



# Equine BodyWorks USA

Revealing Affliction. Reducing Discomfort. Improving Movement & Performance.™

## Thermal Imaging Report McKieran



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



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



**Equine BodyWorks Infrared Thermal Imaging Services**

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EMAIL: [becky@equinebodyworksusa.com](mailto:becky@equinebodyworksusa.com)

**PATIENT:** McKieran

**THERMOGRAPHY DATE:** 01.28.14

**IMAGING TIME:** 10:30 AM

January 31, 2014

Dr. Lisa Borzynski  
S103 W38296 County Highway NN  
Eagle WI 53119

Dear Dr. Borzynski:

Equine BodyWorks Infrared Thermal Imaging Services division was recently requested to perform a full body thermal imaging scan of:  
**McKieran**

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 you 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. There are, however, 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 state-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 state-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 it 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,

*Rebecca Tenges*

*Certified Equine Thermographer*  
*Certified Infrared Thermographer*  
Equine BodyWorks LLC

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## EQUINE CLIENT INFORMATION

**CLIENT NAME:** Dr. Lisa Borzynski  
**MAILING ADDRESS:** S103 W38296 County Highway NN, Eagle WI 53119  
**CLIENT EMAIL:** drborzy@aol.com  
**CLIENT PHONE:** 763.370.2445

**HORSE AGE:** 10  
**HORSE BREED:** Irish Sport  
**HORSE PRIMARY USE:** Eventing & Hunter

## SURVEY INFORMATION

**THERMOGRAPHER:** Rebecca Tenges  
**INFRARED CAMERA MODEL:** FLIR T420 **CAMERA SERIAL NUMBER:** 62102950  
**NUMBER OF THERMAL IMAGES SUBMITTED:** 30

**WEATHER:** Frigid, Clear, Windy.

**APPROXIMATE TEMPERATURE:** 52 °F (This was the temperature inside the aisle of the vet clinic barn. Riding for the saddle fit scan which occurred prior to this session and lunging prior to this full body scan took place in a connected, but unheated arena. The temperature in the arena was likely about 10 °F. External temperatures this day were approximately -15 °F, with a windchill of about -30 °F. However, other than the door between the barn aisle and the attached arena, no other external doors were opened during this imaging. )

**IMAGING LOCATION:** Barn aisle

**IMAGING NOTE:** The following three images in this report were taken prior to any exercise being done as they preceded the Close Contact Saddle Fit Imaging session: Left and Right Lateral Full Body images (10 & 11) and the Dorsal Image from behind (19).

**EXERCISED PRIOR:** Yes **HOW LONG:** This full body scan was performed after a saddle fit scan. He had been ridden for approximately 15 minutes prior to the saddle fit. He was then imaged for the saddle fit. Because his lower limbs were not showing significant circulation, prior to the Full Body imaging for this report, he was lunged for an additional 15 minutes. **WHEN:** Immediately prior to beginning imaging for this full body scan, which began with the lower legs. (Images 2, 4, 10, 15, 17, 23, and 27-30 were taken first and right after lunging.)

**TYPE OF EXERCISE:** Lunging

**BOOTS OR WRAPS ON HORSE?** No **HOURS SINCE:** Not Applicable

**FLYSPRAY OR LINIMENTS APPLIED WITHIN 24 HOURS:** No

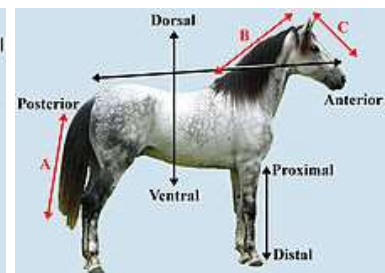
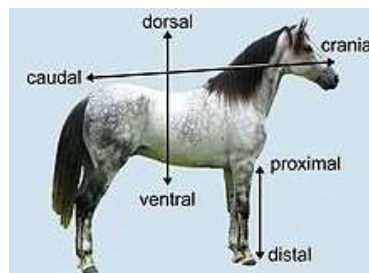
**REASON FOR SCAN or HISTORY RECEIVED:** Dr Borzynski is interested in obtaining a general assessment and interpretation of the thermal images of McKieran. He is working his way back from an injury to the right hind leg (Oct 2011) and it is contemplated that he will move up a level with the coming competition season. McKieran has grown about two inches and gained about 200 pounds in the last two years. So, in addition to this full body scan, two saddle fit scans (close contact and dressage) were also performed during the same imaging session.

## INTERPRETATION INFORMATION (Completed by Veterinarian)

**INTERPRETATION TYPE:** Full Enhanced Survey

**DATE OF INTERPRETATION:** 1/31/2014

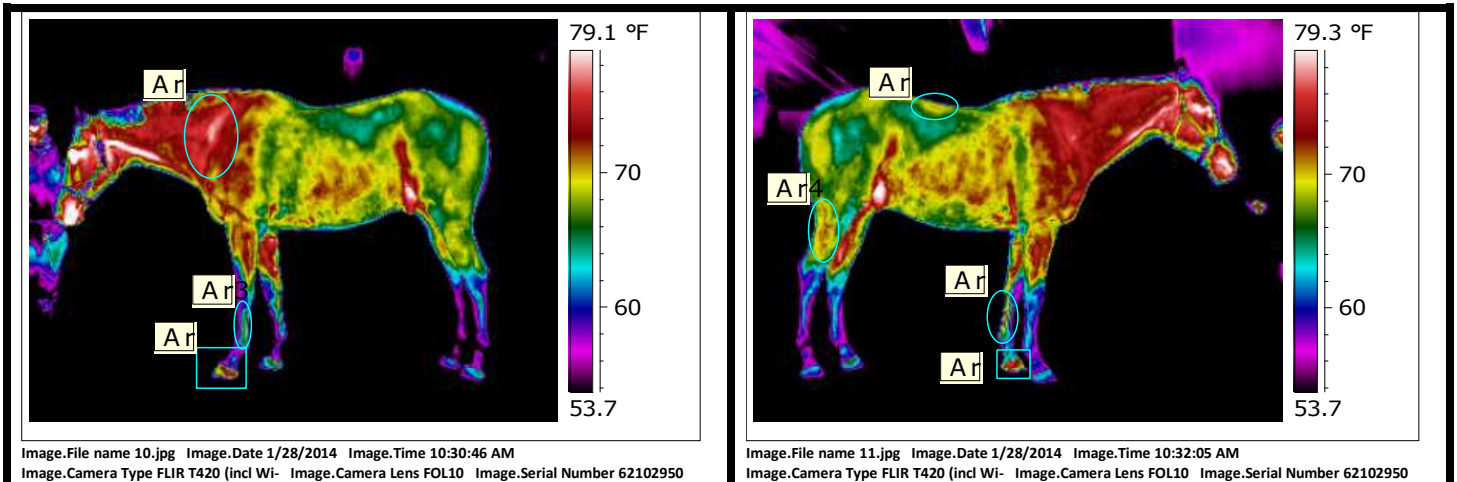
**REVIEWING VETERINARIAN:** Dr. Debra K Tibbitts



