

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
Lab: BAT

F2_R2

C Number: C20009
Lock Date: 06/05/2008
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.4.1.0_004
PWG Approval Date: 06/29/2010

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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	ANIMAL ID	males (cont...)	
FISCHER 344 RATS MALE	0 mg/l	7	7	4	6	7	6	7	7	7	7	7	7	7	7	4	7	5	2	2	7	7	7	7			3
		2	2	9	6	2	7	2	2	2	2	2	2	2	2	2	6	9	7	7	2	2	2	2	9	0	
		7	6	9	4	6	7	7	7	6	6	7	6	7	6	7	8	3	3	6	6	6	6	6	1	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	0		
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	0			

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum Leukemia Mononuclear	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+	+
Intestine Large, Colon Adenoma Leukemia Mononuclear Mesothelioma Malignant	+	+	+	A	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+
Intestine Large, Rectum Leukemia Mononuclear	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+
Intestine Small, Duodenum Leukemia Mononuclear Mesothelioma Malignant	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+
Intestine Small, Ileum Leukemia Mononuclear Mesothelioma Malignant	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	X	+	A	+	+	+	+
Intestine Small, Jejunum Leukemia Mononuclear Mesothelioma Malignant	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	A	+	A	+	+	+	+
Liver Hepatocellular Adenoma Hepatocellular Adenoma, Multiple	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

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

M .. Missing tissue
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FISCHER 344 RATS MALE 0 mg/l	DAY ON TEST																									males (cont...)		
	0727	0726	0729	0724	0726	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727	0727			
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	X		X	X		X											
Mesothelioma Malignant																												
Mesentery																												
Mesothelioma Malignant																												
Pancreas																												
Adenoma, Mixed Cell																												
Leukemia Mononuclear																												
Mesothelioma Malignant																												
Salivary Glands																												
Leukemia Mononuclear																												
Stomach, Forestomach																												
Leukemia Mononuclear																												
Mesothelioma Malignant																												
Stomach, Glandular																												
Leukemia Mononuclear																												
CARDIOVASCULAR SYSTEM																												
Blood Vessel																												
Aorta, Leukemia Mononuclear																												
Heart																												
Leukemia Mononuclear																												
ENDOCRINE SYSTEM																												

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FISCHER 344 RATS MALE	DAY ON TEST																									males (cont...)								
	0 7	0 7	0 4	0 6	0 7	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7										
0 mg/l	2	7	6	9	6	4	6	2	7	2	2	2	2	2	2	2	2	2	2	6	6	7	3	3	6	6	6	6	6	6	6	9	1	
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	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	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	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Adenoma																																		
Leukemia Mononuclear													X	X						X				X										
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Leukemia Mononuclear																							X											
Pheochromocytoma Benign												X	X	X	X									X		X								
Pheochromocytoma Complex																																		
Bilateral, Pheochromocytoma Benign																	X																	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Adenoma																																	X	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Leukemia Mononuclear																									X									
Pars Distalis, Adenoma	X		X	X	X			X		X	X	X	X		X					X				X			X							
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Leukemia Mononuclear																									X									
C-cell, Adenoma							X		X				X		X	X																	X	
C-cell, Carcinoma																																		
Follicular Cell, Carcinoma																																		

GENERAL BODY SYSTEM

Peritoneum
 Leukemia Mononuclear
 Mesothelioma Malignant

+

X

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FISCHER 344 RATS MALE	DAY ON TEST																									males (cont...)
	0 7	0 7	0 4	0 6	0 7	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 4	0 7	0 5	0 2	0 7	0 7	0 7	0 7	0 3	
0 mg/l	2	2	9	6	2	7	2	2	2	2	2	2	2	2	2	2	6	2	9	7	3	3	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	0	
	0	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	3	4	5	

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																									
Mesothelioma Malignant						X																			
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Carcinoma																									
Leukemia Mononuclear																									
Prostate	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																									
Mesothelioma Malignant						X																			
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																									
Mesothelioma Malignant							X																		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																									
Mesothelioma Malignant							X																		
Bilateral, Interstitial Cell, Adenoma			X				X			X	X			X		X	X			X		X			
Interstitial Cell, Adenoma					X		X					X	X		X		X					X		X	

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																									
Lymph Node																									

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FISCHER 344 RATS MALE	DAY ON TEST																									males (cont...)
	0 7	0 7	0 4	0 6	0 7	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 4	0 7	0 5	0 2	0 7	0 7	0 7	0 7	0 3	
0 mg/l	2	7	9	6	2	7	2	2	2	2	2	2	2	2	2	2	6	7	8	3	6	6	6	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	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	3	4	5	

Deep Cervical, Carcinoma, Metastatic, Harderian Gland
 Lumbar, Leukemia Mononuclear
 Mediastinal, Leukemia Mononuclear
 Pancreatic, Leukemia Mononuclear

Lymph Node, Mandibular

Lymph Node, Mesenteric
 Leukemia Mononuclear

Spleen
 Leukemia Mononuclear
 Mesothelioma Malignant

Thymus
 Carcinoma, Metastatic, Harderian Gland
 Leukemia Mononuclear

INTEGUMENTARY SYSTEM

Mammary Gland
 Fibroadenoma

Skin
 Basal Cell Adenoma
 Carcinoma, Metastatic, Harderian Gland
 Keratoacanthoma
 Leukemia Mononuclear
 Subcutaneous Tissue, Fibroma
 Subcutaneous Tissue, Fibrosarcoma

Mammary Gland Fibroadenoma	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Lymph Node, Mesenteric Leukemia Mononuclear	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen Leukemia Mononuclear	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Spleen Mesothelioma Malignant	X									X		X	X		X		X						X		
Thymus Carcinoma, Metastatic, Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Thymus Leukemia Mononuclear												X					X								
Mammary Gland Fibroadenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin Basal Cell Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Skin Keratoacanthoma					X									X											
Skin Leukemia Mononuclear																						X			
Skin Subcutaneous Tissue, Fibroma												X													X
Skin Subcutaneous Tissue, Fibrosarcoma									X																

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	0 7 2 7	0 7 2 6	0 4 9 9	0 6 6 4	0 7 2 6	0 6 7 6	0 7 2 7	0 7 2 7	0 7 2 6	0 7 2 6	0 7 2 7	0 7 2 6	0 7 2 7	0 7 2 6	0 7 2 7	0 4 2 6	0 7 2 8	0 5 9 3	0 2 7 3	0 7 2 6	0 7 2 6	0 7 2 6	0 7 2 6	0 7 2 6	0 7 2 6		
0 mg/l	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 0 0	0 0 0 0 1	0 0 0 0 2	0 0 0 0 3	0 0 0 0 4	0 0 0 0 5	0 0 0 0 6

MUSCULOSKELETAL SYSTEM

Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Carcinoma, Metastatic, Harderian Gland																												

NERVOUS SYSTEM

Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear																												

RESPIRATORY SYSTEM

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar/Bronchiolar Adenoma																												
Carcinoma, Metastatic, Harderian Gland																												
Carcinoma, Metastatic, Preputial Gland																												
Leukemia Mononuclear	X																											
Rhabdomyosarcoma, Metastatic, Uncertain Primary Site																												

Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Carcinoma, Metastatic, Harderian Gland																													

Trachea	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
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SPECIAL SENSES SYSTEM

Ear																												
Neural Crest Tumor																												

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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		0	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 (cont...)
DAY ON TEST		7	7	4	6	7	6	7	7	7	7	7	7	7	7	7	4	7	5	2	2	7	7	7	7	3	
FISCHER 344 RATS MALE		2	2	9	6	2	7	2	2	2	2	2	2	2	2	2	6	9	7	2	2	2	2	2	2	9	
0 mg/l		7	6	9	4	6	7	7	7	6	6	7	6	7	6	7	8	3	3	6	6	6	6	6	6	1	
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	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	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	

Carcinoma, Metastatic, Harderian Gland
 Leukemia Mononuclear

X

Harderian Gland
 Carcinoma
 Leukemia Mononuclear

+ +

X

Zymbal's Gland
 Carcinoma

URINARY SYSTEM

Kidney
 Leukemia Mononuclear
 Mesothelioma Malignant

+ +

X

X

X

X

Urinary Bladder
 Leukemia Mononuclear
 Mesothelioma Malignant

+ +

X

X

SYSTEMIC LESIONS

Multiple Organ
 Leukemia Mononuclear
 Mesothelioma Malignant

+ +

X

X

X

X

X

X

X

X

X

X

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 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 078 | 076 | 054 | 077 | 078 | 065 | 066 | 077 | 077 | 066 | 077 | 077 | 000 | 066 | 077 | 066 | 077 | 077 | 077 | 066 | 077 | 066 | 077 | 066 | |
| 0 mg/l | 0028 | 0066 | 0044 | 0077 | 0088 | 0055 | 0066 | 0077 | 0077 | 0066 | 0077 | 0077 | 0000 | 0066 | 0077 | 0066 | 0077 | 0077 | 0077 | 0066 | 0077 | 0066 | 0077 | 0066 | |
| | 0002 | 0007 | 0002 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0005 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 45 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 47 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | X | | | | | | | | | | | | | | | 2 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 46 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | | | | | | | | | | 3 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | 45 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | X | | | | | | | | | | | | | | | | | | | | 2 |
| Hepatocellular Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
0 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 078 | 076 | 054 | 072 | 077 | 066 | 066 | 072 | 077 | 066 | 072 | 077 | 077 | 000 | 066 | 077 | 066 | 072 | 077 | 077 | 066 | 072 | 066 | | |
| 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 | |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | X | | | X | X | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma, Mixed Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Aorta, Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | X | | | | X | | | | | | | |
| ENDOCRINE 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
0 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0728 | 0726 | 0704 | 0727 | 0728 | 0705 | 0706 | 0727 | 0728 | 0704 | 0706 | 0727 | 0728 | 0701 | 0706 | 0727 | 0728 | 0703 | 0706 | 0727 | 0728 | 0706 | 0707 | 0708 | |
| ANIMAL ID | 00026 | 00007 | 00008 | 00000 | 00003 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00000 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00000 |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | | X | | | | | | | | | 7 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | | X | | | | | | | | | 6 |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pheochromocytoma Complex | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | X | | | X | | | | | | X | | | | | | | | | | | | | | | 4 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | X | | | | | | | X | | | | | | | | | 3 |
| Pars Distalis, Adenoma | | X | X | X | | X | X | X | | X | X | | X | | X | X | | | | | X | X | X | X | 28 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| C-cell, Adenoma | | | | | X | | X | | X | | X | | | | X | | | | | | | X | | | 12 |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Follicular Cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| 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

