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www.WoroneckiRanchQuarterHorses.com
Or email, call or stop by the ranch
woroneckiranch@westriv.com

7 Identified Diseases Information as it Pertains to Woronecki Ranch Quarter Horses

At Woronecki Ranch Quarter Horses we take an ethical response to any genetic diseases as they are identified. AQHA previously had a 5-panel test requirement for breeding stallions since 2015. Two more diseases have been identified and AQHA has now required a 6-panel test. A 7th disease has been identified and could soon be added to the panel. We, as well as many other breeders, have decided to test for that (EJSCA). We also know that there could be many more diseases yet to be discovered. We order our tests through the VGL laboratory of the School of Veterinary Medicine at the University of California, Davis and provide those results to AQHA and buyers. VGL is internationally recognized as a pioneer and expert in DNA-based animal testing. The effects of these equine diseases are wide-ranging, from mild and manageable to severe and terminal. We have compiled a short description of each disorder tested. **In many instances we only test the necessary specific test based upon the parents' test results. If both parents are N/N on all or some diseases then the offspring is also N/N on those diseases by default. Please see ALL PAGES of this document link.**

Glycogen Branching Enzyme Deficiency (GBED) is a fatal genetic disorder that results from the inability to correctly store glycogen in several organs of the body. Most die within couple weeks of age, but none have been known to survive more than 2 months of age. These foals are often still born. **GBED is a recessive trait and only horses that inherit both recessive genes from each parent (G/G) will be afflicted. Carriers (N/G) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all, and they will be able to perform all performance activities. If you decide to breed a carrier (N/G) it is highly advised to not breed to another carrier to avoid producing afflicted offspring.**

Hereditary Equine Regional Dermal Asthenia (HERDA) is an inherited skin condition primarily found in Quarter Horses that is characterized by hyperextensible skin, scarring, and severe lesions along the back of affected horses. **HERDA is a recessive trait and only horses that inherit both recessive genes from each parent (HDR/HDR) will be afflicted. Carriers (N/HDR) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all, and they will be able to perform all performance activities. If you decide to breed a carrier (N/HDR) it is highly advised to not breed to another carrier to avoid producing afflicted offspring.**

Hyperkalemic Periodic Paralysis (HYPP) is an inherited disease of the muscles primarily found in Quarter Horses which is characterized by sporadic episodes of muscle tremors or paralysis. **HYPP is a dominant trait and carriers (N/H) will be afflicted but can be managed with careful nutritional care. It is highly recommended NOT to breed a carrier.**

Formerly known as IMM, Myosin-heavy chain myopathy (MYHM) is a muscle disease in Quarter Horses and related breeds that results in two distinct clinical disease presentations. The first presentation is called immune-mediated myositis or IMM and it is characterized by episodes of severe muscle atrophy following an autoimmune event. The second is severe muscle pain and damage termed non-exertional rhabdomyolysis or "tying-up" that is not associated with exercise and may or may not have muscle atrophy. **MYHM is a codominant trait and carriers (N/My) may develop a myosin-heavy chain myopathy. Horses with (My/My) may develop a more severe form of a myosin-heavy chain myopathy. It is highly recommended NOT to breed a carrier.** After consulting with veterinarians and experts in breeding who deem this disorder to not be as severe or common as HYPP or PSSM1, we have decided at this time to continue to breed certain individuals identified at WRQH. We will not breed carriers to carriers to minimize the potential. We have several aged horses that carry MYHM and have had no problems with them. If things prove differently, we will adjust at that time.

Malignant Hyperthermia (MH) is an inherited disease in which affected horses can be triggered by halogenated anesthetics, succinylcholine, stress, or excitement, which can induce a hyper-metabolic state characterized by symptoms including muscle contracture, elevated temperature, and an irregular heart rhythm. **MH is a dominant trait, and carriers (N/MH) will be afflicted if undergoing surgery or extreme stress. It is highly recommended NOT to breed a carrier.**

Polysaccharide Storage Myopathy (PSSM1) is a glycogen storage disease that results in the accumulation of abnormal complex sugars in muscle cells, which can lead to muscle pain, weakness, and reluctance to move. **PSSM1 is a dominant trait but carriers (N/PSSM1) can be managed with proper diet and exercise. It is highly recommended NOT to breed a carrier.**

Equine Juvenile Spinocerebellar Ataxia (EJSCA) is an inherited neurologic disease that causes ataxia. Affected foals develop ataxia, or incoordination, between 1 and 4 weeks of age. The disorder progresses within a few days until affected foals are unable to stand without assistance. **EJSCA is a recessive trait and only horses that inherit both recessive genes from each parent (JSA/JSA) will be afflicted. Carriers (N/JSA) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all and they will be able to perform all performance activities. If deciding to breed a carrier (N/JSA) it is highly advised to not breed to another carrier to avoid producing afflicted offspring.**

Smaug Topsail JW (AQHA)
2025 Bay Stallion

All NN by parentage. Parents' tests included.

