

## MIAMI METROZOO MEDICAL RECORD

ANIMAL ELEPHANT, AFRICAN DATE OF ACQUISITION OR BIRTH 1975

ACCES.NO. 270 stbk#146 SEX 0.1 HOUSE NAME MABEL

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the sulcus, and that the pulp canal is not exposed. Should not present a problem for now, unless this happens again. - CLM

06/07/05 Annual TB testing routine starts today. BLOOD/CBC, chem screen; serum saved for routine hormonal monitoring. COMT/Mabel appears to be in good health and condition right now. - CLM

06/09/05 ANNUAL TB TESTING: PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after overnight water withholding) for mycobacterial culture on each of three consecutive mornings (6/7, 6/8, & today) - frozen samples from 6/7 & 8, and partially frozen sample from 6/9 sent overnight to NVSL as per USDA-mandated-protocol (well-behaved for collection routine). - CLM

09/08/05 Serum samples sent from each elephant to Disney for TB-testing by new research methods: MAPIA and RT - all negative on all elephants, per Michelle Miller. - CLM

01/14/06 WT=8396 lbs.

06/14/06 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after a few hours of water withholding) for mycobacterial culture on each of three consecutive mornings (6/12, 6/13, & today) - frozen samples from 6/12 & 13, and partially frozen sample from 6/14 sent overnight to NVSL as per USDA-mandated-protocol (very well-behaved with conditioned trunk-wash procedures). BLOOD/CBC, chem screen sent to lab on 6/13, along with routine blood collection for hormone assays; serum saved for possible MAPIA testing again, in the future. Bloodwork results today are unremarkable; Mabel has not had any medical problems or other complaints this year. - CLM

07/26/06 Keepers noted a few small nodules at the mucocutaneous border of Mabel's vagina a few weeks ago. OBS/small cluster of 2-5mm diameter "skin tags" just inside mucosal lining on caudal left side of vagina, and a couple more just a bit deeper than this. COMT/none of these nodules appear to be of any concern in the short run; may be remnants of previous papillomas (see 1998), or a resurgent infection, or just "mucosal tags". Keepers to watch that they do not get substantially larger, but no plan for treatment at this time. - CLM

08/19/06 WT=8142 lbs.

09/21/06 Have started a new elephant diet regimen and so are taking baseline weights to monitor them. WT=8278 lbs.

10/18/06 WT=8212 lbs.

11/22/06 WT=8094 lbs.

12/18/06 WT=8082 lbs.

01/15/07 WT=8270 lbs.

03/30/07 Supervisor (Webb) had expressed some concern that Mabel's front legs tremble when she is asked to hold them up - thought she might have some muscle problem. Vets assessed this afternoon: Mabel has symmetric, normal muscle mass over both forelimbs (when compared with other Africans in the barn), her legs do not tremble when she holds them up by voice command only, at a

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distance, but when asked to lift either front foot in the barn she hikes & flexes them extra-high and then the muscles of the hefted leg tremble some as she holds it up; she appears flexible in all joints and has no problems lying down or walking or digging with them - either on command or on her own (she was rolling and playing in the dirt prior to working her in the barn). Mabel is an excitable girl and is eager to please the keepers - believe this trembling is a mild anxiety effect when she hikes the legs extra high upon command, and that this is part of her personality, not a medical condition. Keepers will watch to be sure this trembling does not get any worse, and that she does not show any other signs of progressing weakness. Overall Mabel appears to be in good condition and no other problems are apparent at this time. - CLM

06/21/07 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after a few hours of water withholding) for mycobacterial culture on each of three consecutive mornings (6/19, 6/20, & today) - frozen samples from 6/19 & 20, and partially frozen sample from 6/21 sent overnight to NVSL as per USDA-mandated-protocol (very well-behaved with conditioned trunk-wash procedures). BLOOD/CBC, chem screen sent to lab on 6/20. COMT/bloodwork results are unremarkable; keeper staff reports no specific health concerns at this time. - CLM

06/30/07 **WT=7778 lbs.**

07/31/07 **WT=7944 lbs.**

09/04/07 WT=7880 lbs.