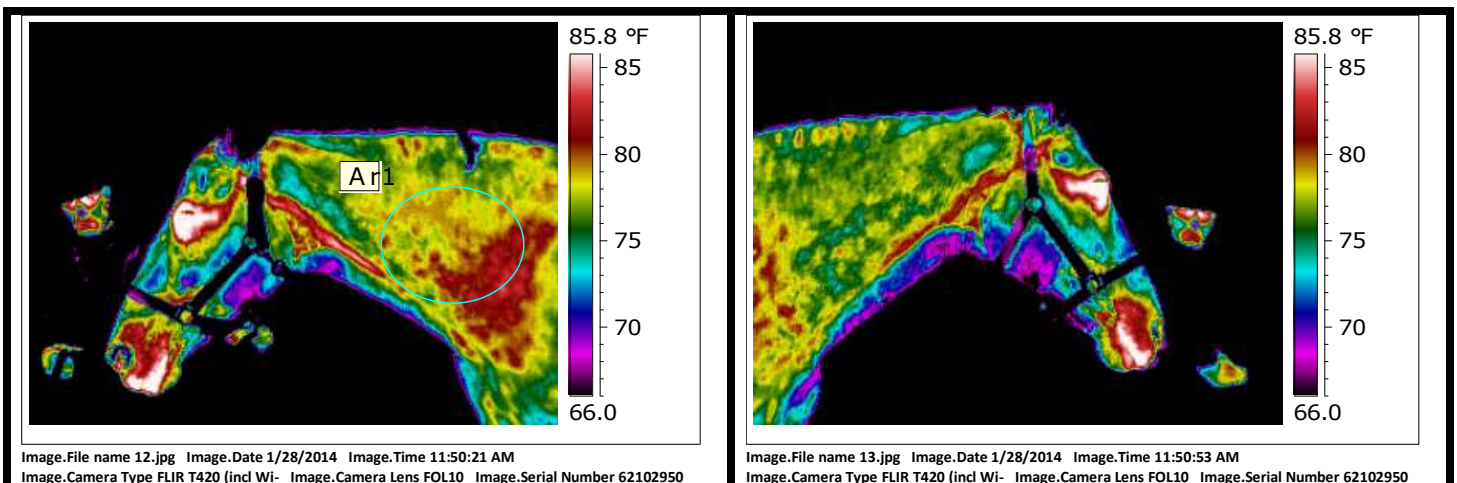
**PATIENT:** McKieran

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Some asymmetry seen on lateral views. There is increased heat in the left front foot and along the soft tissue of the lower limb. Primary hoof inflammation/imbalance with secondary strain on the tendons/ligaments most likely cause. Thorough visual exam, hoof tester evaluation and possibly radiographs warranted for further evaluation. Palpation of the soft tissue structures checking for inflammation of the suspensories and flexor tendons also recommended. There is increased heat along the neck, particularly at the shoulder tie-in, greater on the left. This may indicate off-loading onto the forequarters or other source of muscle imbalance/strain. The right gaskin has greater heat than the left indicating possible primary inflammation or muscle imbalance. There is greater heat along the right rib area indicating muscular imbalances. There is also an area of increased heat on the right at the thoracolumbar spine which may be due to chiropractic lesions or saddle fit issues. Palpation and motion palpation recommended.

