



# Thermal Imaging Report

## Casco



*Thermal Imaging completed by  
a Certified Thermographer  
Authorized with the EquineIR™  
Network.*



*Interpretative results  
completed by Licensed  
Veterinarians in contract with  
Integrated Equine Infrared.*



**Thermal Communications**

6 Brampton Mews, Tiverton Road, Plumstead, 7800

PH: 082 784 3352

FX: 021 797 2173

WEB: [www.thermalcommunications.co.za](http://www.thermalcommunications.co.za)

EMAIL: [report@thermalcommunications.co.za](mailto:report@thermalcommunications.co.za)

December 5, 2013

David van der Byl  
Wyndover Farm, Honeyvale Rd  
Dassenberg

Dear David

EquineIR was recently requested to perform a full body thermal imaging scan of: **Casco**

The following photo report was completed by your EquineIR™ Certified Thermographer and all interpretative results were channeled through [interpretir.com](http://interpretir.com) and subsequently formulated and input by a licensed veterinary team member with Integrated Equine Infrared.

The interpretation is intended to aid your regularly-licensed veterinarian in providing a diagnostic or treatment protocol. All follow-up testing and treatments should be conducted and administered by your primary veterinarian. The interpretation provided is based solely on the conditions at the time of survey and the thermal images included in this report. Thermography is a diagnostic tool that measures heat emitted from the surface of the patient. The thermal imaging camera converts infrared energy into a visible image. Emitted heat is related to circulation; as such, the thermal camera can help detect areas of inflammation as well as decreased circulation. Thermal symmetry is key, so we compare one anatomic area with the same area on the other side. The EquineIR™ report is prepared in this manner. It should be understood that correct patient preparation and environment are vital to a successful survey. Your EquineIR™ technician is also a Certified Infrared Thermographer and has been trained in the proper use and the proven techniques of thermal imaging as it is used with horses. However there are certain situations which may reduce the quality of the survey including the improper preparation of the horse prior to technician's arrival. The interpreting veterinarians who review the imagery base their findings and recommendations on information provided, so it is critical that proper care be taken in the preparation process to ensure success.

Thermal imaging is a physiologic modality and should not be relied upon as the sole diagnostic tool. A complete clinical examination by your licensed veterinarian is always recommended for the best diagnosis and follow-up treatment. This Report is not a definitive diagnosis of any illness or disease. It is intended for use only by licensed veterinary professionals to evaluate patient health, diagnose medical conditions, and provide treatment. It is not to be used by individuals for self-diagnosis or self-evaluation, nor for the diagnosis or evaluation of other non-qualified personnel. This report does not replace, nor is intended to replace a complete clinical evaluation by your licensed veterinarian. Under no circumstances will EquineIR™, Integrated Equine Infrared or its affiliates be held responsible for illness, injury, or death to the patient as a result of the information contained herein. This report does not replace, nor is intended to replace a complete clinical evaluation by your licensed veterinarian.

Your EquineIR™ Technician looks forward to working with you in the future. If you would like to set up an ongoing maintenance imaging program for your horse(s), we can arrange this at discounted rates along with multiple horse discounts. Please call our office with any questions as we would love to assist you in your success.

Sincerely,



Dinah Curling,  
*Certified Infrared Thermographer - Infraspexion Institute*

## EQUINE CLIENT INFORMATION

**CLIENT NAME:** David van der Byl  
**MAILING ADDRESS:** Wyndover Farm, Honeyvale Rd, Dassenberg  
**CLIENT EMAIL:** buffalo@nashuaisp.co.za  
**CLIENT PHONE:** 082 885 7127

**HORSES NAME:** Casco  
**IMAGE DATE:** 3 December 2013  
**IMAGING TIME:** 09h45

**HORSE AGE:** 10  
**HORSE BREED:** Warmblood x Thb  
**HORSE PRIMARY USE:** Competitive Showjumper

## SURVEY INFORMATION

**THERMOGRAPHER:** Dinah Curling  
**INFRARED CERTIFICATION #:** 8341  
**INFRARED CAMERA MODEL:** Flir T335      **CAMERA SERIAL NUMBER:** 48803379  
**NUMBER OF THERMAL IMAGES SUBMITTED:** 15