03/21/08 Keepers discovered at closeout that Mabel had received a cut on her RH foot during the day sometime. OBS/4-5cm diameter flap, full-thickness through sole at lateral edge of heel on her RH; not actively bleeding but exposed tissue very raw. PROC/trimmed off flap to prevent further tearing away at sole; applied povidone-iodine solution. Asked keepers to inspect once or twice daily and keep site as clean as possible - should apply "Wonderdust" or Betadine at each inspection to try to dry/toughen site and keep "sanitized" as much as possible while it granulates and re-epithelializes. Report any significant heat, swelling, or lameness to the vets. - CLM

06/10/08 Keepers report that Mabel sustained a cut under her right ear opening that is a few inches long and ~1/2 inch deep; supervisor observed the wound and did not think it was in need of any medical attention other than keeping clean and wiping with betadine (disinfectant) and keeping flies away - concurred with this and will leave to keepers' attention for now. - CLM

06/17/08 **WT=7,784 lbs.**

06/22/08 Trunk wash for mycobacterium culture - day 1 - FNR

06/23/08 Trunk wash for mycobacterium culture - day 2. COMT/wound at the base of Mabel's right ear still open and productive (typical yellow-white tenacious "elephant exudate") but appears to be healing as expected without signs of significant infection or other problems. - CLM

## MIAMI METROZOO MEDICAL RECORD

ANIMAL ELEPHANT, AFRICAN DATE OF ACQUISITION OR BIRTH 1975

ACCES.NO. 270 stbk#146 SEX 0.1 HOUSE NAME MABEL

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- 06/24/08 PROC/collected 40-50ml (60ml saline total placed down into trunk) of "trunk wash" sample (after a few hours of water withholding) for mycobacterial culture on each of three consecutive mornings (6/22, 6/23, & today) - frozen samples from 6/22 & 23, and partially frozen sample from 6/24 sent overnight to NVSL as per USDA-mandated-protocol. BLOOD/CBC, chem screen; save serum. COMT/blood drawn for annual "health check" in addition to routine collection for hormone projects. - CLM
- 08/12/08 Cut under Mabel's right ear (see 6/10/08) has gradually been contracting and is just a small hole now, but within the past few days, a swelling has developed on the pinna caudal to this site with some superficial sloughing of the skin over the swelling, and there is increased exudate accumulating at the wound opening; no significant pain apparent, and site is not particularly warm to touch. CULTURE & SENS/keeper swabbed some "clean" pus from opening of ear wound. RX/flunixin meglumine 1500mg PO SID today and tomorrow (to see if this will reduce the swelling and allow more drainage?). Will consider need for antibiotics once culture results are back. - CLM
- 08/15/08 Swelling may be decreased a little, but flunixin did not have any significant effects on the wound. Culture yielded Enterococcus sp, Acinetobacter baumannii, and Proteus mirabilis - combined sensitivities do not allow any one antibiotic for treatment, the Enterococcus has a very wide resistance pattern. For now, going to try going after the other two bacteria and see if that will be enough - RX/trimethoprim-sulfa 115.2 Gms PO BID TFN - starting this afternoon. - CLM
- 08/21/08 The original right ear wound has now closed over, and the swelling behind it has become focally more prominent with thinning of the skin over the peak - expect it to open and begin draining by tomorrow from the looks of it. RX/continue TMPS as per 8/15 TFN (taking it well). Asked keepers to begin flushing the abscess with dilute betadine as soon as it opens (BID), and will see if it will heal from there. Additionally, all trunk culture results arrived today (see 6/24) - all washes from all elephants were negative for mycobacterial isolates. - CLM
- 09/02/08 Mabel's abscess on the right ear opened early last week and has been draining whitish-yellow thick yogurt-like pus for a while; site still productive but drainage site (hole) is starting to close down - wish to keep it open for a while 'til wound no longer so productive. PROC/Mabel reluctant to allow me (vet) to handle wound, so instructed keepers to flush wound with lidocaine gel and smear some over wound site; waited a few min's, then directed keeper to probe site with a large hemostat and carefully introduce a curved scalpel blade (#12) then withdraw it quickly against the hole so as to enlarge the hole ventrally from the site - Mabel did not react to this immediately, but then decided she did not want the keeper to re-flush the wound or inspect the site, so not sure how much wound enlargement was accomplished.



