**WHAT IS CLAIMED IS:**

1. A retrievable safety valve insert, comprising:

an outer housing including an outer housing central bore extending axially through the outer housing, the outer housing central bore operable to convey subsurface production fluids there through;

a lock mandrel having a lock mandrel profile extending radially outward from the outer housing, the lock mandrel including a sliding wedge, the lock mandrel profile movable between a radially retracted state and a radially expanded state configured to engage with an end sub profile of an end sub as the sliding wedge slides to engage the lock mandrel profile; and

a safety valve insert closure mechanism coupled to the outer housing proximate a downhole end of the outer housing central bore, the safety valve insert closure mechanism movable between an outer housing closed state preventing the subsurface production fluids from flowing there through and an outer housing open state allowing the subsurface production fluids to flow there through.

2. The retrievable safety valve insert as recited in Claim 1, wherein the safety valve insert closure mechanism is a flapper valve configured to engage with a safety valve insert flapper seat positioned in the outer housing.

3. The retrievable safety valve insert as recited in Claim 1, further including one or more seals positioned about the outer housing between the lock mandrel profile and the safety valve insert closure mechanism.

4. The retrievable safety valve insert as recited in Claim 1, further including a deployment profile located along an inner surface of the lock mandrel, the deployment profile operable to deploy the retrievable safety valve insert within the end sub, as well as move the lock mandrel profile from the radially retracted state to the radially expanded state to engage the end sub profile of the end sub.

5. A safety valve, comprising:

a valve body defining a valve body central bore extending through the valve body, the valve body central bore operable to convey subsurface production fluids there through;

a valve body closure mechanism coupled to the valve body proximate a downhole end of the valve body central bore, the valve body closure mechanism movable between a valve housing closed state preventing the subsurface production fluids from flowing there through and a valve housing open state allowing the subsurface production fluids to flow there through;

a bore flow management actuator disposed in the valve body central bore, the bore flow management actuator configured to slide to move the valve body closure mechanism between a valve body closed state and a valve body open state;

an end sub coupled to a downhole end of the valve body, the end sub including an end sub profile along an inner surface thereof; and

a retrievable safety valve insert coupled to the end sub profile of the end sub, the retrievable safety valve insert including:

an outer housing including an outer housing central bore extending axially through the outer housing, the outer housing central bore operable to convey the subsurface production fluids there through;

a lock mandrel having a lock mandrel profile extending radially outward from the outer housing, the lock mandrel including a sliding wedge, the lock mandrel profile movable between a radially retracted state and a radially expanded state engaged with the end sub profile of the end sub as the sliding wedge slides to engage the lock mandrel profile; and

a safety valve insert closure mechanism coupled to the outer housing proximate a downhole end of the outer housing central bore, the safety valve insert closure mechanism movable between an outer housing closed state preventing the subsurface production fluids from flowing there through and an outer housing open state allowing the subsurface production fluids to flow there through.

6. The safety valve as recited in Claim 5, wherein the bore flow management actuator has a bore flow management actuator profile located along an inner surface thereof, and further including a secondary opening prong including a secondary opening prong profile located within

the valve body central bore, the secondary opening prong profile coupled with the bore flow management actuator profile.

7. The safety valve as recited in Claim 6, wherein the secondary opening prong is configured to move with the bore flow management actuator to:

hold the valve body closure mechanism in the valve body open state and allow the safety valve insert closure mechanism to remain in the outer housing closed state when the bore flow management actuator is in an uphole state; or

hold the valve body closure mechanism in the valve body open state and hold the safety valve insert closure mechanism in the outer housing open state when the bore flow management actuator is in a downhole state.

8. The safety valve as recited in Claim 5, wherein a hydraulic actuator is coupled to the bore flow management actuator to move the bore flow management actuator from the valve body closed state and the valve body open state.

9. The safety valve as recited in Claim 5, wherein an electric actuator is coupled to the bore flow management actuator to move the bore flow management actuator from the valve body closed state and the valve body open state.

10. The safety valve as recited in Claim 5, further including one or more springs coupled to the bore flow management actuator, the one or more springs configured to return the bore flow management actuator to the valve body closed state when an actuator coupled to the bore flow management actuator loses power.

11. The safety valve as recited in Claim 5, wherein the safety valve insert closure mechanism is a safety valve insert flapper valve configured to engage with a safety valve insert flapper seat positioned in the outer housing.

12. The safety valve as recited in Claim 5, further including one or more seals positioned about the outer housing between the lock mandrel profile and the safety valve insert closure mechanism.

13. The safety valve as recited in Claim 5, further including a deployment profile located along an inner surface of the lock mandrel, the deployment profile operable to deploy the retrievable safety valve insert within the end sub, as well as move the lock mandrel profile from the radially retracted state to the radially expanded state to engage the end sub profile of the end sub.

14. A well system, comprising:

a wellbore extending through one or more subterranean formations;

production tubing disposed in the wellbore; and

a safety valve disposed in line with the production tubing, the safety valve including:

a valve body defining a valve body central bore extending through the valve body, the valve body central bore operable to convey subsurface production fluids there through;

a valve body closure mechanism coupled to the valve body proximate a downhole end of the valve body central bore, the valve body closure mechanism movable between a valve housing closed state preventing the subsurface production fluids from flowing there through and a valve housing open state allowing the subsurface production fluids to flow there through;

a bore flow management actuator disposed in the valve body central bore, the bore flow management actuator configured to slide to move the valve body closure mechanism between a valve body closed state and a valve body open state;

an end sub coupled to a downhole end of the valve body, the end sub including an end sub profile along an inner surface thereof; and

a retrievable safety valve insert coupled to the end sub profile of the end sub, the retrievable safety valve insert including:

an outer housing including an outer housing central bore extending axially through the outer housing, the outer housing central bore operable to convey the subsurface production fluids there through;

a lock mandrel having a lock mandrel profile extending radially outward from the outer housing, the lock mandrel including a sliding wedge, the lock mandrel profile movable between a radially retracted state and a radially expanded state engaged with the end sub profile of the end sub as the sliding wedge slides to engage the lock mandrel profile; and

a safety valve insert closure mechanism coupled to the outer housing proximate a downhole end of the outer housing central bore, the safety valve insert closure mechanism movable between an outer housing closed state preventing the subsurface production fluids from flowing there through and an outer housing open state allowing the subsurface production fluids to flow there through.

