General operating Instructions
The New Keene 3 Stage Sluice box. “Sluice technology of the future”

Stage #2
Secondary recovery of coarse gold

Primary classifier screen
Secondary classifier screen

Adjustable flow control separator sheet and carpet should be pulled out as far as possible to:

Stage #3
Allows fine material to enter lower section & protects it from high velocity water, providing super fine recovery of gold and black sand

Stage #1
Recovers 90% of all visible gold in the primary recovery riffles

Three Stage Sluice Instructions
The 3 stage sluice box requires more water than a normal sluice box to operate correctly. We recommend that the engine be run at least 2/3rds. throttle or higher. If the engine operates too slow the riffles may become overloaded and a loss of fine gold will occur. The Adjustable flow control separator plate should be pulled out as far as possible to allow maximum flow into the 3rd stage riffle area. If the Third Stage Riffle appears to be running too clean you can move the separator plate inward decreasing the water flow allowing more material to accumulate into the riffle section.

Side view of 3 stage sluice box

Sluice Box Tilt Adjustment
Move the sluice Box forward to increase or backward to decrease the angle. The proper sluice box angle adjustment can affect the recovery of values. If the sluice box does not have enough angle the sluice box will "load-up" causing the riffle openings to fill with unwanted excess material. Too much angle will cause the material to flow too fast, resulting in loss of valuable material, evidenced by the riffles running too clean. If the sluice box is working properly, approximately one third of the riffle should be visible after pumping clean water for a minute or so. A loss of values can also occur if the ratio of solid content to water is too heavy. The solid content should not exceed 1 part material to two parts water. A normal sluice box tilt is approximately 3/4" inch to the running foot.

Example: A four foot sluice box should have approximately 3 inches of tilt.

First Stage:
A. Position the suction tip away from any material so it is sucking only water. Operate the engine at approximately 2/3rds. throttle speed for several minutes to wash out any excess gravel that has accumulated in the riffle section.
B. Turn the engine off or lower the engine speed to a slow idle. Remove primary and secondary classifier screens and riffle. Remove the carpets and aluminum plate and wash the concentrates into a bucket or tub. Note: the primary riffle or 1st stage can be cleaned separately without cleaning the entire sluice box. We recommend that the primary riffle be cleaned only once or twice a day. The balance of the sluice should be cleaned every few days, depending on the type of conditions encountered.

2nd Stage:
A. Unlatch the top 2nd stage riffle and pivot back towards the jet flare. Roll the carpet up and wash out in a bucket or tub.

3rd. Stage:
A. Lift the adjustable flow control separator sheet up on it side and rinse the concentrates into the lower third stage sluice.
B. Remove the 3rd stage lower riffle and screen. Splash water on the riffle and screen to rinse any concentrates onto the carpet. Roll up the carpet and wash the concentrates.

Note: many of the above clean up procedures can also be done with the engine idling, however it will require a second person to hold a tub at the end of the sluice.