Medical History Report - Summary for Individual Specimen  
MIAMI METROZOO

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=====
LOXODONTA AFRICANA AFRICANA           Sex: Female           Acc. #: 270
South African bush elephant         Age: 32Y Est.         Birth: 31.Dec.1976
Name: MABEL
=====

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.....2007...

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19.Mar  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

22.May  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

  1.Jun  Clinical note recorded. (CLM)
20.Jun  Blood sample: (EDTA) Hematology/Chemistry/Serology results.
        WBC:9.40 *10^3/UL; HCT: 38.0%; BUN:5 MG/DL;
30.Jun                                     Weight: 3529 Kg ( 7778 Lb)

26.Jul  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN
31.Jul                                     Weight: 3604 Kg ( 7943 Lb)

  4.Sep                                     Weight: 3575 Kg ( 7879 Lb)
25.Sep  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

19.Nov  Parasitology examination: (DIAGNOSTIC EXAMINATION) Fecal sample.
        NO PARASITES SEEN/OCCULT BLOOD - NEGATIVE

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.....2008...

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23.Jan  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

24.Mar  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

15.May  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

17.Jun                                     Weight: 3532 Kg ( 7785 Lb)
22.Jun  Clinical note recorded. (FNR)
24.Jun  Blood sample: (EDTA) Hematology/Chemistry/Serology results.
        WBC:10.50 *10^3/UL; HCT: 42.0%; BUN:7 MG/DL;

25.Jul  Parasitology examination: (ROUTINE EXAMINATION) Fecal sample.
        NO PARASITES SEEN

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=====  
**LOXODONTA AFRICANA AFRICANA**  
**South African bush elephant**  
Name: MABEL  
=====

Sex: Female                      Acc. #: 270  
Age: 32Y Est.                    Birth: 31.Dec.1976

**Parasitology Examination:**

**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-0373  
Date collected: 19.Mar.2007

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 19.Mar.2007

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE            NO PARASITES SEEN

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**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-0717  
Date collected: 22.May.2007

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 22.May.2007

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE            NO PARASITES SEEN

LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

Clinical Note:

1.Jun.2007

<<< Urinalysis >>>

Laboratory:  Miami Metrozoo  
 other

Date collected: 6/1/07  
Date analysed: 6/1/07

Analysis by: JS

Sample collection:

floor  
 mid-stream  
 catheter  
 cystocentesis

Sample storage:

room temperature  
 refrigerated  
 frozen

Color: pale yellow  
Specific Gravity: 1.015  
cloudy

Appearance:  clear  
 hazy / slightly

cloudy / turbid

Leukocytes:

Nitrite:

Urobilinogen: 0.2mg/dl

Protein: neg

pH: 8.0

Blood: neg

Ketones: neg

Bilirubin: neg

Glucose: neg

RBC/hpf:

WBC/hpf:

Bacteria/hpf:

Casts/lpf:

Crystals: + (unID'd)

Epithelial cells:

Mucus:

Comments: opportunistic check (hormone study sample)  
(CLM)

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

Collection Information >>

Health Status: Normal  
Fasting Time: < 8 hours  
Activity: Active  
Weight: 3752 Kg on 15.Jan.2007  
Manual restraint used.

Date of Collection: 20.Jun.2007  
Time of Collection: :  
Collected by:  
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA  
Storage: Refrigerated (<48 hours)  
Sample Quality: No quality problems.

Laboratory: U OF MIAMI  
Date of Analysis: 21.Jun.2007  
Time of Analysis:  
Analysis by:  
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	9.4		*10 <sup>3</sup> /UL
RED BLOOD CELL COUNT	3.03		*10 <sup>6</sup> /UL
HEMOGLOBIN	13.5		GM/DL
HEMATOCRIT	38		%
MCV	125		fL
MCH	44.6		uug
MCHC	35.5		gm/dL
SEGMENTED NEUTROPHILS	32	(3.008)	% (*10 <sup>3</sup> /UL)
LYMPHOCYTES	68	(6.392)	% (*10 <sup>3</sup> /UL)
MONOCYTES	0		% (*10 <sup>3</sup> /UL)
EOSINOPHILS	0		% (*10 <sup>3</sup> /UL)
BASOPHILS	0		% (*10 <sup>3</sup> /UL)

Comments >>

in-house PCV=40%

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

Collection Information >>

Health Status: Normal  
Fasting Time: < 8 hours  
Activity: Active  
Weight: 3752 Kg on 15.Jan.2007  
Manual restraint used.