**WEATHER:** Sunny  
**APPROXIMATE TEMPERATURE:** 24 °C  
**IMAGING LOCATION:** Barn aisle

**EXERCISED PRIOR:** Yes    **HOW LONG:** 15 mins    **WHEN:** 08h35 – 08h50  
**TYPE OF EXERCISE:** Lunge in trot only

**BOOTS OR WRAPS ON HORSE?** No      **HOURS SINCE:** Not Applicable  
**FLYSpray OR LINIMENTS APPLIED WITHIN 24 HOURS:** No

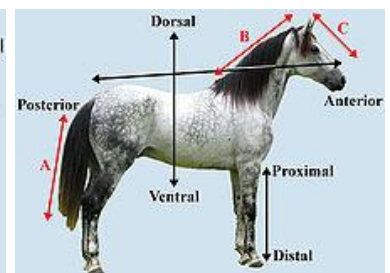
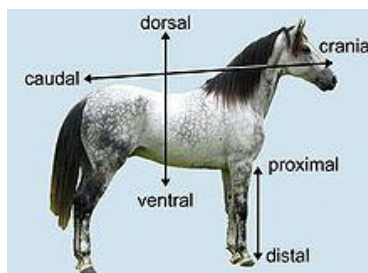
**REASON FOR SCAN or HISTORY RECEIVED:** Intermittent unsoundness reoccurring every 2-3 months on off fore, ever since purchasing her 2 years ago. When unsound, put her off work, poultices with Epsom salts till she returns sound. There is a history of a stifle lock in RH. However, it has not been evident recently.

