



Saddle Fit Thermal Imaging Report

Mikado



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



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



SoCal Infrared Thermal Imaging Services

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PATIENT: Mikado **THERMOGRAPHY DATE:** June 10, 2014 **TIME:** 4:00 pm

June 16, 2014

Lauren Irell
717 S. Griffith Park Dr.,
Burbank, CA 91506

Dear Lauren Irell:

EquineIR was recently requested to perform a thermal imaging Saddle-Fit scan of: **Mikado**

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

The interpretation is intended to aid your state-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.

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,

Level III Certified Infrared Thermographer
SoCal Infrared

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EQUINE CLIENT INFORMATION

CLIENT NAME: Lauren Irell
MAILING ADDRESS: 717 S. Griffith Park Dr., Burbank, CA 91506
CLIENT EMAIL: laurenirell@sbcglobal.net
CLIENT PHONE: 310-278-6569

HORSE AGE: 24
HORSE BREED: Hanovarian
HORSE PRIMARY USE: Dressage, Pleasure

SURVEY INFORMATION

THERMOGRAPHER: Peter Hopkins **INFRARED CERTIFICATION #:** 4424
INFRARED CAMERA MODEL: Flir T420
NUMBER OF THERMAL IMAGES SUBMITTED: 8

WEATHER: Sunny, Light wind, **APPROXIMATE TEMPERATURE:** 83 °F **IMAGING LOCATION:** Covered area

EXERCISED: Client rode **HOW LONG:** 7-8 minutes **WHEN:** SaddleFit done after Full Imaging Scan completed

FLYSPRAY OR LINIMENTS APPLIED WITHIN 24 HOURS: No

REASON FOR SCAN or HISTORY RECEIVED: New saddle purchased which was just recently flocked. Mikado does not appear to be happy with it, suspect bad fit. Horse appeared uncomfortable when saddle set standing still, reacted with legs when cinched.

TYPE OF SADDLE: Dressage **BRAND:** Borne

SERIAL NUMBER: Na **COLOR:** Black **SIZE:** 18" **FLOCKING:** na **TYPE OF SADDLE PAD:** na **NOTES:** Saddle was in back of clients vehicle while full scan was being performed. Initial baseline showed elevated heat at side panel. The saddle was set outside in shade about 10 minutes and then imaged. Client is concerned with saddle as it was a very expensive purchase and Mikado does not appear to be comfortable with it.

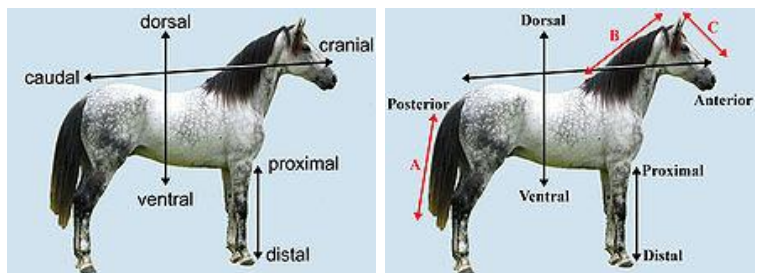
SADDLE-FIT INFORMATION: Thermography identifies areas of increased or decreased circulation or perfusion. As such, pressure points or hollow areas from ill-fitting saddles, pressure from uneven riders, and wither or back problems in horses, may be positively identified. However, thermal imaging is not a replacement for a complete veterinary physical examination, or a saddle-fitting evaluation from a Certified Master Saddler.

INTERPRETATION INFORMATION (Completed by Veterinarian)