Date of Collection: 20.Jun.2007  
Time of Collection: :  
Collected by:  
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum  
Storage: Refrigerated (<48 hours)  
Sample Quality: No quality problems.

Laboratory: U OF MIAMI  
Date of Analysis: 21.Jun.2007  
Time of Analysis:  
Analysis by:  
Automated analysis.

Tests and Results >>

	GLUCOSE	86	MG/DL
	BLOOD UREA NITROGEN	< 5	MG/DL
	CREATININE	1.5	MG/DL
	BUN/creatinine ratio	3.33	
	URIC ACID	<0.2	MG/DL
	CALCIUM	11.3	MG/DL
	PHOSPHORUS	5.5	MG/DL
	calcium/phosphorus ratio	2.05	
	SODIUM	130	MEQ/L
	POTASSIUM	4.6	MEQ/L
	sodium/potassium ratio	28.3	
	CHLORIDE	86	MEQ/L
	anion gap	21.6	
	CHOLESTEROL	78	MG/DL
	TRIGLYCERIDE	36	MG/DL
	TOTAL PROTEIN (COLORIMETRY)	7.3	GM/DL
	ALBUMIN (COLORIMETRY)	3.7	GM/DL
	GLOBULIN (COLORIMETRY)	3.6	GM/DL
	albumin/globulin ratio	1.03	
	ASPARTATE AMINOTRANSFERASE	15	IU/L
	ALANINE AMINOTRANSFERASE	>> 24	IU/L
	TOTAL BILIRUBIN	<0.1	MG/DL
	DIRECT BILIRUBIN	0.0	MG/DL
	AMYLASE	< 382	U/L
	ALKALINE PHOSPHATASE	73	IU/L
	LACTATE DEHYDROGENASE	931	IU/L
	CREATINE PHOSPHOKINASE	96	IU/L
	CARBON DIOXIDE	27	MMOL/L
	GAMMA GLUTAMYLTRANSFERASE	10	IU/L

Comments >>

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

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LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

=====

Chemistry >>  
Comments >>  
    annual PE

=====  
**LOXODONTA AFRICANA AFRICANA**  
**South African bush elephant**  
Name: MABEL  
=====

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

**Parasitology Examination:**

**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-1009  
Date collected: 26.Jul.2007

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 26.Jul.2007

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE NO PARASITES SEEN

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**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2007-1251  
Date collected: 25.Sep.2007

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 25.Sep.2007

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE NO PARASITES SEEN

=====  
**LOXODONTA AFRICANA AFRICANA**  
**South African bush elephant**  
Name: MABEL  
=====

Sex: Female                      Acc. #: 270  
Age: 32Y Est.                    Birth: 31.Dec.1976  
=====

**Parasitology Examination:**

**Submission Data >>**

Type: Fecal sample  
Purpose: DIAGNOSTIC EXAMINATION

Sample id.: 2007-1515  
Date collected: 19.Nov.2007

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: soft  
Gross appearance: Atypical

Date examined: 19.Nov.2007

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE            NO PARASITES SEEN  
OCCULT BLOOD                        NEGATIVE

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**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0115  
Date collected: 23.Jan.2008

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 23.Jan.2008

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE            NO PARASITES SEEN

=====  
*LOXODONTA AFRICANA AFRICANA*  
South African bush elephant  
Name: MABEL  
=====

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976  
=====

**Parasitology Examination:**

**Submission Data >>**  
Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0370  
Date collected: 24.Mar.2008

**Collected from:**  
From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**  
Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 24.Mar.2008

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE NO PARASITES SEEN

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**Submission Data >>**  
Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0683  
Date collected: 15.May.2008

**Collected from:**  
From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**  
Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 15.May.2008

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE NO PARASITES SEEN

=====  
*LOXODONTA AFRICANA AFRICANA*  
South African bush elephant  
Name: MABEL  
=====

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976  
=====

**Clinical Note:**

Trunk wash for mycobacterium culture - day 1 - FNR (FNR)

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22.Jun.2008

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female Acc. #: 270  
Age: 32Y Est. Birth: 31.Dec.1976

Collection Information >>

Health Status: Normal  
Fasting Time: < 8 hours  
Activity: Active  
Weight: 3532 Kg on 17.Jun.2008  
Manual restraint used.

