

# UNIVERSITY OF CALIFORNIA, DAVIS

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 VETERINARY GENETICS LABORATORY  
 SCHOOL OF VETERINARY MEDICINE  
 ONE SHIELDS AVENUE  
 DAVIS, CALIFORNIA 95616-8784

TELEPHONE: (530) 752-2211  
 FAX: (530) 752-5558



SAVANA BARAKA • NANJIA QIN /

## AQHA GENETIC DISEASE PANEL TEST RESULTS

AMERICAN QUARTER HORSE ASSOCIATION  
 P.O. BOX 200  
 AMARILLO, TX 79168-0001

Case: **QHA368769**  
 Date Received: **10-Sep-2018**  
 Print Date: **13-Sep-2018**  
 Report ID: **6485-2730-6928-4100**  
 Verify report at [www.vgl.ucdavis.edu/rmq/vglverify.htm](http://www.vgl.ucdavis.edu/rmq/vglverify.htm)

Horse: **THE EXTREME MACHINE** Reg: **5300386**  
 DOB: **2012** Sex: **Stallion** Breed: **Quarter Horse** AI: **ID: 643353**  
 Sire: **MACHINE MADE** Reg: **5049789**  
 Dam: **MISS TROPHY CHIP** Reg: **3547078**

GBED	N/G	N/G - Carrier - Heterozygous (one normal and one GBED gene)
HERDA	N/N	N/N - Normal - horse does not have 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 Dermatitis - Skin disease characterized by hyperkeratotic skin, swelling, and/or lesions along the back of affected horses. Typical onset is around 2 years of age. Inherited as a recessive disease.

**HYPP** - Hypokalemic 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 is 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.

QHA3 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.