

**KELLY COOKE**

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**From:** <vcpl.judy@vetmed.wsu.edu>  
**Date:** Friday, January 24, 2014 9:58 AM  
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**Subject:** MDR1 Genotyping Results for Out West Juno Crazy



## MDR1 GENOTYPING RESULTS

1/24/2014 8:58:15 AM  
MDR1 - 38925

Kelly Cooke  
Three Forks, MT

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Submission Type: Brush

Dog Name: Out West Juno Crazy

Dog Breed: Australian Shepherd

**Test Result:** **Normal/Normal**

### Explanation of test results

#### Normal/Normal

These dogs do not carry the mutation, and will not pass on the mutation to their offspring. These dogs would not be expected to experience unexpected adverse drug reactions to normal doses of ivermectin, loperamide (Imodium®), and some anticancer drugs.

#### Mutant/Mutant

These dogs carry the mutation and can not pass on a normal gene to their offspring. These dogs would be expected to experience toxicity after normal doses of loperamide (Imodium®), some anticancer drugs, and high doses of