GBED Status	N/N
HERDA Status	N/N
HYPP Status	N/N
MYHM Status	N/N
MH Status	N/N
PSSM1 Status	N/N
EJSCA Status	N/N

AQHA GENETIC DISEASE PANEL TEST REPORT

<p><i>Client/Owner/Agent Information:</i> AMERICAN QUARTER HORSE ASSOCIATION</p> <p><i>Provided Information:</i> <i>Name:</i> GOLDUN TOPSAIL <i>Registration:</i> 5857711</p>	<p><i>Date Received:</i> 13-Nov-2020 <i>Report Issue Date:</i> 08-Jul-2021 <i>Report ID:</i> 3415-6491-2604-3059 <i>Reissue of:</i> 3802-5362-1982-9153</p>
<p><i>DOB:</i> 05/31/2017 <i>Sex:</i> Stallion <i>Breed:</i> Quarter Horse <i>Alt. ID:</i> 6903098</p>	
<p><i>Sire:</i> JAZ POCO GOLDUN BLUE <i>Reg:</i> 3275428 <i>Microchip:</i></p>	<p><i>Dam:</i> WHIZZIN LENA <i>Reg:</i> 3562722 <i>Microchip:</i></p>

RESULT

INTERPRETATION

Genetic Condition	Result	Interpretation
Glycogen Branching Enzyme Deficiency (GBED)	N/N	Normal - Does not possess the disease-causing GBED gene
Hereditary Equine Regional Dermal Asthenia (HERDA)	N/N	Normal - horse does not have the HERDA gene
Hyperkalemic Periodic Paralysis (HYPP)	N/N	Normal - Does not possess the disease-causing HYPP gene
Malignant Hyperthermia (MH)	N/N	Normal - horse does not have the MH gene
Polysaccharide Storage Myopathy Type 1 (PSSM1)	N/N	Normal - horse does not have the PSSM1 gene

Additional Information

If testing for a disease or a disorder was performed and results indicate the animal is affected or at risk, we recommend contacting your veterinarian for further clinical evaluation and for additional information on disease and management.

For more detailed information on Equine Disease Panel test results, please visit our website at:
www.vgl.ucdavis.edu/services/horse/qhpanel.php

License Information

GBED testing performed under a license agreement with the University of Minnesota.
PSSM1 testing performed under a license agreement with the American Quarter Horse Association.

Additional Comments

Results are determined using PCR-based methods. The results relate only to the sample tested as identified by the submitter (for example, identity and/or breed).

Report authorized by Dr. Rebecca Bellone, VGL Director

Veterinary Genetics Laboratory · University of California Davis · One Shields Ave · Davis, CA 95616
vgl.ucdavis.edu · (530) 752-2211

MYOSIN-HEAVY CHAIN MYOPATHY (MYHM) TEST REPORT

<p><i>Provided Information:</i></p> <p><i>Name:</i> GOLDUN TOPSAIL</p> <p><i>Registration:</i> 5857711</p>	<p><i>Case:</i> NQ122906</p> <p><i>Date Received:</i> 21-Apr-2025</p> <p><i>Report Issue Date:</i> 25-Apr-2025</p> <p><i>Report ID:</i> 2104-9134-2789-6148</p> <p style="text-align: center; font-size: small;">Verify report at vgl.ucdavis.edu/verify</p>
<p><i>DOB:</i> 05/31/2017 <i>Sex:</i> Stallion <i>Breed:</i> Quarter Horse</p>	
<p><i>Sire:</i> JAZ POCO GOLDUN BLUE</p> <p><i>Reg:</i> 3275428</p> <p><i>Microchip:</i></p>	<p><i>Dam:</i> WHIZZIN LENA</p> <p><i>Reg:</i> 3562722</p> <p><i>Microchip:</i></p>

RESULT

INTERPRETATION

Myosin-Heavy Chain Myopathy (MYHM)	N/N
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Normal. No copies of the MYHM allele detected. Horse does not have increased susceptibility for immune mediated myositis or nonexertional rhabdomyolysis caused by the MYHM allele.

