue, Fibrosarcoma              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       | 1       |  |
| Subcutaneous Tissue, Schwannoma Malignant      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |  |
| <b>MUSCULOSKELETAL SYSTEM</b>                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |  |
| Bone   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |
| <b>NERVOUS SYSTEM</b>                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |  |
| Brain  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |
| Meningioma Malignant                           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |  |
| <b>RESPIRATORY SYSTEM</b>                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |  |
| Lung   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |
| Nose   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |
| Trachea  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50      |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02  
 Test Type: CHRONIC  
 Route: DOSED FEED  
 Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
 Perfluorooctanoic Acid  
 CAS Number: 335-67-1

Date Report Requested: 07/24/2018  
 Time Report Requested: 12:59:13  
 First Dose M/F: 07/27/09 / NA  
 Lab: BAT

| DAY ON TEST   |   | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |
|---|---|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
|   |   | 0744      | 0744 | 0744 | 0748 | 0741 | 0747 | 0744 | 0747 | 0743 | 0747 | 0746 | 0743 | 0744 | 0747 | 0744 | 0743 | 0746 | 0745 | 0749 | 0744 | 0744 | 0743 | 0743 | 0747 |          | 0747 | 0742 | 0744 | 0743 |
| <b>HARLAN SPRAGUE DAWLEY RATS MALE</b><br><b>0/80 ppm</b> | 0 | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    | 0    | 0    | 0    |
|   | 0 | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    | 0    | 0    | 0    |
|   | 3 | 3         | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4        | 4    | 4    | 4    | 4    |
|   | 8 | 8         | 8    | 8    | 8    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    | 0    | 1    | 1    |
|   | 6 | 7         | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1        | 2    | 3    | 4    | 5    |

**SPECIAL SENSES SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Eye  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |
| Retrolubar, Schwannoma Malignant, Metastatic, Skin |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  |
| Harderian Gland                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>49</b> |
| Schwannoma Malignant, Metastatic, Skin             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  |

**URINARY SYSTEM**

|                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Kidney                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |
| Renal Tubule, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  |
| Urinary Bladder       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |

**SYSTEMIC LESIONS**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |           |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|-----------|
| Multiple Organ       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>50</b> |
| Leukemia Mononuclear |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b> |           |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST | 0744 | 0744 | 0777 | 0777 | 0277 | 0777 | 0777 | 0777 | 0777 | 0777 | 0677 | 0777 | 0777 | 0777 | 0777 | 0677 | 0777 | 0677 | 0777 | 0677 | 0777 | 0777 | 0777 | males<br>(cont...) |      |
|  | ANIMAL ID   | 0042 | 0042 | 0043 | 0044 | 0045 | 0046 | 0047 | 0048 | 0049 | 0050 | 0051 | 0052 | 0053 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 |                    | 0063 |

ALIMENTARY SYSTEM

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant               |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cholangiocarcinoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Hemangioma                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatocellular Adenoma           |   |   |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   | X |   |   |   |   |   |   |   |
| Hepatocellular Adenoma, Multiple | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Hepatocellular Carcinoma         | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |
| Leukemia Mononuclear             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant               |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mesentery                        |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pancreas                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Acinus, Adenoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST<br><b>HARLAN SPRAGUE DAWLEY RATS<br/>MALE<br/>300/80 ppm</b>       | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |  |
|--|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|--|
|  | 0744      | 0744 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |                    | 0777 |  |
| Acinus, Adenoma, Multiple<br>Acinus, Carcinoma                                 | X         | X    | X    |      |      | X    | X    | X    | X    |      |      | X    | X    | X    |      |      |      |      | X    |      |      | X    | X    | X    |                    |      |  |
| Salivary Glands  | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| Stomach, Forestomach   | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| Stomach, Glandular<br>Carcinoma, Metastatic, Pancreas                          | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| <b>CARDIOVASCULAR SYSTEM</b>   |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |  |
| Blood Vessel   | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| Heart<br>Epicardium, Lymphoma Malignant  | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | X    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| <b>ENDOCRINE SYSTEM</b>  |           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |  |
| Adrenal Cortex<br>Adenoma  | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| Adrenal Medulla<br>Lymphoma Malignant<br>Bilateral, Pheochromocytoma Malignant | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | X    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +                  |      |  |
| Islets, Pancreatic<br>Adenoma  | +         | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | X    | +    | +                  |      |  |
| Parathyroid Gland  | +         | +    | +    | M    | +    | +    | M    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +                  |      |  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | males<br>(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
|  | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>7      | 0<br>2<br>9<br>8      | 0<br>7<br>4<br>7      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>5      | 0<br>6<br>2<br>9      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>4      | 0<br>7<br>4<br>5      | 0<br>6<br>1<br>7      | 0<br>7<br>4<br>6      | 0<br>7<br>4<br>6      | 0<br>6<br>7<br>0      | 0<br>7<br>4<br>5      | 0<br>6<br>8<br>9      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      | 0<br>7<br>4<br>3      |                       |                    |
|  | 0<br>0<br>4<br>2<br>1 | 0<br>0<br>4<br>2<br>2 | 0<br>0<br>4<br>2<br>3 | 0<br>0<br>4<br>2<br>4 | 0<br>0<br>4<br>2<br>5 | 0<br>0<br>4<br>2<br>6 | 0<br>0<br>4<br>2<br>7 | 0<br>0<br>4<br>2<br>8 | 0<br>0<br>4<br>2<br>9 | 0<br>0<br>4<br>3<br>0 | 0<br>0<br>4<br>3<br>1 | 0<br>0<br>4<br>3<br>2 | 0<br>0<br>4<br>3<br>3 | 0<br>0<br>4<br>3<br>4 | 0<br>0<br>4<br>3<br>5 | 0<br>0<br>4<br>4<br>6 | 0<br>0<br>4<br>4<br>7 | 0<br>0<br>4<br>4<br>8 | 0<br>0<br>4<br>4<br>9 | 0<br>0<br>4<br>4<br>0 | 0<br>0<br>4<br>4<br>1 | 0<br>0<br>4<br>4<br>2 | 0<br>0<br>4<br>4<br>3 | 0<br>0<br>4<br>4<br>4 | 0<br>0<br>4<br>4<br>5 |                    |

