

LABORATORY REPORT

Submission No: S2025/01_0188

Sender:	Jaco Pieterse	Owner:	- - -
Clinic or Company:	SPCA Grassy Park	Company:	-
PO Box or Street:	PO Box 3	Farm Name (GPS):	- (-,-)
Town, postal code:	Plumstead, 7801	PO Box or Street:	10 Langeberg Road, -
Contact number(s):	0217004140; 58; 59, -	Town, postal code:	Lavender Hill, 7945
Email:	inspmanager@spca-ct.co.za; vet@spca-ct.co.za	Contact number(s):	-; -
		Email:	-

Sender Reference: -

State Vet Area: SV Boland

Purpose of sampling: Diagnostic

SPECIMEN INFORMATION

Species: Canine - Dog
Date & Time Received: 2025-01-21 12:25pm

REPORT / VERSLAG

LABORATORY REPORT
Submission No: S2025/01_0188

REPORT / VERSLAG

POST MORTEM REPORT

Date: 21/01/2025

Submission number: S2025/01_0188

Animal identification: Medium-size, mixed-breed, adult suspected brindle intact male canine.

History:

The following information was submitted along with the carcass:

"Animal was found alive on owner's property by inspector Ayanda Ngofe-Carelse. Animal was brought in by inspector Ayanda while being alive. Animal was put down by AWA of Cape of Good Hope."

Upon a telephonic conversation with inspector Jaco Pieterse (on day of carcass arrival to the lab - 21st January 2025), it has been established that he was not sure what the history of the case was, but that he suspects that this was the dog that was stabbed by someone in the area (not the owner), was picked up at the owner's property and was euthanised at AWS Cape of Good Hope.

The following was obtained from Mr. Werner Tajaard via email, the day after the post-mortem:

"On the 18th of January, 2025, at approximately 17:30, I received a report regarding a dog located at 10 Langeberg Road, Lavender Hill. The dog was described as severely neglected, suffering from severe mange, and having been hit by a truck the previous day without receiving any treatment.

Upon arriving at the address, I found a group of people shouting and requesting that I take the dog, which was standing outside number 10. I asked them to contact the owner. As I approached the crossbreed dog, which appeared lethargic with severe skin conditions and injuries to its face and back, I walked into the yard and followed it. I inquired with the crowd about the dog's owner, as they were mocking and ridiculing the animal. They mentioned that the dog "just won't die" and that it keeps getting hit by cars but always manages to get up. A young man emerged from the house and introduced himself as Leshley Jacobs, the dog's owner. He gave me permission to take the dog, as the crowd urged me to do so. He confirmed that the dog had been hit by a car the previous day. When I asked if he had sought veterinary care, he responded negatively. I also asked about the dog's skin condition, and he explained that the dog often roams the streets. The dog had not been provided with shelter, food, or water, indicating a clear case of severe neglect. The owner appeared unconcerned. I issued him a warning, stating that this was an offense under the Animals Protection Act. He accepted the warning."

Samples received and tests requested: One medium-size, mixed-breed, adult suspected brindle intact male canine for post-mortem examination, packaged in a black refuse bag with a note stating "INSP211609 A50068 Post Mortem Insp Ayanda".

PM changes:

Mild

General changes:

Body condition score of 2 out of 5 (poor), characterised by some, but insufficient subcutaneous and visceral fat. Moderate generalized lymphadenomegaly (enlarged lymph nodes).

Specific changes:

External and skin:

- Canines were excessively worn and blunted.
- Mucoid to mucopurulent discharge from the ears, nose and eyes bilaterally.
- Severe hyperkeratosis of all four footpads.
- Severe chronic dermatitis (skin disease) characterised by lichenification (hardening and thickening of the skin), alopecia (hair loss), hyperpigmentation (darkening of the skin).
- Severe secondary bacterial skin infection characterised by areas of crusting, exudate and sloughing of the skin.
- A large cutaneous to subcutaneous haematoma (bruise) extending superficially into the underlying muscle overlying the left shoulder (approximately 20 to 25cm diameter).

