Claims

1. A flow access apparatus for a flow system in communication with a subsea well of a subsea oil and gas production installation, the flow access apparatus comprising:
a body;
a plurality of connectors configured to connect the apparatus to the flow system; and
a flow access interface for connecting the apparatus to a subsea process apparatus;
wherein the flow access interface provides a single connection point and/or landing point for the subsea process apparatus;
wherein the body defines a plurality of flow paths, and each flow path fluidly connects one of the plurality of connectors to the flow access interface to provide an intervention path from a connected subsea process apparatus to the flow system in use;
wherein the flow access apparatus is configured to be connected to the flow system between a flow line connector for a jumper flow line, and a jumper flow line of the flow system;
wherein a first connector of the plurality of connectors is configured to be connected to the flow line connector;
and wherein a second connector of the plurality of connectors is configured to connect the flow access apparatus to the jumper flow line.

2. The apparatus according to claim 1, wherein the flow line connector is located at a subsea tree, and wherein the jumper flowline is a downstream jumper flow line.

3. The apparatus according to claim 1, wherein the first connector of the plurality of connectors is configured to be connected to the flow line connector for the jumper flow line at a location selected from the group consisting of: a subsea collection manifold system; subsea Pipe Line End Manifold (PLEM); a subsea Pipe Line End Termination (PLET); and a subsea Flow Line End Termination (FLET), and the second connector of the plurality of connectors is configured to be connected downstream of the jumper flow line.

4. The apparatus according to any preceding claim, wherein the flow access interface comprises a plurality of flow access openings in a unitary connector, and wherein

each of the plurality of flow access openings corresponds to a respective flow path through the apparatus.

5. The apparatus according to claim 4, wherein the unitary connector comprises a unitary face or plate with the plurality of flow access openings formed therein.

6. The apparatus according to any preceding claim, wherein the body of the flow access apparatus comprises a pair of flow paths, and the apparatus is a dual bore apparatus.

7. The apparatus according to any preceding claim, wherein the body of the flow access apparatus comprises a plurality of flow paths greater than two, and wherein the flow paths are configured to connect multiple subsea wells to the subsea process apparatus in use.

8. A subsea oil and gas production installation comprising:
a subsea well and a subsea flow system in communication with the subsea well, the subsea flow system comprising a jumper flowline;
and the flow access apparatus according to any of claims 1 to 7;
wherein a first connector of the plurality of connectors of the flow access apparatus is connected to a flow line connector for the jumper flow line of the flow system;
and wherein a second connector of the plurality of connectors of the flow access apparatus is connected to the jumper flow line.

9. The installation according to claim 8, wherein the flow line connector is located at a subsea tree, and wherein the jumper flowline is a downstream jumper flow line.

10. The installation according to claim 8, wherein the first connector of the plurality of connectors is connected to the flow line connector for the jumper flow line at a location selected from the group consisting of: a subsea collection manifold system; subsea Pipe Line End Manifold (PLEM); a subsea Pipe Line End Termination (PLET); and a subsea Flow Line End Termination (FLET), and the second connector of the plurality of connectors is connected downstream of the jumper flow line.

11. The installation according to any of claims 8 to 10, further comprising a subsea process apparatus connected to the flow access interface of the flow access apparatus.

12. The installation according to claim 11, wherein the subsea process apparatus is a fluid intervention apparatus, the fluid intervention apparatus configured to perform at least one function selected from the group comprising fluid sampling, fluid diversion, fluid recovery, fluid injection, fluid circulation, fluid measurement and/or fluid metering, and the flow access interface of the flow access apparatus is configured to be connected to the fluid intervention apparatus.

13. The installation according to any of claims 8 to 12, wherein a first of the flow paths of the flow access apparatus is connected between a production bore of a first subsea well and a subsea process apparatus in use, and a second of the flow paths is connected between the subsea process apparatus and a production flow line of the first subsea well.

14. A method of performing a subsea intervention operation, the method comprising:
providing a subsea well and a subsea flow system in communication with the well, the subsea flow system comprising a jumper flowline;
providing a flow access apparatus on the subsea flow system, the flow access apparatus comprising;
a body; a plurality of connectors comprising a first and a second connector connecting the apparatus between a flow line connector for the jumper flow line of the flow system and the jumper flow line, and a flow access interface for connecting the apparatus to a subsea process apparatus;
wherein the flow access interface provides a single connection point and/or landing point for the subsea process apparatus; and
wherein the body defines a plurality of flow paths, and each flow path fluidly connects the first connector and the second connector to the flow access interface;
providing the subsea process apparatus in use on the flow access interface; and
accessing the subsea flow system via an intervention path formed through one of the flow paths defined by the body to the first or the second connectors of the plurality of connectors.

15. The method according to claim 14, wherein the method comprises performing at least one of fluid sampling, fluid diversion, fluid recovery, fluid injection, fluid circulation, fluid measurement and/or fluid metering.

16. The method according to claim 14 or claim 15, wherein the method comprises performing a well scale squeeze operation.