Land Cover

Measure Tree Height on a Slope: Two-Triangle with Eyes Higher or Lower than Tree Base Technique Data Sheet *(Page 1 of 2)*

School Name: _____ Site: _____

Measurement Time: Year _____ Month _____ Day ____ Hour (UT) _____

Recorded By: _____

Clinometer Data										
Tree Species 1 Name _____ ❑ Dominant ❑ Co-Dominant	**1st Clinometer Reading (˚)**	**TAN of 1st Clinometer Reading**	**2nd Clinometer Reading (˚)**	**TAN of 2nd Clinometer Reading**	**COS of 2nd Clinometer Reading**	**Distance to Tree (m)**	**Baseline Calculation (m)**	**Tree Height (m)**	**Average Tree Height (m)**	**Average Lat. and Long. of Each Tree (GPS protocol)**
Specimen 1										Lat.: Long.:
Specimen 2										Lat.: Long.:
Specimen 3										Lat.: Long.:
Specimen 4										Lat.: Long.:
Specimen 5										Lat.: Long.:

Baseline = (Distance to the Tree) x (COS of 2nd Clinometer Reading)

Tree Height *(Eyes Higher than Tree Base)* = [(TAN of 1st Clinometer Reading) x (Baseline)] + [(TAN of 2nd Clinometer Reading) x (Baseline)]

Tree Height *(Eyes Lower than Tree Base)* = [(TAN of 1st Clinometer Reading) x (Baseline)] - [(TAN of 2nd Clinometer Reading) x (Baseline)]

Note: Measure each tree three times and average the three height values. If all three values are within 1 meter of the average, report the values. If not, repeat the measurements until they are within 1 meter of their average, and then report these values.

Land Cover

Measure Tree Height on a Slope: Two-Triangle with Eyes Higher or Lower than Tree Base Technique Data Sheet *(Page 2 of 2)*

School Name: _____ Site: _____

Measurement Time: Year _____ Month _____ Day ____ Hour (UT) _____

Recorded By: _____

Clinometer Data										
Tree Species 2 Name _____ ❑ Dominant ❑ Co-Dominant	**1st Clinometer Reading (˚)**	**TAN of 1st Clinometer Reading**	**2nd Clinometer Reading (˚)**	**TAN of 2nd Clinometer Reading**	**COS of 2nd Clinometer Reading**	**Distance to Tree (m)**	**Baseline Calculation (m)**	**Tree Height (m)**	**Average Tree Height (m)**	**Average Lat. and Long. of Each Tree (GPS protocol)**
Specimen 1										**Lat.:** **Long.:**
Specimen 2										**Lat.:** **Long.:**
Specimen 3										**Lat.:** **Long.:**
Specimen 4										**Lat.:** **Long.:**
Specimen 5										**Lat.:** **Long.:**

Baseline = (Distance to the Tree) x (COS of 2nd Clinometer Reading)

Tree Height *(Eyes Higher than Tree Base)* = [(TAN of 1st Clinometer Reading) x (Baseline)] + [(TAN of 2nd Clinometer Reading) x (Baseline)]

Tree Height *(Eyes Lower than Tree Base)* = [(TAN of 1st Clinometer Reading) x (Baseline)] - [(TAN of 2nd Clinometer Reading) x (Baseline)]

Note: Measure each tree three times and average the three height values. If all three values are within 1 meter of the average, report the values. If not, repeat the measurements until they are within 1 meter of their average, and then report these values.