## INTERPRETATION INFORMATION (Completed by Veterinarian)

**INTERPRETATION TYPE:** Full Enhanced Survey

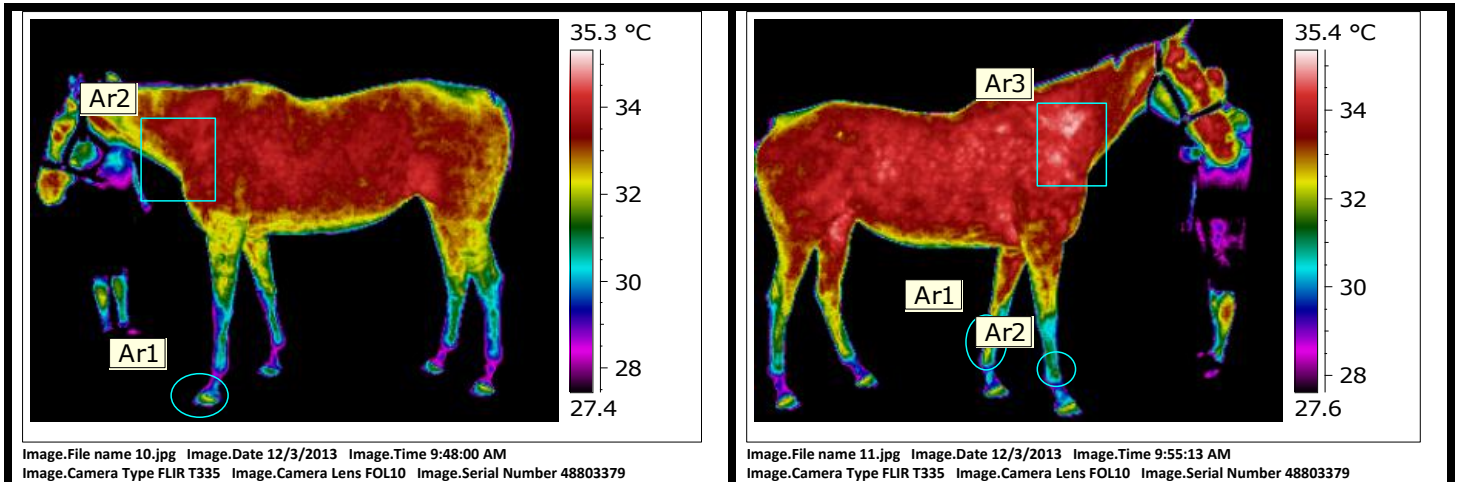
**DATE OF INTERPRETATION:** 12/5/2013

**REVIEWING VETERINARIAN:** Joanna Robson, DVM, CIT

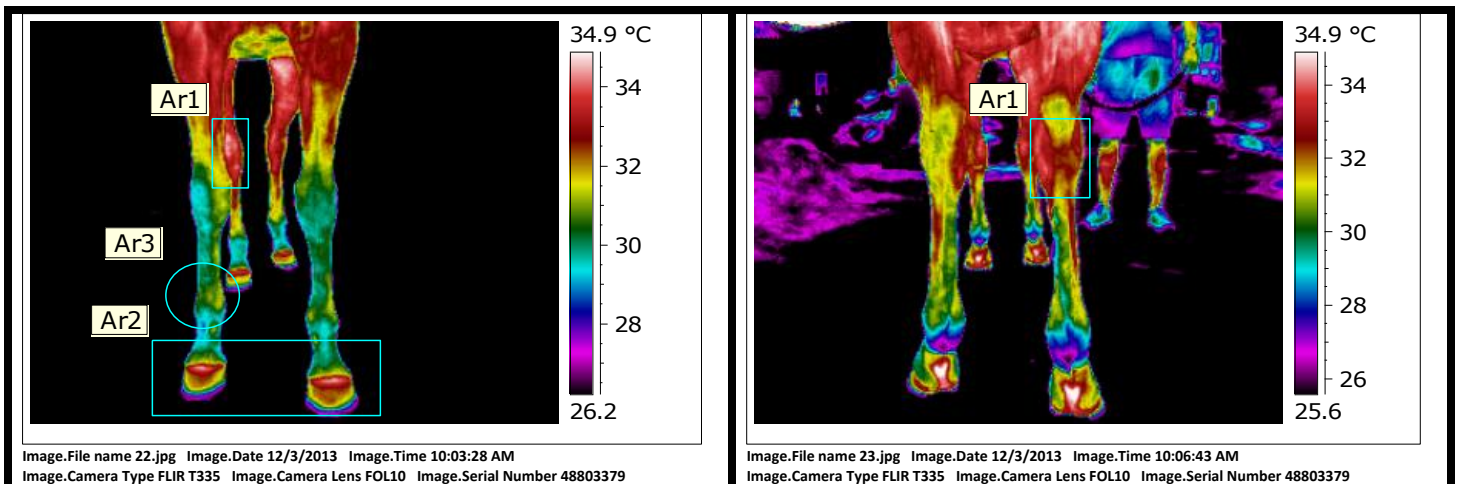


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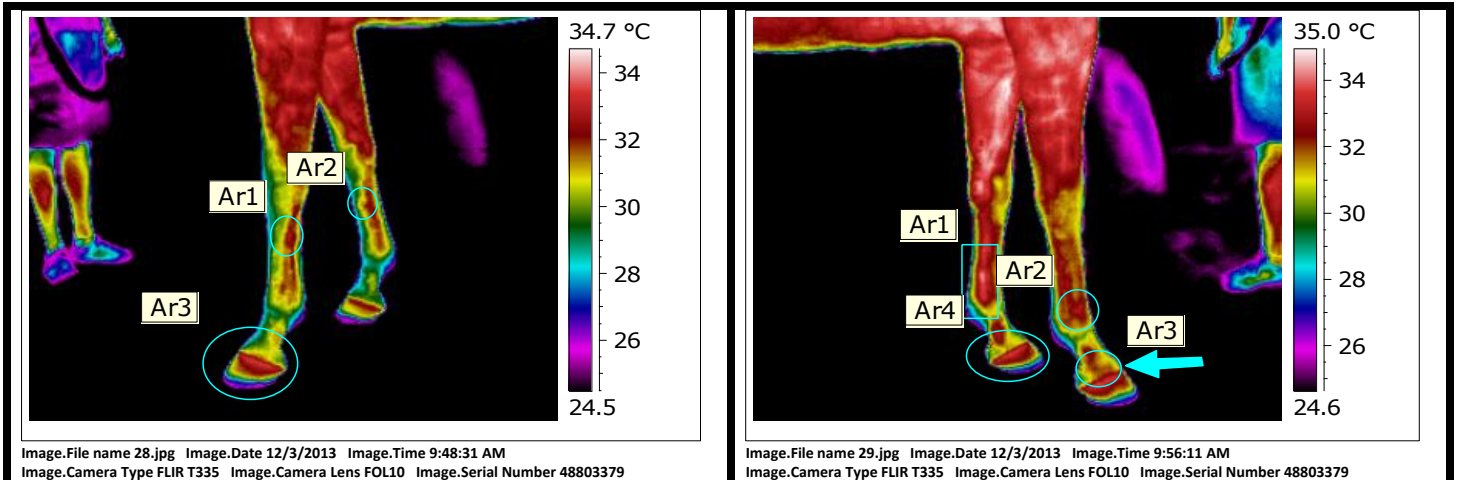
Patterning in the whole horse views is generally symmetrical; hi-low imbalance is noted on the front hooves; sharp drop behind withers suggests patient does not lift through ribcage and engage. Lower cervicals are increased and should be palpated. Strain is suspected in the distal forelimb soft tissues.



