CRM 230 – Introduction to Crime Scene Investigation

Module 3: Casting Footwear & Tire Impressions - Lab

To begin, locate or create a footprint or tire track in a dirt area. If you are creating your own impression, you may wish to moisten the soil prior to making your impression. Once you have located (or created) your impression, spray the surface with a generic hair spray to keep the impression from cracking at the addition of the casting material. Any brand hair spray will do; however, you should use an aerosol (instead of a pump action or spritzer nozzle) since it will leave a fine mist as opposed to droplets which may alter the impression.

1. Place the contents of the casting material that came with your CSI Kit into a one-gallon plastic re-sealable baggie. Add water into the plastic bag with the casting material for mixing purposes.

2. Follow the instructions in the CSI Kit regarding mixing. The consistency of the mix should resemble that of pancake batter. **Be careful not to add too much water – follow the instructions accompanying the package.** This should be a sufficient amount to make a casting approximately 12 inches long by the width of the tire or shoe print and with a thickness of approximately one-half inch. It is suggested that you use the entire bag to cover an area about the size of a shoe box and a thickness of one-half inch.

3. Once you have completed the mixing process, gently pour the thick viscous substance onto the impression that you have located or created.

4. Using the blade of a common butter knife gently pat the top of the wet casting material, ensuring that the substance adequately fills the impression. While it may seem like a good idea to “pat” down the material into all the crevices, the general rule is to let it “flow” into the impression instead of pouring it down onto the impression.

5. After gently extruding the mixture into the impression, let it set for approximately 30 minutes or as indicated on the casting material package.

6. Before lifting, tap on the top of the impression and listen for a sound that will indicate that it is solid and dry. If it does not sound as if you are tapping on solid stone, continue to let it dry.

7. Once the casting is dry, take the edges of your butter knife and gently lift the casting from the impression. It is best to pry all edges loose before attempting to lift the cast.

8. Using a soft brush (such as a paint brush), remove the dirt and debris from the bottom of the cast until the impression that was just lifted begins to appear. Carefully complete cleaning all debris from your casting. This should reveal a useable casting of the footwear or tire tread impression of sufficient nature to allow an expert to make a comparison against a known shoe or tire.

Post an “observation report” of your findings and experience to the appropriate Assignment box **no later than Sunday, 11:59 PM EST/EDT.**