

Medical History Report - Summary for Individual Specimen
KANSAS CITY ZOOLOGICAL PARK

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LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 10M 16D Birth: 9.Jan.1978

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.....2008...

22.Jul Clinical note recorded. (CSS)
30.Jul Blood sample: (EDTA) Hematology/Chemistry/Serology results.
 WBC:8.50 *10³/UL; HCT: 37.0%; BUN:9 MG/DL;
 Clots in hematology sample; Hemolysis
 Clinical note recorded. (ERA)

Tattoo
#Pages: 32

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LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

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Sex: Female Acc. #: 102705
Age: 30Y 10M 16D Birth: 9.Jan.1978

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Clinical Note: 22.Jul.2008
Dispensed 1 box 12cc syringes, 1 flat of purple top tubes for blood
draws. (CSS)

Clinical Note: 30.Jul.2008
Annual exam: Ophthalmic exam: left and right eyes have arcus senilis
and opaque plaques on lens. Aural exam: left ear appears to be more
thickened and scaly, Right ear has one hole. Trunk: 6" up from tip
there is an old semi circular lesion. Vulvular exam: normal, but vulva
hangs lower than conspecifics. Oral exam: both left and right lower
molars have not chipped off and are extending past the upper arcade.
Pads: left and right front pad has no cracks, cuticles are back on
nails, left hind pad has shallow cracks on pad that all run medial to
lateral, nails have no cracks, right hind pad has several fissures,
less cracks than left hind pad and nails have no cracks. Radiographed
all 4 feet. RR: 18 bpm. Mammary glands were normal and bisymmetric.
Right shoulder has an old scar 2.5' wide. Ambulation was normal. Body
posture: legs were fairly straight, there is an old lump on left flank
8-10cm. Were not able to get a blood pressure reading at this time. (ERA)

Clinical Pathology Records - Specimen Report
KANSAS CITY ZOOLOGICAL PARK

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South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 10M 16D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 30.Jul.2008
Time of Collection:
Collected by: WKS
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

Anticoagulant: EDTA
Storage: Refrigerated (<48 hours)
Sample Quality: clotted, hemolysis

Laboratory: ANTECH
Date of Analysis: 31.Jul.2008
Time of Analysis: 5:17
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	8.5		*10 ³ /UL
RED BLOOD CELL COUNT	2.8		*10 ⁶ /UL
HEMOGLOBIN	13.3		GM/DL
HEMATOCRIT	37		%
MCV	132		fL
MCH	> 47.5		uug
MCHC	35.9		gm/dL
SEGMENTED NEUTROPHILS	34	(2.890)	% (*10 ³ /UL)
LYMPHOCYTES	50	(4.250)	% (*10 ³ /UL)
MONOCYTES	15	(1.275)	% (*10 ³ /UL)
EOSINOPHILS	1	(0.085)	% (*10 ³ /UL)
BASOPHILS	0		% (*10 ³ /UL)
ESTIMATED PLATELET COUNT	ADEQ		
PLATELET COUNT	294		*10 ³ /UL
ABSOLUTE BASOPHILS	0		/UL
ABSOLUTE EOSINOPHILS	85		\UL
ABSOLUTE LYMPHOCYTES	4250		/UL
ABSOLUTE MONOCYTES	1275		/UL
ABSOLUTE SEGS	2890		/UL
FIBRINOGEN	> 462		MG/DL
MEAN CORPUSCULAR HEMOGLOBIN	47.4		UUG
MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION	36		%
MEAN CORPUSCULAR VOLUME	132		U(3)

Morphology Results >>

ROULEAUX 3+

Comments >>

Platelet clumps are present. Platelet clumping is a common in-vitro phenomenon and prevents accurate automated or manual platelet counting. The platelet estimate is the best indicator of the adequacy

Clinical Pathology Records - Specimen Report
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South African bush elephant	Age: 30Y 10M 16D	Birth: 9.Jan.1978
Name: TATTOO		

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Hematology >>

Comments >>

of platelet numbers. Any reported platelet count indicates only the minimum platelet number.
Blood smear reviewed by technologist.

Clinical Pathology Records - Specimen Report
KANSAS CITY ZOOLOGICAL PARK

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Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 10M 16D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Calm
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 30.Jul.2008
Time of Collection:
Collected by: WKS
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

Chemistry Sample: Serum
Storage: Refrigerated (<48 hours)
Sample Quality: hemolysis

Laboratory: ANTECH
Date of Analysis: 31.Jul.2008
Time of Analysis: 5:17
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	>	114	MG/DL
BLOOD UREA NITROGEN		9	MG/DL
CREATININE		1.4	MG/DL
BUN/creatinine ratio		6.43	
CALCIUM		10.7	MG/DL
PHOSPHORUS		4.2	MG/DL
calcium/phosphorus ratio		2.55	
SODIUM		127	MEQ/L
POTASSIUM		4.6	MEQ/L
sodium/potassium ratio		27.6	
CHLORIDE		86	MEQ/L
CHOLESTEROL	>	90	MG/DL
TOTAL PROTEIN (COLORIMETRY)		8.1	GM/DL
ALBUMIN (COLORIMETRY)	<	3.0	GM/DL
GLOBULIN (COLORIMETRY)	>	5.1	GM/DL
albumin/globulin ratio		0.588	
ASPARTATE AMINOTRANSFERASE		15	IU/L
TOTAL BILIRUBIN	>>	0.8	MG/DL
DIRECT BILIRUBIN		0.1	MG/DL
ALKALINE PHOSPHATASE		81	IU/L
LACTATE DEHYDROGENASE		529	IU/L
CREATINE PHOSPHOKINASE		280	IU/L
ALBUMIN GLOBULIN RATIO		0.6	GM/DL
BUN/CREATININE RATIO		6	MG/DL
GAMMA GLUTAMYLTRANSFERASE		12	IU/L
SODIUM/POTASSIUM RATIO		28	RATIO

Comments >>

Direct bilirubin verified by repeat analysis.
Hemolysis 1+, the following results may be affected by this degree of hemolysis: Increase-ALT may be increased by 15-20%, AST may be

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Chemistry >>

Comments >>

increased up to 10%, LDH may be increased up to 20%. Decreased- Direct bilirubin may be decreased up to 80%.

Moderate elevation of fibrinogen. Need to re-draw blood as T bilirubin elevated but hemolysis present and need true values. WKS

Clinical Pathology Records Report - ISIS/In-House Reference Values
KANSAS CITY ZOOLOGICAL PARK

