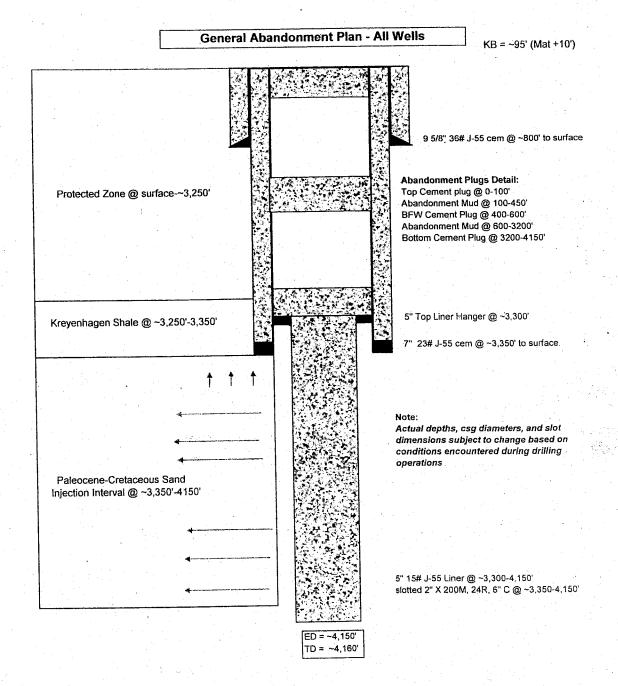
## Hilmar Cheese Company: Proposed Injection Well Schematic



## HILMAR CHEESE COMPANY ABANDONMENT PROCEDURE FOR CLASS I INJECTION WELLS

Note: Notify EPA at least 30 days before scheduled abandonment. EPA to approve final abandonment procedure and witness abandonment work.

- 1. MIRU workover rig, pump, portable tank and 140 joints of 2 3/8" work string. Fill tank with fresh water. Remove wellhead, unland tbg, install & function test BOPE.
- 2. POOH and lay down 5" tubing and seal assembly. Pick up and RIH with 2 3/8" work string to ED @ ~4,150' (EPA to witness cleanout tag).
- 3. Circulate hole clean (hole volume ~146 bbls). Pull tbg tail 10' off bottom to ~4,140'.
- 4. MIRU cementers. Lay a cement plug from 4,150' to 3,200' (at least 100' above liner top) as follows:
  - a. Pump 5 bbls fresh water preflush at 3 BPM.
  - b. Pump 20 bbls class "G" neat cement at 3 BPM.
  - c. Displace cement with 13 bbls water.
- 5. Slowly pull tbg to 3,100'. Reverse circulate hole clean, SDFN.
- 6. RIH, tag TOC (EPA to witness). If cement found below 3,200', consult engineering and prepare to bail or pump additional cement to bring TOC above 3,200'.
- 7. Circulate 102 bbls EPA-approved abandonment mud down tbg to fill csg to 600'. Slowly pull tbg tail to 600'.
- 8. MIRU cementers. Lay a cement plug from 600' to 400' across BFW @ 500' as follows:
  - a. Pump 5 bbls fresh water preflush at 3 BPM.
  - b. Pump 8 bbls class "G" neat cement at 3 BPM.
  - c. Displace cement with 1.5 bbls water.
- 9. Slowly pull tbg to 300', reverse hole clean, POOH & SDFN.
- 10. Tag TOC in AM with tbg. Consult engineering and pump additional cement to bring TOC to at least 400' if necessary. Circulate ~16 bbls EPA-approved mud down tbg to fill well.
- 11. Pull the tail to 100' and circulate ~4.0 bbls cement down the to fill csg with cement from 100' to surfaced.
- 12. Cut and retrieve 7" csg from 5' below surface.
- 13. RIH with 2 3/8" tbg to 100' and circulate ~4.0 bbls cement down tbg to fill csg with cement from 100' to surface. POOH, RDMO workover rig.
- 14. Remove cellar. Surface pour cement in all exposed annuli. Weld cap on well & install abandonment marker.