TDMS No. 20009 - 03
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 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0728 | 0726 | 0704 | 0727 | 0778 | 0665 | 0666 | 0722 | 0778 | 0664 | 0727 | 0778 | 0660 | 0667 | 0726 | 0775 | 0668 | 0723 | 0776 | 0667 | 0663 | 0728 | 0776 | | |
| 0 mg/l | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |
| | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 0040 | 0041 | 0042 | 0043 | 0044 | 0045 | 0046 | 0047 | 0048 | 0049 | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | X | | | | | | | X | 4 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | X | 2 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | X | | | | | | | 2 |
| Bilateral, Interstitial Cell, Adenoma | X | X | | | X | | X | | X | | | X | X | | | X | X | | X | X | | | X | 22 |
| Interstitial Cell, Adenoma | | | X | X | | | X | | X | X | | | | | | X | | | | | | | | 13 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | X | | X | | | | | | | | 9 |
| Lymph Node | | | | | | | | | + | | | | | | | | | | + | + | | | | 9 |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
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 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0728 | 0726 | 0724 | 0722 | 0720 | 0718 | 0716 | 0714 | 0712 | 0710 | 0708 | 0706 | 0704 | 0702 | 0700 | 0698 | 0696 | 0694 | 0692 | 0690 | 0688 | 0686 | 0684 | 0682 | |
| 0 mg/l | 0026 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Deep Cervical, Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Lumbar, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | 4 |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | X | | | | | | | | | | | | 5 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | X | X | | X | X | | | | | | | | 14 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 49 | |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | X | 3 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | X | 5 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 078 | 076 | 054 | 077 | 077 | 066 | 066 | 077 | 077 | 066 | 077 | 077 | 000 | 066 | 077 | 066 | 077 | 077 | 000 | 066 | 077 | 066 | 000 | 066 | |
| 0 mg/l | 0026 | 0007 | 0004 | 0007 | 0008 | 0005 | 0006 | 0007 | 0006 | 0004 | 0007 | 0007 | 0008 | 0001 | 0007 | 0006 | 0008 | 0007 | 0003 | 0007 | 0006 | 0003 | 0008 | 0002 | 0000 |
| | 0002 | 0002 | 0002 | 0002 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0003 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0004 | 0005 | 0000 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | | 2 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Carcinoma, Metastatic, Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | X | | X | | | | | | | | | | 11 |
| Rhabdomyosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Neural Crest Tumor | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----------|
| | 078 | 076 | 054 | 072 | 077 | 066 | 066 | 077 | 077 | 066 | 077 | 077 | 077 | 000 | 066 | 077 | 066 | 077 | 077 | 077 | 066 | 077 | 066 | | |
| 0 mg/l | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | | |
| ANIMAL ID | 0026 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | | |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | 2 | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | + | | 1 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | | X | | | | | | | | | 6 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | | | | X | | | | | X | X | | X | X | | | | | | 14 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | X | | | | | | | X | 4 | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|--|
| DAY ON TEST | | 0638 | 0728 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | | |
| ANIMAL ID | | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 | 00061 | 00062 | 00063 | 00064 | 00065 | 00066 | 00067 | 00068 | 00069 | 00070 | 00071 | 00072 | 00073 | 00074 | 00075 | 00076 | males
(cont...) | |
| FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 156.25 mg/l | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver
Hepatocellular Adenoma | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | X | | X | | X | X | X | | X | | | X | | X | X | | | | | | X | | | | | | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery
Mesothelioma Malignant | | | | | + | | | | | | | | | | | | | + | | | | | | | | | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | |
|--|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|
| 156.25 mg/l | | 0638 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | | 0728 | 0728 |
| ANIMAL ID | | 00051 | 00052 | 00053 | 00054 | 00055 | 00056 | 00057 | 00058 | 00059 | 00060 | 00061 | 00062 | 00063 | 00064 | 00065 | 00066 | 00067 | 00068 | 00069 | 00070 | 00071 | 00072 | 00073 | 00074 | 00075 | 00076 | 00077 | 00078 |
| Adenoma, Mixed Cell | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach Squamous Cell Papilloma | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel Aorta, Leukemia Mononuclear | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart Leukemia Mononuclear | | X | | + | + | + | + | | X | X | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex Leukemia Mononuclear | | X | + | + | + | + | + | | X | X | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla Leukemia Mononuclear | | X | + | + | + | + | + | | X | X | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--------------------|
| | 0
6
3
8 | 0
7
2
8 | 0
7
2
8 | 0
7
2
6 | 0
7
2
7 | 0
7
2
6 | 0
6
2
7 | 0
5
9
9 | 0
7
8
0 | 0
5
2
4 | 0
7
1
7 | 0
6
4
5 | 0
7
2
6 | 0
7
2
6 | 0
6
6
4 | 0
7
2
8 | 0
7
2
7 | 0
4
2
8 | 0
7
2
6 | 0
7
2
6 | 0
7
2
6 | 0
7
2
6 | 0
7
2
6 | 0
7
2
6 | | | |
| 156.25 mg/l | 0
0
0
5
1 | 0
0
0
5
2 | 0
0
0
5
3 | 0
0
0
5
4 | 0
0
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7 | 0
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8 | 0
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2 | 0
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3 | 0
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6
4 | 0
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0
6
5 | | |

Pheochromocytoma Benign

X X X

Islets, Pancreatic
Adenoma

+ +

Parathyroid Gland

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

Pituitary Gland
Leukemia Mononuclear
Pars Distalis, Adenoma

+ + + + + + + + + + A + + + + + + + + + + + + + +
 X

Thyroid Gland
C-cell, Adenoma
C-cell, Carcinoma
Follicular Cell, Carcinoma

+
 X

GENERAL BODY SYSTEM

Peritoneum
Osteosarcoma, Metastatic, Uncertain Primary Site

GENITAL SYSTEM

Epididymis
Mesothelioma Malignant
Osteosarcoma, Metastatic, Uncertain Primary Site

+
 X

Preputial Gland
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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0638 | 0728 | 0778 | 0772 | 0777 | 0777 | 0667 | 0557 | 0777 | 0557 | 0777 | 0667 | 0777 | 0777 | 0777 | 0667 | 0777 | 0777 | 0447 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | |
| 156.25 mg/l | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 | 000051 | |

Carcinoma

Prostate
 Mesothelioma Malignant
 Osteosarcoma, Metastatic, Uncertain Primary Site

Seminal Vesicle

Testes
 Mesothelioma Malignant
 Bilateral, Interstitial Cell, Adenoma
 Interstitial Cell, Adenoma

HEMATOPOIETIC SYSTEM

Bone Marrow
 Leukemia Mononuclear

Lymph Node
 Mediastinal, Leukemia Mononuclear
 Mediastinal, Pancreatic, Leukemia Mononuclear
 Pancreatic, Leukemia Mononuclear
 Renal, Leukemia Mononuclear

Lymph Node, Mandibular

Lymph Node, Mesenteric
 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0638 | 0728 | 0778 | 0776 | 0777 | 0776 | 0659 | 0578 | 0079 | 0054 | 0071 | 0067 | 0077 | 0076 | 0066 | 0074 | 0078 | 0077 | 0049 | 0077 | 0072 | 0072 | 0076 | 0077 | 0077 | | |
| 156.25 mg/l | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | X | | | X | | X | X | | X | | | X | | X | X | | | | | | | X | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | X | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | |
| Carcinoma | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | | | | | | X | | | X | | | X | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Fibroma | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Hemangioma | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | | | | 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
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TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------------------|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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4 | 0
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7 | 0
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5 | 0
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6 | 0
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6 | 0
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4 | 0
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8 | 0
7
2
7 | 0
4
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8 | 0
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6 | 0
7
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6 | 0
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6 | 0
7
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6 | 0
7
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6 | 0
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0
5
1 | 0
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2 | | 0
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3 | 0
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4 | 0
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9 | 0
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3 | 0
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4 | 0
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5 | 0
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7 | 0
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8 | 0
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9 | 0
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1 | 0
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2 | 0
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3 | 0
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4 | 0
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7 | 0
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8 | 0
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9 | 0
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0 | 0
0
0
6
1 | 0
0
0
6
2 | 0
0
0
6
3 | 0
0
0
6
4 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X X X X X X X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

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

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Kidney | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X X X X X X X X | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| FISCHER 344 RATS MALE | DAY ON TEST | 0638 | 0728 | 0728 | 0728 | 0728 | 0728 | 0659 | 0572 | 0572 | 0754 | 0754 | 0754 | 0754 | 0754 | 0672 | 0772 | 0772 | 0429 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | males
(cont...) | |
| | 156.25 mg/l | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | | 0075 |
| | ANIMAL ID | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | | 0075 |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | X | | | X | | X | X | X | | X | | | X | X | X | | | | | | 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

