

## ***Frontier Analysis, Ltd***

### **TECHNICAL SERVICE RESPONSE NO.: UT062**

**Subject:** Analysis of a Specimen Purported to be a Skin Fragment from a Reptilian Type Creature (Event Date: January 2, 2008)

**Date:** April 9, 2009

**Requested By:** Derrel Sims  
Saber Enterprises

**Reported By:** P. A. Budinger  
Analytical Scientist

### **Background/Objective:**

The background of this event as reported in an e-mail (3/11/2009) from Derrel Sims follows:

“At approximately 2:40 am, January 2, 2008 two Leyton, UT men (ages 23 and 32) were startled by a commotion outside their home, approximately ¼ mile south of Hill AFB. Simultaneously, both of their cell phones rang and caller ID indicated “unknown”. Both men left the house and were surprised to find two sets of footprints in the 8” deep snow. Seven were approximately 2.5 feet long, with no entry or terminal prints, having three toes resembling a lizard track. The other set of footprints (also with no entry or terminal prints) resembled deer tracks without the dew prints. The men took several photographs of the prints using their cellular phones. One of the tracks contained a small piece of what appeared to be skin.”

The object is to determine the nature of the specimen found in the track. Following is a photograph of the sample:



## **Conclusions:**

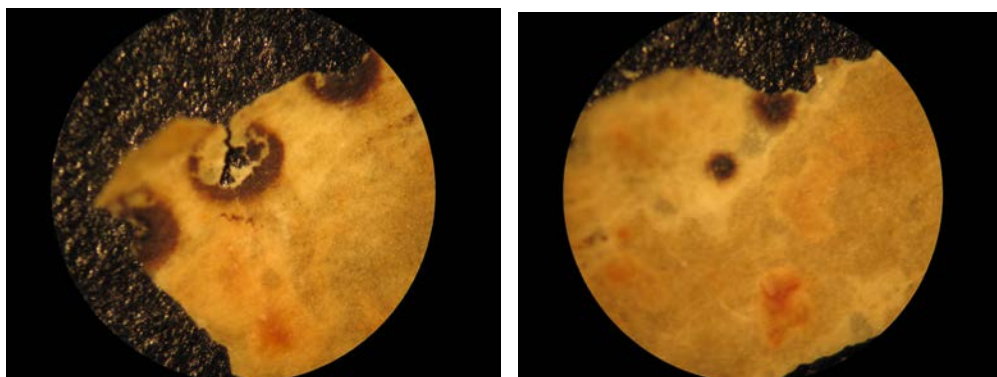
- Analysis of the specimen shows it is of plant origin. It is similar in composition to a decaying leaf, i.e. decaying vegetation. Specifically, it is composed of a major amount of natural glycerol ester, some carbohydrate, and some protein-type material. The brown spots on the specimen appear to be fungal material.
- The claim that this is from a reptilian creature is unfounded because the specimen originates from plant material, not animal. Also, cold-blooded reptilian type creatures would not be expected to be wandering around in mid-winter and in 8 inches of snow. Because reptiles are cold-blooded, they cannot regulate their body temperature. So, they would become inactive and hibernate.

**Procedure:** The sample was received on March 10, 2009. It was submitted wrapped in a plastic ziploc-type baggie, which was inserted inside a plastic container, and sealed securely with biohazard labeled tape.

Infrared spectra were obtained from the yellow areas both sides of specimen. Additionally, spectra were acquired from the brown spots on the sample. All spectra were taken on the Thermo Electron Avatar 360 spectrometer using the Smart Herrick diamond sampling accessory. Photographs were also obtained from the Leica GZ6 stereomicroscope interfaced to a Canon A520 digital camera.