Date of Collection: 24.Jun.2008  
Time of Collection:  
Collected by:  
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA  
Storage: Refrigerated (<48 hours)  
Sample Quality: No quality problems.

Laboratory: U OF MIAMI  
Date of Analysis: 25.Jun.2008  
Time of Analysis:  
Analysis by:  
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	10.5		*10 <sup>3</sup> /UL
RED BLOOD CELL COUNT	3.23		*10 <sup>6</sup> /UL
HEMOGLOBIN	14.1		GM/DL
HEMATOCRIT	42		%
MCV	130		fL
MCH	43.7		uug
MCHC	33.6		gm/dL
SEGMENTED NEUTROPHILS	34	(3.570)	% (*10 <sup>3</sup> /UL)
LYMPHOCYTES	61	(6.405)	% (*10 <sup>3</sup> /UL)
MONOCYTES	2	(0.210)	% (*10 <sup>3</sup> /UL)
EOSINOPHILS	3	(0.315)	% (*10 <sup>3</sup> /UL)
BASOPHILS	0		% (*10 <sup>3</sup> /UL)

Comments >>

in-house PCV=43%

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

LOXODONTA AFRICANA AFRICANA  
South African bush elephant  
Name: MABEL

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976

Collection Information >>

Health Status: Normal  
Fasting Time: < 8 hours  
Activity: Active  
Weight: 3532 Kg on 17.Jun.2008  
Manual restraint used.

Date of Collection: 24.Jun.2008  
Time of Collection:  
Collected by:  
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum  
Storage: Refrigerated (<48 hours)  
Sample Quality: No quality problems.

Laboratory: U OF MIAMI  
Date of Analysis: 25.Jun.2008  
Time of Analysis:  
Analysis by:  
Automated analysis.

Tests and Results >>

GLUCOSE	75	MG/DL
BLOOD UREA NITROGEN	7	MG/DL
CREATININE	1.3	MG/DL
BUN/creatinine ratio	5.38	
URIC ACID	<0.2	MG/DL
CALCIUM	11.3	MG/DL
PHOSPHORUS	5.3	MG/DL
calcium/phosphorus ratio	2.13	
SODIUM	126	MEQ/L
POTASSIUM	4.9	MEQ/L
sodium/potassium ratio	25.7	
CHLORIDE	88	MEQ/L
anion gap	12.9	
CHOLESTEROL	> 95	MG/DL
TRIGLYCERIDE	33	MG/DL
TOTAL PROTEIN (COLORIMETRY)	7.9	GM/DL
ALBUMIN (COLORIMETRY)	3.9	GM/DL
GLOBULIN (COLORIMETRY)	4.0	GM/DL
albumin/globulin ratio	0.975	
ASPARTATE AMINOTRANSFERASE	14	IU/L
ALANINE AMINOTRANSFERASE	> 17	IU/L
TOTAL BILIRUBIN	>> 0.5	MG/DL
DIRECT BILIRUBIN	0.2	MG/DL
AMYLASE	< 372	U/L
ALKALINE PHOSPHATASE	80	IU/L
LACTATE DEHYDROGENASE	941	IU/L
CREATINE PHOSPHOKINASE	123	IU/L
CARBON DIOXIDE	30	MMOL/L
GAMMA GLUTAMYLTRANSFERASE	< 6	IU/L

Comments >>

ISIS reference values are for LOXODONTA AFRICANA  
Printed on: 22.Sep.2008

Clinical Pathology Records - Specimen Report  
MIAMI METROZOO

=====  
*LOXODONTA AFRICANA AFRICANA*  
South African bush elephant  
Name: MABEL  
=====

Sex: Female  
Age: 32Y Est.

