I want you to notice how many 1887 dates are here.

- 322.00 CFS Bessemer 05-01-87
- 116.00 CFS Oxford 02-26-87
- 97.00 CFS Catlin 11-14-87
- 597.19 CFS Ft. Lyon 03-01-87
- 283.50 CFS Amity 02-21-87

1415+ CFS in year of 1987.

1. Arkansas is live stream because of return flows of applied water.

2. The use and reuse of the Arkansas River expands the diversibility.

3. A canal company is totally dependent on the appropriation date for their use of water.

4. The river is to remain whole as of "The time of the taking of their decree."

5. This means the return flows shall be undiminished from the date of their appropriation.

6. So when there is a change of use of water, the effects are all up and down the river.

7. When you consider water banking of water, many decrees are involved (not just applicants). Could only be done in times of excess supplies.

8. When you talk of interrupted supplies, still involves the return flow pattern. Priority system and return flows come into play.

9. Now I know water is a property right. The change of use of water does affect the interlocking decree system and canal systems.

10. The courts have insisted that the protection of senior water rights be upheld.

11. So lawyers have come up with consumptive use of the decree as a measuring stick.

12. Location of the water rights is very important.
13. A big shift of water, by a canal company's headgate, changes the complexion of their ability to divert water.

14. A decree is only good at its point of diversion.

15. A junior canal may divert water coming down the river. Just as long as the senior canal below has it's water.

16. The return flows from applied water go to make up many a senior decree. All waters are coming from or going to the river.

17. Thus a canal must live with what it has done with it's water supply in the past.

18. Going in and lining canals completely changes return flows.


20. The use by towns or cities of ground water has to be augmented to protect senior rights.

21. When a portion of a canal's water is sold it involves the total canal system.

22. Each stockholder in a mutual ditch company is to be protected. The canal company and the stockholder.

23. By-Laws of canal companies spell out that the Board of Directors must keep canal free from any encroachment to the Canal or its stockholders.

24. When water is diverted at a canal company's headgate the water runs thru a parshall flume and is measured.

25. Each stockholder's water is measured from the canal below each headgate. Each shareholder is entitled to their share of water in canal.

26. All canals have transportation losses that occur in running water down a canal.

27. Seep and evaporation are big factors since Pueblo Reservoir is an on-stream storage.

28. If part of the stockholders sell their water it involves all the stockholders not just the seller and the whole river system.

29. A mutual canal company uses water in common. The stockholder opens and closes his headgate.
30. If a shareholder chooses not to use his water the water belongs to the ditch for others to use in their proportionate share.

31. The expense to a canal company just to protect what they have is growing by leaps and bounds. So maybe all angles should be considered. When a seller's lawyer gets involved the first thing they do is hire an engineer at the client's expense. Computer runs based on assumption many times.

32. Tis my opinion the engineer knows who is paying him and many have never packed a (Mexican dragline irrigation shovel).

33. Water on the Arkansas River is run on a daily basis even hourly.

34. There is no such thing as averages only looking backwards.

35. Actually water is run on demand. Floods create havoc and is an over supply is used up in times of shortage when the demand exceeds the supply.

36. Big water years take care of themselves. Short water years create the problems.

37. Water is to be used beneficially. I sometimes think Hell is stretched out of the term beneficial.

38. Big water years simply go down the stream. When storages are full that's it.

39. The river and storages can live 2 or 3 years off of floods or large supplies.

40. Pan evaporation is about 7 vertical feet of the exposed area or 7 A.F. per each acre of water surface.
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