Scientific name: *LOXODONTA AFRICANA*

Common Name: African elephant

		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
WBC	*10 ³ /UL	10.50 ± 2.648		4.500	22.10	(1544)
RBC	*10 ⁶ /UL	3.15 ± 0.40		2.05	4.80	(1480)
HGB	GM/DL	13.7 ± 1.6		7.0	26.1	(1522)
HCT	%	39.5 ± 4.6		27.0	56.0	(1984)
MCH	MG/DL	43.6 ± 3.0		34.8	66.8	(1454)
MCHC	uug	34.7 ± 2.0		18.4	57.9	(1501)
MCV	fL	125.8 ± 8.1		91.1	190.0	(1466)
SEGS	*10 ³ /UL	3.146 ± 1.695		0.000	11.80	(1224)
BANDS	*10 ³ /UL	0.843 ± 0.799		0.000	6.530	(605)
LYMPHOCYTES	*10 ³ /UL	4.913 ± 2.532		0.022	17.40	(1236)
MONOCYTES	*10 ³ /UL	1.513 ± 1.651		0.000	9.480	(1175)
EOSINOPHILS	*10 ³ /UL	0.225 ± 0.273		0.000	2.898	(885)
BASOPHILS	*10 ³ /UL	0.049 ± 0.081		0.000	0.525	(464)
NRBC	/100 WBC	0 ± 1		0	3	(92)
PLATE. CNT.	*10 ³ /UL	417 ± 245		74	1380	(215)
RETICS	%	0.0 ± 0.0		0.0	0.0	(7)
GLUCOSE	MG/DL	84 ± 15		38	174	(1437)
BUN	MG/DL	10 ± 3		0	22	(1458)
CREAT.	MG/DL	1.5 ± 0.5		0.0	11.0	(1405)
URIC ACID	MG/DL	0.2 ± 0.4		0.0	5.1	(466)
CA	MG/DL	10.9 ± 0.6		8.1	15.3	(1434)
PHOS	MG/DL	4.9 ± 0.8		2.8	8.2	(1291)
NA	MEQ/L	129 ± 4		107	182	(1353)
K	MEQ/L	4.8 ± 0.5		3.3	7.6	(1368)
CL	MEQ/L	88 ± 4		67	129	(1323)
IRON	MCG/DL	79 ± 42		8	174	(54)
MG	MG/DL	1.97 ± 0.75		0.65	4.20	(98)
HCO3	MMOL/L	25.1 ± 3.6		13.0	31.0	(44)
CHOL	MG/DL	68 ± 17		0	234	(1290)
TRIG	MG/DL	64 ± 31		0	179	(1124)
T. PROT. (C)	GM/DL	7.7 ± 0.6		5.8	10.5	(1261)
T. PROT. (R)	GM/DL	8.0 ± 0.4		7.4	8.6	(8)
ALBUMIN (C)	GM/DL	3.6 ± 0.4		2.4	5.2	(1145)
GLOBULIN (C)	GM/DL	4.1 ± 0.5		2.6	6.4	(1135)
AST (SGOT)	IU/L	24 ± 10		6	93	(1398)
ALT (SGPT)	IU/L	7 ± 6		0	40	(547)
T. BILI.	MG/DL	0.2 ± 0.1		0.0	1.0	(1187)
D. BILI	MG/DL	0.1 ± 0.1		0.0	0.3	(154)
I. BILI.	MG/DL	0.1 ± 0.1		0.0	0.9	(152)
AMYLASE	U/L	3075 ± 1552		0	7918	(241)
ALK. PHOS.	IU/L	128 ± 61		32	441	(1404)
LDH	IU/L	988 ± 568		157	4306	(1099)

Clinical Pathology Records Report - ISIS/In-House Reference Values
KANSAS CITY ZOOLOGICAL PARK

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Scientific name: *LOXODONTA AFRICANA*
Common Name: African elephant
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		ISIS Values				
		Mean	S.D.	Min.	Max.	(N)
CPK	IU/L	256 ±	196	18	1884	(247)
OSMOLARITY	MOSMOL/L	259 ±	4	246	272	(689)
ALPHA GLOB.	MG/DL	0.7 ±	0.0	0.7	0.7	(1)
ALPHA-1 GLOB	MG/DL	0.7 ±	0.2	0.2	0.8	(8)
ALPHA-2 GLOB	MG/DL	1.0 ±	0.3	0.8	1.6	(8)
BETA GLOB.	MG/DL	1.2 ±	0.8	0.6	1.7	(2)
Body Temperature:		39.0 ±	0.0	39.0	39.0	(1)
CO2	MMOL/L	27.0 ±	3.1	12.0	61.4	(840)
ESR	MM/HR	27 ±	0	27	27	(1)
FIBRINOGEN	MG/DL	238 ±	139	0	600	(70)
GGT	IU/L	12 ±	5	0	37	(389)
LIPASE	U/L	7 ±	7	0	45	(66)
PROGESTERONE	NG/DL	144.8 ±	216.4	0.060	1005	(266)
TESTOSTERONE	NG/ML	1.010 ±	1.117	0.220	1.800	(2)
TOTAL T4	MCG/DL	8.2 ±	1.3	6.9	9.5	(3)
T3 (RIA)	NG/ML	209.0 ±	0.0	209.0	209.0	(1)
ALBUMIN (E)	GM/DL	4.4 ±	0.3	4.1	4.9	(7)
GAMMA GLOB	GM/DL	1.6 ±	0.4	0.7	1.9	(7)

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Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

.....2007...

- 30.Apr Clinical note recorded. (GLT)
- 1.May Blood sample: (EDTA) (9:00.0) Hematology/Chemistry/Serology results.
WBC:7.30 *10³/UL; HCT: 26.0%; BUN:9 MG/DL;
Clinical note recorded. (GLT)
- 7.Jul Clinical note recorded. (ERB)
- 19.Jul Blood sample: (EDTA) (10:00.0) Hematology/Chemistry/Serology results.
WBC:5.80 *10³/UL; HCT: 41.0%; BUN:10 MG/DL;
Clinical note recorded. (ES)
- 8.Aug Clinical note recorded. (ES)
- 10.Aug Clinical note recorded. (ERB)
- 11.Aug Clinical note recorded. (WKS)
- 12.Aug Clinical note recorded. (ANL)
- 13.Aug Clinical note recorded. (ES)
- 15.Aug Clinical note recorded. (ERT)
- 16.Aug Clinical note recorded. (ES)
- 17.Aug Blood sample:
- 28.Sep Clinical note recorded. (ERB)
- 15.Oct Clinical note recorded. (DJS)
- 11.Nov Clinical note recorded. (CSS)
- 29.Nov Clinical note recorded. (GLT)
- 18.Dec Clinical note recorded. (ERT)
Clinical note recorded. (WKS)
- 19.Dec Clinical note recorded. (ERT)
Clinical note recorded. (WKS)
- 20.Dec Clinical note recorded. (ERT)
Clinical note recorded. (KJO)
- 26.Dec Parasitology examination: (ROUTINE EXAM) Fecal sample.
NO PARASITES SEEN

.....2008...

- 31.Mar Clinical note recorded. (GLT)
- 6.May Clinical note recorded. (CSS)
- 8.May Clinical note recorded. (GLT)
Clinical note recorded. (KS)
- 15.May Clinical note recorded. (CSS)

Medical History Report - Summary for Individual Specimen
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LOXODONTA AFRICANA AFRICANA Sex: Female Acc. #: 102705
South African bush elephant Age: 30Y 6M 19D Birth: 9.Jan.1978
Name: TATTOO
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.....2008...
15.May Clinical note recorded. (GLT)
22.Jun Clinical note recorded. (CSS)

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LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

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Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

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Clinical Note: 30.Apr.2007

Communication with keeper staff: Keepers noticed yesterday during training routine that patient would tremble when asked to stretch her hind legs. Elephant is now out on exhibit, but keeper did not notice any trembling this a.m. Patient seemed "normal". Requested blood for a CBC and Chemistry Panel in a.m. Keepers to notify AHC if any additional abnormal behavior is seen. (GLT)

Clinical Note: 1.May.2007

Communication with keeper staff: No trembling is seen today, but patient wobbled a little during a salute training command. Received blood for CBC and Chemistry Panel. Asked keeper supervisor to call AHC during training session if she is acting abnormal that way we can see the abnormal behavior. Patient is ambulating normally out on exhibit and has a normal appetite and normal stools. (GLT)

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South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 1.May.2007
Time of Collection: 9:00.0
Collected by: SM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH
Date of Analysis: 2.May.2007
Time of Analysis: 14:22
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	<	7.3		*10 ³ /UL
RED BLOOD CELL COUNT	<<	2.0		*10 ⁶ /UL
HEMOGLOBIN	<<	9.7		GM/DL
HEMATOCRIT	<<	26		%
MCV		130		fL
MCH	>	48.5		uug
MCHC	>	37.3		gm/dL
SEGMENTED NEUTROPHILS		36	(2.628)	% (*10 ³ /UL)
LYMPHOCYTES		61	(4.453)	% (*10 ³ /UL)
MONOCYTES		1	(0.073)	% (*10 ³ /UL)
EOSINOPHILS		2	(0.146)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT			ADEQU	
PLATELET COUNT	>>	1377		*10 ³ /UL
ABSOLUTE EOSINOPHILS		146		\UL
ABSOLUTE LYMPHOCYTES		4453		/UL
ABSOLUTE MONOCYTES		73		/UL
ABSOLUTE SEGS		2628		/UL
FIBRINOGEN		166		MG/DL
MEAN CORPUSCULAR HEMOGLOBIN		48.6		UUG
MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION		37		%
MEAN CORPUSCULAR VOLUME		125		U(3)

Comments >>

HCT rechecked by manual method.
RBC morphology normal
blood smear reviewed by technologist.