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
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 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | 6 | 7 | 6 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| FISCHER 344 RATS MALE | 2 | 2 | 6 | 2 | 2 | 2 | 2 | 6 | 9 | 2 | 7 | 9 | 8 | 2 | 8 | 2 | 2 | 2 | 1 | 1 | 2 | 6 | 2 | 2 | 2 | 6 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| 156.25 mg/l | 8 | 6 | 6 | 7 | 7 | 6 | 8 | 7 | 4 | 6 | 3 | 3 | 4 | 6 | 6 | 6 | 8 | 6 | 9 | 3 | 7 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 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 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 0 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Intestine Large, Cecum | + + A + + + + + + + + + + A + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 |
| Intestine Large, Colon | + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Intestine Large, Rectum | + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Intestine Small, Duodenum | + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + + A + + + + + + + + + + + A + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Jejunum | + + A + + + + + + + + + + + A + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | X X X X | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| Mesothelioma Malignant | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | X X | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | |
| ANIMAL ID | 00076 | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 | |
| Adenoma, Mixed Cell | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Aorta, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 7 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 11 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 11 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|----------|
| | 078 | 076 | 077 | 077 | 077 | 077 | 075 | 066 | 067 | 066 | 066 | 067 | 066 | 067 | 067 | 067 | 067 | 067 | 066 | 067 | 067 | 067 | 067 | | |
| 156.25 mg/l | 0076 | 0076 | 0077 | 0077 | 0077 | 0077 | 0075 | 0066 | 0067 | 0066 | 0066 | 0067 | 0066 | 0067 | 0067 | 0067 | 0067 | 0066 | 0067 | 0067 | 0067 | 0067 | 0067 | | |
| ANIMAL ID | 0076 | 0076 | 0077 | 0077 | 0077 | 0077 | 0075 | 0066 | 0067 | 0066 | 0066 | 0067 | 0066 | 0067 | 0067 | 0067 | 0067 | 0066 | 0067 | 0067 | 0067 | 0067 | 0067 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Pheochromocytoma Benign | | | | | | | X | | X | | | | | | | | | | | | | | | 5 |
| Islets, Pancreatic Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | X | | X | | | 3 | |
| Pars Distalis, Adenoma | | X | | X | | X | X | | X | X | X | X | X | X | X | X | X | | X | | | X | 35 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| C-cell, Adenoma | | | | | | | X | | | | | | | | | | | | X | | | X | 10 | |
| C-cell, Carcinoma | | | | | | | | | X | | | | | | | X | | | | | | | 3 | |
| Follicular Cell, Carcinoma | | | | | | | | | X | | | | | | | | | | | | | | 1 | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant | | | | | | | | | | | | X | | | | | | | | | | | 2 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|----|
| | 0728 | 0726 | 0726 | 0722 | 0722 | 0722 | 0722 | 0728 | 0727 | 0726 | 0726 | 0726 | 0726 | 0727 | 0726 | 0726 | 0727 | 0727 | 0727 | 0726 | | 0727 | 0727 | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | | 0096 | 0097 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Bilateral, Interstitial Cell, Adenoma | X | X | X | | X | | X | | X | | X | | | | | | X | | X | X | | | X | 20 |
| Interstitial Cell, Adenoma | | | | | X | | | | | | | | | | X | X | X | | | X | | | | 18 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | X | | | | | | X | | X | X | | X | X | | 15 |
| Lymph Node | | | | + | | | | | | | | | | | | + | + | | + | | | | | 11 |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | X | | | X | | | | | 6 |
| Mediastinal, Pancreatic, Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | X | X | | | | | | | | X | X | | X | | | 10 |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--|
| | 078 | 076 | 077 | 077 | 077 | 077 | 075 | 066 | 067 | 066 | 066 | 067 | 066 | 067 | 066 | 066 | 067 | 067 | 067 | 066 | 067 | 067 | 067 | | | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0000 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | | | X | X | X | | | | | | | X | | X | X | | X | X | | 19 | |
| Mesothelioma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | X | | | | | | | | | 1 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 49 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | X | | | | | 3 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibroadenoma | | | | | | | | | | | | | | X | | | | | | | | | | | 1 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Basal Cell Adenoma | | | X | | | | | | | X | | | | | | | | | | | | | | | 2 | |
| Keratoacanthoma | X | | | | | | | | | | | | | | | | | | X | | | | | | 5 | |
| Squamous Cell Carcinoma | | | | | | | X | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Fibroma | X | | | | | | | | | | | | X | X | | | | | | | | | | | 4 | |
| Subcutaneous Tissue, Hemangioma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
| | 07
28 | 07
26
6 | 06
7 | 07
22
7 | 07
22
6 | 07
22
8 | 07
6 | 05
6
7 | 06
9
4 | 06
2
6 | 06
7
3 | 06
6
3 | 06
7
4 | 06
6
6 | 07
2
6 | 06
8
6 | 07
2
6 | 07
7
6 | 07
7
7 | 06
6
4 | 07
2
6 | | 07
7
6 | 07
2
7 | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00
00
00
76 | 00
00
00
77 | 00
00
00
78 | 00
00
00
77 | 00
00
00
88 | 00
00
00
81 | 00
00
00
22 | 00
00
00
33 | 00
00
00
44 | 00
00
00
55 | 00
00
00
66 | 00
00
00
77 | 00
00
00
88 | 00
00
00
99 | 00
00
00
00 | 00
00
00
11 | 00
00
00
22 | 00
00
00
33 | 00
00
00
44 | 00
00
00
55 | 00
00
00
66 | 00
00
00
77 | 00
00
00
88 | 00
00
00
99 | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | X | | | | X | | | | | | | X | | | | | | | | | | | | 5 |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | | | | X | X | | | | | | X | X | X | X | | | | | 17 |
| Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Respiratory Epithelium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

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

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | X | X | X | | | X | | | 13 |
| Mesothelioma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Capsule, Osteosarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Renal Tubule, Adenoma | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| FISCHER 344 RATS MALE

156.25 mg/l | | DAY ON TEST | 078 | 076 | 077 | 077 | 077 | 077 | 056 | 067 | 066 | 066 | 067 | 066 | 067 | 067 | 067 | 067 | 067 | 067 | 066 | 077 | 077 | 077 | * TOTALS |
| | | ANIMAL ID | 0076 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | X | X | X | | | | | | | X | | X | X | | X | X | | 19 |
| Mesothelioma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|
| FISCHER 344 RATS MALE | 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 |
| | | 7 | 7 | 5 | 3 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 |
| | | 2 | 2 | 6 | 9 | 2 | 8 | 2 | 2 | 5 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 7 | 4 | 2 | 1 | 2 | 2 | 2 | 2 |
| 312.5 mg/l | ANIMAL ID | 8 | 6 | 9 | 3 | 8 | 1 | 6 | 6 | 7 | 7 | 8 | 1 | 7 | 7 | 8 | 3 | 7 | 6 | 7 | 5 | 7 | 8 | 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 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 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 |
| | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | X | | | X | X | | | | X | | X | | | | X | X | | | X | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|
| | 0
7
2
8 | 0
7
2
6 | 0
5
6
9 | 0
3
7
3 | 0
7
2
8 | 0
6
8
1 | 0
7
2
6 | 0
7
2
6 | 0
6
5
7 | 0
7
2
7 | 0
7
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7 | 0
7
2
7 | 0
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7 | 0
7
2
7 | 0
7
2
7 | 0
6
2
8 | 0
7
4
3 | 0
6
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7 | 0
6
4
6 | 0
7
1
7 | 0
6
2
5 | 0
7
2
7 | 0
7
2
8 | 0
7
2
6 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0001 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0002 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0003 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 0004 | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 0005 | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0006 | | | |
| | X | | | | | | | | | | | | | | | | | | | | | | 0007 | | | |
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0008 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0009 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0010 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0011 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0012 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0013 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0014 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0015 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0016 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0017 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0018 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0019 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0020 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0021 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0022 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0023 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0024 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 0025 | | | |

Stomach, Forestomach
 Squamous Cell Papilloma

Stomach, Glandular

Tongue
 Squamous Cell Carcinoma
 Squamous Cell Papilloma

CARDIOVASCULAR SYSTEM

Blood Vessel

Heart
 Leukemia Mononuclear

ENDOCRINE SYSTEM

Adrenal Cortex

Adenoma
 Leukemia Mononuclear

Adrenal Medulla

Leukemia Mononuclear
 Pheochromocytoma Benign
 Pheochromocytoma Malignant
 Bilateral, Pheochromocytoma Malignant

Islets, Pancreatic
 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|--------------------|
| | 0
7
2
8 | 0
7
2
6 | 0
5
6
9 | 0
3
9
3 | 0
7
2
8 | 0
6
8
1 | 0
7
2
6 | 0
7
2
6 | 0
6
5
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
6
7
8 | 0
7
4
3 | 0
6
2
7 | 0
6
2
7 | 0
7
1
5 | 0
7
2
7 | 0
7
2
8 | 0
7
2
2 | 0
7
2
6 | | | |
| 312.5 mg/l | 0
0
1
0
1 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
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0
1 | 0
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1 | 0
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1 | 0
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0
0
0
1 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
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1 | 0
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1 | 0
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1 | 0
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1 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
0
0
1 | 0
0
0
0
1 | | |

Leukemia Mononuclear

Parathyroid Gland

Pituitary Gland

Leukemia Mononuclear
 Pars Distalis, Adenoma
 Pars Intermedia, Adenoma

Thyroid Gland

Leukemia Mononuclear
 C-cell, Adenoma
 C-cell, Carcinoma
 Follicular Cell, Adenoma