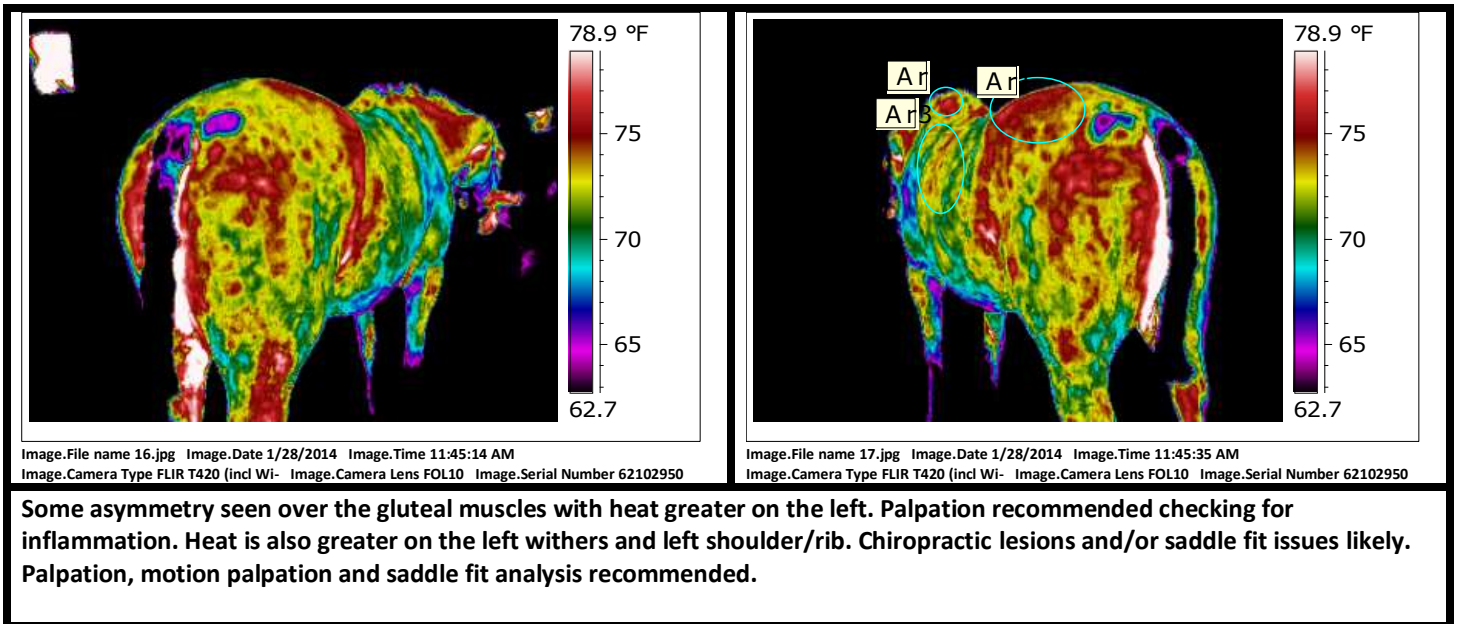
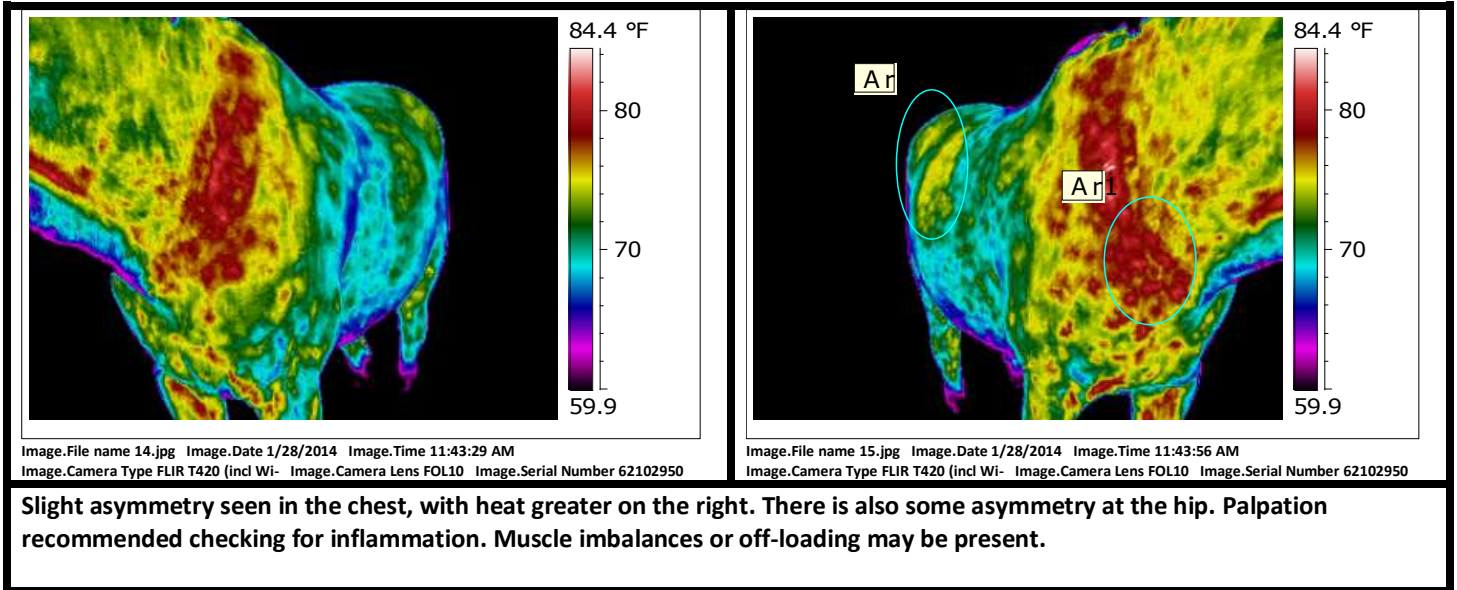


Asymmetry in the neck with heat greater on the left. Palpation and motion palpation checking for inflammation and chiropractic lesions recommended.