## **Results:**

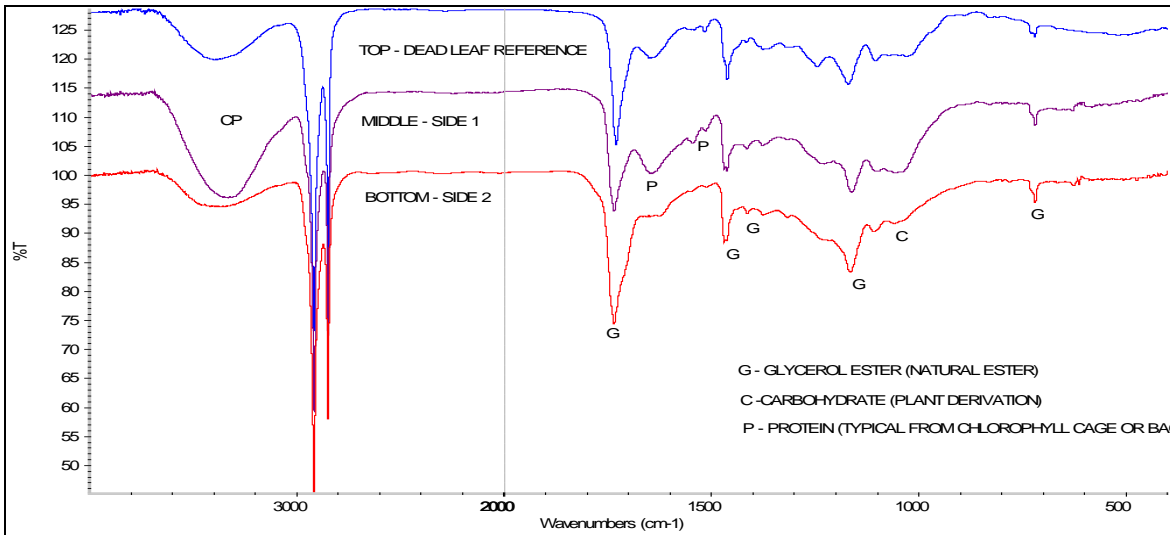
Microscope photographs show a close up of the overall yellow color of the specimen. They also show brown spots on the sample.



Infrared spectra acquired from the yellow areas of both sides of the sample show the specimen to be composed of a major amount of a natural glycerol ester, some carbohydrate, and some protein type material. It compares very closely to that of deteriorating vegetation. If this were reptilian skin, the spectrum would display primarily a protein amide structure. It does not. Following are two spectra of the specimen yellow areas along with a reference of a dead leaf for

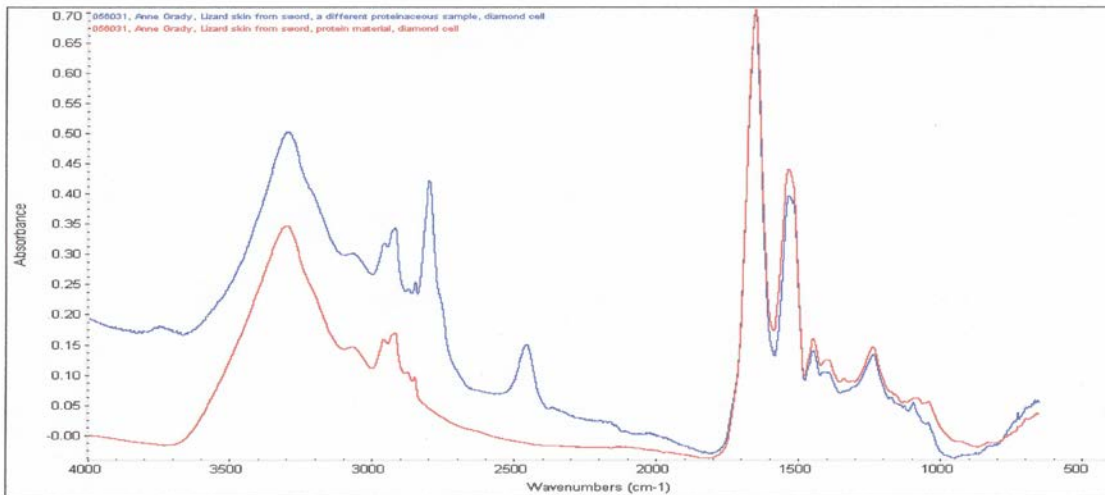
comparison. (The dead leaf was yellow and had dropped from a plant 4 or 5 days prior to the data acquisition.) The leaf reference spectrum is almost a match. Also following are two infrared reference spectra of lizard skin, which expectedly show a predominating protein amide structure. Clearly, the Utah specimen does not compare to the lizard skin.