INTERPRETATION TYPE: Saddle Fit Evaluation

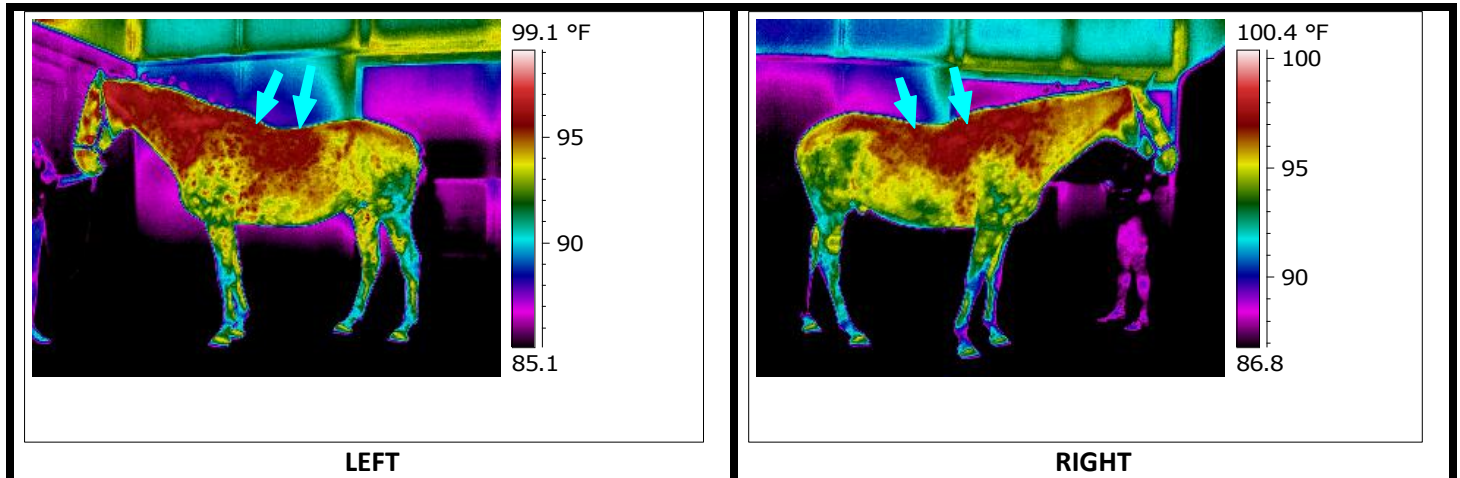
DATE OF INTERPRETATION: 6/16/2014

REVIEWING VETERINARIAN: Joanna Robson, DVM, CIT

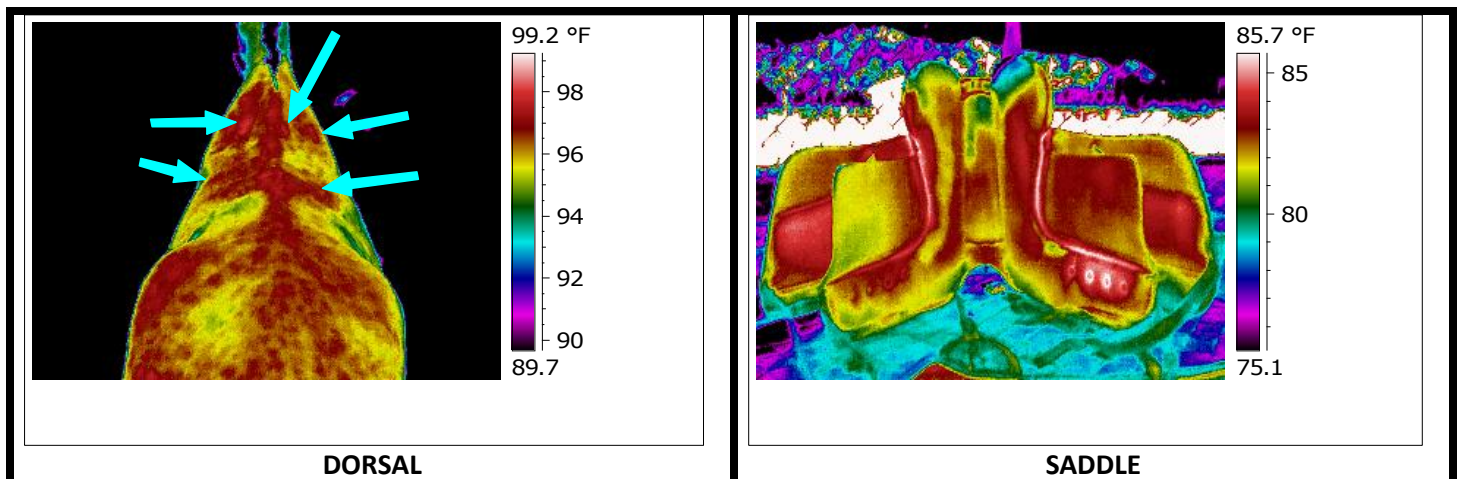


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BEFORE EXERCISE



Whole horse views as seen in full scan – some changes are noted at the proximal left neck, the gluteals/hip region, and at the trapezius muscles and paraspinals bilaterally.