LABORATORY REPORT
Submission No: S2025/01_0188

REPORT / VERSLAG

- No evidence of sharp force trauma was noted.

Respiratory system:

- Multiple solid and raised nodules of 2 to 5 mm diameter throughout the parenchyma of both lungs.

Gastro-intestinal system:

- Multiple dark and firm (meaty consistency) nodules along the mesentery.
- Stomach: full, with contents being white to creamy, with soft fine granules and some blue plastic foreign material resembling a bread bag and a large plant seed that could not be identified.
- Small intestine: yellow-brown and watery contents.
- Large intestine: brown and semi-solid to solid contents.

Musculoskeletal system:

- Multiple rib fractures: two on the right, on the bottom third of ribs 6 and 7; and one on the left, on the bottom third of rib 7.

Incidental findings:

Respiratory tract/system: Moderate diffuse pulmonary congestion and oedema, suspected to be the result of the euthanasia agent.

Haemolymphatic system: diffuse splenomegaly as a result of congested suspected to be the result of the euthanasia agent.

Samples taken at necropsy:

Faecal sample for faecal flotation.

Skin scrape for ectoparasite examination.

Fresh lung and spleen for bacterial culture.

Fresh brain, lung and spleen for further testing.

Full set of organ samples in 10% buffered formalin for histopathology.

RESULTS:

Blood smear:

Moderate leukocytosis, characterised by an increased number of neutrophils, monocytes and eosinophils. Red blood cells and platelets were within normal limits.

Urinalysis:

One mL of urine could be extracted from the half-full bladder. The urine was orange-yellow in colour, clear and had a pH of 6. Remaining parameters were all within normal limits.

Skin scrape:

Several mites (suspected to be *Sarcoptes scabiei*) was noted in a prep of the skin scrape.

Impression smears:

Lymph node: One impression smear from the pre-scapular lymph node, of adequate diagnostic quality, with a mixed population of leukocytes. More erythrocytes were noted than what would be expected, indicating that the lymph node was draining blood prior to death.

Lung: One impression smear from a lung lobe, of adequate diagnostic quality, with majority erythrocytes and lymphocytes, with some pulmonary epithelial cells and macrophages.

Spleen: One impression smear from the cut surface of the spleen, of adequate diagnostic quality, within normal limits.

Parasitology:

The faecal flotation test indicated a heavy Strongyle infestation and some *Trichuris* eggs. Several mites and mite eggs

REPORT / VERSLAG

were also noted.

Histopathology:

The following was observed in multiple organs: The capillaries and small vasculature of the pancreas, heart, lungs, liver, pancreas and kidneys exhibited moderate expansion with an increase in intravascular erythrocytes, and mature neutrophils, characteristic of congestion and neutrophilic leukostasis.

Brain and meninges: Sections of the meninges reveal a mild, diffuse lymphoplasmacytic inflammatory infiltrate. The infiltrate is predominantly composed of plasma cells and lymphocytes, and scattered macrophages. These inflammatory cells are primarily localised perivascularly surrounding small to large meningeal blood vessels. Multiple sections of the brain demonstrate marked astrogliosis within the grey matter, characterized by clusters of astrocytes surrounding the grey matter neurons.

Liver: Intracellular, light to golden-brown, finely granular pigment was noted within hepatic macrophages, consistent with haematin pigment. Furthermore, lympho-plasmacytic infiltrates were observed in the parenchymal areas surrounding central veins, consisting of predominantly plasma cells and lesser small lymphocytes.

Spleen: All sections showed intracellular and extracellular accumulation of finely granular, light to golden-brown pigment, consistent with haematin. Moderate expansion of the lymphoid follicles was noted, with prominent germinal centres. Additionally, scattered mature neutrophils, localised within the marginal zone of the white pulp, were noted.

