

Calico Gather Wild Horse Deaths

(As of January 26, 2010)

1,326 horses have been gathered from the Calico Complex. Thirteen deaths have occurred - three at the gather site and 10 at the Indian Lakes facility at Fallon, NV. Total mortality (gather sites and short-term holding (STH)) is less than 1 percent. Gather statistics for Nevada (over 26,000 animals were gathered between July 2004 and January 2009) document a mortality rate at gather sites (not including STH facility deaths) of 1.367%. This compares to mortality for the Calico Complex of 0.226% as of January 25, 2010 (gather site only). See Attachment 1.

The following is a summary of horse condition upon their arrival at Indian Lakes, the circumstances for each death, horses in hospital pens on January 23, a statement about horses not adapting to hay, and the treatment protocol for lame horses.

General Condition of Wild Horses found at the Indian Lakes Wild Horse Facility

To date, the facility is holding 1,313 wild horses. The following is an estimated body condition of these horses upon arrival. The Henneke Body Scoring Condition System is used to score the mares on a scale of 1 (poor) to 9 (extremely fat). The Henneke scoring chart is shown in Attachment 2.

Mares:

- 75% body condition 3 (thin)
- 15-20% body condition 2 (very thin)
- 5 -10% body condition 4 (moderately thin)

Stallions:

- 75% body condition 4 (moderately thin)
- 25% body condition 2-3 (very thin to thin)

Weanlings:

- 75% body condition 4 (moderately thin)
- 25% body condition 2-3 (very thin to thin)

Deaths at the Calico Gather Sites

1. December 30, 2009: One horse, a 20-plus year-old mare with a body condition index of 2 (very thin), was euthanized at the gather site on the recommendation of the on-site veterinarian, who determined it was unlikely her condition would improve with better care. The horse was euthanized by gunshot by the veterinarian. BLM Handbook 4730 -

Destruction of Wild Horses and Burros identifies two American Veterinarian Medical Association (AVMA)-acceptable methods for euthanasia of large animals: gunshot to the brain and injection of barbiturates. Attachment 3 contains pictures of the mare that illustrate her very thin body condition.

2. January 1, 2010: One colt died as it was being brought to the trap. An after-death examination revealed a pre-existing pulmonary condition. Attachment 4 contains the veterinarian's report.
3. January 7, 2010: One 20-year plus mare in very thin body condition (body condition index of 2) was judged unlikely to improve by an on-site veterinarian because of severely worn teeth. The veterinarian euthanized the horse by gunshot as an act of mercy.

Deaths at the Indian Lakes Short Term Holding Facility in Fallon, NV

1. January 10, 2010: One mare from the Black Rock East HMA was found dead over the weekend. The veterinarian diagnosis is that the mare died as the result of her inability to adjust to a dietary feed change.
2. January 13, 2010: One mare was down on the transport truck when it arrived at the facility on 1/10. The mare was assisted to stand, walked off the truck, and was placed in the hospital pen with one other horse for rest and observation. Her body condition score was 2 (very thin) and she was 18 years of age. The mare was observed eating and drinking water on 1/11 and 1/12, but on 1/13 she was found dead.
3. January 13, 2010: One 12-year-old mare from the Black Rock West HMA died. She arrived in weak and poor condition and had been at the facility for four days.
4. January 14, 2010: One mare and one stallion were found dead at the facility; cause of death is attributed to failure to adjust to a change in feed.
5. January 18, 2010: One colt with multiple hoof sloughs from the capture was euthanized at the facility. The colt was from the Black Rock East HMA and had been at the facility since 1/6. When the colt arrived at the facility, it was put in with the general population. On 1/8 the colt started showing acute lameness and was moved to a sick pen and was then treated with phenylbutazone (a non-steroidal anti-inflammatory drug) and penicillin (an antibiotic) for presumptive sole bruising and abscesses. The facility veterinarian noted the colt's two hind hoof soles were bruised, but there was no visible abscess or infection. During the next five days, the colt was observed for body condition and lameness, and was re-treated on 1/13 with penicillin and phenylbutazone; both hind feet were flushed with betadine and bandaged with gauze, antibiotic ointment, and tape. The colt slightly improved after the treatment, but was kept segregated and continued to be checked by the veterinarian. On 1/18 the colt was examined and it was noted that the

hind hooves had separated and the colt was euthanized with chemicals by the facility veterinarian. Attachment 5 contains the veterinarian's report.