15. The well system as recited in Claim 14, wherein the bore flow management actuator has a bore flow management actuator profile located along an inner surface thereof, and further including a secondary opening prong including a secondary opening prong profile located within the valve body central bore, the secondary opening prong profile coupled with the bore flow management actuator profile.

16. The well system as recited in Claim 15, wherein the secondary opening prong is configured to move with the bore flow management actuator to:

hold the valve body closure mechanism in the valve body open state and allow the safety valve insert closure mechanism to remain in the outer housing closed state when the bore flow management actuator is in an uphole state; or

hold the valve body closure mechanism in the valve body open state and hold the safety valve insert closure mechanism in the outer housing open state when the bore flow management actuator is in a downhole state.

17. The well system as recited in Claim 14, wherein the safety valve insert closure mechanism is a safety valve insert flapper valve configured to engage with a safety valve insert flapper seat positioned in the outer housing.

18. The well system as recited in Claim 14, further including one or more seals positioned about the outer housing between the lock mandrel profile and the safety valve insert closure mechanism.

19. The well system as recited in Claim 14, further including a deployment profile located along an inner surface of the lock mandrel, the deployment profile operable to deploy the retrievable safety valve insert within the end sub, as well as move the lock mandrel profile from the radially retracted state to the radially expanded state to engage the end sub profile of the end sub.

20. A method for assembling and operating a safety valve, comprising:

positioning a safety valve within a wellbore extending through one or more subterranean formations, the safety valve disposed inline with production tubing located within the wellbore, the safety valve including:

a valve body defining a valve body central bore extending through the valve body, the valve body central bore operable to convey subsurface production fluids there through;

a valve body closure mechanism coupled to the valve body proximate a downhole end of the valve body central bore, the valve body closure mechanism movable between a valve housing closed state preventing the subsurface production fluids from flowing there through and a valve housing open state allowing the subsurface production fluids to flow there through;

a bore flow management actuator disposed in the valve body central bore, the bore flow management actuator configured to slide to move the valve body closure mechanism between a valve body closed state and a valve body open state; and

an end sub coupled to a downhole end of the valve body, the end sub including an end sub profile along an inner surface thereof;

actuating the bore flow management actuator to slide the valve body closure mechanism from the valve body closed state to the valve body open state; and

positioning a retrievable safety valve insert withing the wellbore below the valve body closure mechanism after actuating the bore flow management actuator, the retrievable safety valve insert coupled to the end sub profile of the end sub, the retrievable safety valve insert including:

an outer housing including an outer housing central bore extending axially through the outer housing, the outer housing central bore operable to convey the subsurface production fluids there through;

a lock mandrel having a lock mandrel profile extending radially outward from the outer housing, the lock mandrel including a sliding wedge, the lock mandrel profile movable between a radially retracted state and a radially expanded state engaged with the end sub profile of the end sub as the sliding wedge slides to engage the lock mandrel profile; and

a safety valve insert closure mechanism coupled to the outer housing proximate a downhole end of the outer housing central bore, the safety valve insert closure mechanism movable between an outer housing closed state preventing the subsurface production fluids from flowing there through and an outer housing open state allowing the subsurface production fluids to flow there through.

21. The method as recited in Claim 20, wherein positioning the retrievable safety valve insert includes coupling the lock mandrel profile with the end sub profile of the end sub.

22. The method as recited in Claim 21, further including coupling a secondary opening prong with the bore flow management actuator after positioning the retrievable safety valve insert withing the wellbore.

23. The method as recited in Claim 22, wherein the bore flow management actuator has a bore flow management actuator profile located along an inner surface thereof and the secondary opening prong includes a secondary opening prong profile located along an outer surface thereof, and further wherein coupling the secondary opening prong with the bore flow management

actuator includes coupling the secondary opening prong profile with the bore flow management actuator profile.

24. The method as recited in Claim 22, wherein coupling the secondary opening prong with the bore flow management actuator occurs after allowing the bore flow management actuator to return to the valve body closed state.

25. The method as recited in Claim 24, wherein the secondary opening prong is configured to move with the bore flow management actuator to:

hold the valve body closure mechanism in the valve body open state and allow the safety valve insert closure mechanism to remain in the outer housing closed state when the bore flow management actuator is in an uphole state; or

hold the valve body closure mechanism in the valve body open state and hold the safety valve insert closure mechanism in the outer housing open state when the bore flow management actuator is in a downhole state.

26. The method as recited in Claim 24, further including re-actuating the bore flow management actuator after coupling the secondary opening prong with the bore flow management actuator, the secondary opening prong moving to a downhole state to hold the valve body closure mechanism in the valve body open state and hold the safety valve insert closure mechanism in the outer housing open state.

27. The method as recited in Claim 26, wherein the retrievable safety valve insert is a first retrievable safety valve insert, and further including removing the first retrievable safety valve insert from the wellbore and then positioning a second retrievable safety valve insert withing the wellbore below the valve body closure mechanism.