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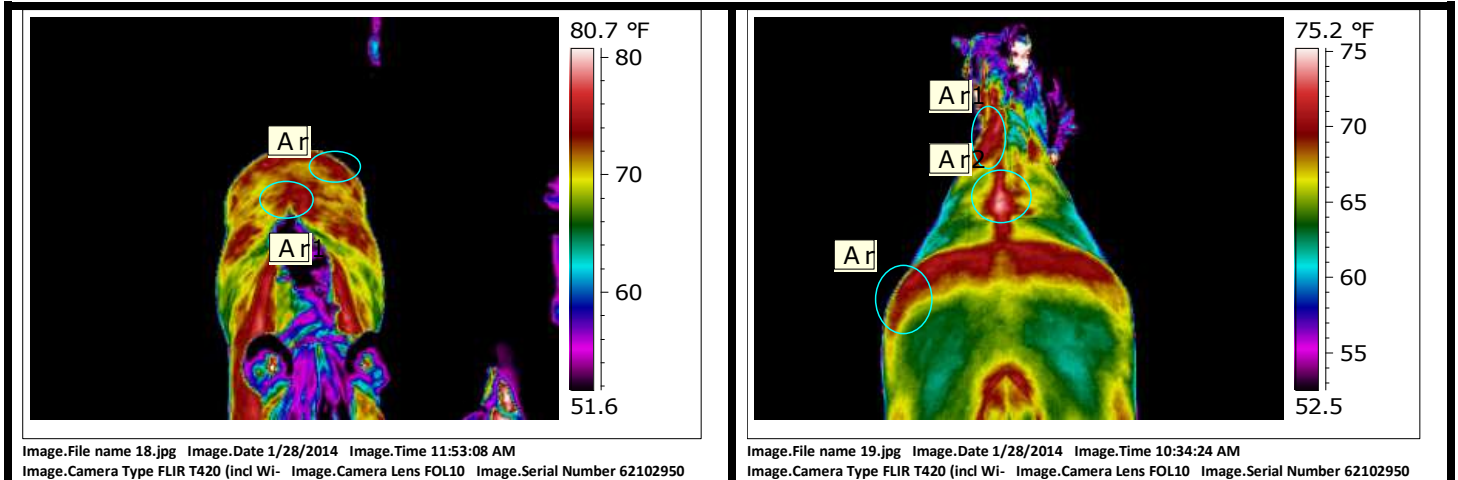
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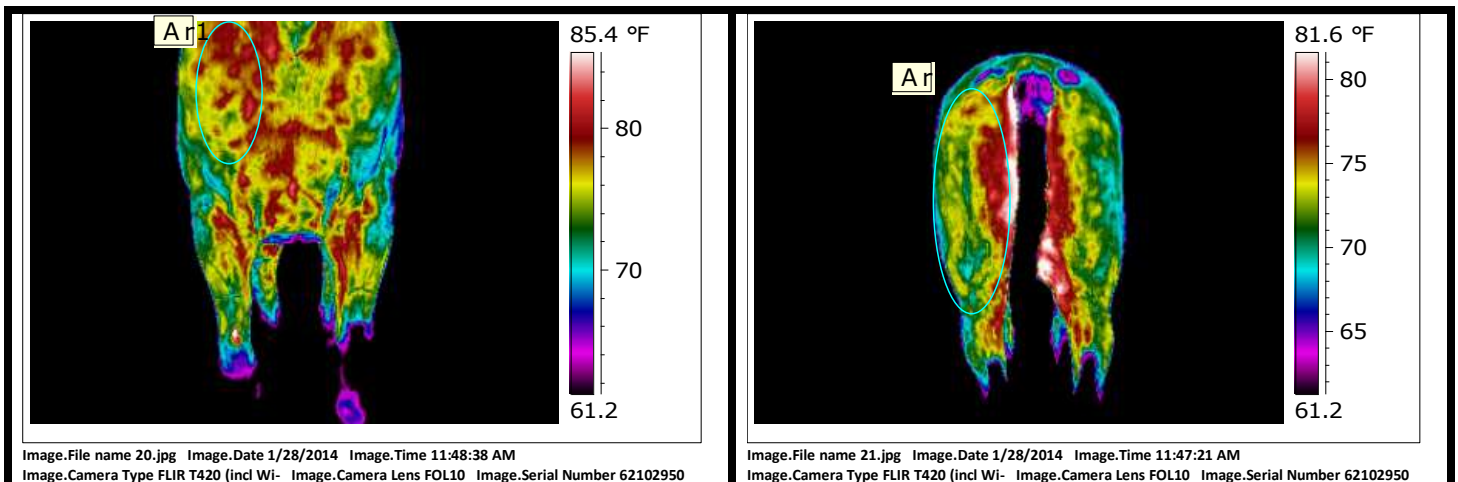
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There is some light artifact left side both views. Increased heat withers and thoracolumbar spine with extension into the right paraspinal area. Increased heat left withers/shoulder. Right side of withers obscured by mane. Chiropractic lesions and/or saddle fit issues likely. Palpation and saddle fit analysis recommended. Increased heat left gluteal muscles. Palpation recommended ruling out muscular inflammation.

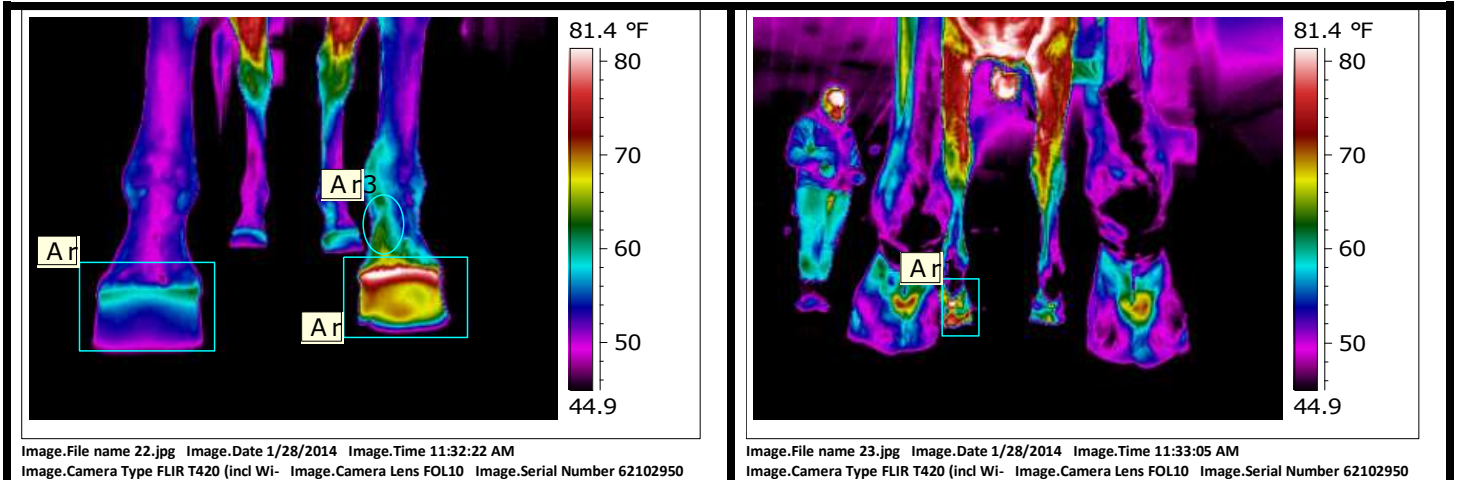


Right chest has greater heat than the left indicating primary inflammation or off-loading of other limb. Palpation recommended. The left hamstrings have greater heat than the right due to either primary inflammation or off-loading of other limb. Palpation recommended as well as gait and postural analysis.