Adenoma

X

Pituitary Gland

Lymphoma Malignant

Pars Distalis, Adenoma

Thyroid Gland

Lymphoma Malignant

Bilateral, C-cell, Adenoma

C-cell, Adenoma

C-cell, Carcinoma

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis

Mesothelioma Malignant

Preputial Gland

Prostate

Lymphoma Malignant

Seminal Vesicle

Lymphoma Malignant

Testes

Mesothelioma Malignant

\* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |  |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|--|
| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males<br>(cont...) |   |   |  |
|  | ANIMAL ID   | 7 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 6 | 7 |                    | 7 |   |  |
|  |             | 4 | 4 | 4 | 4 | 9 | 4 | 4 | 4 | 4 | 1 | 2 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 7 | 4 | 8 | 4 | 4                  |   |   |  |
|  |             | 4 | 4 | 7 | 7 | 8 | 7 | 4 | 4 | 6 | 5 | 9 | 4 | 4 | 4 | 5 | 5 | 7 | 6 | 6 | 0 | 5 | 9 | 3 | 3                  |   |   |  |
|  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |   |  |
|  |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |   |  |
|  |             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4                  |   |   |  |
|  |             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4                  |   |   |  |
|  |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3                  | 4 | 5 |  |

Interstitial Cell, Adenoma

X

HEMATOPOIETIC SYSTEM

Bone Marrow  
Lymphoma Malignant

+  
X

Lymph Node  
Mediastinal, Leukemia Mononuclear  
Pancreatic, Leukemia Mononuclear

+  
X

Lymph Node, Mesenteric  
Leukemia Mononuclear  
Lymphoma Malignant

+  
X

Spleen  
Leukemia Mononuclear  
Lymphoma Malignant

+  
X

Thymus  
Lymphoma Malignant  
Thymoma Malignant

+ + + + + + + + + + + + M + + + + M + + + + + + + +  
X

INTEGUMENTARY SYSTEM

Mammary Gland  
Fibroadenoma

+  
X

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |                   | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | males<br>(cont...) |                  |                  |
|--|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|------------------|------------------|
|  |                   | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>7 | 0<br>2<br>9<br>8 | 0<br>7<br>4<br>7 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>6<br>1<br>5 | 0<br>7<br>2<br>9 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>6<br>1<br>5 | 0<br>7<br>4<br>4 | 0<br>7<br>4<br>4 | 0<br>6<br>7<br>6 | 0<br>7<br>4<br>7 | 0<br>6<br>8<br>9 | 0<br>7<br>4<br>3 |                    | 0<br>7<br>4<br>3 | 0<br>7<br>4<br>3 |
| <b>HARLAN SPRAGUE DAWLEY RATS<br/>MALE</b> | <b>300/80 ppm</b> | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                  | 0                |                  |
|  |                   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                  | 0                | 0                |
|  |                   | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                | 4                  | 4                | 4                |
|  |                   | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 4                | 4                  | 4                | 4                |
|  |                   | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                | 2                | 3                | 4                | 5                | 6                | 7                | 8                | 9                | 0                | 1                  | 2                | 3                |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Keratoacanthoma              |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pinna, Neural Crest Tumor    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Subcutaneous Tissue, Fibroma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |  |

