CLAIMS

1. A method of flushing a hydraulic downhole control line, the method comprising the steps of:

closing a surface controlled sub-surface safety valve, wherein the hydraulic downhole control line runs from a hydraulic source to the surface controlled sub-surface safety valve of an underwater hydrocarbon extraction facility;

opening a fluid isolation valve to enable purging of a hydraulic fluid, wherein the fluid isolation valve is operated by a hydraulic line which is independent of the hydraulic downhole control line;

storing the purged hydraulic fluid in a service line; and

opening a first directional control valve;

wherein the hydraulic downhole control line comprises the first directional control valve and a purge line that runs from the hydraulic downhole control line downstream of the first directional control valve to the service line, and

wherein the purge line comprises the fluid isolation valve controlled via a second directional control valve disposed in the hydraulic line.

2. The method according to claim 1, wherein the fluid isolation valve is operated by a hydraulic line which is independent of the hydraulic downhole control line.

3. The method according to claim 2, wherein the hydraulic fluid in the hydraulic line is of relatively lower pressure than the hydraulic fluid in the hydraulic downhole control line.

4. The method according to claim 1, wherein the service line is an annulus service line.

5. The method according to claim 1, wherein the service line vents into a production line of the underwater hydrocarbon extraction facility.

6. The method according to claim 1, wherein the fluid isolation valve comprises an internal orifice, wherein a diameter of the internal orifice is between 0.5 inch and 2 inches.

7. The method according to claim 5, further comprising:

closing the fluid isolation valve; and

applying pressure to the service line to push the purged hydraulic fluid into the production line after closing the fluid isolation valve.

8. A hydraulic flushing system comprising:

a hydraulic downhole control line that runs from a hydraulic source to a surface controlled sub-surface safety valve of an underwater hydrocarbon extraction facility, the hydraulic downhole control line having a first directional control valve therein,

a purge line coupled to the hydraulic downhole control line downstream of the directional control valve and comprising a fluid isolation valve to enable purging of a hydraulic fluid, wherein the fluid isolation valve is operated by a hydraulic line which is independent of the hydraulic downhole control line; and

a second directional control valve coupled to the fluid isolation valve to control operation of the fluid isolation valve; and

a service line coupled to the purge line via the fluid isolation valve to store the purged hydraulic fluid when the fluid isolation valve is open, and to supply the purged hydraulic fluid to a production line of the underwater hydrocarbon extraction facility when the fluid isolation valve is closed.

9. The hydraulic flushing system according to claim 8, wherein the hydraulic fluid in the hydraulic line is of relatively lower pressure than the hydraulic fluid in the hydraulic downhole control line.

10. The hydraulic flushing system according to claim 8, wherein the service line is an annulus service line.

11. The hydraulic flushing system according to claim 8, wherein the fluid isolation valve comprises an internal orifice, wherein a diameter of the internal orifice is between 0.5 inch and 2 inches.