6. January 23, 2010: Two mares were euthanized due to poor body condition and not being able to transition to their new diet.
7. January 23, 2010: One mare ran into a gate and broke her neck.

Comment: Generally the mares that have died or euthanized were in body condition 2 (very thin) upon arrival at the facility. These horses were very weak because of their emaciated body condition resulting from a lack of food and water on the range, which contributed to their inability to transition to a diet of good quality domestic grass hay.

Horses Located in the Hospital Pens

- Summary for January 23, 2010:
 - 14 very thin mares were removed from the general population and were placed in hospital pens for observation. They were assessed for weight loss/not adapting to the change in diet. All were eating and drinking. The majority are expected to recover, but some may not.
 - 15 horses were treated/assessed for lameness or wounds as per lameness treatment.
 - Six horses were released to general population
 - Nine horses were kept in the hospital pen for retreatment and reassessment for lameness/wounds.

Horses Not Adapting to Hay

Wild horses started arriving at the Indian Lakes Wild Horse Facility located in Fallon, NV on December 29, 2010. Upon arrival, horses are fed a mixture of orchard and rye grass hays. This hay is initially scattered in the pen near the water trough until horses are used to the feed, which is then put into a feed bunk. Most horses adapt well to grass hay that is grown domestically. The majority of the animals that do not adapt are mares that are in very thin to thin body condition (Henneke score 2 to 3), older (12 - 20 years), and usually pregnant. Again, it should be noted that these horses are very weak because of their emaciated body condition that resulted from inadequate forage and/or water on the range, which contributed to their inability to transition to a diet of good quality domestic grass hay.

Treatment for Lameness

Approximately 20-25 wild horses have been treated for lameness. Depending on severity of lameness, horses are either left in their pen with soft sand to recover on their own or penned

separately for treatment. Treatment consists of anesthetic for restraint, phenylbutazone (anti-inflammatory agent), penicillin (antibiotic), draining of sole abscesses, and application of bandages as required. Recovery is often rapid, and most of the horses treated have already recovered and returned to the general population.

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Attachment 1: Mortality at Nevada Gather Sites (2004-2009) Compared to Calico 2010 Gather Site Mortality

Mortality at Nevada Gather Sites

Does not include mortality at preparation facilities.

Summer 2004 to January 2009

HMA/COMPLEX	DATE	GATHER NO.	DIED	EUTHANIZED	TOTAL MORTALITY
Diamonds	Jul-04	528	10	unk	10
White River	Jul-04	291	2	1	3
Moriah	Jul-04	208	9	unk	9
Jakes Wash	Jul-04	49	0	0	0
Garfield	Aug-04	189	0	0	0
Rock-Humboldt	Aug-04	1653	9	7	16
Little Owyhee	Oct-04	892	0	2	2
Fish Lk Valley	Jan-05	50	0	0	0
Pilot Mtn	Jan-05	151	1	1	2
Calicos	Jan-05	1473	3	1	4
White River	Feb-05	120	0	0	0
Buffalo Hills	Feb-05	1180	1	5	6
Antelope	Feb-05	1729	4	19	23
Buck-Bald	Aug-05	850	3	5	8
Rock Creek	Nov-05	27	0	0	0
Dogskins	Dec-05	36	0	0	0
Simpson Park	Dec-05	218	0	1	1
Monte Cristo	Jan-06	932	5	14	19
Fish Creek	Feb-06	1261	9	unk	9
Red Rock	Feb-06	43	0	0	0
South Desert Fire	Feb-06	72	0	2	2
McGee Mtn	Mar-06	129	1	0	1
Hot Springs	Mar-06	50	0	0	0
Pilot Mtn	Jul-06	99	0	1	1
Buck-Bald	Aug-06	1187	6	11	17
Rock-Humboldt	Sep-06	576	0	10	10
Paymaster-Silver Pk	Oct-06	332	21	unk	21
Blue Wing	Dec-06	1335	6	20	26
Dry Lake	Dec-06	265	1	1	2
Spring Mtns	Jan-07	944	2	3	5
Stone Cabin	Feb-07	588	8	unk	8
Wilson Deer	Feb-07	806	3	11	14
Lake Mead	Mar-07	216	0	0	0
Nellis	Jul-07	178	1	0	1
Jakes Wash	Aug-07	97	7	unk	7

