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Att: Bob Helber R&R Energies

Subject- Sulphurdale, Beaver Utah.

After completed work was gone over by myself and one other consultant, I have come to the following conclusions. 1- Taking bottom hole pressure and temperature information before and after flow period , I believe the wells probable maximum flow rate would be somewhere between twenty eight and thirty two barrels per minute.

2- Thermal incline (the ability of the well bore to heat up.) indicates that it might be posible to obtain above flow rates if artificial lift were used at a depth of 3500 feet. One problem that could be encounterd is the posibility of steam flash. This could cut flow rates at this depth. If you will note the gradient, (pressure per square inch per foot of heighth) between 3000 feet to 4000 feet and 4000 feet to 4400 feet indicates that if bottom hole pressure is relieved to much from this area flash could occur.

One way to get away from this problem is to try artificial lift at a deeper depth.

3- There is some skin damage, (imediate well bore damage) but it is very slight, and should give very little if any problems.
4- No well life or reservoir information can be given because of lack of pressure history information.

In conclusion I believe that the Sulphur dale well will deliver the 1000 gallons per minute without any problems.

The above rates do not take into account friction, or insulation of surface equipment.

Gary D'Foster