### Infrared Spectra of Two Yellow Areas (Side 1 and side 2) and Reference of Dead Leaf



### Infrared Reference Spectra of Lizard Skin<sup>1</sup>

(Note: The scale on this reference spectrum is different than that of the above spectra. The y-scale is in Absorbance units instead of Transmission units, therefore the peaks point upwards. Also the x-scale (wavenumbers) is linear instead of the split scale above)

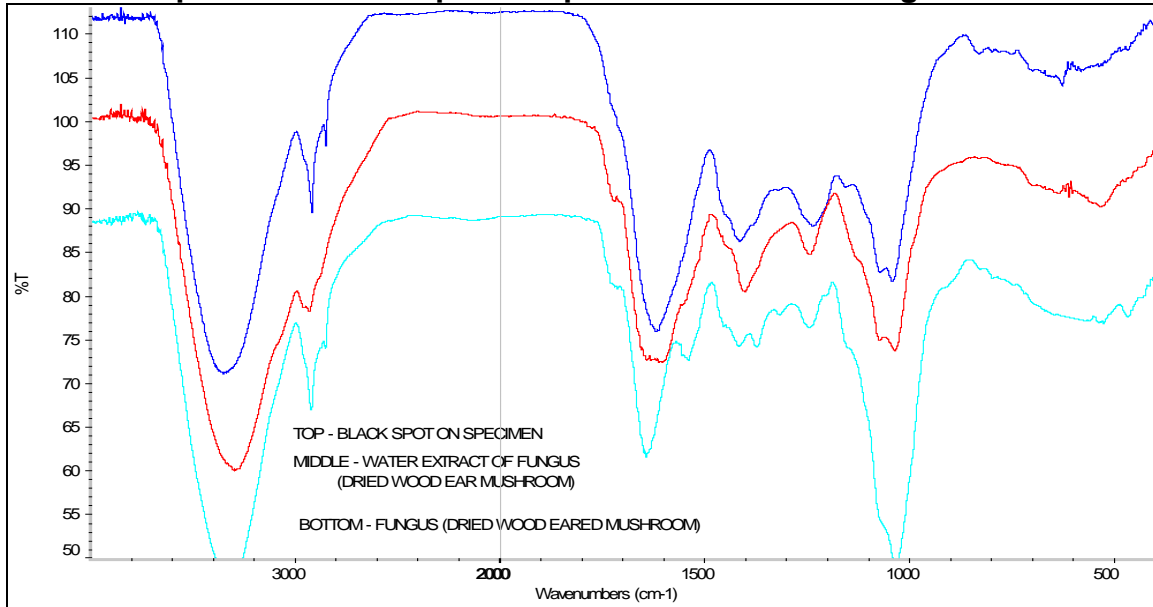


Various infrared spectra of the "spot" areas are identical to each other. They are different from the yellow area and compare closely to references of fungus. If the

<sup>1</sup> [www.ischool.utexas.edu/~anagpic/2007doc/2007ANAGPIC\\_Grady.doc](http://www.ischool.utexas.edu/~anagpic/2007doc/2007ANAGPIC_Grady.doc)

black spots had been color pigmentation the spectra would display a protein amide structure, and no differences would be detected from the yellow area of the specimen. Following is a spectrum of a spot area along with two references of fungal material for comparison.

### Infrared Spectra of Black Spot on Specimen and Two Fungus References



File: UT062

Phyllis A. Budinger