



# Saddle Fit Thermal Imaging Report

## Penny



*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:** Penny    **THERMOGRAPHY DATE:** December 17, 2013    **TIME:** 10:30 am

December 20, 2013

Tammy O'Neil  
10525 W. Martin Rd.  
Casa Grande, AZ 95194

Dear Tammy O'Neil:

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

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,

*Peter Hopkins*

Level III *Certified Infrared Thermographer*  
SoCal Infrared, EquineIR

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## EQUINE CLIENT INFORMATION

**CLIENT NAME:** Tammy O'Neil  
**MAILING ADDRESS:** 10525 W. Martin Rd., Casa Grande, AZ 95194

**HORSE AGE:** 12  
**HORSE BREED:** Appendix Quarter  
**HORSE PRIMARY USE:** Recreation

## SURVEY INFORMATION

**THERMOGRAPHER:** Peter Hopkins    **INFRARED CERTIFICATION #:** 4424  
**INFRARED CAMERA MODEL:** T420  
**NUMBER OF THERMAL IMAGES SUBMITTED:** 9

**WEATHER:** Sunny    **APPROXIMATE TEMPERATURE:** 55-60 °F    **IMAGING LOCATION:** Outside in shade

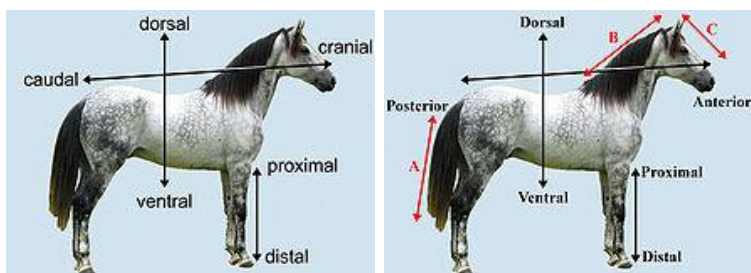
**EXERCISED:** Client rode    **HOW LONG:** 8-10 minutes    **WHEN:** SaddleFit done after Full Imaging Scan completed  
**FLYSpray OR LINIMENTS APPLIED WITHIN 24 HOURS:** No  
**REASON FOR SCAN or HISTORY RECEIVED:** Baseline

**TYPE OF SADDLE:** Western    **BRAND:** Parelli  
**SERIAL NUMBER:** \*PP0840216    **COLOR:** Brown    **SIZE:** 16    **FLOCKING:** Leather    **TYPE OF SADDLE PAD:** Parelli

**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.

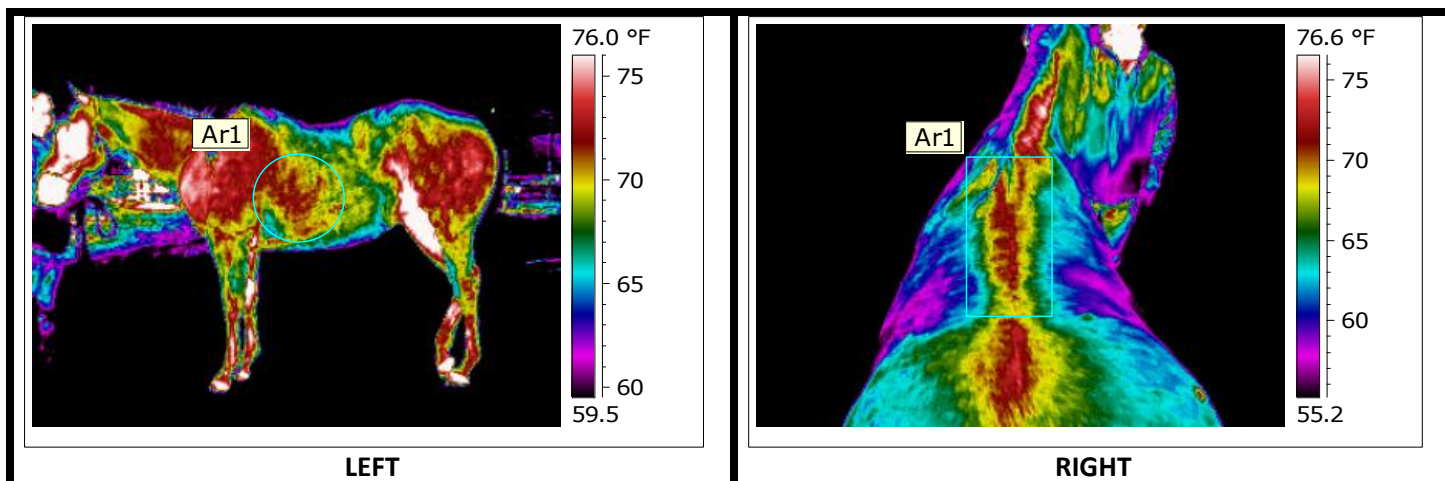
## INTERPRETATION INFORMATION (Completed by Veterinarian)

