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Check us out online at----
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Or email, call or stop by the ranch.
woroneckiranch@westriv.com

5 Panel Information as it Pertains to Woronecki Ranch Quarter Horses

At Woronecki Ranch Quarter Horses we order a genetic kit through AQHA and the results are sent to VGL laboratory of the School of Veterinary Medicine at the University of California, Davis. 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) doesn't allow a foal to store enough sugar in its cells for energy, function of the brain, heart and skeletal muscles. 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 deciding 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) causes the skin on a horse's back to literally peel away. The skin will slough becoming loose and tented to never return to its original position. 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 deciding 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 a muscle condition that leads to weak muscles or severe twitching of the muscles. In most cases symptoms include tremors, weakness, cramping, sweating and inability to relax. In severe cases horse can collapse from a heart attack or respiratory failure and die. **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.**

Malignant Hyperthermia (MH) is a rare but deadly disorder triggered by the use of anesthesia, muscle relaxant succinylcholine and stress. The horse will often experience high heart rate along with rapid breathing and extreme fever. This can also lead to death in some cases. Some horses are also a carrier of PSSM along with MH. **MH is a dominant trait and carriers will be afflicted if undergoing surgery or extreme stress. It is highly recommended NOT to breed a carrier.**

Polysaccharide Storage Myopathy (PSSM1) is when the muscles store too much glycogen causing muscle stiffness and muscle tying up. Most horses experience pain with strenuous exercise. **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.**

Paddys Gin Cactus JW (AQHA)

2021 Bay Mare

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

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AQHA GENETIC DISEASE PANEL TEST RESULTS

AMERICAN QUARTER HORSE ASSOCIATION P.O. BOX 200 AMARILLO, TX 79168-0001	Case: QHA192967 Date Received: 11-May-2015 Print Date: 15-May-2015 Report ID: 5224-0089-7667-9013 Verify report at www.vgl.ucdavis.edu/myvgl/verify.html
Horse: TRR PADDYS TEXAS GIN Reg: 4801457 YOB: 2006 Sex: Stallion Breed: Quarter Horse Alt. ID: 5641519	
Sire: PADDYS IRISH WHISKEY Reg: 2983308 Dam: TRR MISS BAY GIN Reg: 4163196	

GBED	N/N	N/N - Normal - Does not possess the disease-causing GBED gene
HERDA	N/HRD	N/HRD - Carrier - horse carries one copy of the HERDA gene
HYPP	N/N	N/N - Normal - Does not possess the disease-causing HYPP gene
MH	N/N	N/N - Normal - horse does not have the MH gene
PSSM1	N/N	N/N - Normal - horse does not have the PSSM1 gene

GBED - Glycogen Branching Enzyme Deficiency. Fatal disease of newborn foals caused by defect in glycogen storage. Affects heart and skeletal muscles and brain. Inherited as recessive disease.

HERDA - Hereditary Equine Regional Dermal Asthenia. Skin disease characterized by hyperextensible skin, scarring, and severe lesions along the back of affected horses. Typical onset is around 2 years of age. Inherited as a recessive disease.

HYPP - Hyperkalemic Periodic Paralysis. Muscle disease caused by defect in sodium channel gene that causes involuntary muscle contraction and increased level of potassium in blood. Inherited as dominant disease. Two copies of defective gene produce more severe signs than one copy.

MH - Malignant Hyperthermia. Rare but life-threatening skeletal muscle disease triggered by exposure to volatile anesthetics (halothane), depolarizing muscle relaxants (succinylcholine), and stress. Presumed inheritance as dominant disease.

PSSM1 - Polysaccharide Storage Myopathy Type 1. Muscle disease characterized by accumulation of abnormal complex sugars in skeletal muscles. Signs include muscle pain, stiffness, skin twitching, sweating, weakness and reluctance to move. Inherited as a dominant disease.

GBED testing performed under a license agreement with the University of Minnesota.

HERDA testing performed under a license agreement with the University of California, Davis.

