

CLAIMS

What is claimed is:

1. A method, comprising:
 - positioning a completion assembly in a wellbore penetrating a subterranean formation, the completion assembly providing a fracturing assembly;
 - conveying a frac plug through the completion assembly;
 - detecting a wireless signal provided by the frac plug with a sensor included in the fracturing assembly;
 - actuating a sliding sleeve of the fracturing assembly based on detection of the wireless signal and thereby moving the sliding sleeve to expose one or more flow ports;
 - setting the frac plug in the wellbore downhole from the fracturing assembly;
 - conveying a wellbore projectile through the completion assembly;
 - receiving the wellbore projectile with the frac plug, and thereby sealing the wellbore at the frac plug; and
 - injecting a fluid under pressure into the subterranean formation via the one or more flow ports.
2. The method of claim 1, wherein actuating the sliding sleeve comprises:
 - registering a count in the fracturing assembly when the wireless signal is detected;
 - comparing the registered count with a count stored in the fracturing assembly; and
 - moving the sliding sleeve to expose one or more flow ports when the registered count and the stored count are same.
3. The method of claim 1, wherein the fracturing assembly includes a timer programmed with a predetermined time period, and wherein actuating the sliding sleeve comprises:
 - triggering operation of the timer upon detection of the wireless signal; and
 - actuating the sliding sleeve upon expiration of the predetermined time period.

4. The method of claim 1, wherein injecting the fluid under pressure into the subterranean formation further comprises injecting the fluid immediately after setting the frac plug.
5. The method of claim 1, wherein the wireless signal comprises a digital code, the completion assembly provides at least two fracturing assemblies, and the method further comprises:
- detecting the digital code provided by the frac plug with the at least two fracturing assemblies;
 - comparing the digital code detected with the at least two fracturing assemblies with a digital code stored in a corresponding fracturing assembly of the at least two fracturing assemblies;
 - actuating the sliding sleeves of the at least two fracturing assemblies and thereby expose one or more flow ports when the detected digital code and the stored digital code are the same;
 - setting the frac plug in the wellbore downhole from the at least two fracturing assemblies; and
 - injecting fluid under pressure into the subterranean formation via the one or more flow ports.
6. The method of claim 5, wherein actuating the sliding sleeves further comprises moving the sliding sleeves simultaneously to expose the one or more flow ports.
7. The method of claim 5, wherein actuating the sliding sleeves further comprises moving the sliding sleeves at different times to expose the one or more flow ports.
8. The method of claim 1, further comprising transmitting a confirmation signal with the fracturing assembly to indicate receipt of the wireless signal from the frac plug.
9. The method of claim 1, further comprising drilling out the frac plug after one or more wellbore operations are completed.

10. The method of claim 1, wherein the frac plug is made of a degradable material, the method further comprising allowing the frac plug to degrade following one or more wellbore operations.

11. The method of claim 1, wherein the wireless signal is one of a magnetic signal, an electromagnetic signal, a temperature signal, and an acoustic signal.

12. A method, comprising:

- positioning a completion assembly in a wellbore penetrating a subterranean formation, the completion assembly providing a plurality of fracturing assemblies;

- conveying a frac plug through the completion assembly;

- detecting a digital code provided by the frac plug with a sensor included in each fracturing assembly of the plurality of fracturing assemblies;

- comparing the detected digital code with a digital code stored in each corresponding fracturing assembly;

- actuating a sliding sleeve of at least one fracturing assembly of the plurality of fracturing assemblies and thereby moving the sliding sleeve to expose one or more flow ports when the detected digital code and the stored digital code are same;

- setting the frac plug in the wellbore downhole from the at least one fracturing assembly;

- conveying a wellbore projectile through the completion assembly;

- receiving the wellbore projectile with the frac plug, and thereby sealing the wellbore at the frac plug; and

- injecting a fluid under pressure into the subterranean formation via the one or more flow ports.

13. The method of claim 12, wherein the completion assembly defines at least one production interval in the wellbore, and at least two fracturing assemblies of the plurality of fracturing assemblies are positioned in the at least one production interval and the method further comprises actuating the sliding sleeves of the at least two fracturing assemblies simultaneously.

14. The method of claim 12, wherein the completion assembly defines at least one production interval in the wellbore, and at least two fracturing assemblies of the plurality of fracturing assemblies are positioned in the at least one production interval and the method further comprises actuating the sliding sleeves of the at least two fracturing assemblies at different times.

15. The method of claim 12, wherein transmitting a digital code comprises transmitting a digital code using at least one of an RFID device and an NFC device.

16. The method of claim 12, wherein injecting the fluid under pressure into the subterranean formation further comprises injecting the fluid immediately after setting the frac plug.

17. A system, comprising:

- a completion assembly positioned in a wellbore penetrating a subterranean formation;

- a fracturing assembly provided by the completion assembly, the fracturing assembly comprising:

- a sliding sleeve that is actuated to move to an open position based on a wireless signal detected in the wellbore;

- a sensor that detects the wireless signal;

- a counter that registers a count when the wireless signal is detected; and

- an electronics module that compares the registered count with a count stored in the fracturing assembly;

- a frac plug that communicates the wireless signal and is secured in the wellbore downhole from the fracturing assembly; and

- a wellbore projectile receivable by the frac plug to seal the wellbore at the frac plug and thereby isolate portions of the wellbore downhole from the frac plug.

18. The system of claim 17, wherein the sliding sleeve is actuated to move to the open position when the registered count and the stored count are same.

19. The system of claim 17, further comprising a timer programmed with a predetermined time period, wherein an operation of the timer is triggered upon detection of the wireless signal and the sliding sleeve is actuated upon expiration of the predetermined time period.

20. The system of claim 17, further comprising two or more fracturing assemblies, wherein the sliding sleeves of the two or more fracturing assemblies are actuated simultaneously.

21. The system of claim 17, further comprising two or more fracturing assemblies, wherein the sliding sleeves of the two or more fracturing assemblies are actuated at different times.