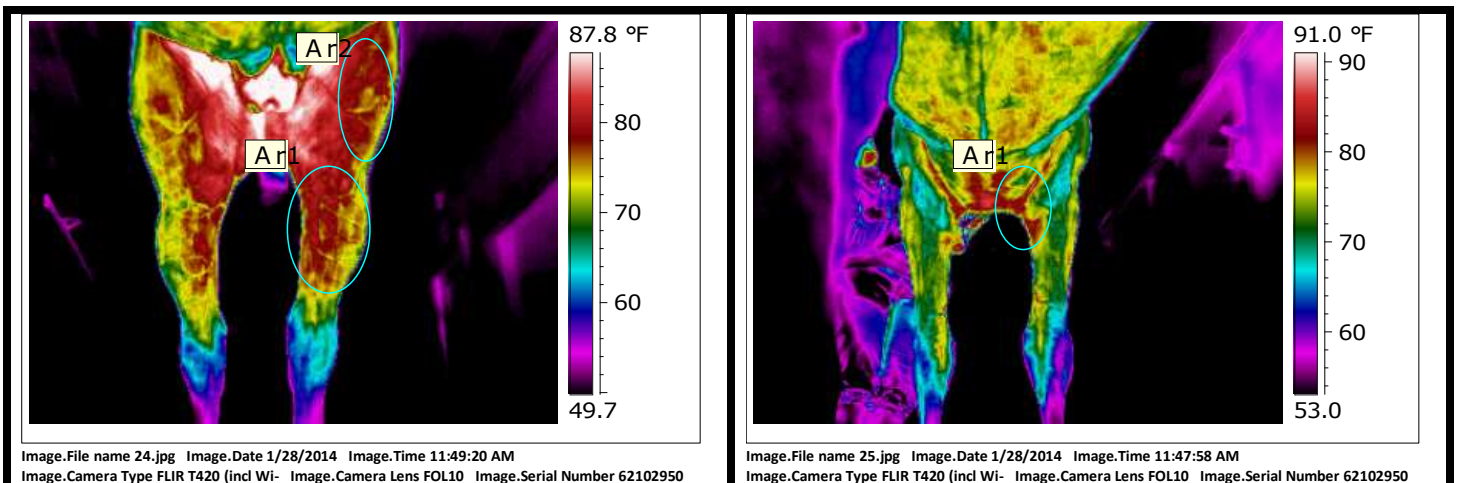
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**Heat in left front foot, greater medially indicating primary inflammation/infection. The heat extends along medial pastern and fetlock. Heat in left front heel also. Thorough visual examination and hoof tester analysis warranted with possible radiographs based on exam findings. Right front foot shows uneven pressure along coronary band.**