**INTERPRETATION TYPE:** Saddle Fit Evaluation  
**DATE OF INTERPRETATION:** 12/20/2013  
**REVIEWING VETERINARIAN:** Joanna Robson, DVM, CIT

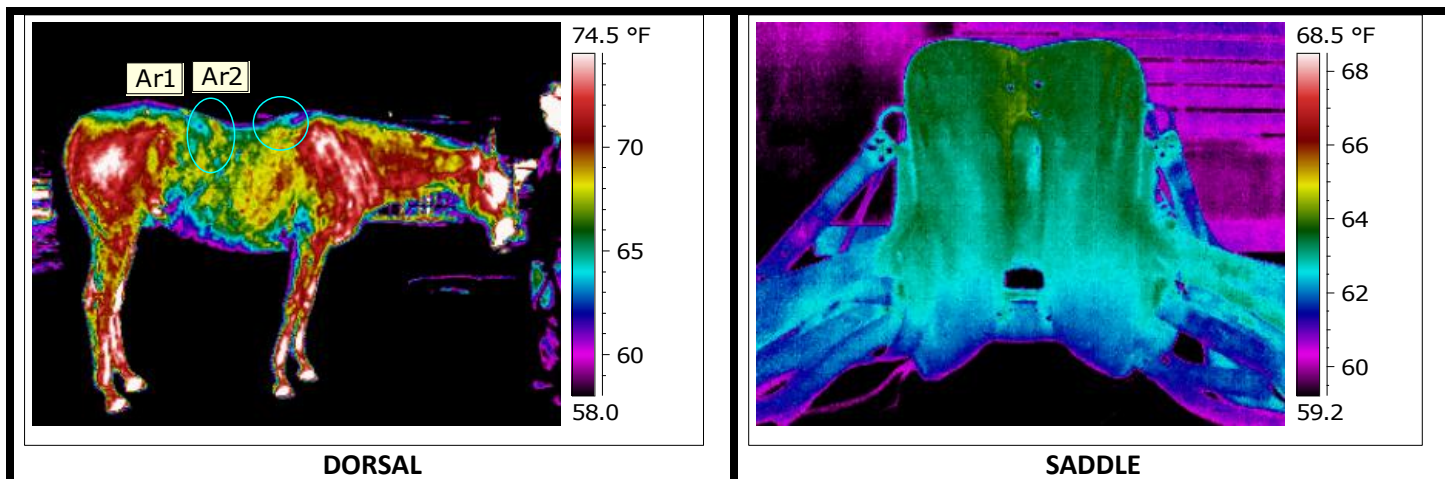


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## BEFORE EXERCISE



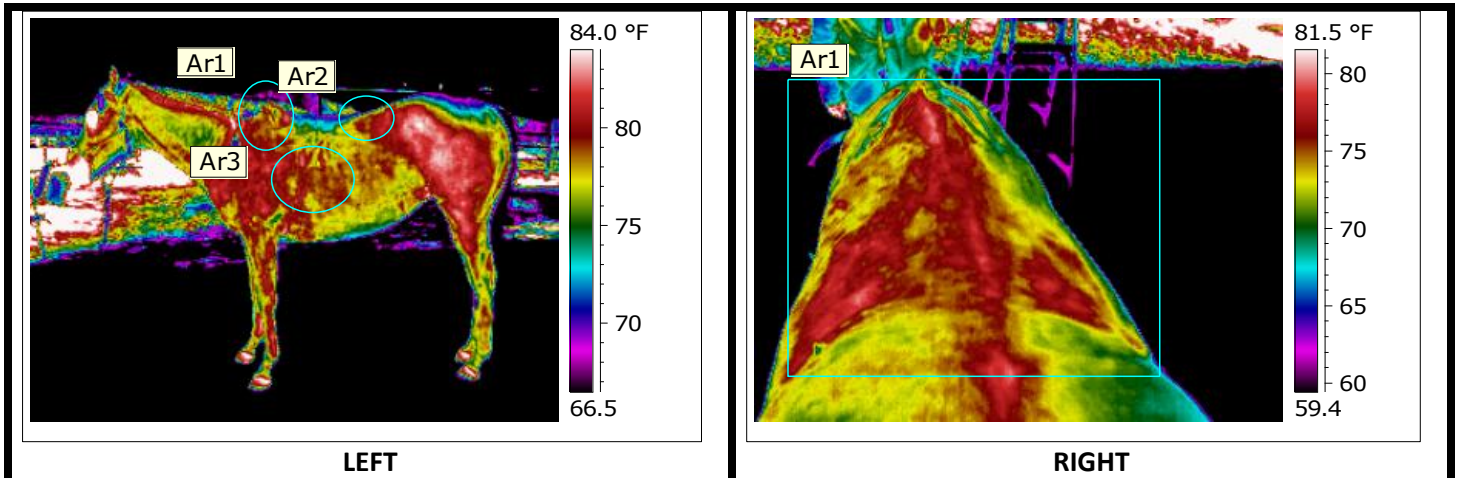
Left ribcage shows increased patterning compared to the right side, typical of local irritation; topline shows changes suspicious of chiropractic or OSP lesions. Patient appears to be right shoulder big.



