CLAIMS

1. A shale shaker for separating solids from solids laden drilling fluid, the shale shaker comprising a base ~~(D)~~, a basket ~~(100)~~ isolated from the base ~~(D)~~, the basket ~~(100)~~ comprising a scalping deck ~~(111)~~, an upper deck ~~(112)~~ and a lower deck ~~(113)~~, the upper deck ~~(112)~~ having a feed end and a solids discharge end, a trough ~~(151)~~ arranged in the basket ~~(100)~~ at said discharge end of said upper deck ~~(112)~~ and a movable diverter plate ~~(152)~~ for facilitating flow of solids discharged from the discharge end of the upper deck into said trough ~~(151)~~.

2. A shale shaker as claimed in Claim 1, further comprising a flexible duct ~~(155,155a)~~ leading from said trough ~~(151)~~ into a sump arranged beneath the basket ~~(100)~~ for collecting screened drilling fluid.

3. A shale shaker as claimed in Claim 1 or 2, further comprising a moveable closure plate ~~(150)~~ for inhibiting solids discharged from the discharge end of the upper deck ~~(112)~~ into said trough ~~(151)~~.

4. A shale shaker as claimed in Claim 3, wherein said closure plate ~~(150)~~ is removable from the basket ~~(100)~~.

5. A shale shaker as claimed in Claim 3, wherein said diverter plate ~~(150)~~ is removable from the basket ~~(100)~~.

6. A method for separating solids laden drilling fluid with a shale shaker, the shale shaker comprising a base ~~(D)~~, a basket ~~(100)~~ isolated from the base ~~(D)~~, the basket ~~(100)~~ comprising a scalping deck ~~(111)~~ having a scalping screen ~~(115)~~, an upper deck ~~(112)~~ having a screen assembly ~~(122a,122b)~~ and a lower deck ~~(113)~~ having a fine screen assembly ~~(125a,125b)~~, the upper deck ~~(112)~~ having a feed end and a solids discharge end, a trough ~~(151)~~ arranged in the basket ~~(100)~~ at said discharge end of said upper deck ~~(112)~~ and a movable diverter plate ~~(151)~~ the method comprising the steps of flowing solids laden drilling mud on to the scalping screen ~~(115)~~ large solids passing over said scalping screen ~~(115)~~ and solids laden drilling fluid passing through the scalping deck ~~(111)~~ to said screen assembly ~~(122a,122b)~~ of said upper screen deck ~~(112)~~, sized solids passing over said screen assembly ~~(122a,122b)~~ into said trough ~~(151)~~ guided by said diverter plate ~~(151)~~.

7. A method in accordance with claim 6, further comprising the step of replacing the diverter plate ~~(150)~~ with a closure plate ~~(152)~~ to inhibit solids from passing into said trough ~~(151)~~.

8. A method in accordance with claim 6, further comprising the step of flowing the sized solids from said trough ~~(151)~~ into a sump under said basket ~~(100)~~, said sump also collecting screened drilling fluid screened by said fine mesh screen ~~(125a,125b)~~ of said lower screen deck ~~(113)~~.

9. A method in accordance with Claim 8, wherein flow of the sized solids through the trough ~~(151)~~ into the sump is facilitated by a jet of drilling fluid.