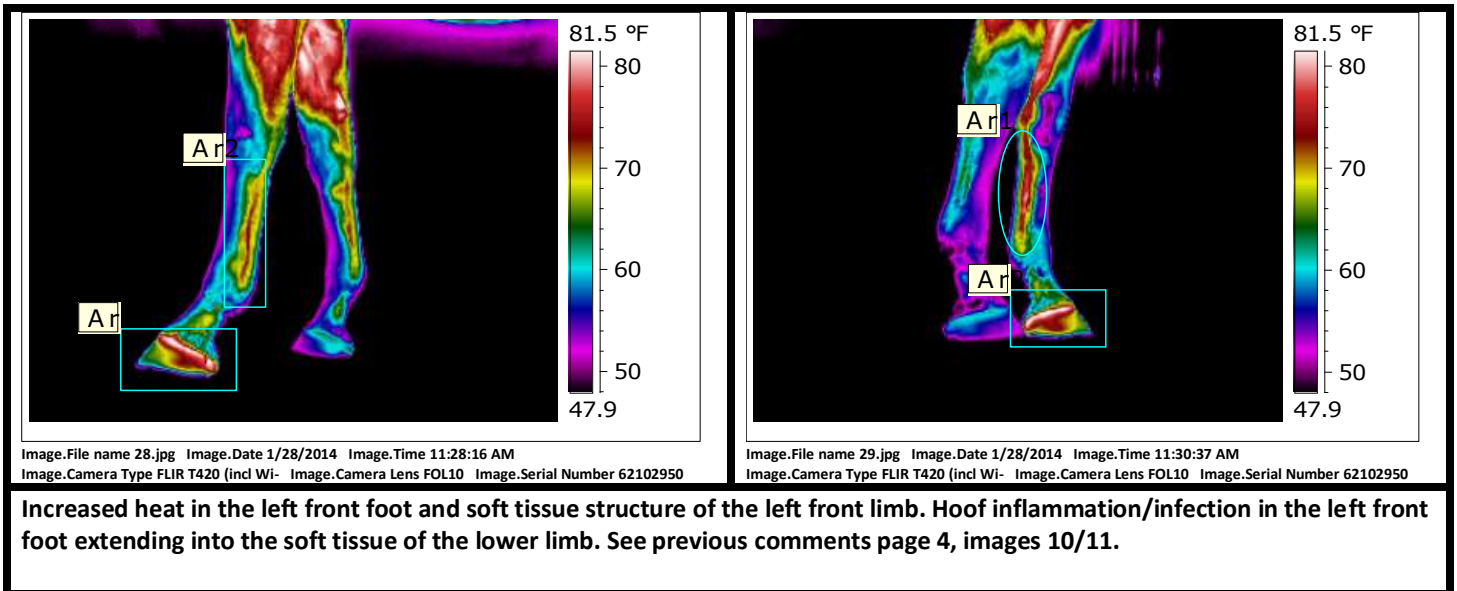
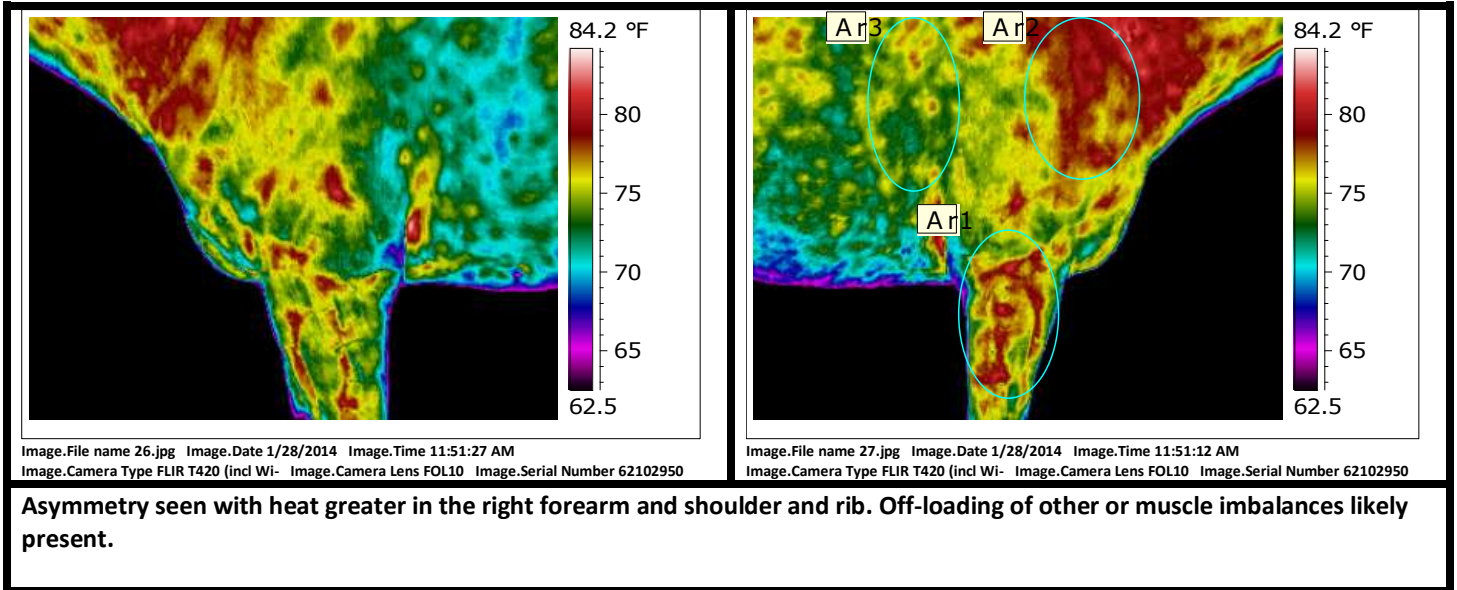


**Slight asymmetry in thighs with heat greater on the left medial gaskin and stifle. Palpation recommended ruling out local inflammation. Off-loading of other limb may also be present. There is slight asymmetry also in the forearm/chest with the right side having slightly greater heat which may indicate off-loading of other limb. Gait/postural analysis and local palpation recommended.**

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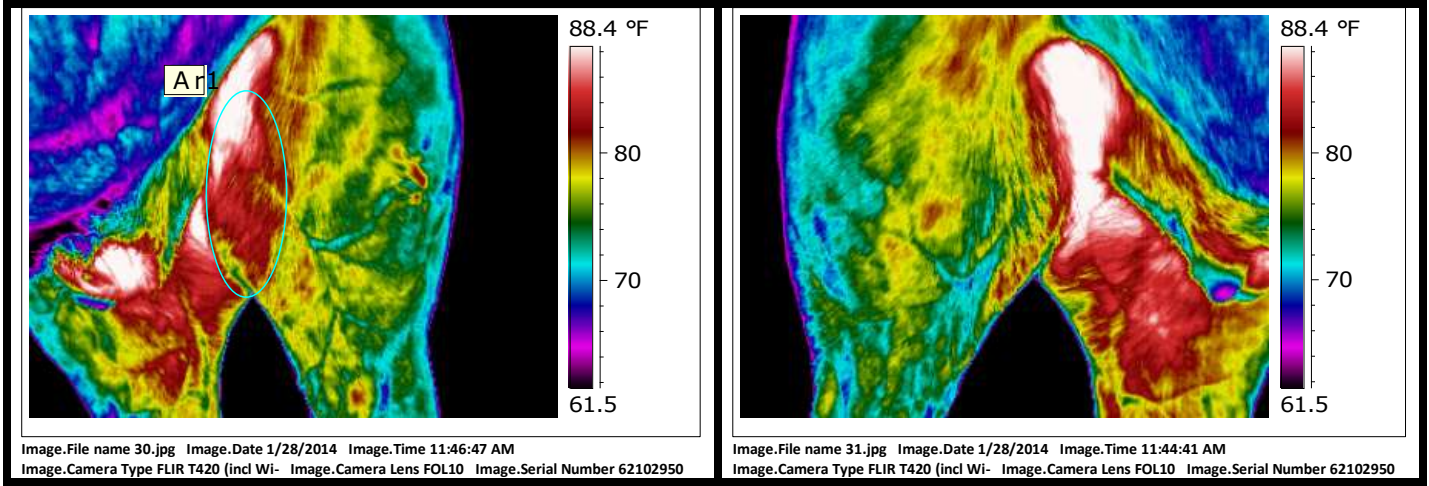