GENERAL BODY SYSTEM

Peritoneum
 Mesothelioma Malignant

GENITAL SYSTEM

Epididymis
 Leukemia Mononuclear
 Bilateral, Mesothelioma Malignant

Preputial Gland
 Adenoma
 Carcinoma
 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|
| | 078 | 076 | 059 | 032 | 078 | 061 | 077 | 076 | 067 | 077 | 076 | 077 | 077 | 077 | 077 | 077 | 077 | 066 | 077 | 066 | 077 | 066 | 077 | 077 | 077 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0001 | |
| | 7 | 7 | 5 | 3 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 0002 | |
| | 2 | 2 | 6 | 9 | 2 | 8 | 2 | 2 | 5 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 7 | 4 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 0003 | |
| | 8 | 6 | 9 | 3 | 8 | 1 | 6 | 6 | 7 | 7 | 8 | 1 | 7 | 7 | 7 | 8 | 3 | 7 | 6 | 7 | 5 | 7 | 8 | 6 | 6 | 0004 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0005 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0006 | |
| | 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 | 0007 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0008 | |
| | 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 | 0009 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Leukemia Mononuclear | | | X | | | X | X | | | | X | | X | | | | | X | X | | | X | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | M | | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Basal Cell Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Keratoacanthoma | X | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | X | | | | | | | X | | | | | | | | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|-----------------------|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|---|--------------------|
| FISCHER 344 RATS MALE | | 0
7
2
8 | 0
7
2
6 | 0
5
6
9 | 0
3
7
3 | 0
7
2
8 | 0
6
8
1 | 0
7
2
6 | 0
7
2
6 | 0
6
5
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
6
2
8 | 0
7
2
3 | 0
6
4
6 | 0
7
2
7 | 0
6
1
5 | 0
7
2
7 | 0
7
2
8 | 0
7
2
2 | 0
7
2
6 | | | |
| 312.5 mg/l | | 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 | |
| | | 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 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 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 | |

Renal Tubule, Adenoma, Multiple

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leiomyoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | X | | | | | | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

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

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| 2 | 2 | 1 | 2 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 9 | 2 | 0 | 2 | 2 | 2 | 2 |
| 6 | 7 | 8 | 7 | 7 | 6 | 6 | 7 | 8 | 7 | 3 | 7 | 8 | 6 | 6 | 8 | 6 | 2 | 8 | 3 | 2 | 1 | 7 | 7 |
| 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 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 48 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 48 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Leukemia Mononuclear | | | | X | | | X | | X | | | | X | X | | | X | | X | | X | | | 16 |
| Mesentery | | | | | | | | | + | + | + | | | | | | | | | | | | + | 4 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | X | | | | | | | | | | | | | | | | | | | 2 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
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 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--|--|
| | 0726 | 0771 | 0778 | 0777 | 0777 | 0777 | 0775 | 0777 | 0777 | 0777 | 0776 | 0777 | 0777 | 0777 | 0776 | 0777 | 0776 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | | |
| ANIMAL ID | 001 | 001 | 002 | 002 | 003 | 003 | 003 | 003 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 000 | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | | |
| Stomach, Forestomach
Squamous Cell Papilloma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Tongue
Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2
1 | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Heart
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
7 | | |
| | | | X | | | | X | | | | | | | | | | | X | | | X | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | | |
| Leukemia Mononuclear | | | | | | | X | | | X | | | | | | | | | | | X | | | | 7 | | |
| Adrenal Medulla
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
6 | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | X | | 6 | | |
| Pheochromocytoma Malignant | | | | X | | | | | | X | | | | | | | | | | | | | | | 6 | | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
3 | | |
| | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

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 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-------------------------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----|--|
| | 07
26 | 07
27 | 06
18 | 07
27 | 07
27 | 07
26 | 05
08 | 07
22 | 07
22 | 07
22 | 07
24 | 07
22 | 07
22 | 07
26 | 06
04 | 07
22 | 06
04 | 06
09 | 07
21 | 07
22 | 07
00 | 07
22 | 07
22 | 07
26 | | | |
| ANIMAL ID | 00
11
22
66 | 00
00
11
22
77 | 00
00
11
22
88 | 00
00
11
22
99 | 00
00
11
33
00 | 00
00
11
33
11 | 00
00
11
33
22 | 00
00
11
33
33 | 00
00
11
33
44 | 00
00
11
33
55 | 00
00
11
33
66 | 00
00
11
33
77 | 00
00
11
33
88 | 00
00
11
33
99 | 00
00
11
44
00 | 00
00
11
44
11 | 00
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11
44
22 | 00
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11
44
33 | 00
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11
44
44 | 00
00
11
44
55 | 00
00
11
44
66 | 00
00
11
44
77 | 00
00
11
44
88 | 00
00
11
44
99 | 00
00
11
55
00 | | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | X | | | | | 4 | | |
| Pars Distalis, Adenoma | X | | | X | | | | X | X | X | X | X | | X | X | X | X | X | | X | X | | X | | 28 | | |
| Pars Intermedia, Adenoma | | | | | | | | | | | | | | | | X | | | | | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| C-cell, Adenoma | | | | | | | | | | X | | | | | | | | X | | | | | | 4 | | | |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | X | | | | 1 | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bilateral, Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | | | | | | X | | | | | | | | | | | X | | | | | | 2 | | |
| Carcinoma | | | | | | | | | X | | | | | | | | | X | | | | | | | 2 | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | |
| ANIMAL ID | 001267 | 001277 | 001288 | 001299 | 001300 | 001311 | 001322 | 001333 | 001344 | 001355 | 001366 | 001377 | 001388 | 001399 | 001400 | 001411 | 001422 | 001433 | 001444 | 001455 | 001466 | 001477 | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Bilateral, Interstitial Cell, Adenoma | | X | X | X | X | X | X | X | X | | | X | X | X | | X | | | X | | X | X | 26 |
| Interstitial Cell, Adenoma | X | | | | | | | | | X | X | | | X | | | X | | X | | X | | 16 |
| Tunic, Leiomyosarcoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | X | | | X | | | | | | | X | | | X | | | 11 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Lymph Node | + | + | | | | | + | | + | | + | | + | | | | + | | | | | | 11 |
| Deep Cervical, Leukemia Mononuclear | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Lumbar, Leukemia Mononuclear | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Mediastinal, Leukemia Mononuclear | | | X | | | | | | | X | | | | | | | X | | | | | | 3 |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | | X | | | X | | | | | | | | | X | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | |
| ANIMAL ID | 001267 | 001268 | 001269 | 001270 | 001271 | 001272 | 001273 | 001274 | 001275 | 001276 | 001277 | 001278 | 001279 | 001280 | 001281 | 001282 | 001283 | 001284 | 001285 | 001286 | 001287 | 001288 | 001289 | 001290 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | | X | | | X | | | | X | X | | | X | | | X | X | | 16 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | 1 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 45 | |
| Leukemia Mononuclear | | | X | | | | X | | | | | | | | | | | | | | X | | | 4 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibroadenoma | | | | | | | | | | | | | | | | X | | | | | | | | 2 | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Basal Cell Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | 2 | |
| Keratoacanthoma | | | | | | | | X | | | | | | | X | | | | | X | | | X | 7 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | X | | | X | | | | 2 | |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | X | | | | | | | | | | | | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Sarcoma | | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
7
2
6 | 0
7
2
7 | 0
6
1
8 | 0
7
2
7 | 0
7
2
7 | 0
5
2
6 | 0
7
2
6 | 0
7
2
7 | 0
7
2
8 | 0
7
2
7 | 0
6
4
3 | 0
7
2
7 | 0
7
2
8 | 0
6
4
6 | 0
7
2
6 | 0
6
4
8 | 0
6
9
2 | 0
7
1
8 | 0
7
2
3 | 0
7
0
1 | 0
7
2
7 | 0
7
2
6 | 0
7
2
1 | | |
| ANIMAL ID | 0
0
1
2
6 | 0
0
1
2
7 | 0
0
1
2
8 | 0
0
1
2
9 | 0
0
1
3
0 | 0
0
1
3
1 | 0
0
1
3
2 | 0
0
1
3
3 | 0
0
1
3
4 | 0
0
1
3
5 | 0
0
1
3
6 | 0
0
1
3
7 | 0
0
1
3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
0
1
4
1 | 0
0
1
4
2 | 0
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1
4
3 | 0
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1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | 0
0
1
5
0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma | | | | | | X | | | | | | | | | | | | | | | | | | | 3 |
| Alveolar/Bronchiolar Carcinoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | X | | X | | | X | X | | X | | X | | X | | | | | | | 13 |
| Pheochromocytoma Malignant, Metastatic, Adrenal Medulla | | | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | | | | | | | 2 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | X | | X | | | | | | | | | | | | X | | | | | 10 |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | * 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 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| 2 | 2 | 1 | 2 | 2 | 2 | 8 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 9 | 2 | 1 | 2 | 0 | 2 | 2 | 2 | | | |
| 6 | 7 | 8 | 7 | 7 | 6 | 6 | 7 | 8 | 7 | 3 | 7 | 8 | 6 | 6 | 8 | 6 | 2 | 8 | 3 | 2 | 1 | 7 | 7 | 1 | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 0 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 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 | 0 | | | |
| Renal Tubule, Adenoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Leiomyoma | | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Leukemia Mononuclear | | | X | | | X | | X | | | X | X | | | X | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 07022 | 07027 | 07032 | 07037 | 07042 | 07047 | 07052 | 07057 | 07062 | 07067 | 07072 | 07077 | 07082 | 07087 | 07092 | 07097 | 07102 | 07107 | 07112 | 07117 | 07122 | 07127 | 07132 | 07137 | |
| | 00151 | 00155 | 00159 | 00163 | 00167 | 00171 | 00175 | 00179 | 00183 | 00187 | 00191 | 00195 | 00199 | 00203 | 00207 | 00211 | 00215 | 00219 | 00223 | 00227 | 00231 | 00235 | 00239 | 00243 | |
| ANIMAL ID | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 010 | 011 | 012 | 013 | 014 | 015 | 016 | 017 | 018 | 019 | 020 | 021 | 022 | 023 | 024 | 025 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |
| Leiomyoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Hepatocellular Adenoma | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | X | X | X | | X | X | | | | | | | | | | X |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 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 | | | |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| FISCHER 344 RATS MALE | | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| 625 mg/l | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| 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 | | | |
| | | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | | |
| | | 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 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

males
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear Acinus, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach Squamous Cell Papilloma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Tongue Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|-------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------------------|--|
| | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | | | |
| 625 mg/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00151 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00152 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00153 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00154 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00155 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00156 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00157 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00158 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00159 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00160 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00161 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00162 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00163 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00164 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00165 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00166 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00167 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00168 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00169 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00170 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00171 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00172 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00173 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00174 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00175 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00176 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00177 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00178 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00179 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00180 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00181 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00182 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00183 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00184 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00185 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00186 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00187 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00188 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00189 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00190 | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------------------|
| | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | 070227 | | |
| | 0 | 0 | 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 | 5 | 7 | 7 | 7 | 7 | 5 | 5 | 7 | 7 | 6 | 6 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 6 | |
| | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 0 | 2 | 2 | 5 | 6 | 2 | 2 | 6 | 7 | 3 | 7 | 9 | 2 | 8 | 1 | 2 | 5 | |
| | 2 | 7 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 1 | 8 | 6 | 2 | 8 | 7 | 6 | 4 | 3 | 7 | 4 | 7 | 6 | 3 | 7 | 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 | |
| | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 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 | | |

