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HERDA TEST RESULT

JEFFREY NEIDHART 4144 CRISTO REY ST FARMINGTON, NM 87401	***Case:*** **NQ46040** ***Date Received:*** 14-Nov-2018 ***Print Date:*** 18-Nov-2018 ***Report ID:*** 2033-0388-5183-6080 Verify report at www.vgl.ucdavis.edu/myvgl/verify.htm

Name: **NCH PATCHES OF BLUE** *Reg:* **A194-QHC**

DOB: **01/03/2014** *Sex:* **Mare** *Breed:* **Quarter Horse**

Sire: SMART LITTLE LENA *Reg:*

Dam: ROYAL BLUE BOON *Reg:*

HERDA Test Result

N/HRD

Result Codes:

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

Hereditary equine regional dermal asthenia (**HERDA**) is a degenerative skin disease characterized by hyperextensible skin, scarring, and severe lesions along the back of affected horses. Affected foals rarely show symptoms at birth. The condition typically occurs by the age of two, most notably when the horse is first being broke to saddle. HERDA is an autosomal recessive trait which means that breedings between carrier (N/HRD) horses have a 25% chance of producing an affected foal (HRD/HRD). Breedings between carrier and normal (N/N) horses produce normal foals, but 50% of these are expected to be carriers.

This test is specific for the mutation in the *cyclophilin B* gene (PPIB) that has been shown to be associated with HERDA. For more information go to http://vgl.ucdavis.edu.

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HYPP REPORT

JEFFREY NEIDHART 4144 CRISTO REY ST FARMINGTON, NM 87401	*Case:* **NQ46040** *Date Received:* 14-Nov-2018 *Print Date:* 16-Nov-2018 *Report ID:* 5121-2681-9653-7111 Verify report at www.vgl.ucdavis.edu/myvgl/verify.htm

Horse: **NCH PATCHES OF BLUE** *Reg:* **A194-QHC**

DOB: **01/03/2014** *Sex:* **Mare** *Breed:* **Quarter Horse**

Sire: SMART LITTLE LENA *Reg:*

Dam: ROYAL BLUE BOON *Reg:*

HYPP Test Result

N/N

Result Codes:

H/H	Hyperkalemic - Homozygous for HYPP (two copies of the HYPP gene).
N/H	Hyperkalemic - Heterozygous (one normal and one HYPP gene).
N/N	Normal - Does not possess the disease-causing HYPP gene.

The disease is inherited as an autosomal dominant trait, which means that a heterozygote (N/H) bred to a normal (N/N) will result in approximately half of the offspring being affected and half being normal. The homozygote (H/H) is usually severely affected with the disease.

The test indicates the presence or absence of a base pair substitution in the skeletal muscle sodium channel gene. The abnormal gene codes for a defective sodium channel protein that causes the disease Hyperkalemic Periodic Paralysis (HYPP).