



**Biology 507 - In Lab Workshop**  
**Photosynthetic Microbes from Local Rivers**  
**& Beyond**  
**Web Template - Session Two**



National Science Foundation  
 Western Oregon University  
 Yellowstone National Park

**Name:**

**MUD ENRICHMENT TECHNIQUES**

<u>Write Description</u>	<u>Insert Picture</u>
Windogradsky At One Week	
Sulfur Bottle At One Week	
Nonsulfur Bottle At One Week	

**Discussion/Questions:**

1. Based on your Winogradsky predictions from last week, did your column grow what you thought?
2. Based on your culture bottle predictions from last week, did your column grow what you thought?

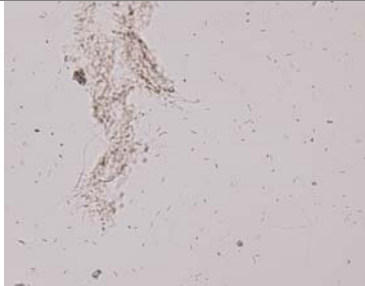
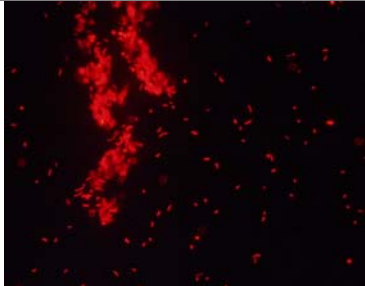
**PIGMENT ANALYSIS**

<u>Write Description</u>	<u>Insert Picture</u>
YOUR assigned sample	
Pigment Extraction Illustration	
Chromatography Illustration	
Spectrophotometry Data	



**CLASS DATA**

<u>Pigment Sample</u>	<u>Main pigment peak(s)</u>	<u>Accessory pigment peak(s)</u>
Brown Algae		
Red Algae		
Cyanobacteria		
Green Algae		
Halobacteria		
Rhodospirilla		

**Yellowstone Green Layer - Dry Data Analysis**

<u>Wavelength/Absorption</u>	<u>Light Microscopy</u>	<u>Fluorescence Microscopy</u>
768/0.153 662/0.040 473/0.141 440/0.153		

### ***Yellowstone Red Layer - Dry Data Analysis***

Wavelength/Absorption	Light Microscopy	Fluorescence Microscopy
768/0.116 667/0.037 606/0.042 476/0.327		

#### **Discussion/Questions:**

1. Based on the above data and notes, who is the predominant phototroph in the Green Layer?
2. Based on the above data and notes, who is the predominant phototroph in the Red Layer?

#### **Broad Applications:**

1. Which workshop methods or data would you find use for in your classroom and how/why?
2. Which workshop methods or data would you find impossible to apply to your classroom and why?