Powell Mtn	Aug-07	80	0	0	0
Jacksons	Sep-07	1064	1	6	7
Moriah	Sep-07	68	0	0	0
Augustas	Nov-07	267	0	14	14
New Pass/Ravenswood	Nov-07	622	3	10	13
Antelope-Ant. Valley	Dec-07	848	2	5	7
South Shoshone	Jan-08	375	0	8	8
Roberts Mtn Complex	Jan-08	373	0	11	11
North Stillwater	Jul-08	336	3	2	5
NWHR	Jul-08	946	0	33	33
Fox and Lake	Jul-08	233	0	2	2
Highland Peak Emerg	Sep-08	118	2	3	5
Callaghan Complex	Jan-09	1705	11	8	19
Buffalo Hills	Jan-09	318		6	6
Totals		26107	134	223	357
Percentage			0.513%	0.854%	1.367%
Calico Mtns Complex	Jan-10	1326	1	2	3
Percentage			0%	0.151%	0.226%

Attachment 2: Henneke Equine Body Scoring Chart

DATE: _____

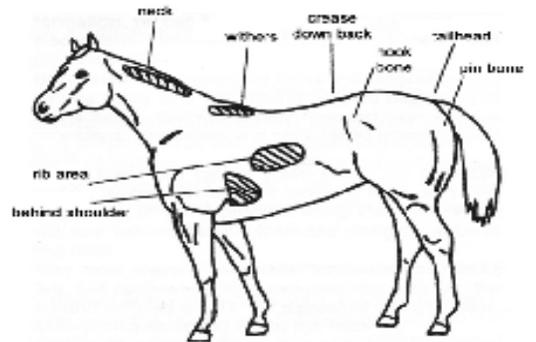
NAME: _____

FREEZEMARK: _____

SIGNALMENT KEY: _____

HOOF CONDITION: _____

COMMENTS: _____



modified from Henneke et al. *EJV* 1983; 15:371-372

OVERALL HENNEKE BODY CONDITION SCORE:

Condition	Neck	Withers	Shoulder	Ribs	Back	Tailhead Area
1 Poor (extremely emaciated)	Bone structure easily noticeable	Bone structure easily noticeable	Bone structure easily noticeable	Ribs projecting prominently	Spinous processes projecting prominently	Tailhead, pinbones, and hook bones projecting prominently
2 Very Thin (emaciated)	Bone structure faintly discernible	Bone structure faintly discernible	Bone structure faintly discernible	Ribs prominent	Slight fat covering over base of spinous processes. Transverse processes of lumbar vertebrae feel rounded. Spinous processes are prominent	Tailhead prominent Pin bones prominent Hook bones prominent
3 Thin	Neck accentuated	Withers accentuated	Shoulder accentuated	Slight fat cover over ribs. Ribs easily discernible	Fat buildup halfway on spinous processes, but easily discernible. Transverse processes cannot be felt	Tailhead prominent but individual vertebrae cannot be visually identified. Hook bones appear rounded, but are still easily discernible. Pin bones not distinguishable
4 Moderately Thin	Neck not obviously thin	Withers not obviously thin	Shoulder not obviously thin	Faint outline of ribs discernible	Negative crease (peaked appearance) along back	Prominence depends on conformation. Fat can be felt. Hook bones not discernible
5 Moderate	Neck blends smoothly into body	Withers rounded over spinous processes	Shoulder blends smoothly into body	Ribs cannot be visually distinguished, but can be easily felt	Back is level	Fat around tailhead beginning to feel spongy
6 Moderately Fleahy	Fat beginning to be deposited	Fat beginning to be deposited	Fat beginning to be deposited behind shoulder	Fat over ribs feels spongy	May have a slight positive crease (a groove) down back	Fat around tailhead feels soft
7 Fleahy	Fat deposited along neck	Fat deposited along withers	Fat deposited behind shoulder	Individual ribs can be felt, but noticeable fat filling between ribs	May have a positive crease down the back	Fat around tailhead is soft
8 Fat	Noticeable thickening of neck	Area along withers filled with fat	Area behind shoulder filled with fat	Difficult to feel ribs	Positive crease down the back	Fat around tailhead very soft
9 Extremely Fat	Bulging fat	Bulging fat	Bulging fat	Patchy fat appearing over ribs	Obvious crease down the back Flank filled with fat	Bulging fat around tailhead