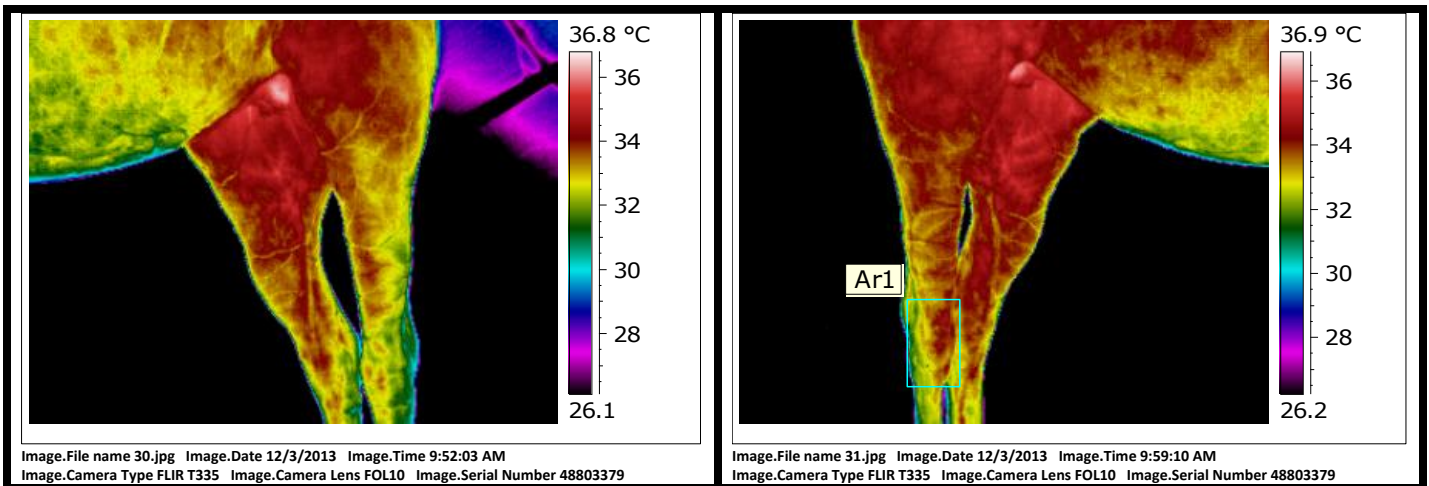
Patterning at the front hooves suggests some imbalance, with diffuse heat feathering through the dorsal walls typical of strain, infection, or bruising. RH is increased in both views suggesting active tarsitis. RF fetlock is increased.

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Patterning at the hooves again indicative of a hi-low imbalance, with increased heat at the LF indicating bruising, imbalanced loading, or other inflammation. Strain is suspected in the upper and medial LF soft-tissues – careful palpation and ultrasound would be useful to rule out fiber disruption, and there may be a splint at the medial RF along with indication of fetlock strain. Patterning above the lateral coronary band is consistent with collateral ligament strain, side-bone/cartilage irritation, or other jamming at the quarter.