**MUSCULOSKELETAL SYSTEM**

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   | + |   |   |   |

**NERVOUS SYSTEM**

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cerebrum, Granular Cell Tumor Benign |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**RESPIRATORY SYSTEM**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Zymbal'S Gland |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

- \* .. Total animals with tissue examined microscopically; Total animals with tumor
- + .. Tissue examined microscopically
- X .. Lesion present
- I .. Insufficient tissue
- M .. Missing tissue
- A .. Autolysis precludes evaluation
- BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |  |
|--|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|--|
|  | 0744        | 0777 | 0777      | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |                    | 0777 |  |
|  | 4           | 4    | 4         | 4    | 9    | 4    | 4    | 4    | 4    | 1    | 2    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4                  | 4    |  |
|  | 4           | 4    | 7         | 7    | 8    | 7    | 4    | 4    | 6    | 5    | 9    | 4    | 4    | 4    | 5    | 5    | 7    | 6    | 6    | 0    | 5    | 9    | 3                  | 3    |  |
|  | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0                  | 0    |  |
|  | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0                  | 0    |  |
|  | 4           | 4    | 4         | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4                  | 4    |  |
|  | 2           | 2    | 2         | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    | 4    | 4                  | 4    |  |
|  | 1           | 2    | 3         | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3                  | 4    |  |

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Eye<br>Lymphoma Malignant   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Harderian Gland             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Zymbal's Gland<br>Carcinoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

URINARY SYSTEM

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney<br>Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Urinary Bladder              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

SYSTEMIC LESIONS

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Multiple Organ<br>Leukemia Mononuclear<br>Lymphoma Malignant<br>Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

|  |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |
|--|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------|
|  | DAY ON TEST | 07<br>43       | 07<br>44       | 01<br>34       | 05<br>04       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 05<br>27       | 05<br>50       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>44       | 07<br>39       | 07<br>46       |          |
| <b>HARLAN SPRAGUE DAWLEY RATS MALE</b> |             |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |          |
| <b>300/80 ppm</b>                      | ANIMAL ID   | 00<br>44<br>66 | 00<br>44<br>77 | 00<br>44<br>88 | 00<br>44<br>99 | 00<br>44<br>00 | 00<br>44<br>11 | 00<br>44<br>22 | 00<br>44<br>33 | 00<br>44<br>44 | 00<br>44<br>55 | 00<br>44<br>66 | 00<br>44<br>77 | 00<br>44<br>88 | 00<br>44<br>99 | 00<br>44<br>00 | 00<br>44<br>11 | 00<br>44<br>22 | 00<br>44<br>33 | 00<br>44<br>44 | 00<br>44<br>55 | 00<br>44<br>66 | 00<br>44<br>77 | 00<br>44<br>88 | * TOTALS |

ALIMENTARY SYSTEM

|                                  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                        |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum           |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Colon           |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum          |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Duodenum        |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum           |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum         |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Liver                            |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cholangiocarcinoma               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hemangioma                       |  |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocellular Adenoma           |  |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   | 5  |
| Hepatocellular Adenoma, Multiple |  |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5  |
| Hepatocellular Carcinoma         |  | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |
| Leukemia Mononuclear             |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesentery                        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas                         |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Acinus, Adenoma                  |  |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 3  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically



Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| DAY ON TEST<br>HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm                | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
|  | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          |
|  | 7         | 7 | 1 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |          |
| Acinus, Adenoma, Multiple<br>Acinus, Carcinoma                                 | X         |   |   |   | X | X |   | X | X | X | X |   | X |   |   |   |   | X | X | X | X |   |   |   |          |
| Salivary Glands  | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Stomach, Forestomach   | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Stomach, Glandular<br>Carcinoma, Metastatic, Pancreas                          | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| <b>CARDIOVASCULAR SYSTEM</b>   |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Blood Vessel   | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Heart<br>Epicardium, Lymphoma Malignant  | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| <b>ENDOCRINE SYSTEM</b>  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |
| Adrenal Cortex<br>Adenoma  | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Adrenal Medulla<br>Lymphoma Malignant<br>Bilateral, Pheochromocytoma Malignant | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Islets, Pancreatic<br>Adenoma  | +         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |          |
| Parathyroid Gland  | M         | + | + | + | M | M | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |          |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|  | 0743        | 0744 | 0713 | 0750 | 0774 | 0774 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |          |
| ANIMAL ID  | 0044        | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044     |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adenoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pars Distalis, Adenoma     |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   | X |   |   |   |   |   | X |   |   | 5  |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Bilateral, C-cell, Adenoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1  |
| C-cell, Adenoma            | X |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   | X |   |   |   |   | X |   |   | 11 |
| C-cell, Carcinoma          |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Preputial Gland        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Seminal Vesicle        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Testes                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|  | 0743        | 0744 | 0714 | 0750 | 0774 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |          |
| ANIMAL ID  | 0044        | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 1        |