Kidneys: All sections of the kidney showed multifocal areas of intratubular accumulation of granular, purple-staining material within the renal medulla, consistent with renal medullary mineralisation, likely attributable to dehydration. Lymphoplasmacytic inflammatory infiltrates were present, associated with the transitional epithelial cell layer and/or small vasculature of the renal pelvis, consisting predominantly of plasma cells and some lymphocytes.

Lungs: Multifocal lung sections showed small infiltrates of lymphoplasmacytic inflammatory cells, consisting predominantly of plasma cells, with lesser small lymphocytes and occasional macrophages. Multifocal dark brown to black, coarsely granular pigment was noted in the interstitium, consistent with anthracosis. The interalveolar septae were moderately widened by pale eosinophilic, homogenous fluid, indicative of oedema, as well as scattered small lymphocytes, plasma cells and occasional alveolar macrophages. Multifocal areas of interalveolar septae and spaces showed accumulation of an eosinophilic-staining, homogenous, fibrillar material, consistent with a fibrinous exudate.

Lymph node: Sections of the lymph nodes exhibited severe reactivity, with some widening of the medullary sinuses, containing draining lymphocytes and plasma cells. Scattered haemosiderin-laden macrophages were also noted.

Adrenal: Examination of both adrenal glands revealed severe diffuse expansion and widening of the adrenal cortex, consistent with adrenal cortical hyperplasia.

Large intestine: Scattered neutrophilic inflammatory infiltrate was noted at the base of the large-intestinal crypts, in the lamina propria. Occasionally intestinal villi segments also showed a diffuse infiltrate of predominantly plasma cells, with lesser lymphocytes.

Paw pads: The sections of the paw pads all showed severe diffuse widening of the stratum corneum of the keratinised squamous epithelial cell layer, consistent with parakeratotic hyperkeratosis. In the deep epidermis and superficial dermis, the presence of dense, deep basophilic-staining to black deposits were noted, consistent with hyperpigmentation, and suggestive of chronic inflammation.

Skin: Changes in the skin sections were similar to those in the paw pads, with the addition of basophilic-staining, mixed population of organism colonies, resembling bacteria, throughout the superficial skin surface and keratinised stratified squamous epithelium. Occasionally parasitic organisms were observed in various cross-sectional and transverse cuts throughout the superficial skin surface and hair follicles, most likely mites.

LABORATORY REPORT
Submission No: S2025/01_0188

REPORT / VERSLAG

Bacteriology:

Spleen: Mixed, moderate growth of *Staphylococcus* spp. and *Streptococcus pyogenes*.

Lung: Mixed, moderate growth of *Staphylococcus* spp.

Skin: Mixed, heavy growth of *Staphylococcus* spp. and *Streptococcus pyogenes*.

Both the lung and the skin samples had an overgrowth of *Proteus* sp..

The *Staphylococcus* spp. isolated from the spleen, lungs and skin is most likely an incidental finding and most likely resulting from post-mortem contamination. The *Streptococcus pyogenes*, isolated from the skin and spleen, however, is an indication of an initial significant bacterial infection from the skin that has most likely progressed to a bacteraemia and haematogenous spread. The *Proteus* sp. overgrowth isolated from the lung and skin samples, are most likely the result of post-mortem contamination.

COMMENTS/DIAGNOSIS:

The cause of death in this case is attributed to elective euthanasia which was performed due to the animal's poor health .

Histopathological findings suggest a viral infection, such as Canine Distemper virus (CDV) or Canine Adenovirus, among others. The mucopurulent nasal and ocular discharge observed during the post-mortem examination, is suggestive of CDV when considered with all other lesions. However, this remains a suspected diagnosis, since it cannot be definitively diagnosed or ruled out without either immunohistochemistry (IHC) and/or polymerase chain reaction (PCR) testing. This can be done at an external laboratory, at an additional cost of R650 for IHC (UP Faculty of Veterinary Science, Section of Pathology) and/or R550 (Molecular Diagnostic Services) - please note that these prices are approximate.