Clinical Pathology Records - Specimen Report
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Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 1.May.2007
Time of Collection: 9:00.0
Collected by: SM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH
Date of Analysis: 2.May.2007
Time of Analysis: 14:22
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE	78	MG/DL
BLOOD UREA NITROGEN	9	MG/DL
CREATININE	1.5	MG/DL
BUN/creatinine ratio	6.00	
CALCIUM	11.0	MG/DL
PHOSPHORUS	4.7	MG/DL
calcium/phosphorus ratio	2.34	
SODIUM	127	MEQ/L
POTASSIUM	4.6	MEQ/L
sodium/potassium ratio	27.6	
CHLORIDE	87	MEQ/L
CHOLESTEROL	> 87	MG/DL
TOTAL PROTEIN (COLORIMETRY)	> 8.5	GM/DL
ALBUMIN (COLORIMETRY)	< 3.1	GM/DL
GLOBULIN (COLORIMETRY)	>> 5.4	GM/DL
albumin/globulin ratio	0.574	
ASPARTATE AMINOTRANSFERASE	< 12	IU/L
TOTAL BILIRUBIN	0.1	MG/DL
ALKALINE PHOSPHATASE	84	IU/L
LACTATE DEHYDROGENASE	< 314	IU/L
CREATINE PHOSPHOKINASE	244	IU/L
ALBUMIN GLOBULIN RATIO	0.6	GM/DL
BUN/CREATININE RATIO	6	MG/DL
GAMMA GLUTAMYLTRANSFERASE	8	IU/L
SODIUM/POTASSIUM RATIO	28	RATIO

Comments >>

Globulins slightly elevated (4.8). Significant elevation of cholesterol likely diet related. CBC portion cannot be interpreted as blood was spilled. WKS.

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Clinical Note:

7.Jul.2007

<<<Microbiology>>>

Sample Accession #:0715279

Date Received: 6/28/07
Date Reported: 7/7/07

Laboratory:
[] ANTECH
[] NVSL
[X] UMC
[] OTHER

Submission type:

- aerobic bacteriology
- anaerobic bacteriology
- comprehensive stool culture
- mycology
- enteric pathogen screen
- mycobacteria isolation
- other:

Sample source: Fecal

Organism:

- 1.
- 2.
- 3.

Comments: No significant growth. The fecal sample was negative, by culture, for Salmonella using primary and secondary enrichment in conjunction with the use of selective media.

WNL per WKS. (ERB)

Clinical Note:

19.Jul.2007

Started yearly exam via visual exam with behavior reinforcement. Ophthalmic exam noted nuclear sclerosis and arcus senilis OU. Right ear has some melanin pigment around the back side of the hole. Oral exam - both molars are getting ready to come out. Right front foot - little pad separation around the 5th digit. Unable to complete the rest of the exam due to her not cooperating. (ES)

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Age: 30Y 6M 19D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 19.Jul.2007
Time of Collection: 10:00.0
Collected by: SM
Sample Collection Site: EAR VEIN

Hematology >>

Analysis Information >>

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

Laboratory: ANTECH
Date of Analysis: 20.Jul.2007
Time of Analysis: 5:02
Analysis by:
Automated analysis.

Tests and Results >>

WHITE BLOOD CELL COUNT	<	5.8		*10 ³ /UL
RED BLOOD CELL COUNT		3.1		*10 ⁶ /UL
HEMOGLOBIN		14.8		GM/DL
HEMATOCRIT		41		%
MCV		132		fL
MCH	>	47.7		uug
MCHC		36.1		gm/dL
SEGMENTED NEUTROPHILS		56	(3.248)	% (*10 ³ /UL)
LYMPHOCYTES	<	27	(1.566)	% (*10 ³ /UL)
MONOCYTES		0		% (*10 ³ /UL)
EOSINOPHILS	>>	15	(0.870)	% (*10 ³ /UL)
BASOPHILS		2	(0.116)	% (*10 ³ /UL)
ESTIMATED PLATELET COUNT		INC		
PLATELET COUNT	>	733		*10 ³ /UL
ABSOLUTE BASOPHILS		116		/UL
ABSOLUTE EOSINOPHILS		870		\UL
ABSOLUTE LYMPHOCYTES		1566		/UL
ABSOLUTE MONOCYTES		0		/UL
ABSOLUTE SEGS		3248		/UL
FIBRINOGEN	>	491		MG/DL
MEAN CORPUSCULAR HEMOGLOBIN		47.8		UUG
MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION		37		%
MEAN CORPUSCULAR VOLUME		132		U(3)

Comments >>

RBC morph normal
Platelet clumps are present.
Blood smear reviewed by technologist.
Blood parasites: neg

Clinical Pathology Records - Specimen Report
KANSAS CITY ZOOLOGICAL PARK

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South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 19.Jul.2007
Time of Collection: 10:00.0
Collected by: SM
Sample Collection Site: EAR VEIN

Chemistry >>

Analysis Information >>

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

Laboratory: ANTECH
Date of Analysis: 20.Jul.2007
Time of Analysis: 5:02
Analysis by:
Automated analysis.

Tests and Results >>

GLUCOSE >>	125	MG/DL
BLOOD UREA NITROGEN	10	MG/DL
CREATININE	1.5	MG/DL
BUN/creatinine ratio	6.67	
CALCIUM	10.8	MG/DL
PHOSPHORUS	4.1	MG/DL
calcium/phosphorus ratio	2.63	
SODIUM	125	MEQ/L
POTASSIUM <	4.0	MEQ/L
sodium/potassium ratio	31.3	
CHLORIDE	86	MEQ/L
CHOLESTEROL >	93	MG/DL
TOTAL PROTEIN (COLORIMETRY) >	8.4	GM/DL
ALBUMIN (COLORIMETRY)	3.2	GM/DL
GLOBULIN (COLORIMETRY) >>	5.2	GM/DL
albumin/globulin ratio	0.615	
ASPARTATE AMINOTRANSFERASE <	11	IU/L
TOTAL BILIRUBIN	0.2	MG/DL
ALKALINE PHOSPHATASE <	66	IU/L
LACTATE DEHYDROGENASE <	272	IU/L
CREATINE PHOSPHOKINASE	113	IU/L
ALBUMIN GLOBULIN RATIO	0.6	GM/DL
BUN/CREATININE RATIO	7	MG/DL
GAMMA GLUTAMYLTRANSFERASE	11	IU/L
SODIUM/POTASSIUM RATIO	31	RATIO

Comments >>

Mild increase in cholesterol secondary to diet. Significant increase in fibrinogen but no obvious clinical signs of lesion. Globulin mildly elevated. Mod hyperglycemia secondary to exam/attitude. Rest essentially WNL. WKS.