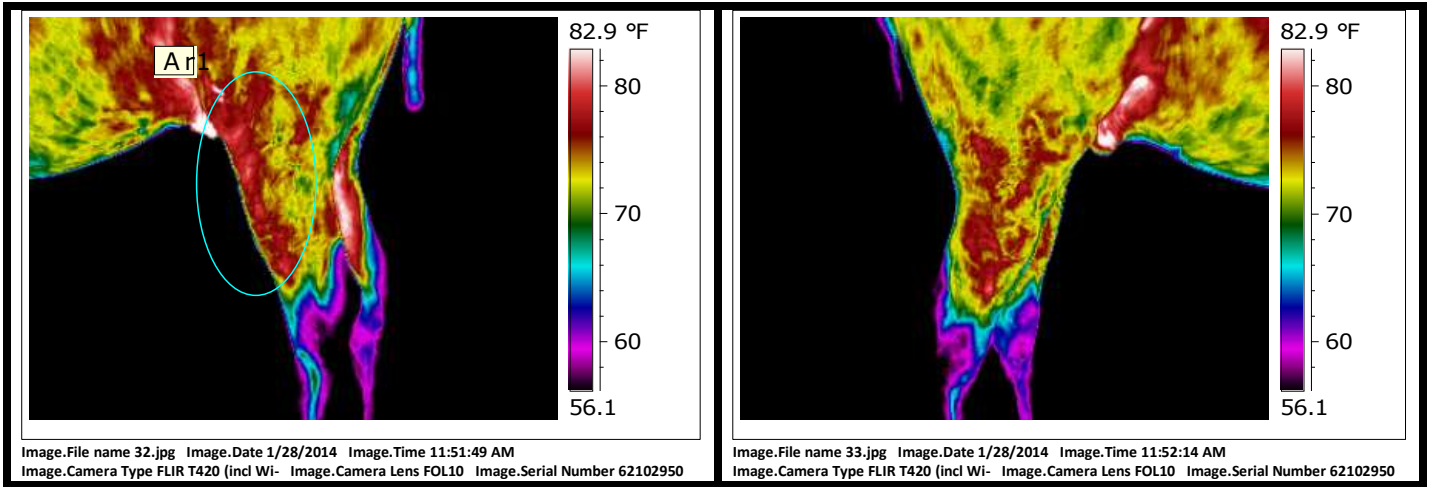
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**Slightly greater heat left stifle. See previous comments page 7, image 24.**



**Greater heat left stifle and gaskin. See previous comments page 7, image 24.**

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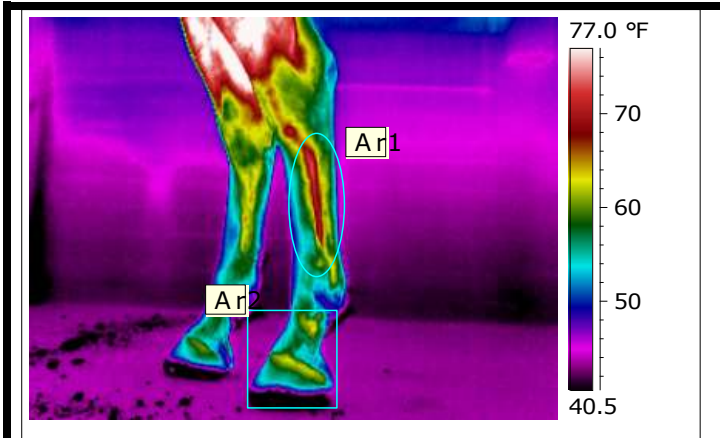


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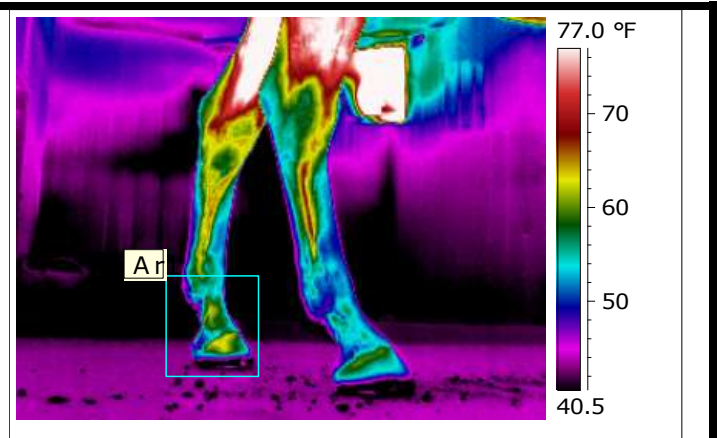


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**Increased heat left hind foot, pastern and lateral soft tissue/splint area. Thorough visual exam, digital pulse evaluation and hoof tester analysis recommended along with palpation of the soft tissue checking for inflammation. Off-loading of other limb may also be present.**