EQUINE JUVENILE SPINOCEREBELLAR ATAXIA TEST REPORT

<p><i>Provided Information:</i></p> <p><i>Name:</i> GOLDUN TOPSAIL</p> <p><i>Registration:</i> 5857711</p>	<p><i>Case:</i> NQ122906</p> <p><i>Date Received:</i> 21-Apr-2025</p> <p><i>Report Issue Date:</i> 25-Apr-2025</p> <p><i>Report ID:</i> 1548-3950-6313-8159</p> <p style="text-align: center; font-size: small;">Verify report at vgl.ucdavis.edu/verify</p>
<p><i>DOB:</i> 05/31/2017 <i>Sex:</i> Stallion <i>Breed:</i> Quarter Horse</p>	
<p><i>Sire:</i> JAZ POCO GOLDUN BLUE</p> <p><i>Reg:</i> 3275428</p> <p><i>Microchip:</i></p>	<p><i>Dam:</i> WHIZZIN LENA</p> <p><i>Reg:</i> 3562722</p> <p><i>Microchip:</i></p>

RESULT

INTERPRETATION

<p>Equine Juvenile Spinocerebellar Ataxia</p>	<p>N/N</p>
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Normal. No copies of the allele associated with equine juvenile spinocerebellar ataxia (EJSCA) detected.

Malignant Hyperthermia (MH) is an inherited disease in which affected horses can be triggered by halogenated anesthetics, succinylcholine, stress, or excitement, which can induce a hyper-metabolic state characterized by symptoms including muscle contracture, elevated temperature, and an irregular heart rhythm. **MH is a dominant trait, and carriers (N/MH) will be afflicted if undergoing surgery or extreme stress. It is highly recommended NOT to breed a carrier.**

Polysaccharide Storage Myopathy (PSSM1) is a glycogen storage disease that results in the accumulation of abnormal complex sugars in muscle cells, which can lead to muscle pain, weakness, and reluctance to move. **PSSM1 is a dominant trait but carriers (N/PSSM1) can be managed with proper diet and exercise. It is highly recommended NOT to breed a carrier.**

Equine Juvenile Spinocerebellar Ataxia (EJSCA) is an inherited neurologic disease that causes ataxia. Affected foals develop ataxia, or incoordination, between 1 and 4 weeks of age. The disorder progresses within a few days until affected foals are unable to stand without assistance. **EJSCA is a recessive trait and only horses that inherit both recessive genes from each parent (JSA/JSA) will be afflicted. Carriers (N/JSA) and non-carriers (N/N) will have no problems in their lives as they will NOT be afflicted at all and they will be able to perform all performance activities. If deciding to breed a carrier (N/JSA) it is highly advised to not breed to another carrier to avoid producing afflicted offspring.**

Chex Mix Mega (AQHA # 5813918)
2017 Grulla Mare

All NN by parentage. Parents' tests included.

GBED Status	N/N
HERDA Status	N/N
HYPP Status	N/N
MYHM Status	N/N
MH Status	N/N
PSSM1 Status	N/N
EJSCA Status	N/N



AQHA GENETIC DISEASE PANEL TEST REPORT

<i>Client/Owner/Agent Information:</i> AMERICAN QUARTER HORSE ASSOCIATION		<i>Date Received:</i> 17-May-2012 <i>Report Issue Date:</i> 08-Jul-2021 <i>Report ID:</i> 4011-8551-5350-0140 <i>Reissue of:</i> 0997-4383-1852-5040
<i>Provided Information:</i> <i>Name:</i> SMART CHARCOAL CHEX <i>Registration:</i> 4256917		
<i>YOB:</i> 2000 <i>Sex:</i> Stallion <i>Breed:</i> Quarter Horse <i>Alt. ID:</i> 4905317		
<i>Sire:</i> SMART LITTLE LENA <i>Reg:</i> 1565822 <i>Microchip:</i>	<i>Dam:</i> MISS REED CHEX <i>Reg:</i> 1345408 <i>Microchip:</i>	

RESULT

INTERPRETATION

Glycogen Branching Enzyme Deficiency (GBED)	N/N	Normal - Does not possess the disease-causing GBED gene
Hereditary Equine Regional Dermal Asthenia (HERDA)	N/N	Normal - horse does not have the HERDA gene
Hyperkalemic Periodic Paralysis (HYPP)	N/N	Normal - Does not possess the disease-causing HYPP gene
Malignant Hyperthermia (MH)	N/N	Normal - horse does not have the MH gene
Polysaccharide Storage Myopathy Type 1 (PSSM1)	N/N	Normal - horse does not have the PSSM1 gene

Additional Information

If testing for a disease or a disorder was performed and results indicate the animal is affected or at risk, we recommend contacting your veterinarian for further clinical evaluation and for additional information on disease and management.