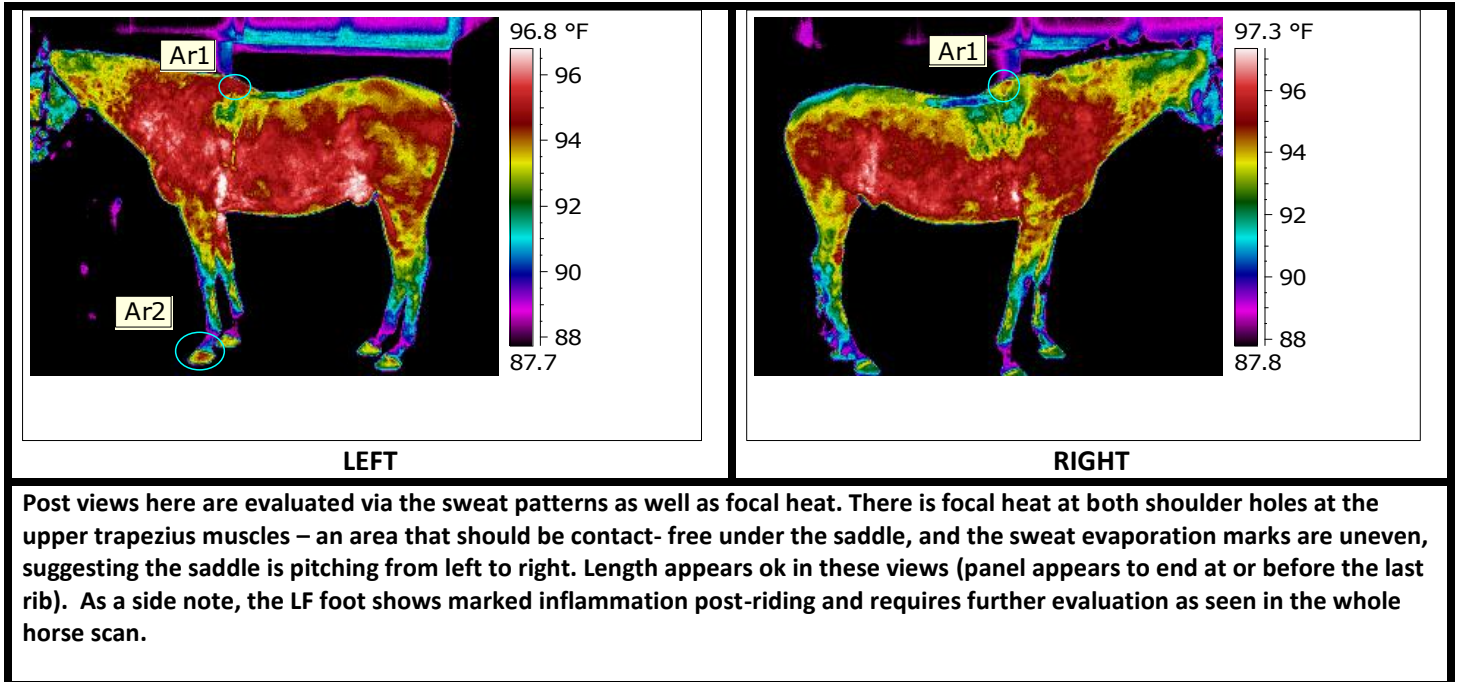


Pre dorsal view again highlights focal trauma at the shoulder holes bilaterally, and into the lower thoracic spine and paraspinal muscles bilaterally. There is asymmetry in patterning along both sides.