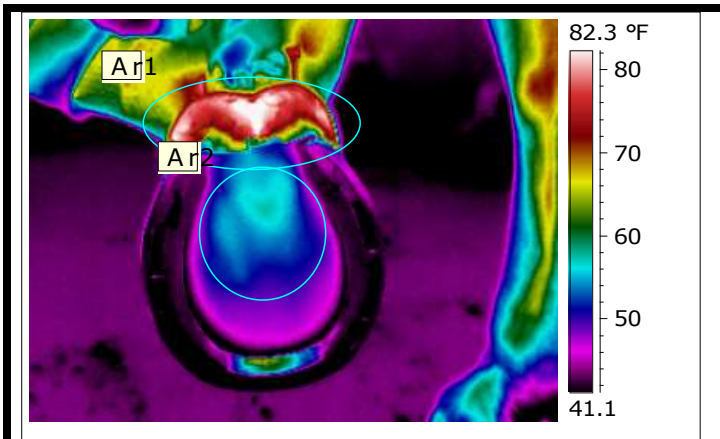


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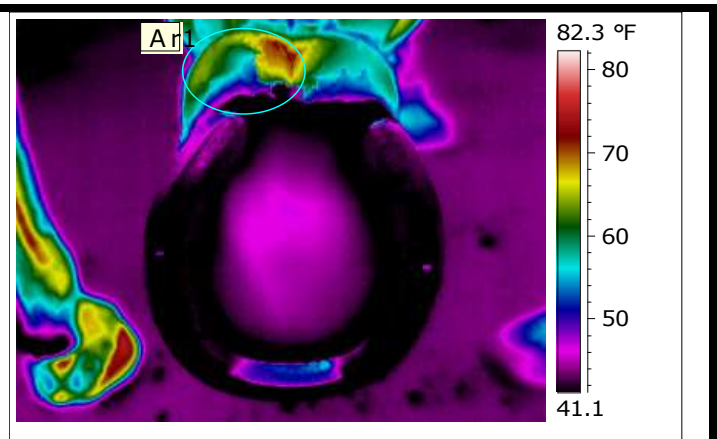


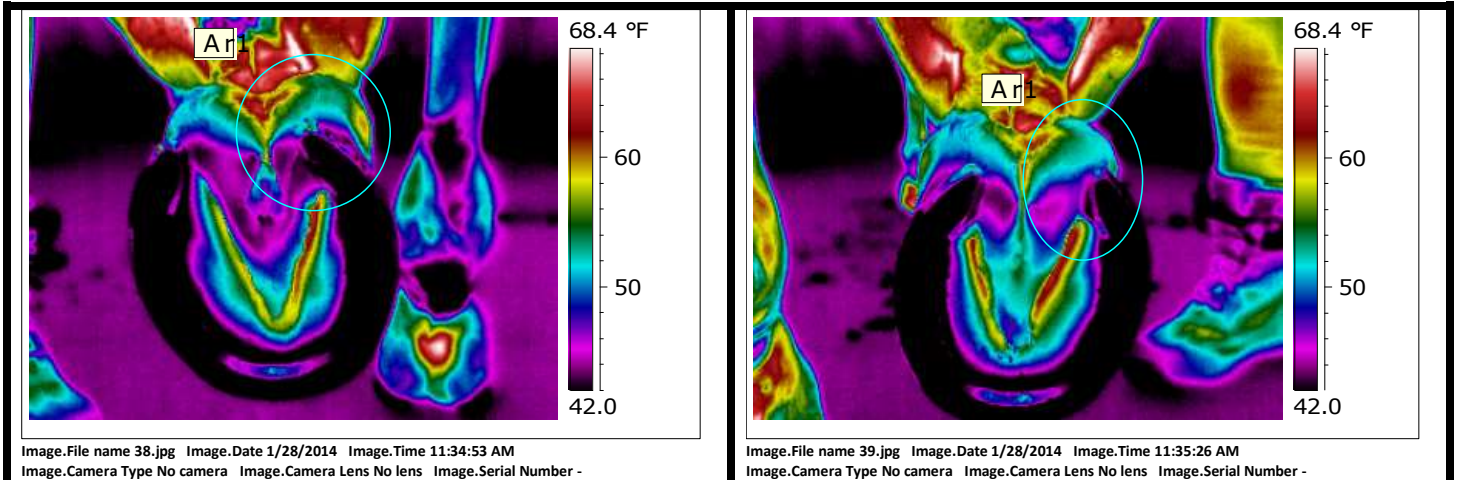
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**Pads present preclude thorough evaluation but asymmetry can still be seen with heat greater in the left front foot and within the foot on the lateral aspect. There is also increased heat in the left front heel with uneven pressure at the heel. The right front foot also shows uneven pressure particularly at the heel with pressure greater medially. Hoof imbalances likely present on the right front and possible inflammation/infection on the left front.**

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**Uneven pressure both hind feet with heat greater on the left hind medial heel and right hind lateral heel. Hoof imbalances likely present.**

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**SUMMARY AND RECOMMENDATIONS:** McKieran is a handsome horse but the thermal images presented show some areas of concern.

The left front foot has increased heat indicating possible abscess or boney inflammation likely on the medial aspect based on heat pattern. Evaluation without pads including hoof tester evaluation and possible radiographs recommended. The increased heat in the left front foot may account for the increased heat in the right front shoulder and forelimb due to off-loading. It also appears that the inflammation extends into the soft tissue of the left front lower limb. Palpation of the splint area, flexor tendons and suspensories recommended.

There is slightly greater heat in the lower left cervical region than the right. Palpation and motion palpation recommended ruling out local inflammation and chiropractic lesions.

The right chest and forearm have increased heat which is likely due to off-loading of the left front limb. Postural and gait analyses along with palpation recommended ruling out local inflammation.

The left hind limb has slightly greater heat along the gluteal muscles, the hamstrings, gaskin and stifle areas. This may be due to off-loading of other limb. Postural and gait analyses recommended.

There is increased heat at the withers and thoracolumbar spine with extension onto the rib area. Chiropractic lesions and/or saddle fit issues likely present. Kissing spines may also be present. Thorough veterinary chiropractic evaluation and saddle fit analysis recommended. Radiographs may be warranted after exam if kissing spines are thought to be likely.

Left front foot has greater pressure on the lateral aspect of the foot visible through the pad. Right front foot has uneven pressure at coronary band likely due to hoof imbalances. Right front foot and both hind feet have uneven pressure at the heels likely due to hoof imbalances. Thorough visual examination recommended including postural analysis to evaluate hoof balance.

**Thank You!**

Reviewing Veterinarian: Debra K Tibbitts, DVM ,CVCP, EDO, CVA, CIT