For more detailed information on Equine Disease Panel test results, please visit our website at:
www.vgl.ucdavis.edu/services/horse/qhpanel.php

License Information

GBED testing performed under a license agreement with the University of Minnesota.
 PSSM1 testing performed under a license agreement with the American Quarter Horse Association.

Additional Comments

Results are determined using PCR-based methods. The results relate only to the sample tested as identified by the submitter (for example, identity and/or breed).

Report authorized by Dr. Rebecca Bellone, VGL Director

Veterinary Genetics Laboratory · University of California Davis · One Shields Ave · Davis, CA 95616
 vgl.ucdavis.edu · (530) 752-2211

REGISTERED NAME
MEGAS LIL STARLIGHT
REGISTRATION NUMBER
5179540



DATE ISSUED
APRIL 28, 2017

OWNER NAME
WORONIECKI JODIE & WARREN

JODIE & WARREN WORONIECKI
7075 28TH ST
HEBRON, ND 58638-9422



DNA CASE NUMBER
QHA63831

MARKINGS
STAR, BROKEN STRIP AND SNIP. NO OTHER MARKINGS.

DISEASE PANEL RESULTS: HYPP=N/N HERDA=N/N MH=N/N PSSM TYPE 1=N/N GBED=N/N

For more information regarding the disease results, refer to www.aqha.com/geneticstesting

The name on the front of this certificate listed as CURRENT OWNER is the present owner of this horse as shown on the records of American Quarter Horse Association. If ownership changes have occurred, up to three previous owners are listed below. All other ownership records are on file in the AQHA office.

3/17/09 WENINGER LORI

ANAMOOSE, NORTH DAKOTA

(Physical Address)
1600 Quarter Horse Drive
Amarillo, TX 79104

Telephone: (806)376-4811
www.aqha.com

(Mailing Address)
P.O.Box 200
Amarillo, Texas 79168

MYOSIN-HEAVY CHAIN MYOPATHY (MYHM) TEST REPORT

<p><i>Provided Information:</i></p> <p><i>Name:</i> CHEX MIX MEGA</p> <p><i>Registration:</i> 5813918</p>	<p><i>Case:</i> NQ125771</p> <p><i>Date Received:</i> 18-Jun-2025</p> <p><i>Report Issue Date:</i> 30-Jun-2025</p> <p><i>Report ID:</i> 2757-8020-3439-8160</p> <p style="text-align: center; font-size: small;">Verify report at vgl.ucdavis.edu/verify</p>
<p><i>DOB:</i> 04/17/2017 <i>Sex:</i> Mare <i>Breed:</i> Quarter Horse</p>	
<p><i>Sire:</i> SMART CHARCOAL CHEX</p> <p><i>Reg:</i> 4256917</p> <p><i>Microchip:</i></p>	<p><i>Dam:</i> MEGAS LIL STARLIGHT</p> <p><i>Reg:</i> 5179540</p> <p><i>Microchip:</i></p>

RESULT

INTERPRETATION

Myosin-Heavy Chain Myopathy (MYHM)	N/N
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Normal. No copies of the MYHM allele detected. Horse does not have increased susceptibility for immune mediated myositis or nonexertional rhabdomyolysis caused by the MYHM allele.

EQUINE JUVENILE SPINOCEREBELLAR ATAXIA TEST REPORT

<p><i>Provided Information:</i></p> <p><i>Name:</i> CHEX MIX MEGA</p> <p><i>Registration:</i> 5813918</p>	<p><i>Case:</i> NQ125771</p> <p><i>Date Received:</i> 18-Jun-2025</p> <p><i>Report Issue Date:</i> 25-Jun-2025</p> <p><i>Report ID:</i> 2344-6863-0883-3168</p> <p style="text-align: center; font-size: small;">Verify report at vgl.ucdavis.edu/verify</p>
<p><i>DOB:</i> 04/17/2017 <i>Sex:</i> Mare <i>Breed:</i> Quarter Horse</p>	
<p><i>Sire:</i> SMART CHARCOAL CHEX</p> <p><i>Reg:</i> 4256917</p> <p><i>Microchip:</i></p>	<p><i>Dam:</i> MEGAS LIL STARLIGHT</p> <p><i>Reg:</i> 5179540</p> <p><i>Microchip:</i></p>

RESULT

INTERPRETATION

<p>Equine Juvenile Spinocerebellar Ataxia</p>	<p>N/N</p>
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Normal. No copies of the allele associated with equine juvenile spinocerebellar ataxia (EJSCA) detected.