

Presented by Andy Cheung
on ~~the~~ Dec 8, 2008 at the
meeting in Village Hall
Meeting Room.

Taylor's Llama Company

Slide

Pump Test

11/17/2008 to 11/25/2008

THE SPECIES

1. *Amphispiza bilineata*

2. *Amphispiza bilineata*

3. *Amphispiza bilineata*

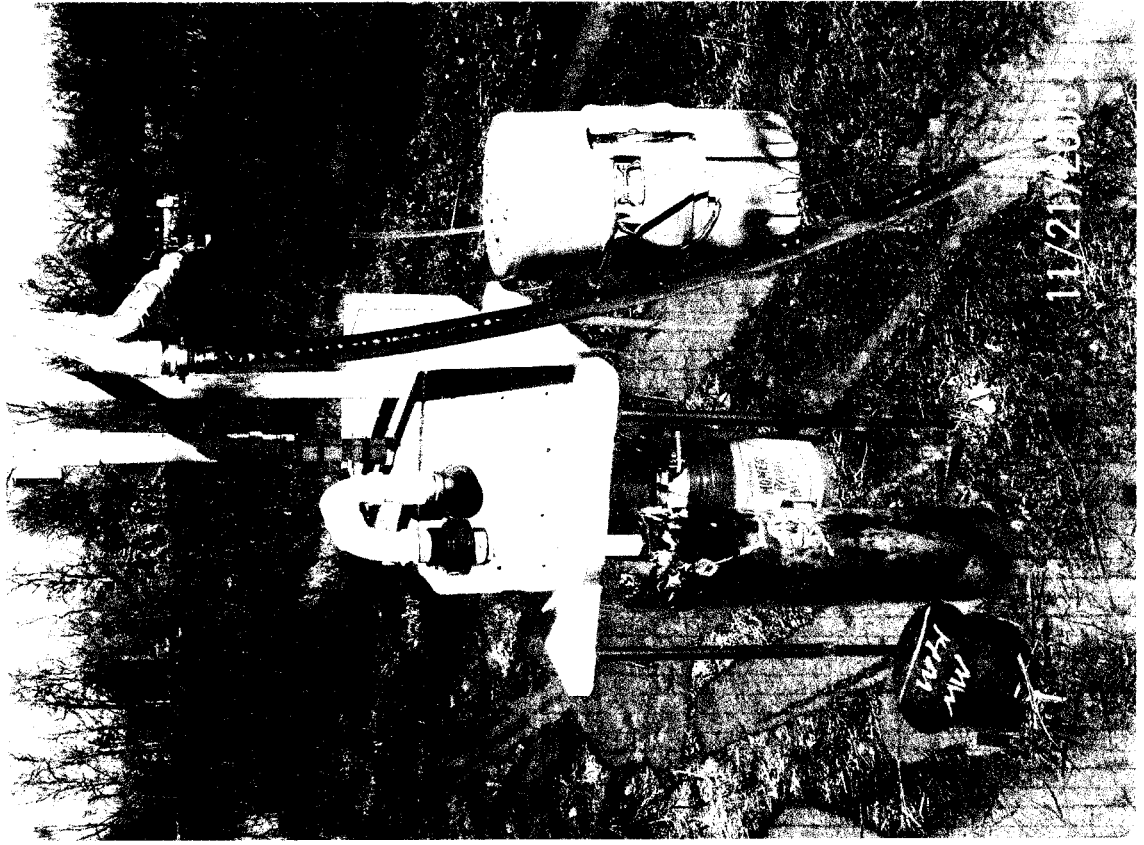
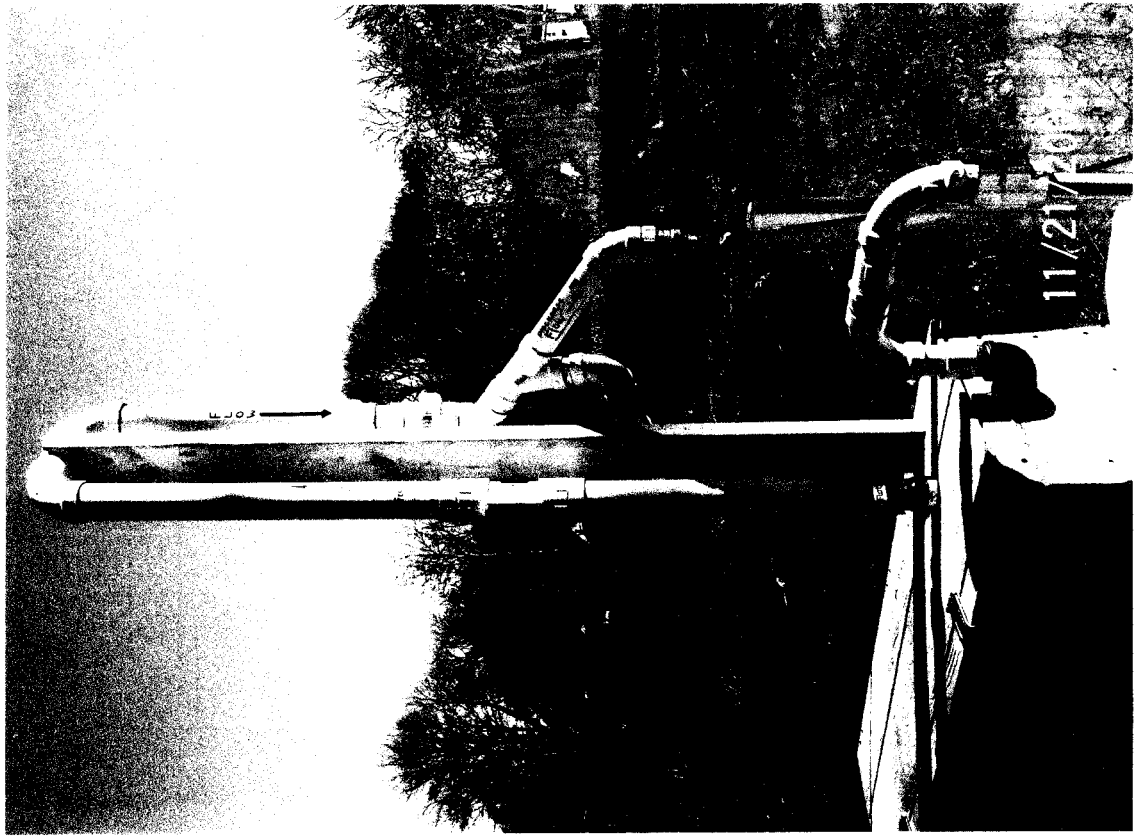
4. *Amphispiza bilineata*

