

NAME: _____ PERIOD: _____ DATE: _____

LAB PARTNERS: _____ LAB #7

INTERPRETING A SIMPLIFIED TOPOGRAPHIC MAP OF BEAR MOUNTAIN

INTRODUCTION

In previous lab investigations and class work you have studied how to locate positions on the earth's surface and how to construct a contour map from a three dimensional model. In this lab exercise you will interpret and analyze an actual topographic map.

OBJECTIVES

Using a topographic map of Bear Mountain you will:

1. Determine contour interval, elevations, and gradient
2. Determine direction of stream flow
3. Construct two profiles between points on the map

APPROXIMATE TIME 1-2 periods

MATERIALS

Ruler

Earth Science Reference Tables

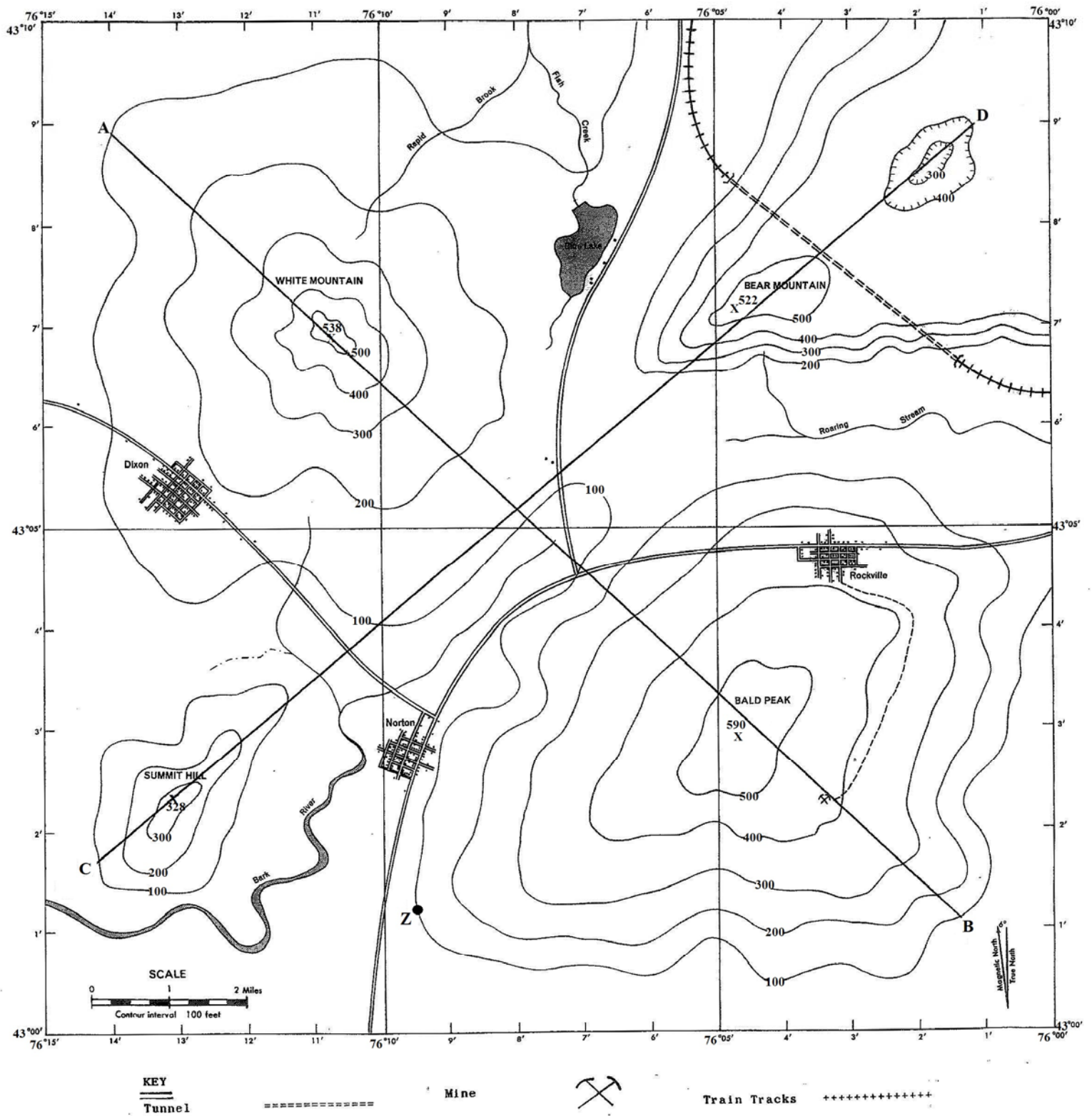
PROCEDURES

1. Answer lab questions 1-11 by referring to the attached topographic map of Bear Mountain.
2. For question 12, calculate the gradient between the two points listed. You will need the Earth Science Reference Tables and a ruler.
3. Construct a profile along lines A-B and C-D using the graph paper provided.

1. What is the contour interval of this map? _____
2. What is the highest elevation of White Mountain? _____
3. What is the symbol used for the very highest point on the mountains? _____
4. What is the direction of water flow of Rapid Brook? _____
How can you tell? _____
5. Where on the map is the gradient steepest? _____
6. What is the elevation of the mine? _____
7. How deep is the depression, which is, located northeast of Bear Mountain Peak? _____
8. Using the scale find the length of the railroad tunnel through Bear Mountain. _____
9. What is the elevation of the center of the town of Dixon? _____
10. Give the latitude and the longitude in degrees and minutes of White Mountain Peak.

11. Intermittent streams are represented by the symbol $\cdot\text{---}\cdot\text{---}\cdot\text{---}\cdot\text{---}\cdot\text{---}$ an intermittent stream is one in which the water does not flow all year long, but perhaps only during melting of snow and ice or during very heavy rainfall. Is there an intermittent stream on this topographic map? If so, describe where.

12. Calculate the gradient between the top of Bald Peak to the dot next to Point Z. Show the formula, your calculations and be sure to include the correct units in your answer.



PART 2

Profiling (A-B)

On the grid on the next page draw the profile for line A-B.

You must include all the plot points then connect them with a line.

Profiling (C-D)

On the grid on the next page draw the profile for line C-D.

You must include all the plot points then connect them with a line.