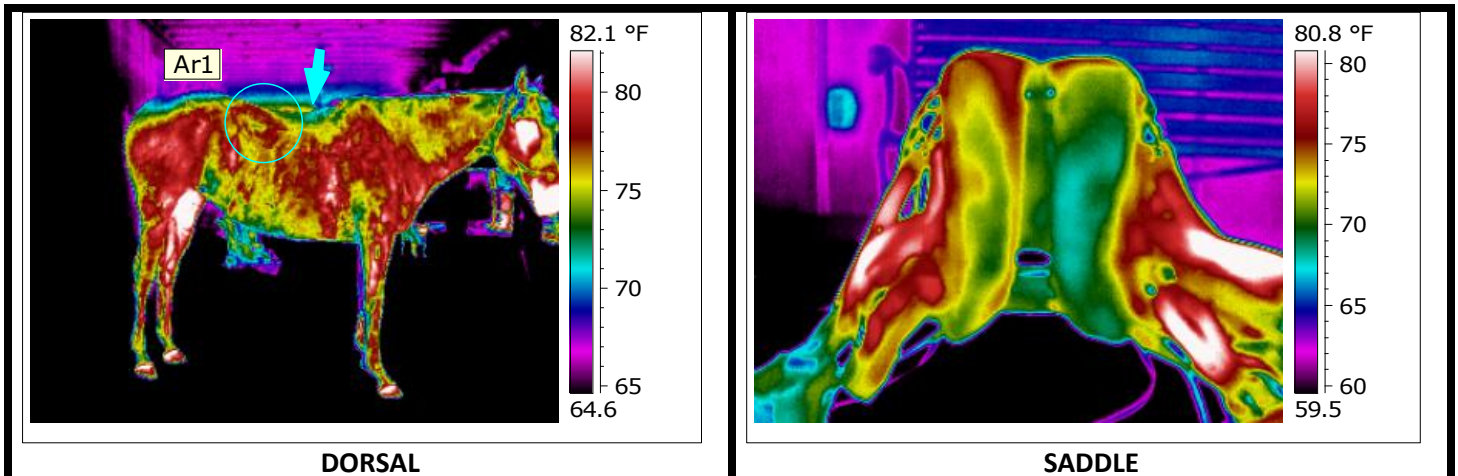
Focal irritation at the right loin and trapezius. Baseline saddle thermal view within normal limits; plain image shows increased wear at the right tree, consistent with the patient being right shoulder big and increased pressure.