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

Sex: Female
Age: 30Y 6M 19D
Acc. #: 102705
Birth: 9.Jan.1978

Clinical Note:

10.Aug.2007

<<<Microbiology>>>

Sample Accession #:0718237

Date Received: 8/10/07
Date Reported: 8/15/07

Laboratory:
[] LABCORP
[] NVSL
[X] UMC
[] ANTECH

Sample Source: Right ear swab, Left ear swab

Submission type:

- aerobic bacteriology: right ear swab, left ear swab
- anaerobic bacteriology: right ear swab, left ear swab
- comprehensive stool culture
- mycology
- enteric pathogen screen
- mycobacterial

Organism:

	Growth: heavy	moderate	light
Aerobic: left ear swab			
1. Citrobacter freundii	[X]	[]	[]
Aerobic: right ear swab			
2. Moraxella osloensis	[X]	[]	[]
Aerobic: right ear swab			
3. Corynebacterium spp.	[X]	[]	[]
Aerobic: right ear swab			
4. Klebsiella oxytoca	[X]	[]	[]
Aerobic: right ear swab			
5. Aeromonas sobria	[X]	[]	[]
Aerobic: left ear swab			
6. Staphylococcus epidermidis	[X]	[]	[]

Comments: Aerobic right ear swab: The growth of the isolates was heavy on direct culture. The direct smear was negative for yeast.

Aerobic left ear swab: The growth of the isolates was heavy on direct culture. The direct smear was negative for yeast.

Anaerobic right ear swab and left ear swab: No significant growth.

*****S = SUSCEPTIBLE; I = INTERMEDIATE; R = RESISTANT

Sensitivity:	1	2	3	4	5	6
Amikacin:	s	s	s	s	s	s

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

Sex: Female
Age: 30Y 6M 19D

Acc. #: 102705
Birth: 9.Jan.1978

Clinical Note:

10.Aug.2007

Amoxi/Clav:	r	s	s	s	s	s
Ampicillin:	r	s	i	r	r	s
Cefazolin:	r	s	s	s	s	s
Ceftiofur:	s	s	s	s	s	s
Chloramphenicol:	s	s	s	s	s	s
Erythromycin:	r	s	s	r	r	s
Gentamicin:	s	s	s	s	s	s
Imipenem:	s	s	s	s	s	s
Oxacil + 2% NaCl:	r	s	s	r	r	s
Penicillin:	r	s	s	r	r	s
Rifampin:	r	s	s	r	s	s
Tetracycline:	s	s	s	s	s	s
Ticar/Clav Acid:	s	s	s	s	s	s
Ticarcillin:	r	s	s	r	r	s
Trimeth/Sulfa:	s	s	s	s	s	s

Comments: Likely normal flora. WKS. (ERB)

Clinical Note:

11.Aug.2007

Supervisor stated animal had swelling to trunk tip this morning-PE-firm, insensitive lump on dorsal aspect of tip of trunk. Maybe small transverse laceration just caudad to swelling. Prehension/manipulation are normal. Advised giving ice /ice cubes and cold water soak to tip and closely monitor. Otherwise doing well. (WKS)

Clinical Note:

12.Aug.2007

Cut was observed on inside of trunk under swelling today. Swelling still exists, but may be smaller according to keepers. Advised to offer ice again tonight andf keep clean. Laceration is about 1 inch long and superficial. (ANL)

Clinical Note:

13.Aug.2007

1 inch laceration inside of trunk. Swelling has decreased. No signs of infection. Prehending normally. Continue offering ice through tomorrow night. (ES)

=====
LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO
=====

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978
=====

Clinical Note:

15.Aug.2007

UMC bacteriology results
Accession #0718477
Received: 8/15/07
Reported: 8/25/07

Aerobic culture
Specimen: Produce
Organism ID: no significant growth
Comments: 8/25/07. The sample was negative, by culture, for Salmonella using primary and secondary enrichment in conjunction with the use of selective media.

WNL per WKS. (ERT)

Clinical Note:

16.Aug.2007

Visual exam of trunk. 3.5cm by 5mm laceration. Dry, not swollen or inflamed. No further treatment or rechecks needed unless keeper staff notices something. (ES)

Clinical Pathology Records - Specimen Report
KANSAS CITY ZOOLOGICAL PARK

=====

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

=====

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

=====

Collection Information >>

Health Status: Normal
Fasting Time: < 8 hours
Activity: Active
Weight: 2917 Kg on 19.Nov.2005
Manual restraint used.

Date of Collection: 17.Aug.2007
Time of Collection: :
Collected by: SM
Sample Collection Site: EAR

Comments >>

Pre Estradiol: <20 Pg/ML
Erythropoietin: 8.57 Mu/ML

Probably normal. WKS.

=====

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

=====

Clinical Note:

28.Sep.2007

UMC microbiology results
Accession #0721592
Received: 9/28/07
Reported: 10/7/07

Bacteriology results

Aerobic culture

Specimen: fecal

Organism: no significant growth

Comments: The fecal sample was negative, by culture, for Salmonella using primary and secondary enrichment in conjunction with the use of selective media. 10/7/07.

WNL per WKS. (ERB)

Clinical Note:

15.Oct.2007

Visual exam of a small scrape on the ventral surface of her trunk near the L lateral canthus of the mouth. Looks to be okay. Keepers will CTM. (DJS)

Clinical Note:

11.Nov.2007

Keeper report slightly off in AM. Walked off during bath and stood in corner. Visual exam in yard seemed better, keepers said she had been acting normal in PM and eating well. Will let us know if any change. (CSS)

Clinical Note:

29.Nov.2007

Tetanus Vaccination: The skin over the triceps area was hosed off, sprayed with Nolvasan and the skin was dried. Tetanus toxoid Fort Dodge #1630105A exp. Oct. 06, 2008: 1ml IM was administered by keeper staff into the triceps. Veterinarian observed injection. (GLT)

=====

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

=====

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

=====

Clinical Note:

18.Dec.2007

NVSL trunk wash results
Accession: 532524
Sampled: 12/18/07
Received: 12/21/07
Reported: 2/21/08

Mycobacteria isolation
Diagnosis: no isolation made
Specimen submitted: trunk wash

WNL. WKS. (ERT)

Clinical Note:

18.Dec.2007

Obtained minimum 20cc trunk wash exudate after instilling 60cc sterile saline in trunk to evaluate TB status (annual test). Did well overall. Samples to be obtained on three different days; each elephant sampled 3 times. To freeze and send when testing complete to NVSL. (WKS)

Clinical Note:

19.Dec.2007

NVSL trunk wash results
Accession: 532524
Sampled: 12/19/07
Received: 12/21/07
Reported: 2/21/08

Mycobacteria isolation
Diagnosis: no isolation made
Specimen submitted: trunk wash

WNL. WKS. (ERT)

Clinical Note:

19.Dec.2007

Trunk washes for annual TB testing as performed yesterday. M07074 ingested first bag for sampling yesterday, but had not passed it today. Did very well today though. Samples frozen. (WKS)

=====

LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO

=====

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Clinical Note:

20.Dec.2007

NVSL trunk wash results
Accession: 532524
Sampled: 12/20/07
Received: 12/21/07
Reported: 2/21/08

Mycobacteria isolation
Diagnosis: no isolation made
Specimen submitted: trunk wash

WNL. WKS. (ERT)

Clinical Note:

20.Dec.2007

Trunk wash for annual TB testing. (KJO)

Submission Data >>

Type: Fecal sample
Purpose: ROUTINE EXAM

Sample id.: 2007-0850
Date collected: 26.Dec.2007

Collected from:

From an individual specimen.

Enclosure: EBC

Examination Data >>

Storage: refrigerated
Consistency: soft
Gross appearance: Typical

Date examined: 26.Dec.2007

by: ANL

Tests & Results >>

DIRECT MICROSCOPIC EXAMINATION NO PARASITES SEEN
FLOATATION - ZINC SULFATE NO PARASITES SEEN

=====

LOXODONTA AFRICANA AFRICANA	Sex: Female	Acc. #: 102705
South African bush elephant	Age: 30Y 6M 19D	Birth: 9.Jan.1978
Name: TATTOO		

=====

Clinical Note: 31.Mar.2008

Visual exam: Small abrasion ~1inch in size under left lower palpebra. No discharge, erthyema or swelling associated with lesion. Lesion sustained from conspecific Zoe yesterday according to keeper staff. No treatment is recommended at this time.

Keeper communication: A ~12-18 inch piece of twine was found in the fecal boluses in the stall overnight. Two elephants (Megan and Tattoo) share this stall. It is unknown from which elephant the twine passed. Both animals have a normal attitude and appetite. No bloating is noted by the keeper staff. The twine was requested for evaluation, but had already been thrown away. Keepers to notify AHC if any abnormal behavior and to save any future fecal foreign bodies for AHC to analyze for occult blood. General curator was contacted about the situation. (GLT)

Clinical Note: 6.May.2008

Dispensed 19g butterfly cath for elephant blood draws. (CSS)

Clinical Note: 8.May.2008

Found on exhibit with twine in fecal bolus was also a blue cotton lanyard in the fecal bolus similar to those used for training whistles although no whistle was found. (GLT)

Clinical Note: 8.May.2008

Keeper found a piece of twine in the feces of one animal on exhibit. (KS)

Clinical Note: 15.May.2008

Dispensed 1 bottle Hooflex. Apply as needed to nails when performing foot work. Dispensed 1 flat tiger top tubes and 1 sleeve gauze for blood draws. (CSS)

Clinical Note: 15.May.2008

Communication with keeper: Twine found in feces on exhibit. Unknown which elephant passed the fecal bolus containing the foreign body. (GLT)

=====
LOXODONTA AFRICANA AFRICANA
South African bush elephant
Name: TATTOO
=====

Sex: Female Acc. #: 102705
Age: 30Y 6M 19D Birth: 9.Jan.1978

Clinical Note:

22.Jun.2008

Dispensed 1 jar Hooflex. Apply as needed when performing foot work.
(CSS)

ENC

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Owner: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER
6800 ZOO DR
KANSAS CITY, MO 64132

Accession Number: 0721592

Reference Number: 102705

Case Coordinator: William Fales MS, Ph.D

Received: 09/28/2007 Finalized: 10/07/2007

Sampled:

To: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER

6800 ZOO DR
KANSAS CITY, MO 64132

Veterinarian: DR. WM KIRK SUEDEMEYER

Client: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER

Final Report

BACTERIOLOGY RESULTS

AEROBIC CULTURE

SPECIES	Misc
BREED	Elephant
ANIMAL ID	102705
SPECIMEN #	Fecal
ORGANISM ID	NO SIGNIFICANT GROWTH
COMMENTS	The fecal sample was negative, by culture, for Salmonella using primary and secondary enrichment in conjunction with the use of selective media. 10/7/07.

THIS TIME DATED REPORT SUPERSEDES ALL PREVIOUS REPORTS ON THIS VMDL ACCESSION.

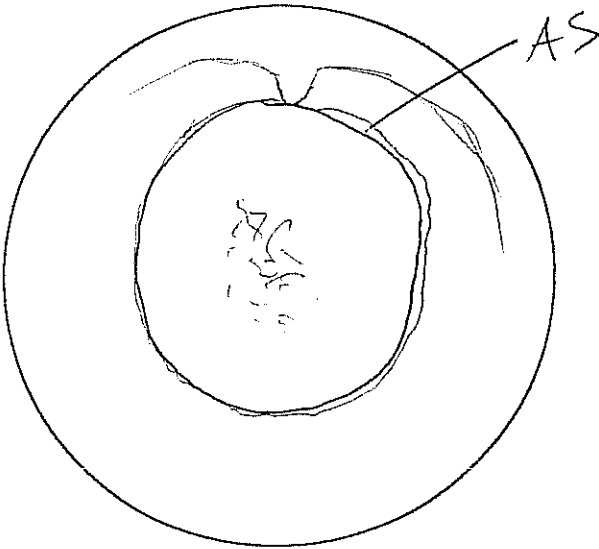
WMS

Kansas City Zoo
Ophthalmic Exam

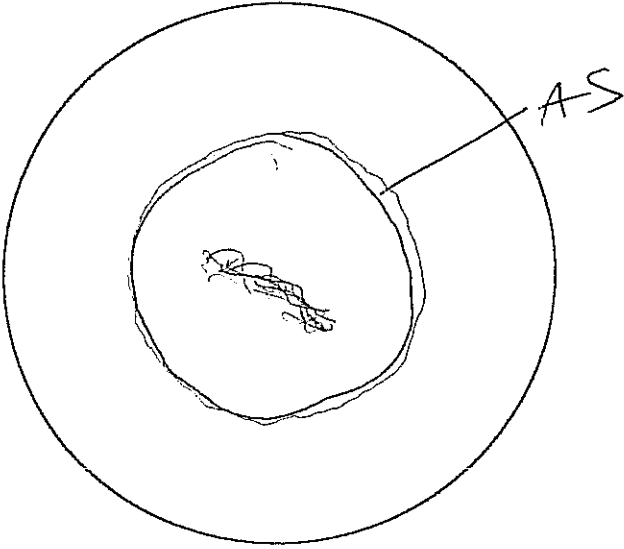
Date 7/19/07

Species African Elephant ISIS # 102705

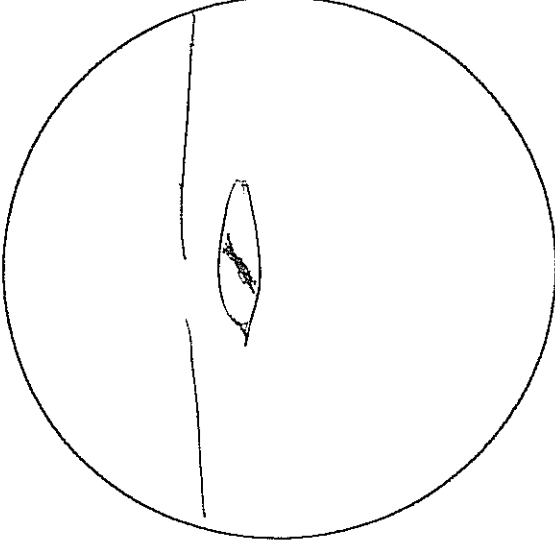
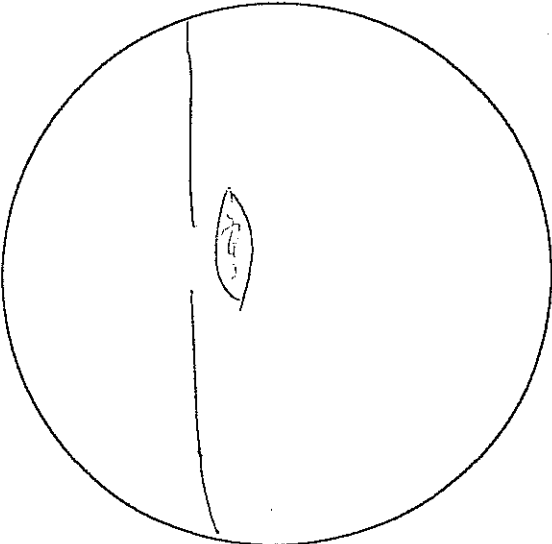
House Name Tattoo



OD



OS



UNIVERSITY OF MISSOURI
VET MED DIAGNOSTIC LAB
P.O. BOX 6023

EPK

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Owner: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER
6800 ZOO DR
KANSAS CITY, MO 64132

Accession Number: 0715279
Reference Number: 102705 ELEPHANT
Case Coordinator: William Faies MS, Ph.D
Received: 06/28/2007 Finalized: 07/07/2007

To: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER
6800 ZOO DR
KANSAS CITY, MO 64132

Sampled:
Veterinarian: DR. WM KIRK SUEDEMEYER
Client: KANSAS CITY ZOO, ATTN: DR. SUEE

Final Report

BACTERIOLOGY RESULTS

AEROBIC CULTURE

SPECIES	Misc
BREED	Elephant
ANIMAL ID	102705
SPECIMEN #	Fecal Salmonella screen
ORGANISM ID	NO SIGNIFICANT GROWTH
COMMENTS	7.7.07 The fecal sample was negative, by culture, for Salmonella using primary and secondary enrichment in conjunction with the use of selective media.

THIS TIME DATED REPORT SUPERSEDES ALL PREVIOUS REPORTS ON THIS VMDL ACCESSION.

WML
3

ER 10

Kansas City Zoo
Swope Park
Kansas City, MO 64132
Tel: 816-513-5700
Fax: 816-513-4667

Client # 97779
Chart # 102705

Accession No. IRBD26284516	Doctor NOT STATED	Owner ELEPHANT	Pet Name TATTOO	Received 05/02/2007
Species Elephant	Breed	Sex F	Pet Age 29Y	Reported 05/02/2007 02:22 PM

Test Requested	Results	Reference Range	Units
BASIC EQUINE SCREEN			
AST (SGOT)	12 (LOW) ↓	70-130	IU/L
Total Bilirubin	0.1 ✓	0.1-0.3	mg/dL
Alkaline Phosphatase	84 ✓	60-150	IU/L
GGT	8 ✓		IU/L
Total Protein	8.5 ↑	8.0-9.2	g/dL
Albumin	3.1 ✓	2.3-3.5	g/dL
Globulin	5.4 ↑		g/dL
A/G Ratio	0.6		
Cholesterol	87 (HIGH) ↑	41-61	mg/dL
BUN	9 ✓	1-12	mg/dL
Creatinine	1.5 ✓	1.3-1.8	mg/dL
BUN/Creatinine Ratio	6		
Phosphorus	4.7 ✓	3.6-4.8	mg/dL
Calcium	11.0 ✓	10.0-11.0	mg/dL
Glucose	78 ✓	78-200	mg/dL
Sodium	127 (LOW) ✓	129-136	mEq/L
Potassium	4.6 ✓	4.2-5.5	mEq/L
Na/K Ratio	28		
Chloride	87 ✓	85-99	mEq/L
CPK	244 ✓		IU/L
LDH	314 ↓	170-420	IU/L
COMPLETE BLOOD COUNT			
WBC	7.3 (LOW) ↓	8.0-15.0	10 ³ /μL
RBC	2.0 ↓	2.0-4.0	10 ⁶ /μL
HGB	9.7 (LOW) ↓	10-13	g/dL
HCT	26 (LOW) ↓	34-44	%
RECHECKED BY MANUAL METHOD			
MCV	125 ✓	130-170	fL
MCH	48.6 ✓	42.0-52.0	pg
MCHC	37 (HIGH) ↑	32-36	%
Comment			
RBC MORPHOLOGY	NORMAL		
Differential	Absolute	%	
Neutrophils	2628	36	/μL
Lymphocytes	4453	61	/μL

*Albumin slightly elevated
C.U.D. - S/S change
likely diet related
CBC portion cannot be
interpreted as blood
was sp.illed*

6

Accession No
IRBD26284516

Doctor
NOT STATED

Owner
ELEPHANT

Pet Name
TATTOO

Test Requested	Results	Reference Range	Units
Monocytes	73	1	/ μ L
Eosinophils	146	2	/ μ L
Platelet Estimate	Adequate		
Platelet Count	1377		10^3 / μ L

Blood smear reviewed by technologist.

FIBRINOGEN (SEMI-QUANTITATIVE)

Fibrinogen, Semi-Quantitative 166 mg/dl

ET/CP

Kansas City Zoo
Swope Park
Kansas City, MO 64132
Tel: 816-513-5700
Fax: 816-513-4667

Client # 97779
Chart # 102705

Elephant

Accession No. IRBD31197233	Doctor	Owner NOT STATED	Pet Name TATTOO 72507	Received 08/21/2007
Species Other	Breed	Sex	Pet Age 29Y	Reported 08/28/2007 01:49 PM

Test Requested	Results	Reference Range	Units
ERYTHROPOIETIN			
Erythropoietin	8.57 Mu/ml		mU/ml
THERE IS NO REFERENCE RANGE FOR THIS SPECIES TEST PERFORMED AT UNIVERSITY OF TENNESSEE			

Probably correct
AS

Kansas City Zoo
Swope Park
Kansas City, MO 64132
Tel: 816-513-5700
Fax: 816-513-4667

Client # 97779
Chart # 102705

Accession No. CHBC17784407	Doctor NOT STATED	Owner NOT STATED	Pet Name TATTOO 72507	Received 08/17/2007
Species Other	Breed	Sex	Pet Age 29Y	Reported 08/21/2007 06:23 AM

Test Requested	Results	Reference Range	Units
ESTRADIOL Pre Estradiol	<20 Pg/MI		

608630487
REQ DESTROYED
thyrotoxicosis

UNIVERSITY OF MISSOURI
VET MED DIAGNOSTIC LAB
P.O. BOX 6023

EWK

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Owner: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER
6800 ZOO DR
KANSAS CITY, MO 64132

Accession Number: 0718237
Reference Number: 102705
Case Coordinator: William Fales MS, Ph.D
Received: 08/10/2007 Finalized: 08/15/2007

To: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER
6800 ZOO DR
KANSAS CITY, MO 64132

Sampled:
Veterinarian: DR. WM KIRK SUEDEMEYER
Client: KANSAS CITY ZOO, ATTN: DR. SUEDEMEYER

Final Report

BACTERIOLOGY RESULTS

AEROBIC CULTURE

- 1 SPECIES Misc
BREED Elephant
ANIMAL ID 102705
SPECIMEN # Right ear swab
ORGANISM ID MORAXELLA OSLOENSIS
ORGANISM ID CORYNEBACTERIUM SPP
ORGANISM ID AEROMONAS SOBRIA
ORGANISM ID STAPHYLOCOCCUS EPIDERMIDIS
ORGANISM ID KLEBSIELLA OXYTOCA
COMMENTS The growth of the isolates was heavy on direct culture. The direct smear was negative for yeast.

- 2 SPECIES Misc
BREED Elephant
ANIMAL ID 102705
SPECIMEN # Left ear swab
ORGANISM ID STAPHYLOCOCCUS EPIDERMIDIS
ORGANISM ID CITROBACTER FREUNDII
COMMENTS The growth of the isolates was heavy on direct culture. The direct smear was negative for yeast.

ANAEROBIC CULTURE

- 1 SPECIES Misc
BREED Elephant
ANIMAL ID 102705
SPECIMEN # Right ear swab
ORGANISM ID NO SIGNIFICANT GROWTH

Libby read done
3

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Final Report

Accession Number: 0718237

BACTERIOLOGY RESULTS

2 SPECIES Misc
BREED Elephant
ANIMAL ID 102705
SPECIMEN # Left ear swab
ORGANISM ID NO SIGNIFICANT GROWTH

ANTIMICROB SUSCEPT/EQUINE

1 ANIMAL ID 102705
SPECIMEN # Left ear swab
ORGANISM ID CITROBACTER FREUNDII
COMMENTS CONCENTRATIONS IN UG/ML

2 ANIMAL ID 102705
SPECIMEN # Right Ear Swab
ORGANISM ID MORAXELLA OSLOENSIS

3 ANIMAL ID 102705
SPECIMEN # Right Ear Swab
ORGANISM ID CORYNEBACTERIUM SPP

4 ANIMAL ID 102705
SPECIMEN # Right Ear Swab
ORGANISM ID KLEBSIELLA OXYTOCA

5 ANIMAL ID 102705
SPECIMEN # Right Ear Swab
ORGANISM ID AEROMONAS SOBRIA

6 ANIMAL ID 102705
SPECIMEN # Left Ear Swab
ORGANISM ID STAPHYLOCOCCUS EPIDERMIDIS

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Final Report

Accession Number: 0718237

BACTERIOLOGY RESULTS

Antibiotic Susceptibility Pattern

	AEROMONAS SOBRIA - 5	CITROBACTER FREUNDII - 1
AMIKACIN	S <=4.0000(4 - 32)	S <=4.0000(4 - 32)
AMOXI/CLAV	S 8.0000(4/2 - 32/16)	R 16.0000(4/2 - 32/16)
AMPICILLIN	R >16.0000(0.25 - 16)	R 2.0000(0.25 - 16)
CEFAZOLIN	S 4.0000(2 - 16)	R <=2.0000(2 - 16)
CEFTIOFUR	S 0.5000(0.25 - 4)	S 0.5000(0.25 - 4)
CHLORAMPHENICOL	S <=4.0000(4 - 16)	S 8.0000(4 - 16)
ERYTHROMYCIN	R 4.0000(0.5 - 4)	R >4.0000(0.5 - 4)
GENTAMICIN	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
IMIPENEM	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
OXACIL + 2% NACL	R >4.0000(2 - 4)	R >4.0000(2 - 4)
PENICILLIN	R >8.0000(0.06 - 8)	R >8.0000(0.06 - 8)
RIFAMPIN	S <=1.0000(1 - 2)	R >2.0000(1 - 2)
TETRACYCLINE	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
TICAR/CLAV ACID	S 16.0000(8/2 - 64/2)	S <=8.0000(8/2 - 64/2)
TICARCILLIN	R >64.0000(8 - 64)	R <=8.0000(8 - 64)
TRIMETH/SULFA	S <=0.5000(0.5/9.5 - 2/38)	S <=0.5000(0.5/9.5 - 2/38)

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Final Report

Accession Number: 0718237

BACTERIOLOGY RESULTS

	CORYNEBACTERIUM SPP - 3	KLEBSIELLA OXYTOCA - 4
AMIKACIN	S 8.0000(4 - 32)	S <=4.0000(4 - 32)
AMOXI/CLAV	S <=4.0000(4/2 - 32/16)	S <=4.0000(4/2 - 32/16)
AMPICILLIN	I 1.0000(0.25 - 16)	R 8.0000(0.25 - 16)
CEFAZOLIN	S <=2.0000(2 - 16)	S <=2.0000(2 - 16)
CEFTIOFUR	S <=0.2500(0.25 - 4)	S 0.5000(0.25 - 4)
CHLORAMPHENICOL	S <=4.0000(4 - 16)	S <=4.0000(4 - 16)
ERYTHROMYCIN	S <=0.5000(0.5 - 4)	R >4.0000(0.5 - 4)
GENTAMICIN	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
IMIPENEM	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
OXACIL + 2% NACL	S <=2.0000(2 - 4)	R >4.0000(2 - 4)
PENICILLIN	S 0.5000(0.06 - 8)	R >8.0000(0.06 - 8)
RIFAMPIN	S <=1.0000(1 - 2)	R >2.0000(1 - 2)
TETRACYCLINE	S 4.0000(1 - 8)	S <=1.0000(1 - 8)
TICAR/CLAV ACID	S <=8.0000(8/2 - 64/2)	S <=8.0000(8/2 - 64/2)
TICARCILLIN	S <=8.0000(8 - 64)	R 32.0000(8 - 64)
TRIMETH/SULFA	S <=0.5000(0.5/9.5 - 2/38)	S <=0.5000(0.5/9.5 - 2/35)

COLUMBIA, MO 65205
Phone #: 573-882-6811 Fax #: 573-882-1411

Final Report

Accession Number: 0718237

BACTERIOLOGY RESULTS

	MORAXELLA OSLOENSIS - 2	STAPHYLOCOCCUS EPIDERMIDIS - 6
AMIKACIN	S <=4.0000(4 - 32)	S <=4.0000(4 - 32)
AMOXI/CLAV	S <=4.0000(4/2 - 32/16)	S <=4.0000(4/2 - 32/16)
AMPICILLIN	S <=0.2500(0.25 - 16)	S <=0.2500(0.25 - 16)
CEFAZOLIN	S <=2.0000(2 - 16)	S <=2.0000(2 - 16)
CEFTIOFUR	S <=0.2500(0.25 - 4)	S <=0.2500(0.25 - 4)
CHLORAMPHENICOL	S <=4.0000(4 - 16)	S <=4.0000(4 - 16)
ERYTHROMYCIN	S <=0.5000(0.5 - 4)	S <=0.5000(0.5 - 4)
GENTAMICIN	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
IMIPENEM	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
OXACIL + 2% NACL	S <=2.0000(2 - 4)	S <=2.0000(2 - 4)
PENICILLIN	S 0.1200(0.06 - 8)	S <=0.0600(0.06 - 8)
RIFAMPIN	S <=1.0000(1 - 2)	S <=1.0000(1 - 2)
TETRACYCLINE	S <=1.0000(1 - 8)	S <=1.0000(1 - 8)
TICAR/CLAV ACID	S <=8.0000(8/2 - 64/2)	S <=8.0000(8/2 - 64/2)
TICARCILLIN	S <=8.0000(8 - 64)	S <=8.0000(8 - 64)
TRIMETH/SULFA	S 2.0000(0.5/9.5 - 2/38)	S <=0.5000(0.5/9.5 - 2/38)

This is an "in vitro" test that may not reflect clinical outcome.

THIS TIME DATED REPORT SUPERSEDES ALL PREVIOUS REPORTS ON THIS VMDL ACCESSION.

EM

National Veterinary Services Laboratories
800 Daytor Road Ames, Iowa 50010
Phone (515) 663-7266 Fax (515) 663-7397
Tuberculosis Laboratory Test Report Page 1 of 1
FEDERAL RELAY SERVICE (Voice/TTY/ASCII/Spanish)
1-800-877-8359

***** This is a confidential report for official use only. *****
Accession: 532534 Date Received: 12/21/2007

Establishment No.: MOSVED
SUBMEYER, DR. WM. KIRK
KANSAS CITY ZOO
6700 ZOO DRIVE
KANSAS CITY, MO 64132
Fax: 8165134667

Referral Number:
Owner: KC ZOO
City: KANSAS CITY
State: MO

Preservation:

Retail Tag:

Species: Elephant

NVSL ID	Case #	Sample ID	Animal ID
1807306	082055	12/18/07	102705-TAITOO-AFRICA
		Mycobacteria Isolation	
		Diagnosis: No Isolation Made	
		Specimen Submitted	
		TRUNK WASH	
1807307	082056	12/19/07	102705-TAITOO-AFRICA
		Mycobacteria Isolation	
		Diagnosis: No Isolation Made	
		Specimen Submitted	
		TRUNK WASH	
1807308	082057	12/20/07	102705-TAITOO-AFRICA
		Mycobacteria Isolation	
		Diagnosis: No Isolation Made	
		Specimen Submitted	
		TRUNK WASH	

DISTRIBUTION:
Submitter
2/20/2008

Approved By: Christine Quance
National Veterinary Services Laboratories

WMS
S

Kansas City Zoo
 Swope Park
 Kansas City, MO 64132
 Tel: 816-513-5700
 Fax: 816-513-4667

Client # 97779
 Chart # 102705

Accession No. CHBC17018806	Doctor NOT STATED	Owner ELEPHANT	Pet Name TATTOO	Received 07/19/2007
Species Other	Breed	Sex F	Pet Age 29Y	Reported 07/20/2007 05:02 AM

Test Requested	Results	Reference Range	Units
BASIC EQUINE SCREEN			
AST (SGOT)	11		IU/L
Total Bilirubin	0.2		mg/dL
Alkaline Phosphatase	66		IU/L
GGT	11		IU/L
Total Protein	8.4		g/dL
Albumin	3.2		g/dL
Globulin	5.2 ↑		g/dL
A/G Ratio	0.6		
Cholesterol	93 ↑		mg/dL
BUN	10		mg/dL
Creatinine	1.5		mg/dL
BUN/Creatinine Ratio	7		
Phosphorus	4.1		mg/dL
Calcium	10.8		mg/dL
Glucose	125		mg/dL
Sodium	125		mEq/L
Potassium	4.0		mEq/L
Na/K Ratio	31		
Chloride	86		mEq/L
CPK	113		IU/L
LDH	272		IU/L
COMPLETE BLOOD COUNT			
WBC	5.8		10 ³ /μL
RBC	3.1		10 ⁶ /μL
HGB	14.8		g/dL
HCT	41		%
MCV			fL
MCV = 132			
MCH	47.8		pg
MCHC	37		%
Comment			
RBC MORPHOLOGY	NORMAL		
Differential	Absolute	%	
Neutrophils	3248	56	/μL
Lymphocytes	1566	27	/μL
Monocytes	0	0	/μL
Eosinophils	870	15	/μL

Test Requested	Results	Reference Range	Units
Basophils	116	2	/ μ L
Platelet Estimate	Increased		
Platelet Count	733 (HIGH)		10^3 / μ L

Platelet clumps are present. Platelet clumping is a common in-vitro phenomenon and prevents accurate automated or manual platelet counting. The platelet estimate is the best indicator of the adequacy of platelet numbers. Any reported platelet count indicates only the minimum platelet number

Blood smear reviewed by technologist.

FIBRINOGEN (SEMI-QUANTITATIVE)

Fibrinogen, Semi-Quantitative 491 mg/dl

BLOOD PARASITES (REFLEX)

Blood Parasites Negative

*Wtd ↑ in cholesterol 20 to diet.
Significant ↑ in fibrinogen but
no obvious clinical signs of
inflammation. Global mild
elevated. Mild hypoglycemia
20 to exam last. Frak. fast
essentially WNL*

Kansas City Zoo
 Swope Park
 Kansas City, MO 64132
 Tel: 816-513-5700
 Fax: 816-513-4667

Client # 97779
 Chart # 102705

Accession No.	Doctor	Owner	Pet Name	Received
CHBC26855698	SUEDMEYER	AF ELEPHANT	TATTOO	07/31/2008
Species	Breed	Sex	Pet Age	Reported
Elephant		F	30Y	07/31/2008 05:17 AM

Test Requested	Results	Reference Range	Units
----------------	---------	-----------------	-------

BASIC LARGE ANIMAL SCREEN			
AST (SGOT)	15 (LOW)	70-130	IU/L
Total Bilirubin	0.8 (HIGH) ↑↑	0.1-0.3	mg/dL
Direct Bilirubin	0.1	0.0-0.1	mg/dL
Verified by repeat analysis.			
Alkaline Phosphatase	81	60-150	IU/L
GGT	12		IU/L
Total Protein	8.1	8.0-9.2	g/dL
Albumin	3.0	2.3-3.5	g/dL
Globulin	5.1		g/dL
A/G Ratio	0.6		
Cholesterol	90 (HIGH)	41-61	mg/dL
BUN	9	1-12	mg/dL
Creatinine	1.4	1.3-1.8	mg/dL
BUN/Creatinine Ratio	6		
Phosphorus	4.2	3.6-4.8	mg/dL
Calcium	10.7	10.0-11.0	mg/dL
Glucose	114	78-200	mg/dL
Sodium	127 (LOW)	129-136	mEq/L
Potassium	4.6	4.2-5.5	mEq/L
Na/K Ratio	28		
Chloride	86	85-99	mEq/L
CPK	280		IU/L
LDH	529 (HIGH)	170-420	IU/L

Comment

Hemolysis 1+, the following results may be affected by this degree of hemolysis:

-INCREASE-

ALT may be increased by 15-20%

AST may be increased up to 10%

LDH may be increased up to 20%

-DECREASED-

Direct Bilirubin may be decreased up to 80%

COMPLETE BLOOD COUNT

WBC	8.5	8.0-15.0	10 ³ /μL
RBC	2.8	2.0-4.0	10 ⁶ /μL
HGB	13.3 (HIGH)	10-13	g/dL
HCT	37	34-44	%

Test Requested	Results	Reference Range	Units
MCV ***** MCV=132		130-170	fL
MCH	47.4	42.0-52.0	pg
MCHC	36	32-36	g/dL
Comment	3+ ROULEAUX PRESENT		
Differential	Absolute	%	
Neutrophils	2890	34	/ μ L
Lymphocytes	4250	50	/ μ L
Monocytes	1275	15	/ μ L
Eosinophils	85	1	/ μ L
Basophils	0	0	/ μ L
Platelet Estimate	Adequate		
Platelet Count	294		$10^3/\mu$ L

Platelet clumps are present. Platelet clumping is a common in-vitro phenomenon and prevents accurate automated or manual platelet counting. The platelet estimate is the best indicator of the adequacy of platelet numbers. Any reported platelet count indicates only the minimum platelet number.

Blood smear reviewed by technologist.

FIBRINOGEN (SEMI-QUANTITATIVE)

Fibrinogen, Semi-Quantitative 462

mg/dl

*Moderate clumps of fibrinogen
Need to re-run to avoid
as T bilirubin elevated but
hepatitis present and need
true values.
B*

The Kansas City Zoo Parasitology Submission and Examination Worksheet

SUBMISSION DATA: (complete the top part of this form)

Species/Common Name(s): Loxodonta africana

African elephant TATTOO

Accession Number(s): 102705

Date collected: 30/07/08
 d d m m y y

Collected by: DM

From enclosure: _____

Type of sample submitted:

- A. Fecal sample
- B. Rectal swab
- C. Skin scraping
- D. Ear swab/wash
- Other: _____

Reason/Purpose for submission:

- 1. Routine exam
- 2. Follow-up/Recheck exam
- 3. Diagnostic exam
- 4. Pre-shipment exam
- 5. Quarantine exam (number not specified)
- 6. Quarantine exam #1
- 7. Quarantine exam #2
- 8. Quarantine exam #3
- Other reason _____

Gross appearance:

- 1. Typical
- 2. Atypical

**** FOR LABORATORY USE ONLY (below this line) ****

Date of Examination: 30/07/08
 d d m m y y

Examined by: 1. KMP
 2. WKS
 Other: CD

Sample storage conditions:

- 1. Room/ambient temperature
- 2. Refrigerated
- 8. Other conditions - specify in Comments
- 9. Not specified

Sample consistency:

- 1. Liquid/watery
- 2. Soft
- 3. Formed
- 4. Hard/dry
- 5. Not specified

Unusual gross findings in stool:

- 1. Fresh blood
- 2. Excessive mucus
- 3. Melena or tarry
- 4. Foamy - excess gas
- 5. Adult/larval parasite
- 6. None

Was there a problem with the sample or the examination that requires that the sample submission be repeated?
 Yes No

Comments: _____

Test codes:

- 1. Direct Microscopic Exam
- 2. Floatation - Zinc sulfate
- 3. Baermann Sedimentation
- 4. Centrifugation
- 5. Gross Microscopic Exam
- 6. Gram Stain
- 7. Other: _____

Test	Results	Quantity
Direct	<u>nps</u>	
Floatation	<u>nps</u>	
Gram Stain	Yeast	
	Gram + rods	
	Gram + cocci	
	Gram - rods	
	Gram - cocci	

Comments: _____