Henneke Equine Body Scoring Chart 1_18_07.xls

Attachment 3: Photos of very thin mare euthanized at the gather site on December 30, 2009

The photos below are of a 20-plus-year-old bay mare in very thin condition (Henneke body condition 2). The decision to euthanize as an act of mercy was made by the BLM horse specialist in consultation with the on-site U.S. Department of Agriculture veterinarian.



Attachment 4: Veterinarian's Report for Colt Death on January 1, 2010

Necropsy [Animal Death] Report

Date: 1/1/10

Prepared by: Albert Kane, DVM, MPVM, PhD

Location/Event: Calico Complex Gather

Animal ID: 6 month old, dark bay/brown, colt

History: The [helicopter] pilot [gathering horses] reported this colt lied down twice while moving just ½ mile from the original location of the band of horses. The second time he radioed to the trap for wranglers to come with a trailer and assist the colt as he seemed unlikely to make it to the trap. I accompanied the wranglers to the location. We arrived to the colt's location about 10 minutes after the call from the pilot. On arrival he was found dead, lying in left lateral recumbency, with no signs of struggle or agonal movements apparent in the surrounding snow.

Examination: [BLM-Nevada Wild Horse and Burro Program Lead] Alan Shepherd accompanied me during this necropsy examination. The carcass was rolled onto the right side, no external abnormalities were noted. Front right leg was lifted and reflected dorsally. On opening the chest cavity negative pressure was apparent. There was no blood present in the trachea. There was a large amount of free blood in the chest cavity. The lungs were pink and airy with no abnormalities noted.

On examination in-situ a hole was apparent in the pulmonary artery at the base. The left ventricle was thickened and larger than expected and the atria were thin and without muscular tone. There was an area of thinning and apparent aneurysm on the left atrium.

The abdominal cavity was examined with no abnormalities noted. Body condition was moderately thin with only small amounts of subcutaneous and abdominal fat noted.

Conclusion/Differentials/Dx: Left side heart failure. Death caused by acute pulmonary artery rupture attributable to a pre-existing, probably congenital heart condition. Gather related but attributable to a pre-existing condition.

Albert J. Kane, DVM, MPVM, PhD
Veterinary Epidemiologist
Senior Staff Veterinarian
APHIS/BLM Wild Horse and Burro Partnership

Attachment 5: Veterinarian's Report for Colt Death on January 22, 2010

January 22, 2010

Black Rock East History and Report on Sloughed Hoof Foal

This foal was received at the Indian Lakes contract holding facility from the Calico complex gather around 1/6/2010. He was fed and watered for a day and when noticed to be lame was removed from the general population and placed in a hospital pen. On 1/8/2010 this horse was treated with phenylbutazone (a non-steroidal anti-inflammatory drug) and penicillin (an antibiotic) for presumptive sole bruising and abscesses. No abscesses were noted at this time but there was some foot swelling suggesting hoof trauma. During the next 5 days the colt which was nine months old was fed and watered in the hospital pen and observed for body condition and lameness. He was retreated on 1/13/2010 with phenylbutazone and penicillin. Sole abscesses and potential hoof sloughs were noted. Both hind feet were flushed with betadine (an antiseptic) and bandaged with gauze, antibiotic ointment and tape. The colt was slightly improved after treatment but over the next couple of days spent more and more time lying down. On 1/18/2010 the 2 hind feet were examined again. Multiple hoof sloughs were noted and the foal was euthanized for humane reasons. The cause of these hoof abscesses/sloughs was most likely hoof trauma from the gather operations.

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