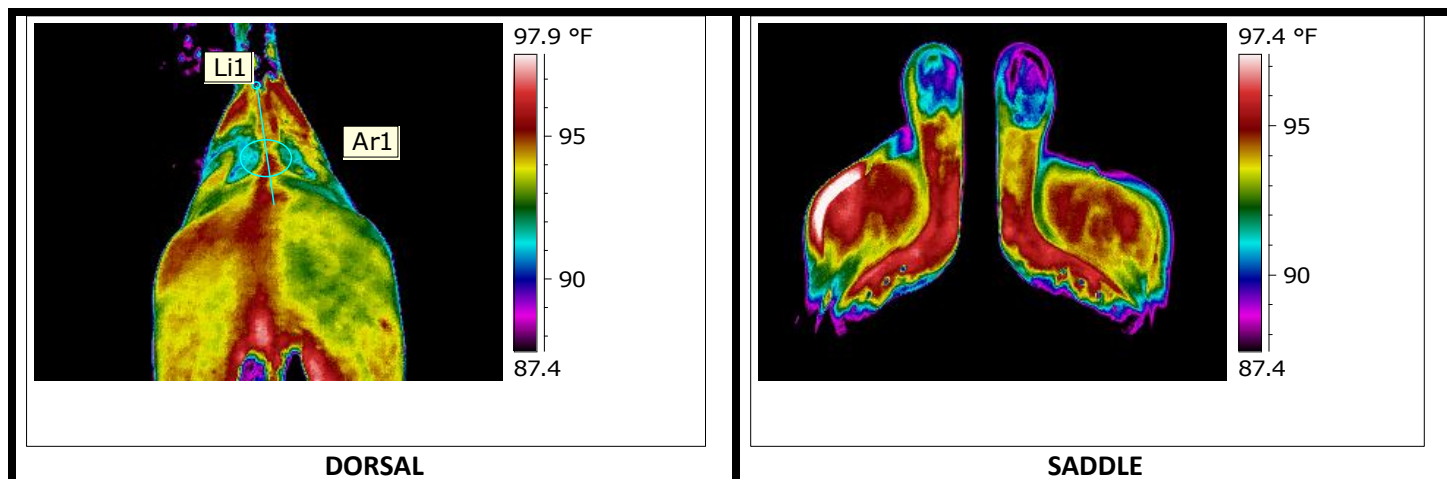
NOTE: Saddle was in clients vehicle during full scan and appears sun may have been hitting side panel. A 8-10 minute acclimation period in the shade was done prior to imaging baseline.

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AFTER EXERCISE



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Dorsal patterning is abnormal and suggests issues with uneven contact. There appears to be too much pressure at the front of the saddle, likely dropping into the shoulder holes; the panels have uneven contact – more on the left than on the right, and the left sweat flap shows more heat, consistent with the rider’s leg having more contact and the saddle likely twisting or falling from left to right. Parallel lines in the horizontal panels also suggest there may be saddle-rack damage in this saddle? Evaporation at the rear panels suggests friction/pressure consistent with large potentially over-stuffed gussets or the saddle slightly popping up behind – see summary. Channel appears to be slightly narrow over the TL junction and could be wider for this patient; local irritation is noted.

SUMMARY AND RECOMMENDATIONS:

Patterning in the patient’s topline suggests saddle fit issues, and the thermal scan confirms some fitting problems.

There is uneven contact from left to right, and there appears to be focal pressure over the trapezius muscles bilaterally which is undesirable. There should be space at the top of the panel to allow for the patient’s shoulder blade to move evenly beneath the tree. Flocking to fill the shoulder holes can create performance problems by impinging on nerves and blocking a full range of motion. The left horizontal panel has more contact than the right side, and there appears to be a slight left to right shift or twist, though the patient appears to be generally symmetrical in the shoulders (not grossly bigger on one side).

Patterning at the rear of the panels is harder to interpret because of the evaporation, but it can be seen with two things – one (and more likely) too much pressure from firm or overstuffed large gusseted panels (often designed with the idea of pressure distribution, but sometimes having the opposite effect), or two – friction created by lack of contact, which isn’t a bad thing in the overall context IF the tree is a correct fit because the rear of the saddle should allow the horse’s back to lift into contact. One would have to assess these factors in person to determine if the panels under the cantle are overstuffed putting too much pressure in the back (likely, given the patterning in the patient’s back), or if the saddle is dropping down and lifting at the back (place the saddle, and put pressure over the pommel –watch and feel to see if the saddle drops into the shoulders and raises in the back). If the saddle drops into the

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shoulder holes and creates pressure where you cannot place your hand between the upper panel and the shoulder – it is too tight and does not fit.

Lines in the panels suggest there may be saddle-rack damage? The saddle should be stored on a single beam down the center of the channel – many racks are designed for Western saddles and damage panels on English saddles, creating wrinkles in the leather and flocking. Flocking will also settle after being redone and should typically be rechecked periodically to correct settling and shifting.

The channel appears even and without heat, though could be wider for this horse given the focal T18-L1 irritation seen in the dorsal images, and the length appears appropriate on this horse in these images, but the tree angle needs to be assessed, and current fit is not balanced or symmetrical for this patient; primary concern being the pressure over the trapezius muscles and blocking the shoulders. Patterning is consistent with ongoing pressure points as well as back pain and inflammation in the shoulders, muscles, and spine which will affect performance and create an unhappy horse.

Thank You!

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

