CLAIMS

1. A method of determining a location of an influx into a target wellbore, the method comprising:

measuring microseismic activity in a relief wellbore, thereby detecting at least one microseismic event in an earth formation penetrated by the relief wellbore; and

determining ~~a~~ the location of ~~an~~ the influx into ~~a~~ the target wellbore, based on the detected at least one microseismic event ~~detecting~~ .

wherein the at least one microseismic event is produced in response to at least the influx into the target wellbore.

~~2. The method of claim 1, wherein the microseismic event is produced in response to the influx into the target wellbore.~~

~~3~~2. The method of claim 1, wherein the measuring is performed with at least one microseismic sensor positioned in the relief wellbore.

~~4~~3. The method of claim ~~3~~2, wherein the microseismic sensor comprises a geophone.

~~5~~4. The method of any one of the preceding claims ~~1~~, wherein the measuring comprises detecting optical scattering in an optical waveguide positioned in the relief wellbore.

~~6~~5. The method of claim ~~5~~4, wherein the optical waveguide is positioned in a drill string.

~~7~~6. The method of any one of the preceding claims ~~1~~, further comprising establishing fluid communication between the relief and target wellbores after ~~the~~ determining the location of the influx.

~~8~~7. The method of any one of the preceding claims ~~1~~, wherein the location of the influx is at an open hole portion of the target wellbore.

~~9~~8. A microseismic ranging system for use with a subterranean well to determine a location of an influx into a target wellbore, the microseismic ranging system comprising:

at least one microseismic sensor positioned in a relief wellbore that penetrates an earth formation, wherein the microseismic sensor detects at least one microseismic event in the

earth formation, the microseismic event being caused by ~~an~~ the influx into ~~a~~ the target wellbore; and

a processor configured to determine the location of the influx into the target wellbore based on the detected at least one microseismic event.

~~10~~9. The system of claim ~~9~~8, wherein the at least one microseismic sensor comprises a geophone.

~~11~~10. The system of claim ~~9~~8, wherein the at least one microseismic sensor comprises an optical waveguide.

11. The system of claim 10, wherein the optical waveguide is positioned within a drill string.

12. The system of claim 10 or 11, further comprising an optical interrogator that measures scattering in the optical waveguide.

13. The system of any one of claims ~~9~~8 to 12, wherein the influx is at an open hole portion of the target wellbore.

~~14. The system of claim 9, wherein the optical waveguide is positioned in a drill string.~~

~~15~~14. A method of determining a location of an influx into a target wellbore, the method comprising:

providing an optical waveguide in a relief wellbore,

measuring optical scattering in ~~an~~ the optical waveguide ~~positioned in a relief wellbore~~, thereby detecting at least one microseismic event in an earth formation penetrated by the relief wellbore; and

determining ~~a~~the location of ~~an~~the influx into ~~a~~the target wellbore, based on the detected at least one microseismic event, ~~detecting~~

wherein the at least one microseismic event is produced in response to at least the influx into the target wellbore.

~~16. The method of claim 15, wherein the microseismic event is produced in response to the influx into the target wellbore.~~

~~17~~15. The method of claim ~~15~~14, wherein the at least one microseismic event is caused by a change in stress distribution in the formation.

~~18~~16. The method of claim ~~15~~14 or 15, wherein the microseismic event is caused by a change in reservoir volume in the formation.

~~19~~17. The method of any one of claim~~s~~ ~~15~~14 to 16, further comprising establishing fluid communication between the relief and target wellbores after ~~the~~ determining the location of the influx.

~~20~~18. The method of any one of claim~~s~~ ~~15~~14 to 17, wherein the location of the influx is at an open hole portion of the target wellbore.