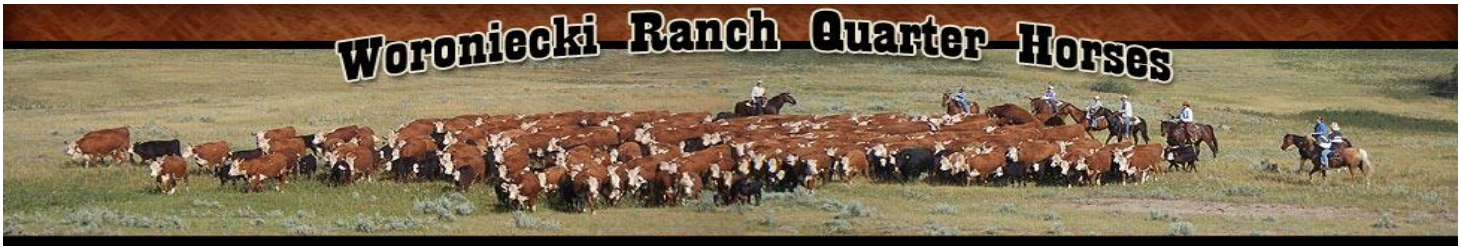

Jodie & Warren Woroniecki
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Check us out online at----
www.WoronieckiRanchQuarterHorses.com
Or email, call or stop by the ranch.
woronieckiranch@westriv.com

5 Panel Information as it Pertains to Woroniecki Ranch Quarter Horses

At Woroniecki 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 using 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 is 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.**

Immune Mediated Myositis (IMM) is an incomplete dominant autoimmune disorder which causes muscular atrophy and stiffness in Quarter Horses. IMM typically affects horses younger than eight years old and older than seventeen years old. IMM episodes typically last several days to several weeks and can be fatal if mismanaged. Certain infections, such as a Streptococcus infection, and certain vaccines, like the influenza vaccine, are thought to potentially trigger symptoms of IMM. After an immune episode, muscle mass typically returns to the horse within a few months with proper care. **Horses with one copy of IMM (N/IMM) are susceptible to having autoimmune episodes, while horses with two copies of the IMM mutation (IMM/IMM) are more susceptible to an autoimmune episode and the chance of having recurring autoimmune incidences. When breeding, highly advised not to breed to another IMM carrier.**

Taz	**Grade**
2009 Dun Mare	
GBED Status	N/N
HERDA Status	N/N
HYPP Status	N/N
MH Status	N/N
PSSM1 Status	N/N
IMM Status	N/N

AnimalGenetics INCORPORATED
1336 Timberlane Road
Tallahassee, FL 32312-1766

Generated On: 6/21/2019

Equine Genetic Testing Report

Submitted By

Jodie & Warren Woroniecki
Woroniecki Ranch Quarter Horses
7075 28th St
Hebron, ND 58638

Date Received: 6/17/2019

Subject Horse

Horse Name: **Taz**
Breed: Quarter Horse
Phenotype: Dun
Sex: Mare

Lab Reference #: 00125452
Registration:
Birth: 2009

Sire

Sire Name: JK Jay Reed
Breed: Quarter Horse
Registration: 3516678
Phenotype: Bay

Dam

Dam Name: Baby Ruth
Breed: Quarter Horse
Registration:
Phenotype:

Coat Color and Pattern Testing

	Tobiano		Not Tested
	Frame Overo		Not Tested
	Sabino 1		Not Tested
	Splashed White 1		Not Tested
	Splashed White 2		Not Tested
	Splashed White 3		Not Tested
	Appaloosa (LP)		Not Tested
	PATN1		Not Tested
	Red/Black Factor		Not Tested
	Agouti		Not Tested
	Cream Dilution		Not Tested
	Dun Dilution		Not Tested
	Silver Dilution		Not Tested
	Champagne		Not Tested
	Pearl Dilution		Not Tested
	Gray		Not Tested
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Genetic Disorders

X	HYPP	n/n	Clear: Negative for the HYPP gene mutation.
X	HERDA	N/N	Clear: Negative for the HERDA gene mutation.
X	GBED	N/N	Clear: Negative for the GBED gene mutation.
X	MH	n/n	Clear: Negative for the MH gene mutation found in Quarter horses and related breeds.
X	IMM	N/N	Horse tested negative for the mutation associated with IMM.
X	PSSM 1	n/n	Clear: Negative for the PSSM Type 1 gene mutation.
	FIS		Not Tested
	JEB1		Not Tested
	JEB2		Not Tested
	CA		Not Tested
	LFS		Not Tested
	SCID		Not Tested
	OAAM1		Not Tested
	WFFS1		Not Tested

Genetic Marker Results

Run Date: Not Tested

-	-	-	-	-	-	-
AHT4	AHT5	ASB17	ASB2	ASB23	AME	CA425UK
-	-	-	-	-	-	-
HMS3	HMS6	HMS7	HTG10	HTG4	LEX3	LEX33
-	-	-	-	-	-	
VHL20	UM011	HMS1	HMS2	HTG6	HTG7	

Additional Comments

None