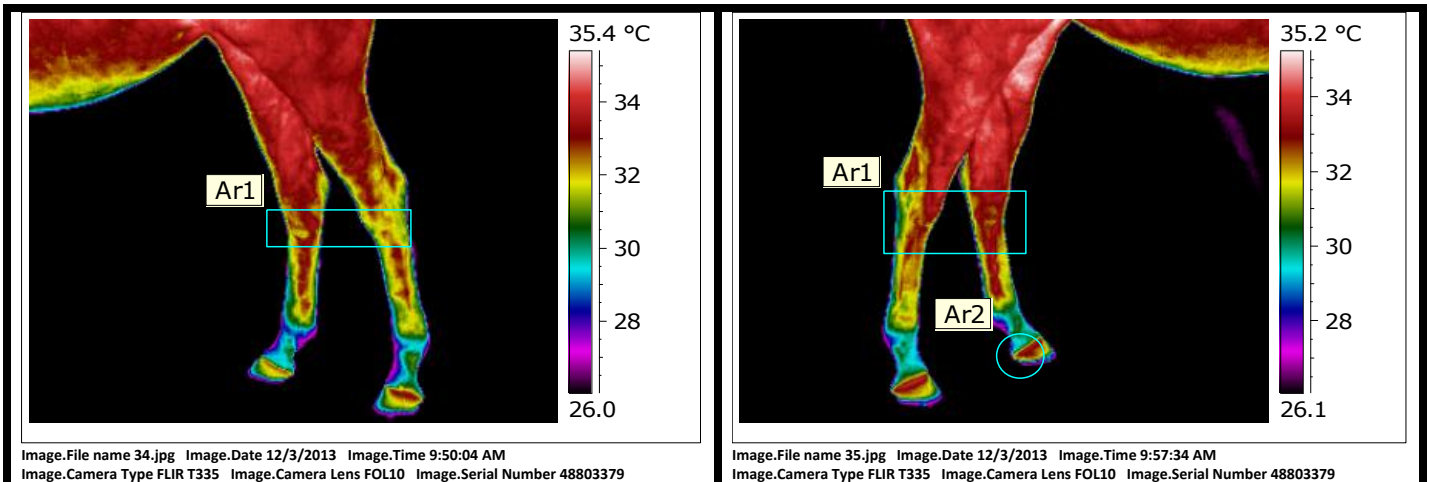


Patterning typical of tarsitis at the RH.