PSSM1 testing performed under a license agreement with the American Quarter Horse Association.

Equine Genetic Testing Report



Submitted By	AG118705
Susie Turton	
Box 1235 Sundre, AB T0M1X0 CANADA	

Subject Horse

Date Received: 3/8/2014

Horse Name: Whizzin Lena	Lab Reference #: 00053811
Breed: Quarter Horse	Registration: 3562722
Phenotype: Bay	Birth: 1997
Sex: Mare	

Sire
Sire Name: Topsail Whiz
Breed: Quarter Horse
Registration: 2675816
Phenotype:

Dam
Dam Name: Petra Lena
Breed: Quarter Horse
Registration: 2306118
Phenotype:

Coat Color and Pattern Testing

Tobiano	
Frame Overo	
Sabino 1	
Splashed White 1	
Splashed White 2	
Splashed White 3	
Appaloosa (LP)	
Red/Black Factor	
Agouti	
Cream Dilution	
Dun Dilution	
Silver Dilution	
Champagne	
Pearl Dilution	
Gray	

Genetic Disorders

<input checked="" type="checkbox"/>	HYPP	n/n	Clear: Negative for the HYPP gene mutation.
<input checked="" type="checkbox"/>	HERDA	N/N	Clear: Negative for the HERDA gene mutation.
<input checked="" type="checkbox"/>	GBED	N/N	Clear: Negative for the GBED gene mutation.
<input checked="" type="checkbox"/>	PSSM 1	n/n	Clear: Negative for the PSSM Type 1 gene mutation.
<input type="checkbox"/>	MH	n/n	Clear: Negative for the MH gene mutation found in Quarter horses and related breeds.
<input type="checkbox"/>	JEB		
<input type="checkbox"/>	CA		
<input type="checkbox"/>	LFS		

Genetic Marker Results Run Date:

-	-	-	-	-	-	-
AP14	AP15	AP17	AP18	AP20	AP21	AP22
-	-	-	-	-	-	-
AP23	AP24	AP27	AP28	AP29	AP30	AP31
-	-	-	-	-	-	-
AP32	AP33	AP34	AP35	AP36	AP37	AP38

CA = Cerebellar Ataxia
 GBED = Glycogen branching enzyme deficiency
 HERDA = Hereditary equine regional intestinal ataxia
 HYPP = Hyperkalemic Periodic Paralysis
 JEB = Junctional Epidermolysis Bullosa - Shetland Dull Horse
 LP = Lavender Foal Syndrome - American Saddlebred
 LFS = Lavender Foal Syndrome
 MH = Malignant Hyperthermia
 PSSM1 = Polysaccharide Storage Myopathy - Type 1

Additional Comments

Thank you for choosing Animal Genetics Inc.

**HEREDITARY EQUINE REGIONAL DERMAL
 ASTHENIA (HERDA) TEST REPORT**

<i>Provided Information:</i>		<i>Case:</i>	NQ74182
<i>Name:</i>	PADDYS GIN CACTUS JW	<i>Date Received:</i>	15-Sep-2021
<i>Registration:</i>	Registration Pending	<i>Report Issue Date:</i>	28-Sep-2021
		<i>Report ID:</i>	5041-5130-2436-0091
Verify report at www.vgl.ucdavis.edu/verify			
<i>DOB:</i> 08/21/2021 <i>Sex:</i> Mare <i>Breed:</i> Quarter Horse			
<i>Sire:</i>	TRR PADDYS TEXAS GIN	<i>Dam:</i>	WHIZZIN LENA
<i>Reg:</i>	4801457	<i>Reg:</i>	3562722
<i>Microchip:</i>		<i>Microchip:</i>	

Hereditary Equine Regional Dermal Asthenia (HERDA) Result

N/N

Interpretation

- N/N Normal - horse does not have the HERDA gene
- N/HRD Carrier - horse carries one copy of the HERDA gene
- HRD/HRD Affected - horse has two copies of the HERDA gene