Fibrous Histiocytoma, Metastatic, Skeletal Muscle

X

Leukemia Mononuclear

Seminal Vesicle
Leukemia Mononuclear

+ +

Testes
Leukemia Mononuclear
Bilateral, Interstitial Cell, Adenoma
Interstitial Cell, Adenoma

+
 X
 X

HEMATOPOIETIC SYSTEM

Bone Marrow
Leukemia Mononuclear

+
 X

Lymph Node
Iliac, Chordoma, Metastatic, Uncertain Primary Site
Pancreatic, Leukemia Mononuclear

+
 X

Lymph Node, Mandibular

M M

Lymph Node, Mesenteric
Fibrous Histiocytoma, Metastatic, Skeletal Muscle
Leukemia Mononuclear

+
 X
 X

Spleen
Leukemia Mononuclear

+
 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|-----------------------|-----------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|
| FISCHER 344 RATS MALE | | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 07 | 07 | 07 | 05 | 05 | 07 | 07 | 06 | 06 | 07 | 06 | 07 | 05 | 07 | 06 | |
| 625 mg/l | 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 | 00 |
| | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| | | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 77 | 77 | 77 | 77 | 77 |
| | | 12 | 34 | 56 | 78 | 90 | 12 | 34 | 56 | 78 | 90 | 12 | 34 | 56 | 78 | 90 | 12 | 34 | 56 | 78 | 90 | 12 | 34 | 56 | 78 | 90 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | X | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Subcutaneous Tissue, Fibroma | | | | | | | X | | | | | | | | X | | | | | | | | | | X |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Histiocytoma | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|
| FISCHER 344 RATS MALE

625 mg/l | DAY ON TEST | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 05 | 07 | 07 | 07 | 07 | 05 | 05 | 07 | 07 | 06 | 06 | 07 | 06 | 07 | 05 | 07 | 07 | 06 | males
(cont...) |
| | | 02 | 07 | 02 | 02 | 02 | 02 | 04 | 02 | 00 | 02 | 02 | 05 | 06 | 02 | 02 | 06 | 07 | 09 | 02 | 08 | 01 | 02 | 05 | 07 | 06 | |
| | 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 | 00 | |
| | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | |
| | | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 66 | |
| | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | |

Leukemia Mononuclear

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|
| | 0726 | 0727 | 0728 | 0661 | 0663 | 0664 | 0666 | 0667 | 0668 | 0669 | 0670 | 0671 | 0672 | 0673 | 0674 | 0675 | 0676 | 0677 | 0678 | 0679 | 0680 | 0681 | 0682 | | |
| ANIMAL ID | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Colon | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leiomyoma | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatocellular Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | X | | | X | | | | | | X | X | | | | | X | | | X | | X | 14 |
| Mesentery | | | | | | | | | | | | | + | | | | | | | + | | | | 6 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | A | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | 0726 | 0727 | 0728 | 0621 | 0623 | 0629 | 0631 | 0637 | 0638 | 0641 | 0646 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | 0647 | |
| ANIMAL ID | 001766 | 001767 | 001768 | 001769 | 001770 | 001771 | 001772 | 001773 | 001774 | 001775 | 001776 | 001777 | 001778 | 001779 | 001780 | 001781 | 001782 | 001783 | 001784 | 001785 | 001786 | 001787 | 001788 | 001789 | |
| | 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 | 6 | 6 | 4 | 6 | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 5 | 7 | 6 | 5 | 6 | |
| | 2 | 2 | 2 | 1 | 3 | 9 | 9 | 8 | 2 | 0 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 5 | 2 | 2 | 4 | 9 | |
| | 6 | 7 | 7 | 8 | 1 | 9 | 1 | 1 | 7 | 7 | 6 | 0 | 3 | 3 | 7 | 6 | 8 | 4 | 7 | 1 | 7 | 8 | 3 | 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 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear Acinus, Adenoma | | | | | | X | | | | | | | | | | X | | | | | | | X | 4 |
| Salivary Glands Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach Squamous Cell Papilloma | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Tongue Squamous Cell Carcinoma | | | | | + | X | | | | | | | | | | | | | | | | | | 1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Carcinoma, Metastatic, Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | X | | | | X | | | | X | | 7 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0726 | 0727 | 0728 | 0621 | 0623 | 0629 | 0631 | 0601 | 0603 | 0608 | 0610 | 0617 | 0619 | 0625 | 0627 | 0633 | 0635 | 0641 | 0643 | 0525 | 0527 | 0528 | 0534 | 0536 | |
| ANIMAL ID | 00176 | 00177 | 00178 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | 00200 | |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | X | | | | | | | | | X | 7 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | X | | | | | | | | | | | | | | | | | | | | | X | 5 |
| Pheochromocytoma Benign | | | | | | | | | X | | | | | | | | | | | | | | | | 5 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | X | | | | | | | | | | | | | | | | | 2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | X | | | | | | | | | X | 5 |
| Pars Distalis, Adenoma | X | X | X | X | X | X | X | X | X | | | X | | X | X | X | X | | | X | X | | X | X | 36 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C-cell, Adenoma | X | | | | | | | | | | X | | | | X | X | X | | | | | | | | 8 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | + | | | | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---|
| | 0726 | 0727 | 0728 | 0621 | 0623 | 0629 | 0631 | 0637 | 0639 | 0707 | 0709 | 0715 | 0717 | 0723 | 0725 | 0731 | 0733 | 0739 | 0741 | 0747 | 0749 | 0805 | 0807 | | | |
| ANIMAL ID | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 2 | |
| Bilateral, Interstitial Cell, Adenoma | X | | X | | X | | | X | | X | | X | X | | | | X | X | | X | | | | X | 24 | |
| Interstitial Cell, Adenoma | | X | | X | | | X | | X | X | | X | | | | X | X | | X | | | X | X | | 18 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | X | | | | | | X | X | | | | | X | | | X | | X | | 12 | |
| Lymph Node | | | | | | + | | | | | | + | + | | | | | | | | | | | + | 8 | |
| Iliac, Chordoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Pancreatic, Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | | | | | | X | 2 | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Mononuclear | | | X | | | X | | | | | | | | | | | | | X | | | | | X | 7 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | | X | | | | | | X | X | | | | | X | | | X | | X | | 14 | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | | | |
| ANIMAL ID | 00176 | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 00199 | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | | | | | X | | 3 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Keratoacanthoma | | | | | | | | | X | | X | | | | | | | | | | X | | | | 5 | | |
| Subcutaneous Tissue, Fibroma | | | | X | | | | | | | | | | | X | | | | | | | | | | 5 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Fibrous Histiocytoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | X | X | 3 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | X | | | | | | | X | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0726 | 0727 | 0728 | 0621 | 0623 | 0629 | 0631 | 0601 | 0606 | 0607 | 0608 | 0609 | 0610 | 0611 | 0612 | 0613 | 0614 | 0615 | 0616 | 0617 | 0618 | 0619 | 0620 | 0622 | |
| ANIMAL ID | 00176 | 00077 | 00078 | 00008 | 00011 | 00012 | 00001 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | X | | | | | | | | | X | | | | | | | 2 | |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | X | | | | | | | X | | | | | X | | X | | X | | | 11 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | | | X | | | | | | | X | | | | | X | | X | | X | | | 10 |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrous Histiocytoma, Metastatic, Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS MALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-----------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|----|
| | 07 | 07 | 07 | 06 | 06 | 04 | 06 | 06 | 07 | 06 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 07 | 05 | 07 | 06 | 05 | 06 | | 06 |
| ANIMAL ID | 006 | 007 | 007 | 008 | 001 | 003 | 009 | 009 | 001 | 001 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | | |
| Leukemia Mononuclear | | | | | | X | | | | | | | | | | | | | | X | | | | | 2 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | X | | X | | | | | | | X | X | | | | | | X | | | X | | X | 14 | |

*** END OF MALE DATA ***

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 mg/l | | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| ANIMAL ID | | 1 | 1 | 4 | 2 | 1 | 2 | 2 | 1 | 8 | 2 | 2 | 0 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 2 | 4 | 4 | 9 | 5 | 8 | 8 | 9 | 8 | 7 | 0 | 7 | 4 | 9 | 7 | 8 | 9 | 8 | 2 | 8 | 8 | 8 | 8 | 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 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 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 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | A | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Large, Rectum
Leiomyosarcoma, Metastatic, Uterus | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | X | | X | X | X | | X | | X | | | | |
| Mesentery | | | | | | | | | + | | | | | | | | | | | | + | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | X | | X | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| | 0
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0 | | | |
| 0 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
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4 | 0
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2
0
5 | |