In addition to the suspected viral infection, the animal exhibited significant parasitic infestations. Skin scrapings and a faecal floatation test revealed a severe mite infestation (mange), which was associated with a secondary bacterial dermatitis (*Streptococcus pyogenes*), confirmed on histopathological examination and bacterial culture. The culture results from the spleen (*Streptococcus pyogenes*) and the observed neutrophilic leukostasis suggest that the infection had spread systemically. Additionally, the presence of a severe intestinal round worm infestation was noted, which would've further contributed to the animal's poor body condition.

Furthermore, recent and historical blunt force trauma was also evident, with previously broken (and healed) ribs and recent bruising over the shoulders. These findings correlate with the history of trauma reported, supporting the conclusion that the animal had suffered injury prior to euthanasia.

Dr. Jannike van Wyk, supervised by Dr. Tasneem Anthony

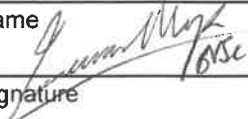
REPORT AMENDMENT: This report replaces the one dated 18/02/2025. The following amendment was made: "and" in the second paragraph under the "COMMENTS/DIAGNOSIS" section was replaced with "or".

LABORATORY REPORT
Submission No: S2025/01_0188

Thank you for submitting these samples to the Western Cape Provincial Veterinary Laboratory. Please do not hesitate to contact us should you have any queries.

State Veterinarian

Dr. Jannike van Wyk
Name


Signature

DEPT. VAN LANDEBOU: WESKAAP
PROVINSIALE VETERINERE LABORATORIUM PRIVAATSAK X5020, STELLENBOSCH, 7599
Report date 19 FEB 2025
PRIVATE BAG X5020, STELLENBOSCH, 7599 PROVINCIAL VETERINARY LABORATORY
DEPT. OF AGRICULTURE: WESTERN CAPE

LABORATORY REPORT
Submission No: S2025/01_0188

Sender:	Jaco Pieterse	Owner:	- - -
Clinic or Company:	SPCA Grassy Park	Company:	-
PO Box or Street:	PO Box 3	Farm Name (GPS):	- (-,-)
Town, postal code:	Plumstead, 7801	PO Box or Street:	10 Langeberg Road
Contact number(s):	0217004140; 58; 59, -	Town, postal code:	Lavender Hill, 7945
Email:	inspmanager@spca-ct.co.za; vet@s pca-ct.co.za	Contact number(s):	-; -
		Email:	-

Sender Reference: -

State Vet Area: SV Boland

Purpose of sampling: Diagnostic

SPECIMEN INFORMATION

Species:	Canine - Dog	
Date & Time Received:	2025/01/21 12:25pm	
Sampling date (if indicated):	2025/01/18	
Specimen Type	Quantity	Test(s) Required
Tissue / Organs, in formalin	1	Haematoxylin and Eosin (H&E) Staining Test (P-HIST-M-006)

Specimen Type: Tissue / Organs, in formalin

Test: Haematoxylin and Eosin (H&E) Staining Test

Staining date	28-01-2025
Histopathology service requested	Processing, staining and examination (Refer to attached report for histopathology findings)
Comments	No additional comments

NOTE: Opinions and interpretations expressed herein are outside the scope of SANAS accreditation.

Thank you for submitting these samples to the Western Cape Provincial Veterinary Laboratory. Please do not hesitate to contact us should you have any queries.

Authorised signatory

EC de Man
Initial and surname
Signature
28/1/2025
Report Date

State Veterinarian

DR T. ANTHONY

Initial and surname
Signature
DEPT. VAN LANDBOU- WESKAAP
PROVINSIALE VETERINERE LABORATORIUM
PRIVAATSAK X5020, STELLENBOSCH, 7599
Date
03 FEB 2025
PRIVATE BAG X5020, STELLENBOSCH, 7599
PROVINCIAL VETERINARY LABORATORY
DEPT. OF AGRICULTURE: WESTERN CAPE