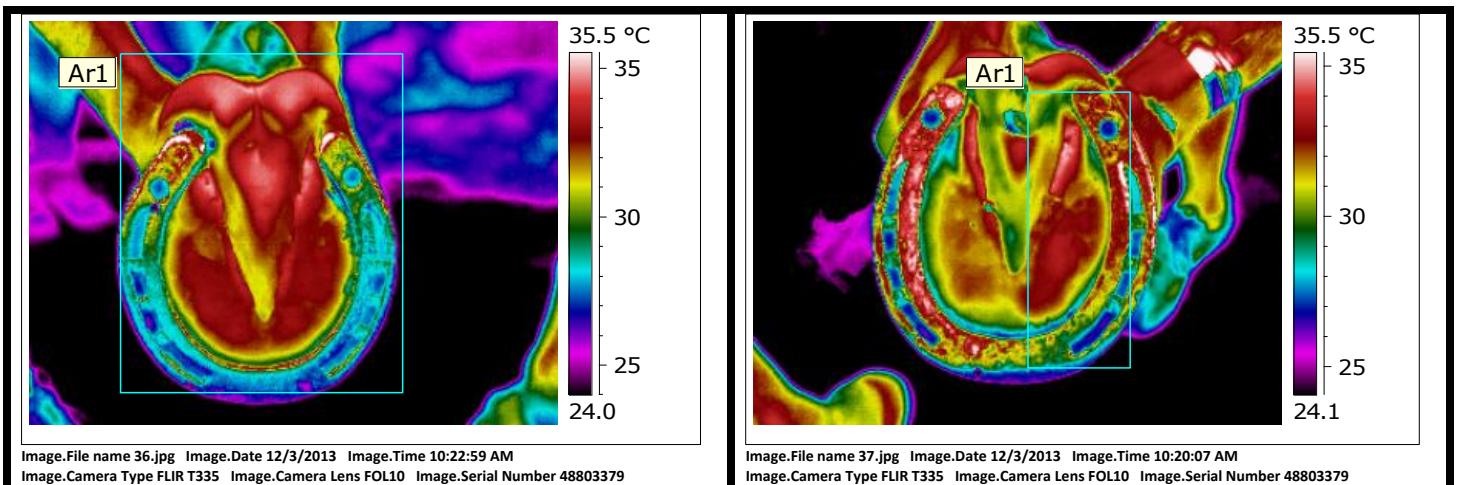


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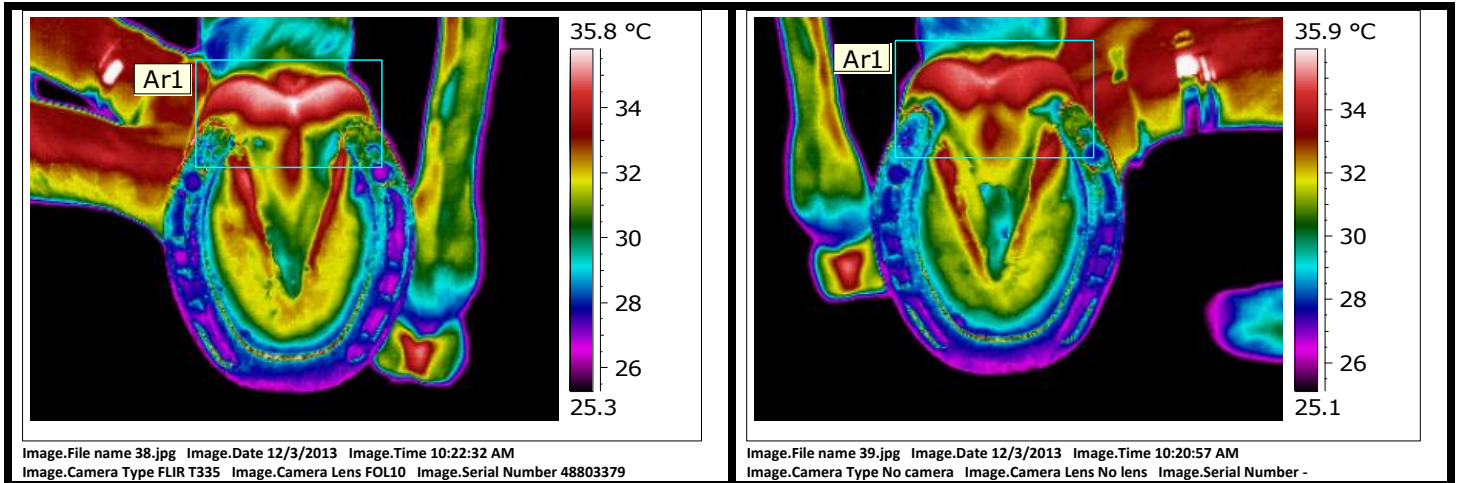
**Patterning consistent with bilateral tarsitis. Flexions, palpation, baseline radiographs, and joint maintenance are indicated. Some indication of increased heel heat at the LH – may be low, though patient is not standing squarely.**



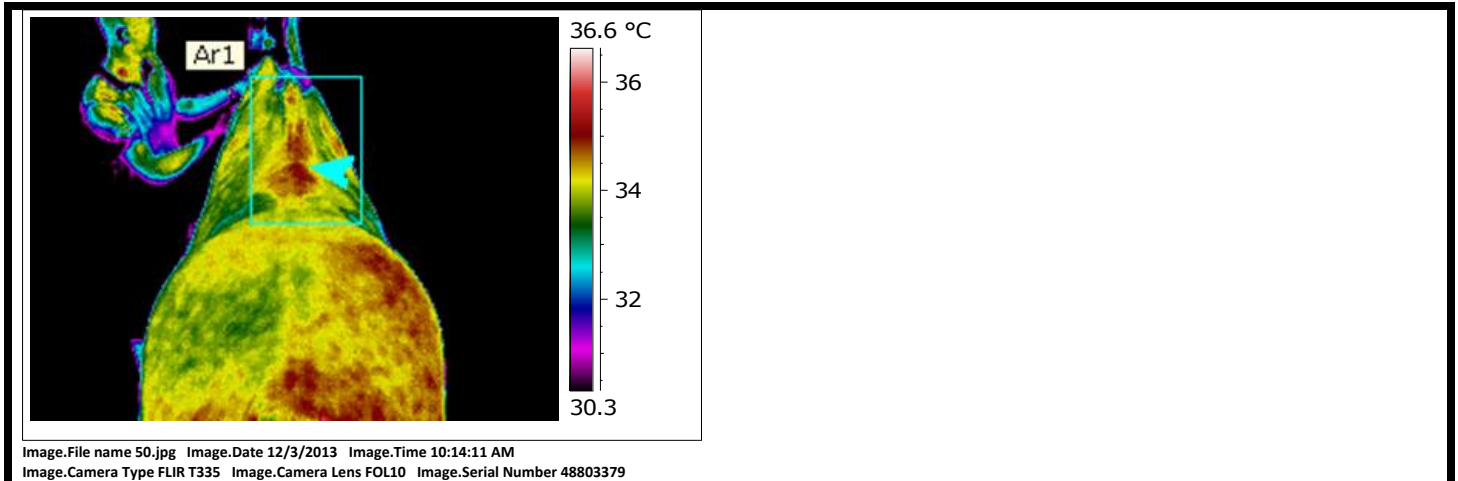
**Significant pattern asymmetry between the two hooves, as noted in all other views. There is a high-low imbalance, with significant increased heat throughout the LF foot especially in the sole and frog indicating thin sole, bruising, imbalance, etc. The heels appear slightly pinched and the lateral branch of the shoe may be impinging on the frog – it is understood the patient may simply be due for shoes. The RF foot may be landing imbalanced, with bruising or other pathology at the lateral aspect of the sole.**