Acc. #: 270  
Birth: 31.Dec.1976  
=====

Chemistry >>  
Comments >>  
    annual TB testing

=====  
*LOXODONTA AFRICANA AFRICANA*  
South African bush elephant  
Name: MABEL  
=====

Sex: Female                      Acc. #: 270  
Age: 32Y Est.                    Birth: 31.Dec.1976

**Parasitology Examination:**

**Submission Data >>**

Type: Fecal sample  
Purpose: ROUTINE EXAMINATION

Sample id.: 2008-0986  
Date collected: 25.Jul.2008

**Collected from:**

From an individual specimen.

Enclosure: 52 - Afr

**Examination Data >>**

Storage: room temperature  
Consistency: formed  
Gross appearance: Typical

Date examined: 25.Jul.2008

by: JS

**Tests & Results >>**

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN  
FLOATATION - NA NITRATE                      NO PARASITES SEEN

Clinical Pathology Records Report - ISIS/In-House Reference Values  
MIAMI METROZOO

Scientific name: *LOXODONTA AFRICANA*  
Common Name: African elephant

		ISIS Values			In-House Values				
		Mean	S.D.	(N)	Mean	S.D.	Min.	Max.	(N)
WBC	*10 <sup>3</sup> /UL	10.50 ±	2.648	(1544)	12.15 ±	3.60	4.000	19.30	(42)
RBC	*10 <sup>6</sup> /UL	3.15 ±	0.40	(1480)	3.236 ±	0.509	1.850	4.080	(41)
HGB	GM/DL	13.7 ±	1.6	(1522)	13.54 ±	1.71	9.000	17.20	(42)
HCT	%	39.5 ±	4.6	(1984)	39.95 ±	6.26	25.00	51.00	(39)
MCH	MG/DL	43.6 ±	3.0	(1454)	42.26 ±	3.82	34.07	56.22	(41)
MCHC	uug	34.7 ±	2.0	(1501)	33.55 ±	2.48	25.27	41.60	(41)
MCV	fL	125.8 ±	8.1	(1466)	126.8 ±	9.7	102.9	141.3	(40)
SEGS	*10 <sup>3</sup> /UL	3.146 ±	1.695	(1224)	5.371 ±	2.199	2.080	10.81	(42)
BANDS	*10 <sup>3</sup> /UL	0.843 ±	0.799	(605)	0.266 ±	0.328	0.000	1.088	(18)
LYMPHOCYTES	*10 <sup>3</sup> /UL	4.913 ±	2.532	(1236)	5.938 ±	2.528	1.800	11.91	(42)
MONOCYTES	*10 <sup>3</sup> /UL	1.513 ±	1.651	(1175)	0.427 ±	0.456	0.000	1.860	(38)
EOSINOPHILS	*10 <sup>3</sup> /UL	0.225 ±	0.273	(885)	0.209 ±	0.269	0.000	1.134	(37)
BASOPHILS	*10 <sup>3</sup> /UL	0.049 ±	0.081	(464)	0.005 ±	0.027	0.000	0.148	(31)
NRBC	/100 WBC	0 ±	1	(92)	0.000 ±	0.000	0.000	0.000	(1)
PLATE. CNT.	*10 <sup>3</sup> /UL	417 ±	245	(215)	737.2 ±	526.7	177.0	1380	(6)
RETICS	%	0.0 ±	0.0	(7)					
GLUCOSE	MG/DL	84 ±	15	(1437)	83.41 ±	15.31	54.00	122.0	(37)
BUN	MG/DL	10 ±	3	(1458)	8.776 ±	3.324	3.000	16.00	(41)
CREAT.	MG/DL	1.5 ±	0.5	(1405)	1.540 ±	0.365	0.800	2.600	(40)
URIC ACID	MG/DL	0.2 ±	0.4	(466)	0.196 ±	0.068	0.000	0.300	(25)
CA	MG/DL	10.9 ±	0.6	(1434)	11.51 ±	0.89	9.600	13.90	(41)
PHOS	MG/DL	4.9 ±	0.8	(1291)	5.313 ±	0.550	3.900	6.500	(40)
NA	MEQ/L	129 ±	4	(1353)	131.8 ±	6.3	119.0	145.0	(37)
K	MEQ/L	4.8 ±	0.5	(1368)	4.801 ±	0.474	3.900	6.000	(40)
CL	MEQ/L	88 ±	4	(1323)	88.10 ±	2.66	82.00	93.00	(40)
IRON	MCG/DL	79 ±	42	(54)	79.56 ±	43.12	2.000	130.0	(9)
MG	MG/DL	1.97 ±	0.75	(98)					
HCO3	MMOL/L	25.1 ±	3.6	(44)					
CHOL	MG/DL	68 ±	17	(1290)	67.80 ±	14.32	32.00	94.00	(41)
TRIG	MG/DL	64 ±	31	(1124)	50.33 ±	19.72	15.00	95.00	(30)
T.PROT. (C)	GM/DL	7.7 ±	0.6	(1261)	8.103 ±	0.760	6.300	9.900	(35)
T.PROT. (R)	GM/DL	8.0 ±	0.4	(8)					
ALBUMIN (C)	GM/DL	3.6 ±	0.4	(1145)	3.824 ±	0.436	3.000	5.200	(34)
GLOBULIN (C)	GM/DL	4.1 ±	0.5	(1135)	4.203 ±	0.480	3.200	5.000	(34)
AST (SGOT)	IU/L	24 ±	10	(1398)	20.53 ±	7.54	10.00	39.00	(41)
ALT (SGPT)	IU/L	7 ±	6	(547)	11.13 ±	6.15	0.000	20.00	(41)
T. BILI.	MG/DL	0.2 ±	0.1	(1187)	0.250 ±	0.126	0.100	0.500	(40)
D. BILI	MG/DL	0.1 ±	0.1	(154)	0.141 ±	0.091	0.000	0.300	(22)
I. BILI.	MG/DL	0.1 ±	0.1	(152)					
AMYLASE	U/L	3075 ±	1552	(241)	423.0 ±	81.7	294.0	648.0	(23)
ALK. PHOS.	IU/L	128 ±	61	(1404)	156.1 ±	60.5	78.00	312.0	(41)
LDH	IU/L	988 ±	568	(1099)	994.0 ±	406.7	157.0	1861	(39)