Stomach, Glandular

+ +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

Leukemia Mononuclear

X X X X

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Adenoma

X

Leukemia Mononuclear

X X X X

Adrenal Medulla

+ +

Leukemia Mononuclear

X X X X

Pheochromocytoma Benign

X X

Islets, Pancreatic

+ +

Parathyroid Gland

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

Pituitary Gland

+ +

Leukemia Mononuclear

X X

Pars Distalis, Adenoma

X X

Thyroid Gland

+ +

Bilateral, C-cell, Adenoma

X

C-cell, Adenoma

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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 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 | 0 | females
(cont...) |
|-------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|
| DAY ON TEST | | 7 | 5 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | | |
| FISCHER 344 RATS FEMALE | 0 mg/l | 1 | 1 | 4 | 2 | 1 | 2 | 2 | 1 | 8 | 2 | 2 | 0 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 0 | | |
| | ANIMAL ID | 2 | 4 | 4 | 9 | 5 | 8 | 8 | 9 | 8 | 7 | 9 | 0 | 7 | 4 | 9 | 7 | 8 | 9 | 8 | 2 | 8 | 8 | 8 | 8 | 8 | 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 | | |
| | | 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 | | |
| | | 0 | 0 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | | |

C-cell, Carcinoma

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland
 Adenoma
 Sarcoma

+
 X X

Ovary
 Leukemia Mononuclear
 Schwannoma Malignant

+
 X

Uterus
 Leiomyosarcoma
 Polyp Stromal
 Endometrium, Carcinoma

+
 X X X X

Vagina
 Leukemia Mononuclear
 Polyp

HEMATOPOIETIC SYSTEM

Bone Marrow
 Leukemia Mononuclear

+
 X X X X X X

Lymph Node

+ + +

* .. 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

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|-----------------------|----------------------|--|
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9 | 0
7
2
8 | | | | |
| 0 mg/l | 0 | 0 | 0 | 0 | 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
0
1 | females
(cont...) | |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | X | | | | | | X | | | | | | |
| Mediastinal, Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | | | |
| Lymph Node, Mesenteric Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | X | | | + | + | + | + | + | + | | | |
| Spleen Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | X | X | X | | X | X | | | | | | |
| Thymus Leukemia Mononuclear | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| | | | | | | | | | | | | | | | | | | | | | | X | X | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | X | | | | | X | X | X | | | X | | | | | X | | | X | | | | | | X | X | | | |
| Fibroadenoma, Multiple | | | X | | X | | | | | | | | | | X | | X | | | X | X | X | | | | | | | |
| Skin Basal Cell Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | X | | | | | | X | | | | | | | |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|----------------------|
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9 | 0
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0 | | |
| 0 mg/l | 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 | |
| | 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 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | |

NERVOUS SYSTEM

Brain +
 Glioma Benign

RESPIRATORY SYSTEM

Lung +
 Carcinoma, Metastatic, Thyroid Gland
 Leukemia Mononuclear X X X X X X

Nose +

Trachea +

SPECIAL SENSES SYSTEM

Eye +

Harderian Gland +

URINARY SYSTEM

Kidney + + + + + + + A +
 Leukemia Mononuclear X X X X

Urinary Bladder +
 Leiomyosarcoma, Metastatic, Uterus
 Leukemia Mononuclear

SYSTEMIC LESIONS

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(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 | 5 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | |
| 0 mg/l | 1 | 1 | 4 | 2 | 1 | 2 | 2 | 1 | 8 | 2 | 2 | 0 | 2 | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 0 | |
| | 2 | 4 | 4 | 9 | 5 | 8 | 8 | 9 | 8 | 7 | 9 | 0 | 7 | 4 | 9 | 7 | 8 | 9 | 8 | 2 | 8 | 8 | 8 | 9 | 9 | |
| | 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 | |
| | 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 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 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 | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----|--|
| | 079 | 072 | 070 | 053 | 057 | 051 | 062 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | 072 | | 072 | |
| 0 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 002226 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | X | X | X | | | | | | | | | | | | | | 8 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Leukemia Mononuclear | | | | | | | | | | X | | X | X | | | X | | X | | | | | | | | 9 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | X | | X | X | | | X | | X | | | | | | | | 8 | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 47 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Pars Distalis, Adenoma | | | X | X | X | X | X | X | | | | | X | | | X | | X | | | X | X | X | X | | 30 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Bilateral, C-cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| C-cell, Adenoma | X | | X | | | | | | | X | | | | X | | | | | | | | | | | | 9 | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|-----|
| | 079 | 070 | 072 | 073 | 075 | 076 | 077 | 077 | 077 | 077 | 076 | 077 | 077 | 076 | 076 | 076 | 077 | 077 | 077 | 076 | | 077 |
| 0 mg/l | 0029 | 0011 | 0029 | 0031 | 0059 | 0061 | 0077 | 0077 | 0077 | 0077 | 0068 | 0077 | 0077 | 0066 | 0066 | 0066 | 0077 | 0077 | 0077 | 0066 | 0077 | 1 |
| | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 8 |
| | 0022 | 0022 | 0022 | 0022 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 9 |
| | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0 |

C-cell, Carcinoma

X

1

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | X | | | X | | X | | | | | | | X | X | | 7 |
| Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leiomyosarcoma | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | X | | | | | | | | | | | | | | | | X | X | | X | | | | 8 |
| Endometrium, Carcinoma | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Vagina | | | | | | | | | | | + | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Polyp | | | | | | | | | | | X | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | X | | X | X | X | | | X | | X | | | | | | | | 12 |
| Lymph Node | | | | | | | | | | + | | | | | | + | | | | | | | | 5 |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--|
| | 0729 | 0729 | 0729 | 0531 | 0531 | 0531 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | 0671 | | |
| 0 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | 002226 | |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Mediastinal, Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |
| Lymph Node, Mesenteric Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Spleen Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 12 | |
| Thymus Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 2 | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | 22 | |
| Fibroadenoma, Multiple | X | X | | | | | | | | | | | | | | | | | | | | | | | 12 | |
| Skin Basal Cell Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE

0 mg/l | 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 | |
| | 7 | 7 | 7 | 5 | 5 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | |
| ANIMAL ID | 2 | 0 | 2 | 3 | 7 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 2 | 9 | 8 | 2 | 5 | 9 | 8 | 8 | 9 | 2 | 8 | |
| | 9 | 1 | 9 | 1 | 9 | 1 | 8 | 7 | 8 | 8 | 1 | 9 | 7 | 1 | 2 | 5 | 9 | 8 | 8 | 9 | 9 | 3 | 8 | |
| | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 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 | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Glioma Benign | | | | | | | | | | | | | | | | | | X | | | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | X | X | X | X | | | X | X | | | | | | | | | 12 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

SPECIAL SENSES SYSTEM

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

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | | | X | X | X | X | | | X | X | | | | | | | | | 10 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leiomyosarcoma, Metastatic, Uterus | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | X | | | | | | | | | | | | | | 1 |

SYSTEMIC LESIONS

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0729 | 0701 | 0702 | 0703 | 0705 | 0706 | 0707 | 0707 | 0707 | 0707 | 0706 | 0707 | 0707 | 0707 | 0706 | 0706 | 0706 | 0707 | 0707 | 0707 | 0707 | 0706 | 0707 | | |
| 0 mg/l | 0029 | 0001 | 0002 | 0003 | 0007 | 0008 | 0002 | 0002 | 0002 | 0002 | 0008 | 0008 | 0001 | 0009 | 0007 | 0005 | 0009 | 0008 | 0008 | 0009 | 0009 | 0003 | 0008 | 0008 | |
| | 0022 | 0000 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 |
| | 0022 | 0022 | 0022 | 0022 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0045 |
| | 0067 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0000 |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | X | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
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 Lab: BAT

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(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 | | |
| | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(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 | |
| | 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 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 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 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum
Mesothelioma Malignant | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + |
| Intestine Large, Colon
Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Duodenum
Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + |
| Intestine Small, Ileum
Mesothelioma Malignant | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + |
| Intestine Small, Jejunum
Mesothelioma Malignant | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + |
| Liver
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | X | | | | | | | | X | X | | X | X | | | | X | | | X | | | X | |
| Mesentery
Leukemia Mononuclear
Mesothelioma Malignant | + | | | + | | | | | | | | + | + | | | | | | + | | | | | |
| | | | | | | | | | | | | | | | | | | | | X | | | | |
| Pancreas
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0614 | 0706 | 0531 | 0729 | 0779 | 0676 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| 156.25 mg/l | 0051 | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 |

Mesothelioma Malignant

Salivary Glands

Stomach, Forestomach

Stomach, Glandular

CARDIOVASCULAR SYSTEM

Blood Vessel

Heart
 Leukemia Mononuclear

ENDOCRINE SYSTEM

Adrenal Cortex
 Adenoma
 Leukemia Mononuclear
 Mesothelioma Malignant

Adrenal Medulla
 Leukemia Mononuclear

Islets, Pancreatic
 Adenoma
 Leukemia Mononuclear

Parathyroid 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0614 | 0706 | 0531 | 0729 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0051 | 0002 | 0005 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | X | | X | X | X | X | X | | | X | | X | X | | | X | | | X | | X | | | | |
| Thyroid Gland | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| C-cell, Adenoma | | | | | | | | | | X | | | | | | | | | | | X | | | | | |
| C-cell, Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | X | | | | X | | | | | | | | | | | | X | | | | X | | | | | |
| Carcinoma | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Bilateral, Adenoma | | | | | | | | X | | | | | | | | | | | | | | X | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Granulosa Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | | | | X | X | | | X | X | X | X | | | X | | | | | | X | | | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|-------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| FISCHER 344 RATS FEMALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| 156.25 mg/l | | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | | 7 |
| | | 1 | 0 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | |
| ANIMAL ID | | 4 | 6 | 1 | 9 | 9 | 6 | 9 | 7 | 8 | 8 | 9 | 6 | 2 | 9 | 8 | 8 | 7 | 6 | 7 | 8 | 8 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | | 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 | 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 | 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 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |

Polyp X

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Pancreatic, Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | X | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | X | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | X | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma, Multiple | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|--|
| | 0614 | 0706 | 0503 | 0702 | 0702 | 0601 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0702 | 0601 | 0702 | 0702 | 0702 | 0601 | 0702 | 0702 | | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 | 0000 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | X | | | | | | | | | | | | X | | | | | | | | | | | | | X | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | X | | | | | | | | | | X | X | | X | X | | | | X | X | | X | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0526 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| 156.25 mg/l | 0076 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | |
| ANIMAL ID | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum
Mesothelioma Malignant | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 45
1 |
| Intestine Large, Colon
Mesothelioma Malignant | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 48
1 |
| Intestine Large, Rectum | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Duodenum
Mesothelioma Malignant | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 47
1 |
| Intestine Small, Ileum
Mesothelioma Malignant | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 46
1 |
| Intestine Small, Jejunum
Mesothelioma Malignant | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | 46
1 |
| Liver
Leukemia Mononuclear | + | + | + | + | + | X | + | X | + | X | + | + | + | + | + | + | + | + | X | + | X | + | + | + | 50
13 |
| Mesentery
Leukemia Mononuclear
Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | + | + | 7
1
1 |
| Pancreas
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | 50
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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|--|
| | 0526 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | | | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 00076 | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 | 00100 | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | X | 4 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | X | | | | | | | | | | | | | X | X | | | | | | | | | 4 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | X | X | | 6 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | X | 6 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | M | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
156.25 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|--|
| | 0526 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | | | |
| ANIMAL ID | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0100 | | |
| Pituitary Gland | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Pars Distalis, Adenoma | X | X | X | X | X | | | X | X | X | X | | X | X | X | | X | | | X | | | X | | 27 | | |
| Thyroid Gland | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| C-cell, Adenoma | | | | X | | | | | | | | | | | | | | | | | | | | | 3 | | |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Adenoma | | | | | X | | | | | | | | X | | | | | | | | | | X | | 7 | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Bilateral, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Granulosa Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | 2 | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | | |
| Polyp Stromal | | | | | X | | | X | | | | | X | | X | | | | | | | | | X | 13 | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0526 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| 156.25 mg/l | 0076 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 |
| | 0076 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 |
| | 6 | 7 | 7 | 9 | 9 | 5 | 9 | 8 | 8 | 8 | 8 | 9 | 7 | 8 | 0 | 7 | 7 | 8 | 5 | 6 | 8 | 4 | 8 | 8 | 6 |
| | 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 |

Polyp 1

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | X | | | | X | | | | | | | | X | | X | X | | | | 9 |
| Lymph Node | | + | | | | | | | | | | | + | + | | | | | | | | | + | | 7 |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | X | | | X | X | | | | | | | | X | | X | X | | | | 15 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibroadenoma | | | | X | | | X | | X | X | | X | | | X | | | X | | | X | | X | | 15 |
| Fibroadenoma, Multiple | | | | | | | | X | | X | | | X | X | | X | | X | | | | | | | 16 |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|-----------------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0526 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | | 0772 | 0772 |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | 0000 | 0000 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Subcutaneous Tissue, Fibroma | | | | | | | | X | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 2 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | X | | X | X | | | | | | | X | X | | | | | | 11 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0526 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| 156.25 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0076 | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099 | 0100 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | X | | | | X | | | | | | | | | X | | | | | | | 7 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | X | | | | X | | X | | | | | | | X | | X | X | | | | 15 |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|--|
| | 0691 | 0729 | 0690 | 0729 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0672 | 0779 | 0672 | 0779 | 0779 | 0576 | 0779 | 0672 | 0779 | 0779 | 0576 | 0779 | 0779 | | | |
| 312.5 mg/l | 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 | | |
| | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | |
| | 12 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum
Sarcoma, Metastatic, Uncertain Primary Site | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Liver
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | X | | X | | | | X | X | | | | | X | | | | | | | | | | X | X | |
| Mesentery
Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | + | | | | | + | | | + | | | | | | | + | + | |
| Oral Mucosa
Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Sarcoma, Metastatic, Uncertain Primary Site | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0691 | 0729 | 0690 | 0779 | 0772 | 0779 | 0772 | 0779 | 0771 | 0778 | 0672 | 0776 | 0778 | 0772 | 0778 | 0576 | 0772 | 0778 | 0673 | 0779 | 0772 | 0779 | 0572 | 0772 | | | 0675 | 0772 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0030 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0033 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0034 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0035 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0036 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0037 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0038 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0039 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0040 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0041 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0042 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0043 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0044 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0045 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | X | | | | | | | | | X | | | | X | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | X | | X | | | | X | | | | | | | | | | | | | | X |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | X | | | | | | | X | | X | | | | X | | | | | | | | | | | | | | X |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Mononuclear | | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | X | X | | X | | X | X | | | X | X | X | | X | X | | X | X | | | X | | | | | | X |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|
| | 0691 | 0729 | 0690 | 0779 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0676 | 0776 | 0676 | 0776 | 0776 | 0575 | 0777 | 0777 | 0676 | | | 0777 | 0575 | 0777 |
| 312.5 mg/l | 9 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 7 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 9 | |
| | 1 | 9 | 0 | 9 | 7 | 9 | 7 | 9 | 7 | 1 | 8 | 2 | 8 | 6 | 7 | 8 | 6 | 8 | 8 | 3 | 9 | 7 | 2 | 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 | |
| | 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 | 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 |

Bilateral, C-cell, Adenoma
 C-cell, Adenoma
 C-cell, Carcinoma

X
 X

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | X | X | X | | X | | | | X | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma | | | | | | | X | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | X | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leiomyosarcoma | | | | | | | X | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | X | | | | | X | | | X | X | | X | X | | | | | | | | |
| Cervix, Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Adenoma | | | | | X | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0691 | 0729 | 0679 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | |
| | ANIMAL ID | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lymph Node
Mediastinal, Leukemia Mononuclear
Pancreatic, Leukemia Mononuclear | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | M | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric
Leukemia Mononuclear | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen
Leukemia Mononuclear | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus
Leukemia Mononuclear | + | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland
Adenoma
Carcinoma
Fibroadenoma
Fibroadenoma, Multiple | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin
Subcutaneous Tissue, Fibroma
Subcutaneous Tissue, Fibrosarcoma
Subcutaneous Tissue, Hemangiosarcoma
Subcutaneous Tissue, Histiocytic Sarcoma | + | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL 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

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| FISCHER 344 RATS FEMALE | 0691 | 0729 | 0690 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0672 | 0729 | 0672 | 0729 | 0729 | 0572 | 0729 | 0729 | 0672 | 0729 | 0729 | 0572 | 0729 | | |
| 312.5 mg/l | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | |
| | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | | |
| | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Hemangiosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | X | | | | X | X | | | | | X | | | | | | | X | | X | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Respiratory Epithelium, Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |

* .. 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

TDMS No. 20009 - 03
Test Type: CHRONIC
Route: DOSED WATER
Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
CAS Number: 108-99-6

Date Report Requested: 05/27/2011
Time Report Requested: 10:09:56
First Dose M/F: 11/18/04 / 11/19/04
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 | 0 | 0 |
|--------------------------------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS FEMALE | 6 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 7 | 7 | 5 | 7 | |
| | 9 | 2 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 7 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 8 | 2 | 8 | 2 | | |
| | 1 | 9 | 0 | 9 | 7 | 9 | 7 | 9 | 7 | 1 | 8 | 2 | 6 | 7 | 8 | 6 | 8 | 8 | 3 | 9 | 9 | 7 | 2 | 2 | 9 | 2 | | |
| 312.5 mg/l | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 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 | |
| | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 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 | 6 | 7 | |
| | females (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | X | X | | | | X | | | | | | | | | | | | | | | |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Leukemia Mononuclear | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
| | 078 | 077 | 066 | 072 | 077 | 057 | 077 | 076 | 066 | 066 | 077 | 077 | 055 | 077 | 066 | 077 | 077 | 066 | 077 | 077 | | 077 | 077 | | |
| 312.5 mg/l | 0026 | 0037 | 0036 | 0029 | 0037 | 0009 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 |
| | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 |
| | 0022 | 0022 | 0022 | 0022 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0045 |
| | 0067 | 0077 | 0066 | 0079 | 0077 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | 47 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | X | X | | | X | X | | X | | | X | X | | | X | X | X | | | | X | 18 |
| Mesentery | | | + | | | | | | | | | | | | + | | | | | | | | | | 7 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|------------------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|
| | 078 | 077 | 066 | 072 | 072 | 057 | 077 | 076 | 066 | 066 | 077 | 077 | 055 | 077 | 066 | 077 | 077 | 066 | 077 | 077 | | 077 |
| 312.5 mg/l | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | |
| | 00326 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | X | | | X | | | X | | | X | | | | | 7 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | X | | | | | | | | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | | | | | | X | | X | | | X | | | X | | | | | | 9 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | X | | X | | | X | | | X | | | | | | 9 |
| Pheochromocytoma Benign | | | | | | | | | | X | | | | | X | | | | | | | 3 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | + | + | + | + | + | 48 |
| Pituitary Gland | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | X | | | X | | | | 4 |
| Pars Distalis, Adenoma | | | | X | X | | | X | X | | | X | | X | X | | X | | X | X | X | 29 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|----------|
| | 078 | 077 | 066 | 077 | 077 | 057 | 077 | 077 | 066 | 066 | 066 | 077 | 077 | 057 | 077 | 066 | 077 | 077 | 066 | 077 | 077 | 077 | 077 | | |
| 312.5 mg/l | 0026 | 0027 | 0026 | 0029 | 0027 | 0029 | 0029 | 0029 | 0030 | 0033 | 0031 | 0029 | 0027 | 0029 | 0027 | 0028 | 0026 | 0028 | 0026 | 0028 | 0029 | 0029 | 0028 | | |
| ANIMAL ID | 0032 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | | |
| | 67 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |

| | | | |
|----------------------------|---|---|---|
| Bilateral, C-cell, Adenoma | X | X | 2 |
| C-cell, Adenoma | | | 1 |
| C-cell, Carcinoma | X | | 2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | X | X | | | X | | | | | | | | | | | | X | | X | X | | | | 12 |
| Carcinoma | | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leiomyosarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | | | | X | X | | | X | | | | | X | | | X | X | X | | | | | | 13 |
| Cervix, Sarcoma, Metastatic, Uncertain Primary Site | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Endometrium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | X | | X | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------------|---|--|
| | 07
28 | 07
27 | 06
26 | 07
22 | 07
22 | 05
19 | 07
22 | 07
22 | 06
22 | 06
22 | 06
22 | 06
22 | 06
22 | 07
22 | 07
22 | 05
19 | 07
22 | 06
22 | 07
22 | 06
22 | 07
22 | 07
22 | 07
22 | 07
22 | | | |
| ANIMAL ID | 00326 | 00332 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | 00333 | | |
| Lymph Node
Mediastinal, Leukemia Mononuclear
Pancreatic, Leukemia Mononuclear | + | | | | + | | | | | | | | | | | | | | | | | | | | 5
1
1 | | |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |
| Lymph Node, Mesenteric
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
4 | | |
| Spleen
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
18 | | |
| Thymus
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Adenoma
Carcinoma
Fibroadenoma
Fibroadenoma, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2
1
17
11 | | |
| Skin
Subcutaneous Tissue, Fibroma
Subcutaneous Tissue, Fibrosarcoma
Subcutaneous Tissue, Hemangiosarcoma
Subcutaneous Tissue, Histiocytic Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1
1
1
1 | | |
| MUSCULOSKELETAL 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
312.5 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-----|
| | 078 | 077 | 066 | 072 | 077 | 057 | 077 | 066 | 066 | 066 | 077 | 077 | 055 | 077 | 066 | 077 | 077 | 066 | 077 | 077 | | 077 | 077 |
| ANIMAL ID | 00326 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | 00033 | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | X | | | | X | | | 2 |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemangiosarcoma, Metastatic, Skin | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | X | X | | | X | X | | X | | X | X | | | | X | | | | | | 15 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Respiratory Epithelium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 48 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | 2 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 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 | ANIMAL ID | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|--|---|
| | 7 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 6 | 6 | 6 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | | | | 7 |
| FISCHER 344 RATS FEMALE | 2 | 2 | 6 | 2 | 2 | 7 | 2 | 2 | 7 | 8 | 9 | 2 | 2 | 2 | 0 | 7 | 2 | 2 | 6 | 6 | 2 | 2 | 2 | 2 | 2 | | | |
| 312.5 mg/l | 8 | 7 | 6 | 9 | 7 | 9 | 9 | 9 | 0 | 3 | 1 | 9 | 9 | 7 | 1 | 7 | 7 | 8 | 6 | 8 | 8 | 8 | 9 | 8 | 8 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 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 | | | |
| | 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 | | | |
| | 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 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 9 | | | |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | 18 | | | |

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|-----------------------|------------------|
| | 0
7
2
8 | 0
7
2
8 | 0
6
6
6 | 0
5
7
9 | 0
5
2
8 | 0
7
6
2 | 0
6
8
2 | 0
7
7
2 | 0
7
7
2 | 0
7
7
2 | 0
7
7
2 | 0
7
7
2 | 0
7
7
2 | 0
5
4
0 | 0
6
3
2 | 0
7
2
2 | 0
7
7
1 | 0
5
2
2 | 0
7
2
2 | 0
6
5
6 | | | 0
7
1
9 | 0
7
2
8 | 0
5
1
2 |
| | 0 | 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
5
1 | |

Stomach, Glandular

+ +

Tongue
Squamous Cell Papilloma

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart
Leukemia Mononuclear

+ X

ENDOCRINE SYSTEM

Adrenal Cortex
Adenoma
Leukemia Mononuclear

+ X X

Adrenal Medulla
Leukemia Mononuclear
Pheochromocytoma Malignant

+ X X

Islets, Pancreatic
Adenoma

+ +

Parathyroid Gland

+ + + + + M + M + +

Pituitary Gland
Pars Distalis, Adenoma
Pars Nervosa, Craniopharyngioma

+ 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|-------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|----------------------|
| | 078 | 078 | 066 | 057 | 059 | 072 | 068 | 077 | 077 | 077 | 077 | 077 | 054 | 063 | 072 | 072 | 075 | 077 | 077 | 066 | 077 | 077 | 055 | 071 | 077 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 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 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 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 | 7 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Adenoma | | | | X | | | | | X | | | | | | | | | | | | | | | | | | |
| C-cell, Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Follicular Cell, Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | X | X | | | | | | X | | | | | | | | | | | X |
| Carcinoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granulosa-Theca Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | X | | | | | | | | X | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Polyp Stromal | | | | | | X | | | | X | X | | | | | | X | | | | | | | | | | |

Vagina
Polyp

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|
| | 0
7
2
8 | 0
7
2
8 | 0
6
6
6 | 0
5
7
9 | 0
5
2
8 | 0
7
6
7 | 0
6
8
5 | 0
7
7
8 | 0
7
2
9 | 0
7
2
9 | 0
7
2
8 | 0
7
2
9 | 0
7
2
8 | 0
5
4
0 | 0
6
3
2 | 0
7
2
7 | 0
7
2
8 | 0
5
2
7 | 0
7
2
9 | 0
6
5
6 | 0
7
1
2 | 0
7
2
3 | 0
7
2
4 | 0
5
1
8 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 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 | | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | X | | | | | | | | | X | | | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | X | | | | | X | | | | | X | | | | | | | | | X | X | | |
| 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|--|
| | 0728 | 0678 | 0728 | 0588 | 0778 | 0578 | 0758 | 0768 | 0678 | 0768 | 0778 | 0778 | 0778 | 0778 | 0678 | 0728 | 0728 | 0728 | 0478 | 0728 | 0678 | 0778 | | 0778 | | |
| 625 mg/l | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | 00400 | |
| | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | 00400 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | X | | | | X | | | | | X | | | | X | | | | 10 |
| Mesentery | + | | | | | | | | | | | | | | + | | | | | | | + | | + | | 8 |
| Oral Mucosa | | | | | | | | | | | | | | + | | | | | | | | | | | + | 2 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|
| | 078 | 067 | 075 | 082 | 070 | 075 | 072 | 069 | 074 | 073 | 072 | 078 | 077 | 076 | 075 | 074 | 073 | 072 | 071 | 070 | | 069 |
| ANIMAL ID | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Tongue | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | 1 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | 2 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | 3 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | 3 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | 3 |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pars Distalis, Adenoma | | X | X | | X | X | | X | X | | | | | | X | | X | X | X | X | X | 26 |
| Pars Nervosa, Craniopharyngioma | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|
| | 078 | 067 | 075 | 077 | 075 | 077 | 052 | 078 | 064 | 076 | 077 | 077 | 077 | 077 | 067 | 077 | 077 | 047 | 072 | 067 | 076 | 077 | 077 | | |
| ANIMAL ID | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Carcinoma | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| C-cell, Adenoma | | | | | | | | | | | | | | X | | | | | | X | X | | 6 |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | X | | X | | | | | | | | | X | | X | | 8 |
| Carcinoma | | | | | | | | | X | | | | | | | | | | | | | | 2 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granulosa-Theca Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | | X | | | | | | | | | | | | | | X | | | | | | | 6 |
| Vagina | | + | | + | | | | | | | | | | | | | | | | | | | 2 |
| Polyp | | X | | X | | | | | | | | | | | | | | | | | | | 2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------|---|
| | 07
28 | 06
07 | 07
08 | 05
08 | 07
08 | 07
00 | 05
01 | 07
02 | 06
09 | 07
04 | 06
02 | 07
03 | 07
09 | 07
08 | 07
08 | 06
09 | 07
05 | 07
09 | 07
02 | 04
07 | | 06
02 | 07
03 | 07
08 | 07
02 | 07
09 | | |
| ANIMAL ID | 00376 | 00037 | 00007 | 00000 | 00008 | 00001 | 00002 | 00003 | 00004 | 00005 | 00006 | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | 7 | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 | |
| Lymph Node, Mesenteric
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50
2 | |
| Spleen
Histiocytic Sarcoma
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50
1
10 | |
| Thymus
Lymphoma Malignant | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47
1 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Adenoma
Fibroadenoma
Fibroadenoma, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50
1
17
6 | |
| Skin
Keratoacanthoma
Subcutaneous Tissue, Lipoma
Subcutaneous Tissue, Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50
1
1
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

TDMS No. 20009 - 03
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 Route: DOSED WATER
 Species/Strain: RATS/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 078 | 067 | 075 | 077 | 077 | 057 | 075 | 076 | 076 | 077 | 077 | 077 | 077 | 077 | 067 | 077 | 077 | 077 | 047 | 072 | | 067 | 077 | 077 |
| ANIMAL ID | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 |
| Osteosarcoma | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | X | | | | | | | | | X | | | X | | | | 5 |
| Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Histiocytic Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | X | | | | 4 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 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

TDMS No. 20009 - 03
 Test Type: CHRONIC
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 beta-Picoline
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011
 Time Report Requested: 10:09:56
 First Dose M/F: 11/18/04 / 11/19/04
 Lab: BAT

| FISCHER 344 RATS FEMALE
625 mg/l | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 067 | 075 | 077 | 057 | 075 | 076 | 076 | 077 | 077 | 077 | 077 | 077 | 076 | 072 | 072 | 072 | 072 | 074 | 074 | 076 | 077 | 077 | 077 | |
| ANIMAL ID | 00376 | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | 4 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Leukemia Mononuclear | | | | | | | | X | | | | X | | | | | | X | | | | X | | | 10 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 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