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## AFTER EXERCISE



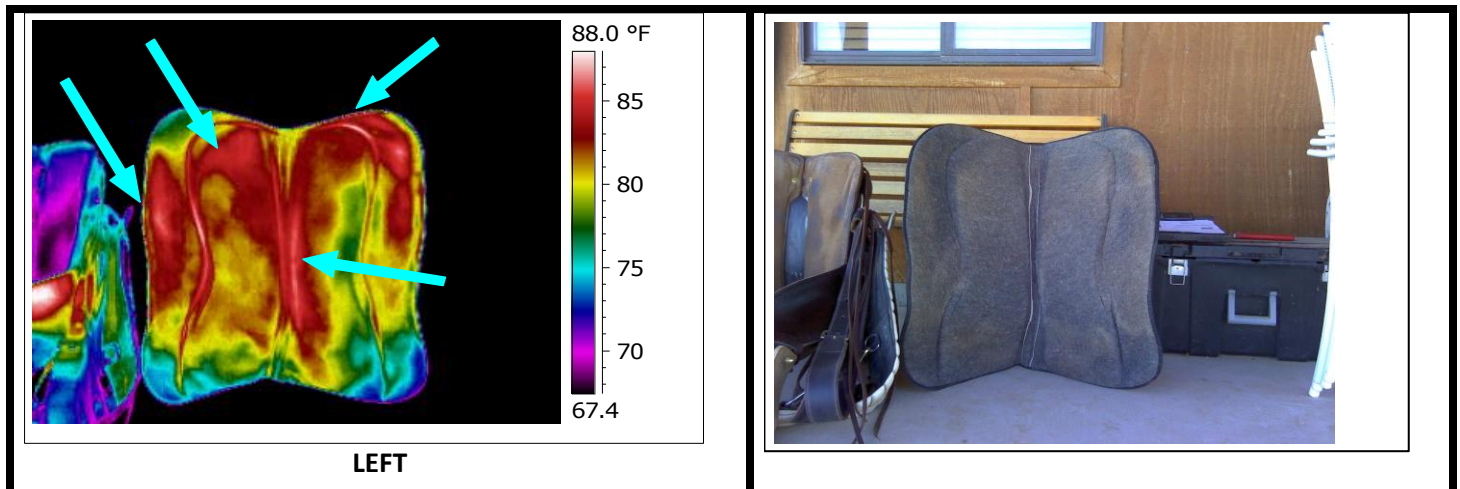
Patient's topline shows irritation at the trapezius muscles and scapula, left lower ribcage, and through the loin. The topline highlights issues with fit seen as at left and right loin irritation, and friction at the withers. Patterning appears to be too long, impinging on the patient's lumbar area. An ideal fit would show symmetrical patterning along both sides of the paraspinals along with an open channel.



Patterning at the right topline shows increased loin irritation, and evaporation suggesting too much contact (can happen with thicker pads or shims). Patterning on the saddle-pad below suggests there may be focal irritation at the thoracics and is consistent with the evaporative pattern. The saddle shows increased contact on the right side and rear skirting.

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## AFTER EXERCISE



Saddle pad patterning confirms fittings issues, noted as right to left shift (increased heat at the right channel), increased irritation at the left wear guard (and hence the left ribcage), and too much heat in the channel. There is increased friction at the left loin and right rear skirting.

### SUMMARY AND RECOMMENDATIONS:

This sweet little horse presents with challenging conformation for correct saddlefit. She is very downhill through the ribcage, asymmetrical in her shoulders, and very short through the shoulder to last rib. Saddles will have a tendency to bridge or be too long. The angle of the tree must match the angle of her shoulder blades. In addition to correct saddle fit, she will require rehabilitation and core strengthening exercises to lift her topline and treat any ongoing inflammation. Belly lifts, hip tucks, working in a correct stretch, and eliminating other sources of pain will be necessary for complete healing.

Based on this thermal report, the current saddle and pad combo are not a correct fit for this horse. The saddle is falling right to left, is apparently too long, and puts some pressure over the thoracic spine. An in-person fitting would be required to assess whether changes in shimming could successfully rebalance the saddle (rider straightness must also be considered); the tree must also allow room for a full range of motion of the shoulder – particularly the larger right side and should be assessed to see if the tree angle matches the shoulderblade *without the pad*. Even if the current system can be reconfigured, the overall length presents some concerns based on these images. An alternative may be a Crates Equifit tree in Foundation QH size, which flares through the angle and accommodates larger shouldered horses. Length is an issue, and the shorter the tree, the better for this horse, in order to eliminate painful pressure points at the loin which may also cause lameness and soreness in other joints such as the

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**hocks.**

The Parelli pads are made with good contouring and wither relief and the ability to shim as needed (or use air pockets). The saddles are made with trees by the Steele company (also makes Crates trees) and have some excellent points of fit. However, some horses may require a more steeply angled tree, or present fit problems that are not managed simply by using shims. If the saddle fits correctly, only a simple contoured pad may be required.

Further resources include Joyce Harman's saddlefitting books (English and Western), YouTube- how to fit your saddle (Schleese, Robson), Suffering in Silence – the link between saddlefit and trauma, and Recognizing the Horse in Pain.

**Thank You!**

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