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Hind solar patterns are more typical; however there is increased heat at the heels bilaterally suggesting a lack of support or flat plantar angles, with some increase in solar heat again suggesting possibly thin soles.



Dorsal view highlights inflammation in the dorsal midline over the DSPs and paraspinal muscles. There may be some mild artifact creating increased heat through the right side making full evaluation more difficult; if artifact is not present, there is indicating of imbalanced use in the hind end muscles, with inflammation on the RH gluteals; there is a consistent Lf-RH patterning in this patient. Chiropractic lesions are suspected through the sacrum and thoraco-lumbar spine. Saddle-fitting problems are suspected based on this patterning. There is also possibility of kissing spine at the arrow head, though there is no indication of bucking or other back pain in the history.

#### **SUMMARY AND RECOMMENDATIONS:**

Casco presents with multiple changes in her limited scan images. The provided history is complete, and states a recurrent off-fore (RF) lameness; the patterning seen here indicates ongoing LF-RH pathology, which may be compensatory for the more chronic RF changes which the patient may be off-loading.

A high-low imbalance is noted in the front feet. The LF is low and the RF is high which will create imbalances throughout the body. There is significantly increased heat in the LF throughout, and suggestion of bruising, increased loading, and likely thinner soles. Baseline radiographs (lateral and AP) of all four feet are strongly indicated to help evaluate for sole depth, wall thickness, correct alignment of the boney column, and any other obvious pathology. These will also help the farrier with objective information to work to correct the imbalance or alter the shoeing cycle. The recurrence every 2-3 months is a bit odd, but the resolution with soaking and rest does suggest a primary hoof issue, and the patterning here supports that finding. With radiographs, there may be further evidence for a change in trimming or shoeing to help support the patient (rim pads, sole treatment, etc.).

The LF soft-tissues also show strain, which is probably from increased loading and the low LF heel. Careful palpation for reactivity is suggested as well as ultrasound if needed to rule out fiber pathology. The RF shows patterning at the lateral aspect of the coronary band suggesting collateral ligament or cartilage injury, early side-bone, or other jamming from imbalance. The fetlock also appears increased suggesting early strain and requires further evaluation.

The diagonal pairing of the LF, the RH shows increased heat in all images in the hock, and both hocks show patterning consistent with tarsitis. Baseline radiographs are strongly indicated, with joint support (oral/injectable as needed). However, this strain will recur until the rest of the body can be brought into balance.

The topline shape suggests a lack of lift through the upper thoracics and ribcage, which is likely further stressing the forelimbs. Saddle-fit evaluation is indicated, and chiropractic lesions are suspected throughout the TL spine and the sacrum. Careful evaluation of the lower cervicals is also indicated with range of motion assessment, palpation, and radiographs if needed to rule out facet changes as a source of forelimb lameness.

#### **Thank You!**

Reviewing Veterinarian: Joanna Robson, DVM, CVSMT, CMP, CVA, CSFT, CIT