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		Mean	S.D.	(N)	Mean	S.D.	Min.	Max.	(N)
CPK	IU/L	256 ±	196	(247)	185.9 ±	114.4	69.00	509.0	(26)
OSMOLARITY	MOSMOL/L	259 ±	4	(689)					
ALPHA GLOB.	MG/DL	0.7 ±	0.0	(1)					
ALPHA-1 GLOB	GM/DL	0.7 ±	0.2	(8)	0.930 ±	0.202	0.730	1.190	(4)
ALPHA-2 GLOB	GM/DL	1.0 ±	0.3	(8)	1.008 ±	0.067	0.920	1.080	(4)
BETA GLOB.	GM/DL	1.2 ±	0.8	(2)	1.480 ±	0.580	0.840	2.020	(4)
Body Temperature:		39.0 ±	0.0	(1)					
CO2	MMOL/L	27.0 ±	3.1	(840)	23.82 ±	2.41	19.00	28.00	(29)
COPPER	MCG/DL				82.50 ±	2.12	81.00	84.00	(2)
ESR	MM/HR	27 ±	0	(1)					
FIBRINOGEN	MG/DL	238 ±	139	(70)					
GGT	IU/L	12 ±	5	(389)	14.04 ±	5.18	0.000	27.00	(28)
FE SATURATN.	%				28.85 ±	0.35	28.60	29.10	(2)
LIPASE	U/L	7 ±	7	(66)					
OSMOLALITY	MOSMOL/KG				248.4 ±	9.2	235.0	262.3	(8)
PROGESTERONE	NG/DL	144.8 ±	216.4	(266)					
SELENIUM	MCG/DL				6.950 ±	0.071	6.900	7.000	(2)
TESTOSTERONE	NG/ML	1.010 ±	1.117	(2)	0.220 ±	0.000	0.220	0.220	(1)
TOTAL T4	MCG/DL	8.2 ±	1.3	(3)					
T3 (RIA)	NG/ML	209.0 ±	0.0	(1)					
ALBUMIN (E)	GM/DL	4.4 ±	0.3	(7)	3.433 ±	1.355	2.180	4.910	(4)
GAMMA GLOB	GM/DL	1.6 ±	0.4	(7)	1.833 ±	0.241	1.650	2.180	(4)