Interstitial Cell, Adenoma

1

**HEMATOPOIETIC SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |    |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Lymph Node                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Mediastinal, Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Pancreatic, Leukemia Mononuclear  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Lymph Node, Mandibular            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Lymph Node, Mesenteric            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Leukemia Mononuclear              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Spleen                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 50 |
| Leukemia Mononuclear              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Thymus                            | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 45 |
| Lymphoma Malignant                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |
| Thymoma Malignant                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1  |

**INTEGUMENTARY SYSTEM**

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibroadenoma  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |  |
|--|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|--|
|  | 0743        | 0744 | 0714      | 0750 | 0774 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |          | 0777 |  |
|  | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    |  |
|  | 4           | 4    | 3         | 0    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 3        | 4    |  |
|  | 3           | 4    | 4         | 5    | 7    | 3    | 3    | 7    | 7    | 6    | 6    | 7    | 7    | 5    | 5    | 3    | 7    | 0    | 5    | 6    | 6    | 5    | 9        | 6    |  |
|  | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    |  |
|  | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0        | 0    |  |
|  | 4           | 4    | 4         | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4        | 4    |  |
|  | 4           | 4    | 4         | 4    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6    | 6        | 7    |  |
|  | 6           | 7    | 8         | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8        | 9    |  |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Skin                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Keratoacanthoma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pinna, Neural Crest Tumor    |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Subcutaneous Tissue, Fibroma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

MUSCULOSKELETAL SYSTEM

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |

NERVOUS SYSTEM

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cerebrum, Granular Cell Tumor Benign | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

RESPIRATORY SYSTEM

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Zymbal'S Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Nose                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Trachea                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

SPECIAL SENSES SYSTEM

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

Experiment Number: 20614 - 02

Test Type: CHRONIC

Route: DOSED FEED

Species/Strain: RATS/HSD

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Perfluorooctanoic Acid

CAS Number: 335-67-1

Date Report Requested: 07/24/2018

Time Report Requested: 12:59:13

First Dose M/F: 07/27/09 / NA

Lab: BAT

| HARLAN SPRAGUE DAWLEY RATS<br>MALE<br>300/80 ppm                                       | DAY ON TEST          |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      | * TOTALS          |  |  |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------|--|--|
|  | 07<br>44<br>33       | 07<br>44<br>44       | 01<br>30<br>44       | 05<br>40<br>45       | 07<br>44<br>37       | 07<br>44<br>33       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 07<br>44<br>77       | 05<br>22<br>50       | 05<br>25<br>45       | 07<br>44<br>56       | 07<br>44<br>66       | 07<br>44<br>66       | 07<br>44<br>55       | 07<br>44<br>39       | 07<br>43<br>46       |                   |  |  |
| ANIMAL ID  | 00<br>44<br>44<br>67 | 00<br>44<br>44<br>78 | 00<br>44<br>44<br>89 | 00<br>44<br>44<br>50 | 00<br>44<br>44<br>51 | 00<br>44<br>44<br>52 | 00<br>44<br>44<br>53 | 00<br>44<br>44<br>54 | 00<br>44<br>44<br>55 | 00<br>44<br>44<br>56 | 00<br>44<br>44<br>57 | 00<br>44<br>44<br>58 | 00<br>44<br>44<br>59 | 00<br>44<br>44<br>60 | 00<br>44<br>44<br>61 | 00<br>44<br>44<br>62 | 00<br>44<br>44<br>63 | 00<br>44<br>44<br>64 | 00<br>44<br>44<br>65 | 00<br>44<br>44<br>66 | 00<br>44<br>44<br>67 | 00<br>44<br>44<br>68 | 00<br>44<br>44<br>69 | 00<br>44<br>44<br>70 |                   |  |  |
| Eye<br>Lymphoma Malignant  | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | 50<br>1           |  |  |
| Harderian Gland  | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | 50                |  |  |
| Zymbal's Gland<br>Carcinoma  |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      | 1<br>1            |  |  |
| <b>URINARY SYSTEM</b>  |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                   |  |  |
| Kidney<br>Lymphoma Malignant   | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | 50<br>1           |  |  |
| Urinary Bladder  | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | 50                |  |  |
| <b>SYSTEMIC LESIONS</b>  |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                   |  |  |
| Multiple Organ<br>Leukemia Mononuclear<br>Lymphoma Malignant<br>Mesothelioma Malignant | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | +                    | 50<br>1<br>1<br>1 |  |  |

\*\*\* END OF REPORT \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with tumor  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue

M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically