

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: M98020
Indian elephant                     Age: 40Y Est.        Birth: 1.Jan.1967
Name: IRENE
=====

```

.....2000...

7.Jun.2000

CC: Keepers report that the left tusk has discharge around the base.  
PE: The tusk is broken off at the gumline, apparently happened several months ago. There is a creamy white discharge originating from the medial aspect of the sulcus, this has changed from white to more yellow in the past few days. Keepers have been treating with 60 cc hydrogen peroxide flushes TID since first noted approx. 2 weeks ago.  
Cleaned to remove surface debris and cultured exudate. (MJR)

9.Jun.2000

Preliminary culture results indicate a beta hemolytic Strep isolate, sensitivity pending. (MJR)

12.Jun.2000

Isolate is sensitive to SMZ/TMP as well as numerous other antibiotics.  
Disp: Tucoprism (H. Schein version of Uniprim) - 7 scoops BID, each 17 gm scoop is for a 500 lb dose, metabolically scaled this should be adequate. (MJR)

19.Jun.2000

Obs: discharge is about the same, no worse, may be a little less sensitive when they do the flushes with 60 cc hydrogen peroxide TID.  
Plan: continue with Tucoprism and flushes. (MJR)

26.Jun.2000

Obs: having significant difficulties getting Irene to take the Tucoprism in peanut butter on bread, appears to detect it easily and refuses it, has been doing it several days in a row now. This may be due to the Tucoprism itself because a similar situation is developing with Alice with this drug. Plan: get a compounding pharmacy to make some or switch back to Uniprim. (MJR)

27.Jun.2000

Obs: compounded product made by Francks pharmacy is extremely bitter and is not accepted by Irene, will have to try something else.  
(MJR)

28.Jun.2000

Obs: Curator requests that we stop trying to medicate in food for a while, is refusing all foods with medications in them. Discharge from tusk is diminishing in quantity with just hydrogen peroxide flushes.  
(MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

11.Jul.2000

Follow up culture of tusk abscess indicates many beta hemolytic group B Streptococcus, many gram positive rods diptheroid-like, and rare gram negative rods.

Sensitive to Amp/Amox, Ceftiofur/Cefataxime, Chloramphenicol, Erythromycin, Gentamicin, Ozacillin, Penicillin. Tetracycline, Ticarcillin, Trimeth/Sulfamethoxizole (MJR)

21.Jul.2000

Start new medication from Congaree Pharmacy, watermelon based or flavored. The dose of 120 cc contains 22.5 gm TMS, given BID mixed with a whole watermelon by carving out the center and mixing the medication with the pulp.

Obs: took both doses today without hesitation. (MJR)

25.Aug.2000

Trunk wash samples have been or will be submitted for the following dates: 8/23, 8/24, 8/28. Samples were collected per current USDA "Guidelines for the Control of Tuberculosis in Elephants", dated 2-15-2000. Method used here is to withhold water for 2 hours, then instill 60 cc of sterile saline into the trunk, collect expelled saline in a 1 gal ziplock bag and transfer it to a 4 oz. container. Transfer to veterinary reference lab (NMVDS) for Mycobacterial culture and speciation. (MJR)

18.Sep.2000

Trunk wash #3 submitted 8/28/00 overgrew. Smear - neg. (GAD)

7.Oct.2000

Keeper reports increased stiffening in the hind end as the weather cools.

RX: double daily butazolidin dose to 5 grams. (EJG)

12.Oct.2000

CC: Keepers report lameness following "exercise" inside the building.  
VE: Irene shows significant tenderness on her left hind leg, shifting most of the weight whenever possible to the right side and is reluctant to walk. Additional history is that within the past 2 weeks she has exhibited increasing slowness when walking and stiffness in her hind legs. EJG increased her summer maintenance dose of Phenylbutazone from 2.5 gm SID to 5 gm SID at the time.

TDx: Exercise induced exacerbation of pre-existing arthritis.

Plan: Temporary increase of Phenybutazone to 5 gm BID and continued observation. (MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

13.Oct.2000

Obs: In AM was not reported to be any better but by afternoon the keepers felt that she was moving easier and improved, personal observation corroborated that as well. (MJR)

19.Oct.2000

Trunk wash #2 submitted 8/24/00 cultured *M. flavescens*. Smear - neg. (GAD)

20.Oct.2000

Follow-up: completed the 5 day course of BID Bute and seemed to respond nicely but will still exhibit stiffness and apparent discomfort when asked to place left hind leg up for foot trimming. Plan: return to SID treatment and restrict activities that aggravate the suspected arthritis or old injury to left hind leg. (MJR)

25.Oct.2000

Lab report from trunk wash #2: initial report indicated that *M. flavescens* was isolated and a later phone call from J. Thilsted indicated that 4 suspicious colonies of a different mycobacterium were found. Thilsted indicated that the lab would try to get a better identification on these colonies early in the week. On 10/24, the lab (Bob Ferguson) performed an HPLC on the sample and it closely matched the chromatograph of *Mycobacterium tuberculosis* complex (*M.tb* complex). He then ran an RNA amplification test on the sample and again obtained a match with *M.tb* complex. The sample has been subcultured and an attempt will be made to differentiate between *M. tb* and *M. bovis*, the two main mycobacteria in this group. This is expected to take a month. In the meantime, Irene has been isolated from Alice and Rosie, the keepers have been instructed in personal safety measures and containment measures, notification has been given to NM public Health and USDA. (MJR)

27.Oct.2000

Repeat trunk wash, sample #1 today-will re-submit to NMVDS as well as NVSL.  
Blood sample for ELISA obtained- will send to CSU next week along with all the other elephants. (MJR)

30.Oct.2000

Repeat trunk wash, sample #2 today-will re-submit to NMVDS as well as NVSL. (GAD)

1.Nov.2000

Repeat trunk wash, sample #3 today-will re-submit to NMVDS as well as NVSL. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: M98020
Indian elephant                     Age: 40Y Est.        Birth: 1.Jan.1967
Name: IRENE
=====

```

3.Nov.2000

Repeat trunk wash, sample #4 today-will re-submit to NMVDS. (GAD)

6.Nov.2000

Final trunk wash, sample #5 submitted today, last of 5 done every other day at the request of the lab (NMVDS). Duplicate samples on first three sent to NVSL. Elisa serology sent to CSU (Chatterjee's lab).

No report yet on speciation of isolate. (MJR)

12.Dec.2000

Trunk wash #1 submitted 10/27/2000 cultured positive for M. tuberculosis complex at NMVDL. Smear - neg. RNA amplification test result for MTB complex "equivocal". (GAD)

13.Dec.2000

Trunk wash #2 submitted 10/30/2000 cultured positive for M. tuberculosis complex at NMVDL. Smear - neg. MTB complex identified by RNZ amplification. (GAD)

13.Dec.2000

Obs: Finally received the Rifampin from Congaree Pharmacy last night. First doses for anti-tubercular treatment attempted this AM:

- 1) Rifampin at 7.5 mg/kg, est. of 4500 kg body weight and concentration of 200mg/ml Rifampin yields a dose of 168 ml or 6 oz. This fairly thick, watermelon flavored liquid does leave a slightly bitter aftertaste, will try it mixed with watermelon.
- 2) Isoniazid at 5 mg/kg, the free-base powder is 99.9% pure so dose is 22.5 gm of powder, administered per rectum after dilution in 100-120 ml of warm water, aspirated into a 140 cc syringe and injected into a 16 FR stomach tube inserted at arms length into the colon.
- 3) Vitamin B-6 at 1-1.5 mg/kg, dose of 4.5-5 gm, comes in a 500 mg capsule that can be emptied out and hopefully mixed with a syrup to mask the unpleasant taste. This will be added to the regimen once acceptance of the other drugs is achieved, the purpose is to prevent peripheral neuropathy secondary to the Isoniazid.

Obs: First attempt successful with Isoniazid, failure with Rifampin, she detected the drug and would not take it. (MJR)

14.Dec.2000

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #4 submitted 11/3/2000 cultured positive for M. tuberculosis complex at NMVDL. Smear - neg. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: M98020
Indian elephant                       Age: 40Y Est.        Birth: 1.Jan.1967
Name: IRENE
=====

```

14.Dec.2000

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Obs: Isoniazid administered without incident but she is extremely wary of any hand-fed foods, would not open mouth to be given her normal apple with Emcel in it. Keepers tried Rif on bread last PM and she refused it also. (MJR)

18.Dec.2000

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Obs: Both Donna and Irene have shown mild signs of discomfort and pica so far, suspect is a reaction to INH, some decrease in appetite particularly for treats. Irene has persistently refused all hand fed foods including her Bute and Emcelle since the trial dose of Rif. Must consider another drug or combination of drugs at this point. (MJR)

19.Dec.2000

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Obs: Was cooperative during treatment this AM but as soon as the tube was removed, she turned and slammed James with her trunk up against the pipes. Although not seriously injured, James went to Employee Health for an exam.  
 Plan: place Irene in the chute from now on for treatment, trunk washes etc. (MJR)

30.Dec.2000

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 First day of 2 drug therapy, abandoned attempts to get Irene to take oral medications as she has consistently refused anything orally since trying the first dose of Rifampin. Are no longer able to get the Phenylbutazone into her either, had been on 5 gm BID and the arthritis was less noticeable. Present drug treatment is 22.5 gm Isoniazid (INH) SID and 120 gm Pyrazinamide (PZA) SID. Both drugs are dissolved in warm water (8 oz for INH and 12-14 oz for PZA) and administered rectally. (MJR)

.....2001....

3.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Trunk wash #01-1 submitted to NMVDL for culture. (GAD)

4.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Trunk washes #1, #2, and #3 that were split and submitted to NVSL for Mycobacteria isolation resulted in no isolation made.  
 Collected on 10/27/00, 10/30/00, and 11/01/00. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #3 submitted 11/01/00 cultured negative for Mycobacteria at NMVDL. Smear - neg.  
Trunk wash #01-2 submitted to NMVDL for culture. (GAD)

6.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #5 submitted 11/6/00 cultured positive for Mycobacterium tuberculosis at NMVDL. Smear - neg. (GAD)

7.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash summary: Washes #1, #2, and #3 cultured negative at NVSL. However, washes #1, #2, and #5 cultured positive at NMVDL. #3 and #4 cultured negative. (GAD)

9.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Blood drawn for TB drug levels. Liver enzyme levels checked (appetite down approximately one week). AST = 180 (elevated), ALT = 6.11 (normal). (EJG)

9.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-3 submitted to NMVDL for culture. (GAD)

18.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Obs: Head keeper has reported that Irene has continued loss of appetite and distrust of anything in the way of food items other than hay and a slight interest in the pellets. Since she is not taking Emcelle or Bute, this is affecting our normal treatment regimens. Weight estimates now have her at approx. 8500 lbs (1000 lb loss) but the lost weight has made her lameness better and her general appearance better (not so overweight).  
Plan: get Vit E levels on next blood draw and perhaps use the Mazuri product with higher E levels in the pellet if it is low. (MJR)

19.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Blood values INH - 1.09 mcg/ml PZA - 33.42 mcg/ml (CF)

23.Jan.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Blood drawn for drug blood levels, better acceptance by Irene this time, less distressed by the procedure and obtained a much larger sample. Portion of sample sent for CBC and Chem panel, remainder to Nat. Jewish in Denver. (MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

```

=====
ELEPHAS MAXIMUS (no subsp)           Sex: Female           Acc. #: M98020
Indian elephant                     Age: 40Y Est.        Birth: 1.Jan.1967
Name: IRENE
=====

```

1.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Blood levels for INH = 4.10 mcg/ml (Ranges = 1-2 mcg/ml)  
 Blood levels for PZA = 56.01 (no established elephant ranges, Human ranges = 20-60 mcg/ml). Sample drawn 1-23-2001. (CF)

2.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Trunk wash #01-4 submitted for mycobacterial culture to NMVDS.  
 (GAD)

6.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Trunk wash #01-5 submitted for mycobacterial culture to NMVDS. Blood sample drawn for TB drug serum levels, Vitamin E level, in-house CBC and liver enzymes. Submitted TB drug sample today.  
 In-house CBC essentially normal. PCV - 51/ TPP - 8.2 (GAD)

7.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Serum for Vitamin E level submitted to MSU. (GAD)

8.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 SGPT & SGOT Levels for blood collected 01-23-01 are: SGPT = 19.8 U/L @ 37/C SGOT = 34.1 U/L @ 37/C.  
  
 SGPT & SGOT Levels for blood collected 02-06-01 are: SGPT 9.79 U/L @ 37/C SGOT = 39.9 U/L @ 37/C.  
 Trunk wash #01-6 submitted to NMVDS for mycobacterial culture.  
 (CF)

9.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Keepers submitted urine sample that was mostly mucus & red tinged in color. U/A in house - large amount hemolyzed blood , NSF on sediment.  
 No treatment unless continues. (CF)

13.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Trunk wash #01-7 submitted to NMVDS for culture. (GAD)

14.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
 Received results of INH and PZA levels sent to Jewish Center on 2-5-01. Results are as follows: INH:3.25mcg/ml. Human therapeutic range - 1-2mcg/ml. PZA:32.05 mcg/ml, human therapeutic range - 20-60 mcg/ml. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

15.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

CC: Keepers report several episodes of coughing and production of fluid from her trunk.

VE: Did not exhibit any abnormal signs during exam, further information about the incident is that over the past 48 hours they heard her cough 4-5 times and then a clear fluid was blown out of the trunk.

A small sample is obtained for acid fast stain, sent to VDS. (MJR)

20.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Annual routine fecal examination performed today. Results negative.

Vitamin E on sample sent 2/9/01 - 2.30 ug/ml. Acceptable. (CF)

22.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Received PZA levels for sample drawn 02-05-01. Results: 32.05mcg/ml.

Human therapeutic range = 20-60mcg/ml. (CF)

22.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Results of acid-fast on smears of nasal discharge negative for Mycobacterium. (GAD)

28.Feb.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

DNA result: restriction fragment length polymorphism (DNA fingerprint) from an isolate of our M. tb sample sent to California Dept. of Health on Nov. 29, 2000 was performed and compared to the isolate that was found in 2 elephants, a black rhino and 2 Rocky mountain goats at the LA Zoo.

Our isolate is unique compared to theirs.

Note: our isolate was also sent to NVSL in Ames, IA around the same time by Bob Ferguson from the myco lab, no result has been reported to date from that sample. NVSL has the 5 isolates from other cases reported in the US over the past 4-5 years, should be able to relate ours to one of these. (MJR)

2.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-8 submitted for mycobacterial culture to NMVDS.

(CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

3.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Obs: Has completed 2 months of SID therapy. Phone reports indicates that cultures have been negative from early in the treatment regimen, high probability that she is no longer shedding the TB organism.

Plan: switch now to every other day therapy for the next 10 months and allow keepers to work around her without a mask. Continue with coveralls, boots and equipment that does not leave the barn. (MJR)

6.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-9 submitted for mycobacterial culture to NMVDS, (CF)

7.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-1 submitted 01/03/01 cultured negative for Mycobacteria.

Smear negative.

Trunk wash #01-2 submitted 01/05/01 cultured negative for Mycobacteria.

Smear negative. (CF)

8.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-10 submitted for mycobacterial culture to NMVDS.

TB Elisa report from Chatterjee's lab:

We processed 4 elephant serum samples for TB ELISA test in accordance with the USDA Guidelines for the Control of Tuberculosis in Elephants. The names of the elephants submitted to study are Alice, Donna, Irene and Rozana. We did several experiments by triplicate using different serum dilutions and determinate antigens from different Mycobacteria strains. We used sonicated cells, culture filtrate proteins (CFP) and purified lipoarabinomannan (LAM) from Mycobacterium tuberculosis H37 Rv.

We also used sonicated cells from Mycobacterium avium complex (MAC), and sonicated cells from Mycobacterium bovis BCG (Copenhagen and Japan strains). The results showed negative answers for all antigens tested for Alice, Donna and Rozana elephants. Irene, was the only elephant that gave positive answers to sonicated M. bovis 'BCG cells (Copenhagen and Japan strains) and to CFP of M. tuberculosis H37Rv using ELISA, (See attached Table). (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

14.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

DNA fingerprinting done by NVSL indicates that Irene's isolate is unique as compared to the other five isolates that have been cultured from other circus elephants. This information came via phone report from Bob Ferguson, a written copy of the report is supposed to be forwarded by NVSL. (MJR)

22.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Liver values on sample obtained today: SPGT(<5.00), SGOT(28.5)  
Normal. (GAD)

26.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Obs: Has been exhibiting bloat on the day she is treated, the pattern seems to be related to the treatment since bloat is not observed on non-treatment days. A treatment was skipped on 3/23/01, no bloating was observed for 3/22 through 3/24 and a treatment was given 3/25, no bloat was observed that day either. Appetite is significantly better on no treatment days.

Plan: continue observations, may decrease dose if bloating continues.  
(MJR)

28.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Obs: Was treated yesterday and did not exhibit bloating, appetite has remained strong even after resumption of treatment.

Plan: leave dosage at known therapeutic level for now, it appears that a short resting of the bowel may be beneficial from time to time, hopefully will not be necessary more often than once a month but will have to see.

Continue every other day treatment at 120 gm PZA and 22.5 gm INH.  
(MJR)

29.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-7 submitted 02-13-01 cultured positive for M. tb! This is an unexpected and disturbing result after having seen an apparent positive response to treatment thus far. Will consult lab and public health officials to get their take on the significance of this result. Lab has already indicated that a drug susceptibility will be run on the isolate to determine if anything has changed.

Blood sample obtained by Ted from ear vein for serum drug levels- sent to TB/mycology lab to be forwarded to Nat. Jewish in Denver. (MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

31.Mar.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Blood drawn - CBC performed. (CF)

2.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

CC: Keepers reported "cracks" on the back side of Irene's ears last week. Treatment has consisted of topical application of bag balm. Today the keepers reported Irene's ears are getting worse.

PE: Back side of the right ear is red and inflamed in some areas. Left ear is worse, with oozy lesions.

DDX: Drug eruption?, hypovitamin E? (elephant not eating supplement for several months), reaction to local venipuncture?, other?

TX: Furacin topical ointment BID (EJG)

3.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Obs: The ear lesions consist of ruptured vesicles and generalized erythema, consistent with photosensitivity secondary to the pyrazinamide therapy. Plan: continue the antibiotic at night but try a sun blocker/sunscreen during the day.

Disp: sunscreen and zinc oxide, use each on one ear only to judge effectiveness. (MJR)

6.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Obs: sunscreen isn't working well according to keepers but the zinc oxide treated ear is improving and less exudative. Use on both ears until further notice. (MJR)

12.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

INH level 4.92 (normals = 3 to 5). Insufficient serum to run a PZA level will redraw blood and resubmit sample. Performed in-house SGOT = 19.3 and SGPT = <5.00 and CBC. (CF)

19.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Trunk wash #01-3 submitted 1-9-01 cultured negative for Mycobacterium. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

20.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Trunk wash #01-4 submitted 2-2-01 cultured negative for Mycobacterium.  
(CF)

21.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Trunk wash #01-5 submitted 2-6-01 cultured negative for Mycobacterium.  
(CF)

24.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Blood drawn CBC performed in-house. (CF)

27.Apr.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity  
(Suspected)

Received letter from Diana Whipple of USDA regarding RFLP pattern  
analysis on Irene's TB isolates. Below is the contents:

Dear Dr. Richard:

I am writing to report the results of restriction fragment length polymorphism (RFLP) analysis that was conducted on an isolate of Mycobacterium tuberculosis that was identified as originating from an elephant named Irene. We used the internationally standardized procedure for RFLP analysis of M. tuberculosis isolates (van Embden, et al. 1993. J Clin Microbiol 31:406- 407) and compared results with those of 14 other isolates from elephants. The RFLP pattern of the isolate from Irene did not match any of the patterns from the other elephants. The other elephants originated from Illinois, California, Arkansas, and Florida. Please let me know if you need additional information.

Sincerely,  
Diana L. Whipple  
Acting Research Leader  
Bacterial Diseases of Livestock Research Unit  
Midwest Area  
National Animal Disease Center  
2300 Dayton Avenue  
P.O. Box 70  
Ames, IA 50010 (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====
ELEPHAS MAXIMUS (no subsp)
Indian elephant
Name: IRENE
=====

Sex: Female
Age: 40Y Est.

Acc. #: M98020
Birth: 1.Jan.1967
=====

2.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
Submitted trunk wash #01-14 to NMVDS for mycobacterial culture. (GAD)

3.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
Trunk wash #01-08 submitted 03-02-01 cultured negative for Mycobacterium.
Comment: uncharacterized mycobacterium similar to M. flavescens consistent with CDC designation "NCP 201A". Smear negative. (CF)

4.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
Submitted trunk wash #01-16(oops!) to NMVDS for mycobacterial culture. (GAD)

5.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
TX: Beginning EOD rectal treatment with Phenylbutazone. 2 grams crushed medication mixed with 140 cc water and chased with additional 140 cc water.
If Irene tolerates medication well, will increase dosage 1 gram each treatment until dosage of 5 grams is achieved. (GAD)

6.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
CC: Keeper reports no visible problems with rectal administration of Phenylbutazone. Continue treatment tomorrow with 3 grams. (GAD)

7.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
Submitted trunk wash #01-15 to NMVD for mycobacterial culture. (GAD)

8.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)
Trunk wash #01-9 submitted on 3/6/01 cultured negative for Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

9.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)

Obs: Rectal Bute does not appear to be causing any side effects so far, keepers report that she seems to be responding also but the new mats installed in her stall a few days ago may also be helping with the arthritis.

Plan: increase to 4 gms today and 5 gms on the 11th if no adverse effects are noted. Will maintain on 5 gm qod from that date on.  
(MJR)

10.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)

Trunk wash #01-10 submitted 3/8/01 cultured negative for Mycobacteria. Smear negative. (GAD)

11.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)

Trunk wash #01-6 submitted 2-8-01 cultured negative for Mycobacterium. Comment: one colony of presumptive Nocardia species isolated on Lowenstein-Jensen slant. Smear Negative. (CF)

14.May.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)

Obs: due to keeper staffing, they were unable to apply the zinc oxide ointment to Irene's ears last Tues. On Wed. they noted small raised blisters in a few areas, by today they have become crusted scabbed lesions similar to the original presentation. This seems to confirm the photosensitivity, probably to the PZA since there is no mention of such problems with INH.

Otherwise, the ears are looking great and keepers are very pleased with the response to Bute rectally. (MJR)

1.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed); photosensitivity (Suspected)

6.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-17 submitted to NMVDS for mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

7.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-11 submitted 04/04/01 cultured negative for  
Mycobacterium. Smear negative. (CF)

8.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-12 submitted 04-06-2001 cultured negative for  
Mycobacterium. Smear negative. (CF)

8.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-18 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Lab: Trunk wash #01-19 submitted to NMVDS for Mycobacterial culture.  
(GAD)

18.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-13 submitted 4/10/01 cultured negative for  
Mycobacterium. Smear negative. (GAD)

21.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Liver Values run today: SGPT = 7.70, SGOT = 15.7 Normal. (CF)

26.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
CDC drug susceptibility report: Rifampin susceptibility on  
Mycobacterium positive sample taken 02-13-01. Report shows  
discrepancy in susceptibility. One shows sensitivity the other shows  
resistance. RFLF strain typing to follow. (CF)

27.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-14 submitted 5/2/01 cultured negative for  
Mycobacterium.  
Smear negative. (GAD)

28.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-16 submitted 5/4/01 cultured negative for  
Mycobacterium. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

29.Jun.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-15 submitted 5/7/01 cultured negative for  
Mycobacterium. Smear negative. (GAD)

7.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
CC: Keeper reports that Irene is very inactive this AM, hangs trunk  
down flaccidly and refuses to eat or drink.  
PE: Responded to me when approached and examined: mucus membranes  
are pink and healthy appearing, CRT is normal, trunk works fine, main  
abnormality is a mild to moderate bloat. Additional history is that  
they have been finding lots of sand in her feces and in the colon when  
medicating, ate normally last night and produced a normal amount of  
feces overnight.  
TDx: Bloat, mild to moderate distension involving both sides.  
Tx: Skip TB treatment just today, allow access immediately to the  
yard to encourage movement, offer water from the hose and psyllium  
pellets.

Update: within 2 hours she is passing gas frequently, drinking water  
readily, consumed approx. 60 oz. of psyllium pellets. However, she is  
also eating lots of dirt.

Plan: Offer hay and try to get more psyllium into her throughout the  
day. (MJR)

9.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash 01-20 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash 01-21 submitted to NMVDS for Mycobacterial culture.  
(GAD)

13.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-22 submitted to NMVDS for Mycobacterial culture.  
(GAD)

19.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Liver values run today: SGOT = 22.6 SGPT = <5.0 Normal. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====  
ELEPHAS MAXIMUS (no subsp) Sex: Female Acc. #: M98020  
Indian elephant Age: 40Y Est. Birth: 1.Jan.1967  
Name: IRENE  
=====

24.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-18 submitted 6/8/01 cultured negative for  
Mycobacterium.  
Smear negative. (GAD)

27.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Liver values run today: SGOT = 25.2 SGPT = <5.0 (CF)

30.Jul.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-17 submitted 06-06-01 resulted in overgrown culture.  
Smear negative. (CF)

1.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-19 submitted 06-11-2001 cultured negative for  
Mycobacteria. Smear negative. (CF)

6.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-23 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-24 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Lab: SGPT = <5.0, SGOT = 23.3 (CF)

10.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-25 submitted to NMVDS for Mycobacterial culture.  
(GAD)

15.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Obs: About 2-3 weeks ago all of the elephants were switched from  
Onate's elephant pellet to the Mazuri brand product since Onate  
refused to bid on the contract. Irene has always been reluctant to  
eat the Onate product and would generally eat less than a pound.

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

15.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Since beginning treatment for TB, she has also refused all supplements. Only recently she has begun to gain weight and "feel" better according to the keepers and now she will seek out and consume the Mazuri product, still refusing Onate's. She is up to 3 lbs of Mazuri daily and Ted will increase to 4 lbs soon.

Plan: Monitor Vit E on all four after having been on the Mazuri product for a few months.

Late PM: keeper reports acute onset of lameness this afternoon.

VE: Marked lameness of the left hind leg, appears to be the stifle or perhaps lower in the leg, she tends to swing it without flexing the stifle.

Plan: give 5 gm Bute rectally on the way in this PM and repeat in AM, will be the normal day for Bute tomorrow. (MJR)

16.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Lab: SGPT = <5.0, SGOT = 21.2 Normal. (CF)

16.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Obs: lameness has resolved, looks fine this AM. (MJR)

24.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Results: Vitamin E level of sample drawn 06-28-01 and sent 08-15-01 to NMVDS is 0.43 ug/ml. Low. (CF)

27.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-20 submitted 07-09-01 cultured negative for Mycobacteria. Smear negative. (CF)

28.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-21 submitted 07-11-01 cultured negative for Mycobacteria. Smear negative. (CF)

30.Aug.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Lab: SGPT = <5.0, SGOT = 15.2 Normal. (CF)

4.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)

Trunk wash #01-22 submitted 7/13/01 cultured negative for Mycobacterium. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-26 submitted to NMVDS for Mycobacterial culture.  
(CF)

7.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-27 submitted to NMVDS for Mycobacterial culture.  
(CF)

10.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-28 submitted to NMVDS for Mycobacterial culture.  
(GAD)

20.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Blood drawn for Vitamin E level submitted to VDS. (CF)

26.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Lab: Trunk wash #01-23 submitted 08-06-2001 cultured negative for  
Mycobacterium. Smear negative. (CF)

28.Sep.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-24 submitted 08-08-01 cultured *M.flavescens*. Smear  
negative. (CF)

1.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-29 submitted to NMVDS for Mycobacterial culture.  
(GAD)

2.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-25 submitted 08-10-01 cultured negative for  
Mycobacterium. Smear negative. (CF)

3.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-30 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

4.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Lab results: Vitamin E = 1.75 ug/ml. Within acceptable limits.  
Sample drawn 09-20-01. (CF)

5.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-31 submitted to VDS for Mycobacterium culture. (CF)

24.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-26 submitted 09/05/01 cultured negative for  
Mycobacterium. Smear negative. (CF)

29.Oct.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-28 submitted 09/10/01 cultured negative for  
Mycobacterium. Smear negative. (CF)

5.Nov.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-32 submitted to VDS for Mycobacterial culture. (CF)

7.Nov.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-33 submitted to VDS for Mycobacterial culture. (GAD)

20.Nov.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-29 submitted 10/01/2001 cultured negative for  
Mycobacterium. Smear negative. (GAD)

26.Nov.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-27 submitted 9/07/2001 cultured negative for  
Mycobacterium. Smear negative. (GAD)

2.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-35 submitted to VDS for Mycobacterial culture. (CF)

3.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-31 submitted 10/05/2001 cultured negative for  
Mycobacterium. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-36 submitted to VDS for Mycobacterial culture. (CF)

7.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-37 submitted to VDS for Mycobacterial culture. (CF)

27.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-32 submitted 11-05-2001 cultured negative for Mycobacterium. Smear negative. (CF)

28.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-33 submitted 11-07-2001 cultured negative for Mycobacterium. Smear negative. (CF)

30.Dec.2001

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Last day of TB treatment is today, has completed an entire year on the same doses and has only missed one or two doses due to side effects. Has had a couple of episodes of bloat recently but they resolve with exercise and warm water, they seem to be simple gassy bloats since the bloat resolves after she passes gas several times. Lameness is still an issue, now that is off the INH and PZA, keepers will do daily rectal Bute.  
Plan: Continue monthly trunk washes on Irene indefinitely. (MJR)

.....2002....

3.Jan.2002

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #01-34 submitted 11-09-2001 cultured negative for Mycobacterium. Smear negative. (CF)

7.Jan.2002

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #02-01 submitted to VDS for Mycobacterial culture. (CF)

9.Jan.2002

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #02-02 submitted to VDS for Mycobacterial culture. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

11.Jan.2002

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Trunk wash #02-03 submitted to VDS for Mycobacterial culture. (CF)

18.Jan.2002

Problem: mycobacteriosis - RESPIRATORY (Confirmed)  
Obs: Since completion of treatment she has done very well according to keeper staff, has resumed many of her old behaviors and appetite has improved considerably. Keepers have increased Phenybutazone treatment to SID but are continuing to use the rectal route of administration as she refuses oral attempts, especially watermelon. (MJR)

23.Jan.2002

Phone report from Dr. Gary Simpson: the isolate from 2-13-01 that showed a different drug sensitivity pattern than the original isolate has been the subject of ongoing investigation by the mycobacteriology lab. They were originally concerned that it was a possible contaminant from a control specimen run at the lab as part of their quality control. They have since done DNA fingerprinting of every single isolate, control or patient, that they have ever run at the lab and compared them to the isolate from Irene. None have matched the unique pattern found in Irene, most TB isolates have a 4 or 8 band DNA fingerprint using RFLP techniques and this isolate has an 18 band pattern. Additionally, the isolate is Rifampin resistant (monoresistant) and this in itself is unusual and is most often seen in humans concurrently undergoing HIV treatment as the anti-HIV drugs alter the bioavailability of Rifampin and result in under-dosing and thus resistance.

The current plan is to now compare the isolate with as many known DNA patterns as is possible and try to determine its source. A contact of Dr. Simpson's at the CDC will be conducting these tests. Since Irene was not treated with Rifampin, the schedule followed should have been effective but will continue monthly trunk washes for life. (MJR)

24.Jan.2002

Trunk wash #01-35 submitted 12/03/2001 cultured negative for Mycobacteria. Smear was negative. (CF)

25.Jan.2002

Trunk wash #01-36 submitted 12/05/2001 cultured negative for Mycobacteria. Smear negative. (CF)

28.Jan.2002

Trunk wash #01-30 submitted 10/03/2001 cultured M.Flavescens like organism. Presumptive Mott identified as NCP 201. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

29.Jan.2002

Trunk wash #01-37 submitted 12/07/2001 cultured negative for Mycobacteria. Smear negative. (CF)

4.Feb.2002

Trunk wash #02-04 submitted to VDS for Mycobacterial culture. (CF)

6.Feb.2002

Trunk wash #02-05 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Feb.2002

Trunk wash #02-06 submitted to NMVDS for Mycobacterial culture. (GAD)

26.Feb.2002

Trunk wash #02-01 submitted 01/07/02 cultured negative for Mycobacteria. Smear negative. (CF)

27.Feb.2002

Trunk wash #02-02 submitted 01/08/02 cultured negative for Mycobacteria. Smear negative. (CF)

4.Mar.2002

Trunk wash #02-07 submitted to NMVDS for Mycobacterial culture. (CF)

6.Mar.2002

Trunk wash #02-08 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Mar.2002

Trunk wash #02-09 submitted to NMVDS for Mycobacterial culture. (GAD)

25.Mar.2002

Trunk wash #02-05 submitted 02-06-02 cultured negative for Mycobacterium. Smear negative. (CF)

26.Mar.2002

Trunk wash #02-04 submitted 02-05-02 cultured negative for Mycobacterium. Smear negative. (CF)

28.Mar.2002

Lab: Routine yearly fecal float performed. Results negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

3.Apr.2002

Trunk wash #02-10 submitted to NMVDS for Mycobacterial culture.  
(CF)

4.Apr.2002

Trunk wash #02-06 submitted 02-11-02 cultured negative for  
Mycobacterium. Smear negative. (CF)

5.Apr.2002

Trunk wash #02-11 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Apr.2002

Trunk wash #02-12 submitted to NMVDS for Mycobacterial culture.  
(GAD)

25.Apr.2002

Trunk wash #02-07 submitted 03-04-02 cultured negative for  
Mycobacterium. Smear negative. (CF)

6.May.2002

Lab: Trunk wash #02-13 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.May.2002

Lab: Trunk wash #02-14 submitted to NMVDS for Mycobacterial culture.  
(GAD)

10.May.2002

Lab: Trunk wash #02-15 submitted to NMVDS for Mycobacterial culture.  
(GAD)

22.May.2002

Trunk wash #02-08 submitted 03-06-02 cultured negative for  
Mycobacteria. Smear negative. (GAD)

26.May.2002

Obs: Irene has improved significantly as far as her arthritis goes,  
keepers want to try her on every other day Bute. Still trying to  
achieve oral administration but without much success so will go rectal  
until they do. (MJR)

30.May.2002

Lab: Trunk wash #02-10 sent 4/3/02 cultured negative for  
Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

31.May.2002

Lab: Trunk wash #02-11 sent 4/5/02 cultured negative for Mycobacteria. Smear negative. (GAD)

1.Jun.2002

Lab: Trunk wash #02-12 sent 4/8/02 cultured negative for Mycobacteria. Smear negative. (GAD)

2.Jun.2002

Trunk wash #02-12 submitted 04-08-02 cultured negative for Mycobacteria. Smear negative. (GAD)

3.Jun.2002

Trunk wash #02-16 submitted to NMVDS for Mycobacterial culture. (GAD)

5.Jun.2002

Trunk wash #02-17 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Jun.2002

Trunk wash #02-18 submitted to NMVDS for Mycobacterial culture. (GAD)

20.Jun.2002

Trunk wash #02-03 submitted 01-11-02 cultured negative for Mycobacteria. Smear negative. (CF)

1.Jul.2002

Trunk wash #02-19 submitted to NMVDS for Mycobacterial culture. (GAD)

2.Jul.2002

Trunk wash #02-15 submitted 05-10-02 cultured negative for Mycobacteria. Smear negative. (GAD)

5.Jul.2002

Trunk wash #02-20 submitted to VDS for Mycobacterial culture. (CF)

8.Jul.2002

Trunk wash #02-21 submitted to NMVDS for Mycobacterial culture. (GAD)

16.Jul.2002

Trunk wash #02-09 submitted 03-08-02 cultured negative for Mycobacterium. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

20.Jul.2002

Trunk wash #02-14 submitted 05-08-02 cultured negative for Mycobacterium. Smear negative. (CF)

21.Jul.2002

Trunk wash #02-13 submitted 05-06-02 cultured negative for Mycobacterium. Smear negative. (CF)

22.Jul.2002

Trunk wash #02-17 submitted 06-05-02 cultured negative for Mycobacterium. Smear negative. (CF)

23.Jul.2002

Trunk wash #02-16 submitted 06-03-02 cultured negative for Mycobacterium. Smear negative. (CF)

30.Jul.2002

Trunk wash #02-18 submitted 06-07-02 cultured negative for Mycobacterium. Smear negative. (CF)

31.Jul.2002

Trunk wash #02-20 submitted 07-05-02 resulted in overgrown culture. Smear negative. (CF)

5.Aug.2002

Trunk wash #02-22 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Aug.2002

Trunk wash #02-23 submitted to NMVDS for Mycobacterial culture. (GAD)

12.Aug.2002

Lab: Serum vitamin E results of sample sent 7-29-02: 0.86 ug/ml reference range - 0.75-1.3 ug/ml.  
Trunk wash #02-24 submitted to NMVDS for Mycobacterial culture. (CF)

16.Aug.2002

CC: Keepers report that one of her tusks has broken off during a fight with Donna.  
PE: The right tusk is fractured off flush with the skin deep in the tusk sulcus. There is blood on the surface of the exposed remaining tusk but it is non-painful to the touch. Later keepers reported that there are some bruises on the soft palate of Irene, probably from the tusks of Donna. Irene continues to eat without evidence of discomfort so at this time will not prescribe anything. (MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

*ELEPHAS MAXIMUS* (no subsp)  
Indian elephant  
Name: IRENE

Sex: Female  
Age: 40Y Est.

Acc. #: M98020  
Birth: 1.Jan.1967

=====

21.Aug.2002

Lab: Trunk wash #02-19 submitted 07-01-02 cultured negative for Mycobacterium. Smear negative. (GAD)

26.Aug.2002

Lab: Submitted serum frozen from 4-4-02 to NMVDS for Vitamin E comparison with levels drawn after switching to new elephant supplement formula. (GAD)

29.Aug.2002

Lab: Trunk wash #02-21 submitted 07-08-02 cultured negative for Mycobacterium. Smear negative. (GAD)

30.Aug.2002

Lab: Serum vitamin E on sample pulled 4/4/02 and submitted 8/26/02 - 0.90 ug/ml. (GAD)

4.Sep.2002

Lab: Trunk wash #02-25 submitted to NMVDS for Mycobacterial culture. (GAD)

9.Sep.2002

Lab: Trunk wash #02-26 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Sep.2002

Lab: Trunk wash #02-27 submitted to NMVDS for Mycobacterial culture. (GAD)

24.Sep.2002

Lab: Trunk wash #02-22 submitted 08-06-02 cultured negative for Mycobacterium. Smear negative. (GAD)

25.Sep.2002

Lab: Trunk wash #02-24 submitted 08-12-02 cultured negative for Mycobacterium. Smear negative. (GAD)

26.Sep.2002

Lab: Trunk wash #02-23 submitted 08-07-02 cultured negative for Mycobacterium. Smear negative. (GAD)

7.Oct.2002

Lab: Trunk wash #02-28 submitted to NMVDS for Mycobacterial culture. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

9.Oct.2002

Lab: Trunk wash #02-29 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Oct.2002

Lab: Trunk wash #02-30 submitted to NMVDS for Mycobacterial culture.  
(GAD)

27.Oct.2002

Lab: Trunk wash #02-25 submitted 09-06-02 cultured negative for  
Mycobacterium.  
Smear negative. (GAD)

29.Oct.2002

Lab: Trunk wash #02-27 submitted 09-11-02 cultured negative for  
Mycobacterium.  
Smear negative. (GAD)

4.Nov.2002

Lab: Trunk wash #02-31 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.Nov.2002

Lab: Trunk wash #02-32 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Nov.2002

Lab: Trunk wash #02-33 submitted to NMVDS for Mycobacterial culture.  
(GAD)

22.Nov.2002

Lab: Trunk wash #02-32 submitted 11-06-02 cultured overgrown. Smear  
negative. (CF)

26.Nov.2002

Lab: Sent serum sample to NMVDS for vitamin E level. (GAD)

27.Nov.2002

Lab: Trunk wash #02-28 submitted 10-07-02 cultured negative for  
Mycobacteria. Smear negative. (CF)

28.Nov.2002

Lab: Serum Vitamin E results: 0.61 (CF)

29.Nov.2002

Lab: Trunk wash #02-29 submitted 10-09-02 cultured negative for  
Mycobacteria. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

3.Dec.2002

Lab: Trunk wash #02-30 submitted 10-11-02 cultured overgrown. Smear negative. (CF)

4.Dec.2002

Lab: Trunk wash #02-34 submitted to VDS for Mycobacterial culture. (CF)

6.Dec.2002

Lab: Trunk wash #02-35 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Dec.2002

CC: Start Emcelle supplementation (1-3 IU/lb) 8000IU (8cc). Will recheck vitamin E levels at six weeks from this date and possibly double the dose when elephants are switched back to previous supplement. (CF)

9.Dec.2002

Lab: Trunk wash #02-36 submitted to NMVDS for Mycobacterial culture. (GAD)

17.Dec.2002

Lab: Trunk wash #02-31 submitted 11-04-02 cultured Mycobacterium fortuitum. Smear negative. (CF)

18.Dec.2002

Lab: Trunk wash #02-26 submitted 09-09-02 cultured for NCP 210 (M. flavescens like mycobacterium. Smear negative. (CF)

19.Dec.2002

Lab: Trunk wash #02-33 submitted 11-08-02 cultured Mycobacterium fortuitum. Smear negative. (CF)

27.Dec.2002

Lab: Trunk wash #02-35 submitted 12-06-02 cultured overgrown. Smear negative. (CF)

30.Dec.2002

CC: Keepers report Irene is producing a foamy white discharge with an unknown origin (trunk?/genitourinary?). Stained slide showed various bacteria and WBCs. Submitted sample for culture. Attempt to start on Uniprim (dose at 4000 kg) PO BID. (EJG)

.....2003...

2.Jan.2003

Lab: Trunk wash #03-01 submitted to NMVDS for Mycobacterial culture. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

3.Jan.2003

Lab: Trunk wash #03-02 submitted to NMVDS for Mycobacterial culture.  
Also sent sample of mucus for culture. (CF)

6.Jan.2003

Lab: Trunk wash #03-03 submitted to NMVDS for Mycobacterial culture.  
(CF)

8.Jan.2003

Lab: Trunk wash #03-04 sent to NMVDS for Mycobacterial culture.  
(CF)

10.Jan.2003

Lab: Trunk wash #03-05 submitted to NMVDS for Mycobacterial culture.  
(GAD)

14.Jan.2003

Lab: Culture results on Mucus sample sent 12/30/02:  
Many Streptococcus, alpha, not enterococcus  
Few Enterobacter cloacae  
Few Streptococcus, nonhaemolytic, not enterococcus

Mycobacterial Culture:  
Smear - negative  
Culture - Mycobacteria not isolated (CF)

15.Jan.2003

Lab: Yearly routine fecal float performed. Results negative.  
(CF)

20.Jan.2003

Lab: Sent serum sample to NMVDS for vitamin E level. (GAD)

22.Jan.2003

Lab: Trunk wash #02-34 submitted 12-04-02 cultured negative for  
Mycobacterium. Smear negative. (CF)

27.Jan.2003

Lab: Trunk wash #03-38 sent 12-05-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

27.Jan.2003

CC: Keepers reported that on Sat. 1/25, an abscess ruptured on her  
toenail.

VE: The nail on her fourth digit, RF foot has a 2-3 cm defect

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

27.Jan.2003

beginning at the cuticle and extending halfway down the nail, this was trimmed out by Ted to establish drainage and clean it out. They are soaking the foot BID in Nolvasan as well as flushing the tract with peroxide. Irene does not show any indication that it hurts so will just continue with soaks and flushes. (MJR)

29.Jan.2003

Lab: Vitamin E results on sample sent 1-20-03: 0.82ug/ml, range is 0.75-1.3ug/ml. (CF)

31.Jan.2003

Obs: Ted has extended the trimmed out portion of the nail almost to ground level based on finding more soft and apparently necrotic tissue in the tract. It appears that this is going to resolve nicely with no deeper infection, will continue the soaks and flushes as needed, new nail is already growing in from top. (MJR)

3.Feb.2003

Lab: Trunk wash #03-06 submitted to NMVDS for Mycobacterial culture. (GAD)

5.Feb.2003

Lab: Trunk wash #03-07 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Feb.2003

Weight: 3799 Kg (8375 Lb)  
Lab: Trunk wash #03-08 submitted to NMVDS for Mycobacterial culture. (GAD)

19.Feb.2003

Lab: Trunk wash #02-36 submitted 12-09-02 cultured overgrown. Smear negative. (CF)

26.Feb.2003

Lab: Trunk wash #03-02 submitted 01-03-03 cultured negative for Mycobacterium. Smear negative.  
Culture of mucus submitted 01-03-03 cultured overgrown. (CF)

27.Feb.2003

Lab: Trunk wash #03-03 submitted 01-06-03 cultured negative for Mycobacterium. Smear negative. (CF)

28.Feb.2003

Lab: Trunk wash #03-04 submitted 01-08-03 cultured negative for Mycobacteria. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Mar.2003

Lab: Trunk wash #03-05 submitted 01-10-03 cultured negative for Mycobacterium. Smear negative. (CF)

5.Mar.2003

Lab: Trunk wash #03-09 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Mar.2003

Lab: Trunk wash #03-07 submitted 02-05-03 cultured overgrown. Smear negative. (CF)

7.Mar.2003

Lab: Trunk wash #03-10 submitted to NMVDS for Mycobacterial culture. (GAD)

10.Mar.2003

Lab: Trunk wash #03-11 submitted to NMVDS for Mycobacterial culture. (GAD)

22.Mar.2003

Lab: Trunk wash #03-22 submitted to NMVDS for Mycobacterial culture. (GAD)

26.Mar.2003

Lab: Trunk wash #03-06 submitted 02-03-03 cultured negative for Mycobacterium. Smear negative. (CF)

2.Apr.2003

Lab: Trunk wash #03-01 submitted 01-02-03 cultured negative for Mycobacteria. Smear negative.  
Trunk wash #03-12 submitted to NMVDS for Mycobacterial culture. (GAD)

3.Apr.2003

Lab: Trunk wash #03-08 submitted 02-07-03 cultured negative for Mycobacteria. Smear negative. (GAD)

4.Apr.2003

Lab: Trunk wash #03-13 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Apr.2003

Lab: Trunk wash #03-14 submitted to NMVDS for Mycobacterial culture. (GAD)



Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

13.May.2003

Lab: Vitamin E results on sample sent 5-1-03: 0.97ug/ml. (CF)

16.May.2003

Lab: Sent serum sample to NMVDS for zinc level. (GAD)

21.May.2003

Lab: Trunk wash #03-12 sent 4-2-03 cultured negative for Mycobacterium. Smear negative. (CF)

23.May.2003

Lab: Results of serum zinc level sent 5-16-03: 0.46ppm. (CF)

28.May.2003

Lab: Trunk wash #03-13 submitted 04-04-03 cultured negative for Mycobacteria. Smear negative. (GAD)

28.May.2003

CC: Irene now has 3 of 4 feet with necrotic areas in one or more nails. Ted thinks the nails are more crumbly than they used to be and that they don't appear to be improving with the current treatment of trimming and Nolvasan soaks.

A blood sample submitted for zinc last week came back with a value of 0.46 which is comparable to the values obtained in 1999 while on Red Cell supplementation at 4 oz daily.

Suspect that the nail condition may be a nutritional problem but will have to do a trial to see if she responds.

Disp: Red cell 4 oz SID, will also send out Sho-Glo as she was on that before TB treatment.

Current diet is ADF-16, Emcelle and Sudan/Timothy/Enforcer hays.  
(MJR)

29.May.2003

Lab: Trunk wash #03-14 submitted 04-07-03 cultured negative for Mycobacterium. Smear negative. (GAD)

2.Jun.2003

Lab: Trunk wash #03-18 submitted to NMVDS for Mycobacterial culture.  
(GAD)

4.Jun.2003

Lab: Trunk wash #03-19 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Jun.2003

CC: Keeper reports that Irene is now taking full doses of red cell and ShoGlo.

Lab: Trunk wash #03-20 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

23.Jun.2003

Lab: Trunk wash #03-15 submitted 04-30-03 cultured negative for Mycobacterium. Smear negative. (GAD)

1.Jul.2003

Lab: Trunk wash #03-21 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Jul.2003

Lab: Trunk wash #03-23 submitted to NMVDS for Mycobacterial culture. (GAD)

27.Jul.2003

Lab: Trunk wash #03-18 submitted 6-2-03 cultured negative for Mycobacterium. Smear negative. (CF)

28.Jul.2003

Lab: Trunk wash #03-19 submitted 6-4-03 cultured negative for Mycobacterium. Smear negative. (CF)

29.Jul.2003

Lab: Trunk wash #03-20 submitted 6-8-03 cultured negative for Mycobacterium. Smear negative. (CF)

6.Aug.2003

Lab: Trunk wash #03-24 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Aug.2003

Lab: Trunk wash #03-25 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Aug.2003

Lab: Trunk wash #03-26 submitted to NMVDS for Mycobacterial culture. (GAD)

14.Aug.2003

Lab: Trunk mucus sent 05-12-03 cultured negative for Mycobacterium. Smear negative. (CF)

15.Aug.2003

Lab: Trunk wash #03-16 sent 05-02-03 cultured negative for Mycobacterium. Smear negative. (CF)

16.Aug.2003

Lab: Trunk wash #03-17 sent 05-06-03 cultured negative for Mycobacterium. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

19.Aug.2003

Lab: Trunk wash #03-21 sent 07-01-03 cultured negative for Mycobacterium. Smear negative. (CF)

27.Aug.2003

Lab: Trunk wash #03-23 sent 07-07-03 cultured negative for Mycobacterium. Smear negative. (CF)

28.Aug.2003

Radiographed left front foot with several different settings to work out a technique chart. (MJR)

29.Aug.2003

Lab: Trunk wash #03-22 sent 07-03-03 cultured negative for Mycobacterium. Smear negative. (CF)

2.Sep.2003

Lab: Trunk wash #03-27 submitted to NMVDS for Mycobacterial culture. (GAD)

3.Sep.2003

Lab: Trunk wash #03-28 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Sep.2003

Lab: Trunk wash #03-29 submitted to NMVDS for Mycobacterial culture. (GAD)

24.Sep.2003

Lab: Trunk wash #03-24 sent 08-06-03 cultured negative for Mycobacterium. Smear negative. (CF)

30.Sep.2003

Lab: Trunk wash #03-25 sent 08-08-03 cultured negative for Mycobacterium. Smear negative. (CF)

1.Oct.2003

Lab: Trunk wash #03-26 sent 08-11-03 cultured overgrown. Smear negative. (CF)

6.Oct.2003

Lab: Trunk wash #03-30 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Oct.2003

Lab: Trunk wash #03-31 submitted to NMVDS for Mycobacterial culture. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

10.Oct.2003

Lab: Trunk wash #03-32 submitted to NMVDS for Mycobacterial culture.  
(GAD)

28.Oct.2003

Lab: Trunk wash #03-28 sent 09-05-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

29.Oct.2003

Lab: Trunk wash #03-29 sent 09-08-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

3.Nov.2003

Lab: Trunk wash #03-33 submitted to NMVDS for Mycobacterial culture.  
(GAD)

5.Nov.2003

Lab: Trunk wash #03-34 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.Nov.2003

Lab: Trunk wash #03-35 submitted to NMVDS for Mycobacterial culture.  
(GAD)

20.Nov.2003

Lab: Trunk wash #03-28 sent 09-03-03 cultured negative for  
Mycobacterium. Smear negative. (GAD)

21.Nov.2003

Lab: Trunk wash #03-27 sent 09-2-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

25.Nov.2003

Lab: Trunk wash #03-30 sent 10-6-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

1.Dec.2003

Lab: Trunk wash #03-36 submitted to NMVDS for Mycobacterial culture.  
(GAD)

2.Dec.2003

Lab: Trunk wash #03-32 sent 10-10-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

3.Dec.2003

Lab: Trunk wash #03-37 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Dec.2003

Lab: Trunk wash #03-38 submitted to NMVDS for Mycobacterial culture.  
(GAD)

22.Dec.2003

Lab: Trunk wash #03-33 sent 11-3-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

23.Dec.2003

Lab: Trunk wash #03-34 sent 11-5-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

31.Dec.2003

Lab: Trunk wash #03-35 sent 11-07-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

.....2004....

5.Jan.2004

Lab: Trunk wash #04-01 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.Jan.2004

Lab: Trunk wash #04-02 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Jan.2004

Lab: Trunk wash #04-03 submitted to NMVDS for Mycobacterial culture.  
(GAD)

19.Jan.2004

Lab: Trunk wash #03-36 sent 12-01-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

20.Jan.2004

Lab: Trunk wash #03-37 sent 12-03-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

21.Jan.2004

Lab: Trunk wash #03-31 sent 10-08-03 cultured negative for  
Mycobacterium. Smear negative. (CF)

27.Jan.2004

Lab: Trunk wash #03-38 submitted 12/5/03 cultured negative for  
Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

2.Feb.2004

Lab: Trunk wash #04-04 submitted to NMVDS for Mycobacterial culture.  
(GAD)

4.Feb.2004

Lab: Trunk wash #04-05 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.Feb.2004

Lab: Trunk wash #04-06 submitted to NMVDS for Mycobacterial culture.  
(GAD)

25.Feb.2004

Lab: Trunk wash #04-01 sent 01-04-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

26.Feb.2004

Lab: Trunk wash #04-02 sent 01-07-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

1.Mar.2004

Lab: Trunk wash #04-07 submitted to NMVDS for Mycobacterial culture.  
(GAD)

3.Mar.2004

Lab: Trunk wash #04-08 submitted to NMVDS for Mycobacterial culture.  
(GAD)

4.Mar.2004

Lab: Trunk wash #04-03 sent 01-12-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

5.Mar.2004

Lab: Trunk wash #04-09 submitted to NMVDS for Mycobacterial culture.  
(GAD)

23.Mar.2004

Lab: Trunk wash #04-04 sent 2-2-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

24.Mar.2004

Lab: Trunk wash #04-05 sent 2-2-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

30.Mar.2004

Lab: Trunk wash #04-06 sent 2-6-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Apr.2004

Lab: Trunk wash #04-10 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.Apr.2004

Lab: Trunk wash #04-11 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Apr.2004

CC: Today Rozie had a long altercation with Irene on exhibit and both are covered with superficial abrasions from the gunnite rockwork and from tusk injuries. Irene fractured the left tusk deep in the sulcus and it has some blood on it, Rozie has a cut inside her lower lip.  
Disp: Furacin plus Prep H (3:1) for topical application (MJR)

12.Apr.2004

Lab: Trunk wash #04-12 submitted to NMVDS for Mycobacterial culture.  
(GAD)

20.Apr.2004

Lab: Trunk wash #04-08 sent 3/3/04 cultured negative for Mycobacterium. Smear negative. (CF)

27.Apr.2004

Lab: Trunk wash #04-09 sent 3-5-04 cultured negative for Mycobacterium. Smear negative. (CF)

3.May.2004

Lab: Trunk wash #04-13 submitted to NMVDS for Mycobacterial culture.  
(GAD)

5.May.2004

Lab: Trunk wash #04-14 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.May.2004

Lab: Trunk wash #04-10 sent 4-5-04 cultured overgrown. Smear negative. (CF)

7.May.2004

Lab: Trunk wash #04-15 submitted to NMVDS for Mycobacterial culture.  
(GAD)

1.Jun.2004

Lab: Trunk wash #04-11 sent 4/4/04 cultured negative for Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)  
Indian elephant  
Name: IRENE

Sex: Female  
Age: 40Y Est.

Acc. #: M98020  
Birth: 1.Jan.1967

=====

2.Jun.2004

Lab: Trunk wash #04-12 sent 4/12/04 cultured negative for  
Mycobacterium. Smear negative.  
Lab: Trunk wash #04-16 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.Jun.2004

Lab: Trunk wash #04-17 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Jun.2004

Lab: Trunk wash #04-18 submitted to NMVDS for Mycobacterial culture.  
(GAD)

23.Jun.2004

Lab: Trunk wash #04-07 sent 3-2-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

24.Jun.2004

Lab: Trunk wash #04-13 sent 5-3-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

25.Jun.2004

Lab: Routine yearly fecal float performed on individual sample.  
Results negative. (CF)

26.Jun.2004

Lab: Trunk wash #04-14 sent 5-5-04 cultured negative for  
Mycobacterium. Smear negative. (CF)

29.Jun.2004

Lab: Trunk wash #04-15 submitted 5/7/04 cultured negative for  
Mycobacteria. Smear negative. (GAD)

7.Jul.2004

Lab: Trunk wash #04-19 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Jul.2004

Lab: Trunk wash #04-20 submitted to NMVDS for Mycobacterial culture.  
(GAD)

12.Jul.2004

Lab: Trunk wash #04-21 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

20.Jul.2004

Lab: Trunk wash #04-16 sent 6-2-04 cultured overgrown. Smear negative. (CF)

11.Aug.2004

Lab: Trunk wash #04-22 submitted to NMVDS for Mycobacterial culture. (GAD)

13.Aug.2004

Lab: Trunk wash #04-23 submitted to NMVDS for Mycobacterial culture. (GAD)

16.Aug.2004

Lab: Trunk wash #04-24 submitted to NMVDS for Mycobacterial culture. (GAD)

30.Aug.2004

Lab: Trunk washes #04-19, #04-20 cultured negative for Mycobacterium. Smears negative. (CF)

31.Aug.2004

Lab: Trunk wash #04-21 sent 7-12-04 cultured Presumptive MOTT. Chromogenic AFB isolated - not TB - no further identification. Smear negative. (CF)

8.Sep.2004

Lab: Trunk wash #04-25 submitted to NMVDS for Mycobacterial culture. (GAD)

10.Sep.2004

Lab: Trunk wash #04-26 submitted to NMVDS for Mycobacterial culture. (GAD)

13.Sep.2004

Lab: Trunk wash #04-27 submitted to NMVDS for Mycobacterial culture. (GAD)

29.Sep.2004

Lab: Trunk wash #04-22 sent 8-11-04 cultured negative for Mycobacterium. Smear negative. (CF)

4.Oct.2004

Lab: Trunk wash #04-24 sent 8-16-04 cultured negative for Mycobacterium. Smear negative.  
Lab: Trunk wash #04-28 submitted to NMVDS for Mycobacterial culture. (CF)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Oct.2004

Lab: Trunk wash #04-23 sent 8-13-04 cultured negative for Mycobacterium. Smear negative. (CF)

6.Oct.2004

Lab: Trunk wash #04-17 sent 6-7-04 cultured negative for Mycobacterium. Smear negative.  
Lab: Trunk wash #04-29 submitted to NMVDS for Mycobacterial culture. (CF)

7.Oct.2004

Lab: Trunk wash #04-18 sent 6-8-04 cultured negative for Mycobacterium. Smear negative. (CF)

8.Oct.2004

Lab: Trunk wash #04-30 submitted to NMVDS for Mycobacterial culture. (GAD)

20.Oct.2004

Obs: Recent email correspondence with Dr. Ray Waters at NADC of USDA regarding a number of serum samples that we have provided from Irene's serum bank has provided some interesting data. First, he was able to demonstrate from a sample dated in 1998 that Irene tested positive for antibodies to TB using Western blot. This was also confirmed by Dr.Scott Larsen at UC Davis using Elisa technology. Samples submitted from the treatment period and to the present show a steadily decreasing intensity of the antigens, suggesting that treatment was successful. All of the contact animals have remained negative by all testing methods. (MJR)

26.Oct.2004

Lab: Trunk wash #04-25 submitted 9/7/04 cultured negative for Mycobacteria. Smear negative. (GAD)

2.Nov.2004

Lab: Trunk wash #04-26 sent 9-10-04 cultured negative for Mycobacterium. Smear negative. (CF)

3.Nov.2004

Lab: Trunk wash #04-27 sent 9-13-04 cultured negative for Mycobacterium. Smear negative.  
Lab: Trunk wash #04-31 submitted to NMVDS for Mycobacterial culture. (CF)

5.Nov.2004

Lab: Trunk wash #04-32 submitted to NMVDS for Mycobacterial culture. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

8.Nov.2004

Lab: Trunk wash #04-33 submitted to NMVDS for Mycobacterial culture.  
(GAD)

22.Nov.2004

Lab: Trunk wash #04-28 sent 10/4/04 cultured negative for Mycobacterium. Smear negative. (CF)

23.Nov.2004

Lab: Trunk wash #04-29 sent 10/6/04 cultured negative for Mycobacterium. Smear negative. (CF)

30.Nov.2004

Lab: Trunk wash #04-30 submitted 10/8/04 cultured negative for Mycobacteria. Smear negative. (GAD)

3.Dec.2004

Lab: Trunk wash #04-34 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.Dec.2004

Lab: Trunk wash #04-35 submitted to NMVDS for Mycobacterial culture.  
(GAD)

23.Dec.2004

Lab: Trunk wash #04-33 submitted 11/8/04 cultured negative for Mycobacteria. Smear negative. (GAD)

.....2005...

5.Jan.2005

Lab: Trunk wash #05-01 submitted to NMVDS for mycobacterial culture.  
(GAD)

7.Jan.2005

Lab: Trunk wash #05-02 submitted to NMVDS for mycobacterial culture.  
(GAD)

10.Jan.2005

Lab: Trunk wash #05-03 submitted to NMVDS for Mycobacterial culture.  
Note: Keeper says she has a small split in the septum of her trunk that is draining. (GAD)

17.Jan.2005

Lab: Trunk wash #04-31 submitted 11/03/04 cultured negative for Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

18.Jan.2005

Lab: Trunk wash #04-32 submitted 11/05/04 cultured negative for Mycobacteria. Smear negative. (GAD)

28.Jan.2005

Lab: Trunk wash #04-35 submitted 12/6/04 cultured negative for Mycobacteria. Smear negative. (GAD)

29.Jan.2005

Lab: Trunk wash #04-36 submitted 12/8 04 cultured negative for Mycobacteria. Smear negative. (GAD)

7.Feb.2005

Lab: Trunk wash #05-04 submitted to NMVDS for Mycobacterial culture. (GAD)

9.Feb.2005

Lab: Trunk wash #05-05 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Feb.2005

Lab: Trunk wash #05-06 submitted to NMVDS for Mycobacterial culture. (GAD)

28.Feb.2005

Lab: Trunk wash #04-34 submitted 12/2/04 cultured negative for Mycobacteria. Smear negative. (GAD)

1.Mar.2005

Lab: Trunk wash #05-01 submitted 1/5/05 cultured negative for Mycobacteria. Smear negative. (GAD)

4.Mar.2005

Lab: Trunk wash #05-02 submitted 1/7 05 cultured negative for Mycobacteria. Smear negative. (GAD)

5.Mar.2005

Lab: Trunk wash #05-03 submitted 1/10/05 cultured negative for Mycobacteria. Smear negative. (GAD)

7.Mar.2005

Lab: Trunk wash #05-07 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Mar.2005

CC: Elephant manager noted a toenail abscess a few days ago and did

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)  
Indian elephant  
Name: IRENE

Sex: Female  
Age: 40Y Est.

Acc. #: M98020  
Birth: 1.Jan.1967

=====

8.Mar.2005

some work on it but is off now and keepers are concerned that it seems to be getting worse.

PE: There is a 2 cm core of purulent pad tissue at the junction of the sole and the corner of toenail #4 of the right front foot, on the edge between toenail 3 and 4. At the cuticle there is a painful, fluctant swelling also between 3 and 4, this is where the keepers believe it may be more swollen.

Plan: Increase soaks to BID alternating between epsom salts and Nolvasan, elephant manager will be back in 48 hours and will coordinate treatment at that time. (MJR)

9.Mar.2005

Lab: Trunk wash #05-08 submitted to NMVDS for Mycobacterial culture.  
(GAD)

10.Mar.2005

Recheck: the fluctuant swelling at the cuticle has almost resolved and the epsom salt soaks appear to be helping considerably with drainage. Ted will continue efforts to trim out the nail and relieve pressure. (MJR)

11.Mar.2005

Lab: Trunk wash #05-09 submitted to NMVDS for Mycobacterial culture.  
(GAD)

21.Mar.2005

Lab: Trunk wash #05-04 submitted 2/7/05 cultured overgrown. Smear negative. (GAD)

4.Apr.2005

Lab: Trunk wash #05-05 sent 2-9-05 cultured negative for Mycobacterium. Smear negative. (CF)

5.Apr.2005

Lab: Trunk wash #05-10 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.Apr.2005

Lab: Trunk wash #05-11 sent to VDS for Mycobacterial culture.  
(CF)

8.Apr.2005

Ultrasound of uterus performed by Charlie Gray shows numerous suspected leiomyomas within the uterine wall, was not present when ultrasound was done so did not observe directly. The presence of these masses probably is enough to exclude her from any breeding attempts. (MJR)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

12.Apr.2005

Lab: Trunk wash #05-12 submitted to NMVDS for Mycobacterial culture.  
(GAD)

19.Apr.2005

Lab: Trunk wash #05-06 sent 2-11-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

2.May.2005

Lab: Trunk wash #05-07 sent 3-7-05 cultured negative for  
Mycobacterium. Smear negative.  
Lab: Trunk wash #05-13 submitted to NMVDS for Mycobacterial culture.  
(CF)

3.May.2005

Lab: Trunk wash #05-08 sent 3-9-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

4.May.2005

Lab: Trunk wash #05-14 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.May.2005

Lab: Trunk wash #05-15 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.May.2005

Lab: Trunk wash #05-09 sent 03-10-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

30.May.2005

Lab: Trunk wash #05-10 sent 04-04-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

31.May.2005

Lab: Trunk wash #05-11 sent 04-06-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

2.Jun.2005

Lab: Trunk wash #05-12 sent 04-08-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

6.Jun.2005

Lab: Trunk wash #05-16 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

8.Jun.2005

Lab: Trunk wash #05-17 submitted to NMVDS for Mycobacterial culture.  
(GAD)

10.Jun.2005

Lab: Trunk wash #05-18 submitted to NMVDS for Mycobacterial culture.  
(GAD)

24.Jun.2005

Lab: Trunk wash #05-14 sent 5-4-05 cultured negative for  
Mycobacterium. Smear negative. (CF)

5.Jul.2005

Lab: Trunk wash #05-13 submitted 5/2/05 cultured negative for  
Mycobacteria. Smear negative. (GAD)

6.Jul.2005

Lab: Trunk wash #05-19 submitted to NMVDS for Mycobacterial culture.  
(GAD)

7.Jul.2005

Lab: Trunk wash #05-15 submitted 5/6/05 cultured negative for  
Mycobacteria. Smear negative. (GAD)

8.Jul.2005

Lab: Trunk wash #05-20 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Jul.2005

Lab: Trunk wash #05-21 submitted to NMVDS for Mycobacterial culture.  
(GAD)

12.Jul.2005

Lab: Routine yearly fecal float performed on refrigerated individual  
sample. Results negative. (CF)

22.Jul.2005

Lab: Trunk wash #05-18 submitted 6/10/05 cultured overgrown. Smear  
negative. (GAD)

1.Aug.2005

Lab: Trunk wash #05-17 submitted 6/8/05 cultured negative for  
Mycobacteria. Smear negative. (GAD)

2.Aug.2005

Lab: Trunk wash #05-16 submitted 6/6/05 cultured negative for  
Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

ELEPHAS MAXIMUS (no subsp)  
Indian elephant  
Name: IRENE

Sex: Female  
Age: 40Y Est.

Acc. #: M98020  
Birth: 1.Jan.1967

=====

5.Aug.2005

Lab: Trunk wash #05-22 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Aug.2005

Lab: Trunk wash #05-23 submitted to NMVDS for Mycobacterial culture.  
(GAD)

10.Aug.2005

Lab: Trunk wash #05-24 submitted to NMVDS for Mycobacterial culture.  
(GAD)

21.Aug.2005

Lab: Trunk wash #05-20 submitted 7/8/05 cultured overgrown. Smear  
negative. (GAD)

22.Aug.2005

Lab: Trunk wash #05-21 submitted 7/11/05 cultured overgrown. Smear  
negative. (GAD)

7.Sep.2005

Lab: Trunk wash #05-25 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Sep.2005

Lab: Trunk wash #05-26 submitted to NMVDS for Mycobacterial culture.  
(GAD)

12.Sep.2005

Lab: Trunk wash #05-27 submitted to NMVDS for Mycobacterial culture.  
(GAD)

13.Sep.2005

CC: Keepers have reported that she has some problems with her ears.  
PE: As reported, there are large areas of reddening, dry and cracking  
of the pink areas on the inner side of the pinna. These resemble the  
appearance of the ears when she was on TB treatment and at that time  
was suspected to be photosensitivity.  
Plan: Trial course of Bag Balm topical to moisturize the skin.  
(MJR)

5.Oct.2005

Lab: Trunk wash #05-28 submitted to NMVDS for Mycobacterial culture.  
(GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

6.Oct.2005

Lab: Trunk wash #05-19 submitted 7/6/05 cultured negative for Mycobacteria. Smear negative. (GAD)

10.Oct.2005

Lab: Trunk wash #05-29 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Oct.2005

Lab: Trunk wash #05-30 submitted to NMVDS for Mycobacterial culture. (GAD)

31.Oct.2005

Lab: Trunk wash #05-23 submitted 8/8/05 cultured negative for Mycobacteria. Smear negative. (GAD)

1.Nov.2005

Lab: Trunk wash #05-24 submitted 8/10/05 cultured negative for Mycobacteria. Smear negative. (GAD)

4.Nov.2005

Lab: Trunk wash #05-31 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Nov.2005

Lab: Trunk wash #05-32 submitted to NMVDS for Mycobacterial culture. (GAD)

9.Nov.2005

Lab: Trunk wash #05-33 submitted to NMVDS for Mycobacterial culture. (GAD)

22.Nov.2005

Lab: Trunk wash #05-26 submitted 9/9/05 cultured overgrown. Smear negative. (GAD)

23.Nov.2005

Lab: Trunk wash #05-27 submitted 9/12/05 cultured negative for Mycobacteria. Smear negative. (GAD)

5.Dec.2005

Lab: Trunk wash #04-34 submitted to NMVDS for Mycobacterial culture. (GAD)

6.Dec.2005

Lab: Trunk wash #05-28 submitted 10/5/05 cultured negative for Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

7.Dec.2005

Lab: Trunk wash #05-29 submitted 10/10/05 cultured negative for Mycobacteria. Smear negative.  
Lab: Trunk wash #05-35 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Dec.2005

Lab: Trunk wash #05-30 submitted 10/11/05 cultured negative for Mycobacteria. Smear negative. (GAD)

9.Dec.2005

Lab: Trunk wash #05-36 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Dec.2005

Lab: Trunk wash #05-22 submitted 8/5/05 cultured overgrown. Smear negative. (GAD)

14.Dec.2005

Lab: Trunk wash #05-25 submitted 9/7/05 cultured Mycobacterium avium complex. Smear negative. (GAD)

.....2006....

9.Jan.2006

Lab: Trunk wash #06-01 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Jan.2006

Lab: Trunk wash #06-02 submitted to NMVDS for Mycobacterial culture. (GAD)

13.Jan.2006

Lab: Trunk wash #06-03 submitted to NMVDS for Mycobacterial culture. (GAD)

29.Jan.2006

Lab: Trunk wash #05-31 submitted 11/4/2005 cultured negative for mycobacterium. Smear negative. (LV)

30.Jan.2006

Lab: Trunk wash #05-32 submitted 11/7/2005 cultured negative for mycobacterium. Smear negative. (LV)

31.Jan.2006

Lab: Trunk wash #05-33 submitted 11/9/2005 cultured negative for mycobacterium. Smear negative. (LV)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

1.Feb.2006

Lab: Trunk wash #05-34 submitted 12/5/2005 cultured negative for mycobacterium. Smear negative. (LV)

2.Feb.2006

Lab: Trunk wash #05-35 submitted 12/7/2005 cultured negative for mycobacterium. Smear negative. (LV)

3.Feb.2006

Lab: Trunk wash #05-36 submitted 12/9/2005 cultured negative for mycobacterium. Smear negative. (LV)

6.Feb.2006

Lab: Trunk wash #06-04 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Feb.2006

Lab: Trunk wash #06-05 submitted to NMVDS for Mycobacterial culture. (GAD)

10.Feb.2006

Lab: Trunk wash #06-06 submitted to NMVDS for Mycobacterial culture. (GAD)

6.Mar.2006

Lab: Trunk wash #06-07 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Mar.2006

Lab: Trunk wash #06-08 submitted to NMVDS for Mycobacterial culture. (GAD)

10.Mar.2006

Lab: Trunk wash #06-09 submitted to NMVDS for Mycobacterial culture. (GAD)

1.Apr.2006

Lab: Trunk wash #06-01 submitted 1/9/06 cultured negative for Mycobacteria. Smear negative. (GAD)

2.Apr.2006

Lab: Trunk wash #06-02 submitted 1/11/06 cultured negative for Mycobacteria. Smear negative. (GAD)

3.Apr.2006

Lab: Trunk wash #06-03 submitted 1/13/06 cultured negative for Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

4.Apr.2006

Lab: Trunk wash #06-04 submitted 2/6/06 cultured negative for Mycobacteria. Smear negative. (GAD)

5.Apr.2006

Lab: Trunk wash #06-10 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Apr.2006

Lab: Trunk wash #06-11 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Apr.2006

Lab: Trunk wash #06-05 submitted 2/8/06 cultured negative for Mycobacteria. Smear negative. (GAD)

10.Apr.2006

Lab: Trunk wash #06-12 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Apr.2006

Lab: Trunk wash #06-06 sent 2/10/06 cultured negative for Mycobacteria. Smear negative. (GAD)

26.Apr.2006

Lab: Trunk wash #06-07 sent 3/6/06 cultured negative for Mycobacterium. Smear negative. (GAD)

27.Apr.2006

Lab: Trunk wash #06-08 sent 3/8/06 cultured negative for Mycobacterium. Smear negative. (GAD)

28.Apr.2006

Lab: Trunk wash #06-09 sent 3/10/06 cultured negative for Mycobacterium. Smear negative. (GAD)

5.May.2006

Lab: Trunk wash #06-13 submitted to NMVDS for Mycobacterial culture. (GAD)

8.May.2006

Lab: Trunk wash #06-14 submitted to NMVDS for Mycobacterial culture. (GAD)

10.May.2006

Lab: Trunk wash #06-15 submitted to NMVDS for Mycobacterial culture. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

5.Jun.2006

Lab: Trunk wash #06-10 sent 4/5/06 cultured negative for Mycobacterium. Smear negative.  
Lab: Trunk wash #06-16 submitted to NMVDS for Mycobacterial culture. (GAD)

7.Jun.2006

Lab: Trunk wash #06-17 submitted to NMVDS for Mycobacterial culture. (GAD)

9.Jun.2006

Lab: Trunk wash #06-18 submitted to NMVDS for Mycobacterial culture. (GAD)

20.Jun.2006

Lab: Trunk wash #06-11 submitted 4/8/06 cultured negative for Mycobacterium. Smear negative. (GAD)

21.Jun.2006

Lab: Trunk wash #06-12 submitted 4/10/06 cultured negative for Mycobacterium. Smear negative. (GAD)

7.Jul.2006

Lab: Trunk wash #06-19 submitted to NMVDS for Mycobacterial culture. (GAD)

11.Jul.2006

Lab: Trunk wash #06-20 submitted to NMVDS for Mycobacterial culture. (GAD)

12.Jul.2006

Lab: Trunk wash #06-21 submitted to NMVDS for Mycobacterial culture. (GAD)

14.Jul.2006

Lab: Serum samples submitted to NMVDS for routine serum Vitamin E level. (GAD)

19.Jul.2006

Weight = 3396 kg. (GAD) Weight: 3393 Kg (7480 Lb)

20.Jul.2006

Lab: Trunk wash #06-13 submitted 5/5/06 cultured negative for Mycobacterium. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

21.Jul.2006

Lab: Serum Vitamin E: 1.15 ug/ml. Within acceptable limits.  
(GAD)

22.Jul.2006

Lab: Trunk wash #06-14 submitted 5/8/06 cultured negative for  
Mycobacterium. Smear negative. (GAD)

23.Jul.2006

Lab: Trunk wash #06-15 submitted 5/10/06 cultured negative for  
Mycobacterium. Smear negative. (GAD)

24.Jul.2006

Lab: Trunk wash #06-16 submitted 6/5/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

25.Jul.2006

Lab: Trunk wash #06-17 submitted 6/8/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

7.Aug.2006

Lab: Trunk wash #06-22 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Aug.2006

Lab: Trunk wash #06-18 submitted 6/9/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

9.Aug.2006

Lab: Trunk wash #06-23 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Aug.2006

Lab: Trunk wash #06-24 submitted to NMVDS for Mycobacterial culture.  
(GAD)

28.Aug.2006

Lab: Trunk wash #06-19 submitted 7/7/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

29.Aug.2006

Lab: Trunk wash #06-20 submitted 7/11/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

30.Aug.2006

Lab: Trunk wash #06-21 submitted 7/12/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

6.Sep.2006

Lab: Trunk wash #06-25 submitted to NMVDS for Mycobacterial culture.  
(GAD)

8.Sep.2006

Lab: Trunk wash #06-26 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Sep.2006

Lab: Trunk wash #06-27 submitted to NMVDS for Mycobacterial culture.  
(GAD)

6.Oct.2006

Lab: Trunk wash #06-28 submitted to NMVDS for Mycobacterial culture.  
(GAD)

9.Oct.2006

Lab: Trunk wash #06-29 submitted to NMVDS for Mycobacterial culture.  
(GAD)

11.Oct.2006

Lab: Trunk wash #06-30 submitted to NMVDS for Mycobacterial culture.  
(GAD)

22.Oct.2006

Lab: Trunk wash #06-22 submitted 8/7/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

23.Oct.2006

Lab: Trunk wash #06-23 submitted 8/9/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

24.Oct.2006

Lab: Trunk wash #06-24 submitted 8/11/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

30.Oct.2006

Lab: Trunk wash #06-25 submitted 9/6/06 cultured negative for  
Mycobacteria. Smear negative. (GAD)

31.Oct.2006

Note: In light of recent research and consistently negative trunk  
washes, will decrease to quarterly trunk wash TB screens for Irene.  
When ELISA for TB becomes commercially available, will likely switch  
to that method for screening. (GAD)

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====

<i>ELEPHAS MAXIMUS</i> (no subsp)	Sex: Female	Acc. #: M98020
Indian elephant	Age: 40Y Est.	Birth: 1.Jan.1967
Name: IRENE		

=====

1.Nov.2006

Lab: Trunk wash #06-26 submitted 9/8/06 cultured negative for Mycobacteria. Smear negative. (GAD)

2.Nov.2006

Lab: Trunk wash #06-27 submitted 9/11/06 cultured negative for Mycobacteria. Smear negative. (GAD)

29.Nov.2006

CC: Had a blowout on the LF foot, nail 4, at the cuticle a few weeks ago, now TT says the nail has a crack.  
PE: The crack extends the full length of the nail from sole to cuticle, the blowout is adjacent to the crack.  
Advised to trim it out and shorten nail to take pressure off the nail and allow better healing. (MJR)

30.Nov.2006

Lab: Trunk wash #06-28 submitted 10/6/06 cultured negative for Mycobacteria. Smear negative. (GAD)

1.Dec.2006

Lab: Trunk wash #06-29 submitted 10/9/06 cultured negative for Mycobacterium. Smear negative. (GAD)

2.Dec.2006

Lab: Trunk wash #06-30 submitted 10/11/06 cultured negative for Mycobacterium. Smear negative. (GAD)

.....2007....

3.Jan.2007

Lab: Trunk wash #07-01 submitted to NMVDS for Mycobacterial culture. (GAD)

5.Jan.2007

Lab: Trunk wash #07-02 submitted to NMVDS for Mycobacterial culture. (GAD)

8.Jan.2007

Lab: Trunk wash #07-03 submitted to NMVDS for Mycobacterial culture. (GAD)

16.Feb.2007

CC: Keepers submitted one of the "bumps" they are seeing on Irene's ears.

Clinical Notes - Individual Specimen Report  
RIO GRANDE ZOOLOGICAL PARK

=====
ELEPHAS MAXIMUS (no subsp)
Indian elephant
Name: IRENE
=====

Sex: Female
Age: 40Y Est.

Acc. #: M98020
Birth: 1.Jan.1967
=====

16.Feb.2007

Lab: Cytology on dry crust contains only protienaceous debris.
Note: These raised, crusty areas have been occuring only on the non-pigmented areas of the inside surface of the ears, but are progressing into the non-pigmented areas and are prominent on the dorsal edges now. Picking off the exudate leaves a reddened area. Keepers exfoliate the areas using Alpha-Keri and apply sunscreen as well during baths. (GAD)

24.Feb.2007

Lab: Trunk wash #07-01 overgrew possible Nocardia. Smear negative. (GAD)

25.Feb.2007

Lab: Trunk wash #07-02 submitted 1/5/07 cultured negative for Mycobacteria. Smear negative. (GAD)

26.Feb.2007

Lab: Trunk wash #07-03 submitted 1/8/07 cultured negative for Mycobacteria. Smear negative. (GAD)

22.Mar.2007

CC: Keepers submitted two of the ear tags they have been seeing. Placed in formalin and sent to NMVDS for histopath. (GAD)

28.Mar.2007

Results of histopath on ear tags:
HISTORY -This elephant has a history of multiple raised areas on the ears (especially unpigmented areas); eventually slough off leaving a slightly reddened area that heals up.
SPECIMEN DESCRIPTION -Small, discoid, 0.8 cm diameter, yellow-tan soft tissue mass.
HISTOPATHOLOGY -The tissue sections have no normal anatomical boundaries and no surrounding normal tissue. There is no viable tissue in the specimen. There is large area of coagulative necrosis.
COMMENTS -In this case, the diagnosis can not be reached. Resubmission of new specimen is recommended.
DIAGNOSIS: 1: NO VISIBLE LESIONS (GAD)