5. *Amphispiza bilineata*

6. *Amphispiza bilineata*

7. *Amphispiza bilineata*

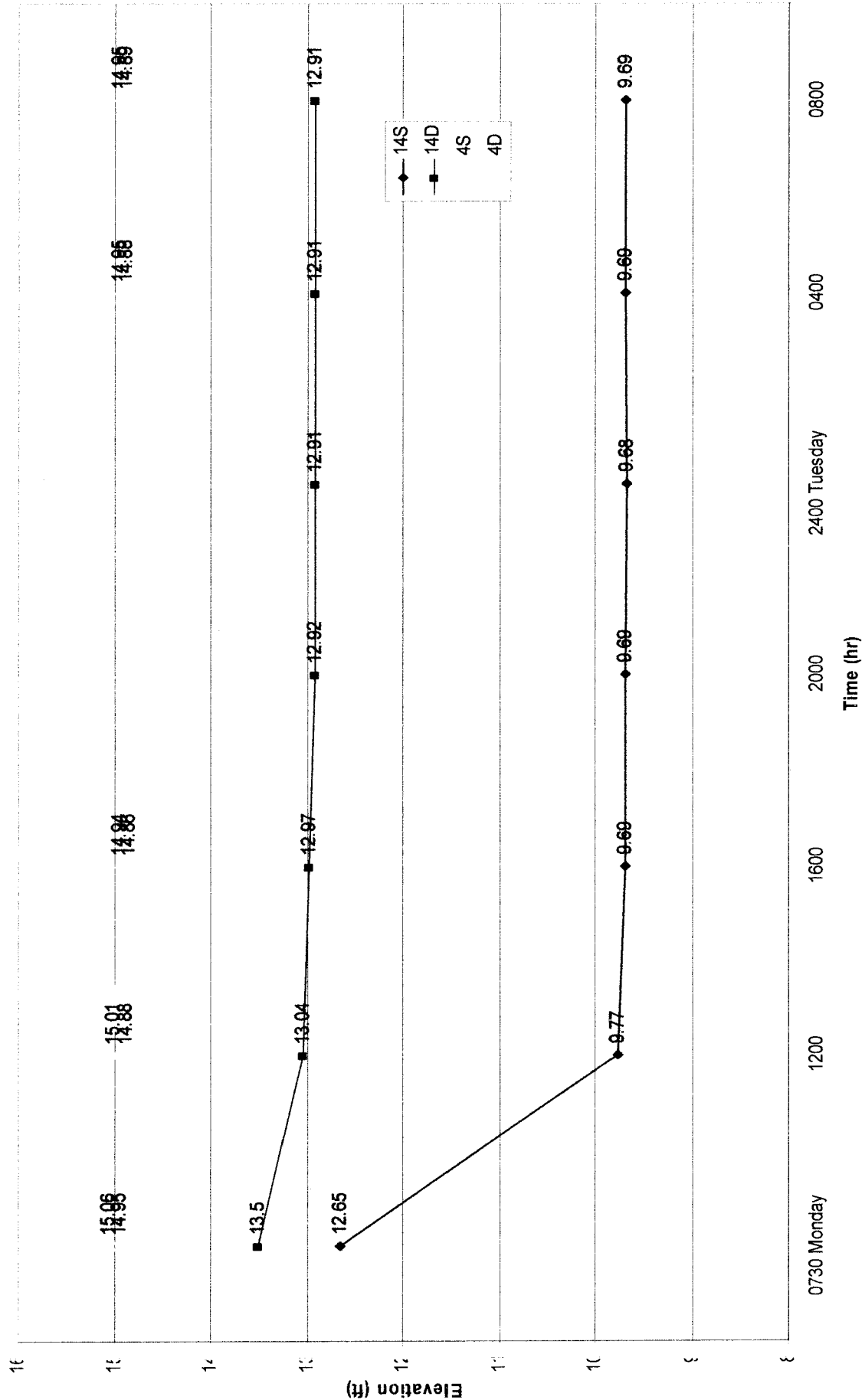
Appendix



Results

- Pump flow rate approximately 35 gpm
- Total of 107,000 gallons pumped into sewer
- Steady state at pumping location reached after 4 hrs of pumping I.e. water levels dropped in response to pumping until they stabilized at a flow gradient where-by water flowed in as fast as we could pump out.

Water Elevations of 4S, 4D, 14S, and 14D over 24 hour Period

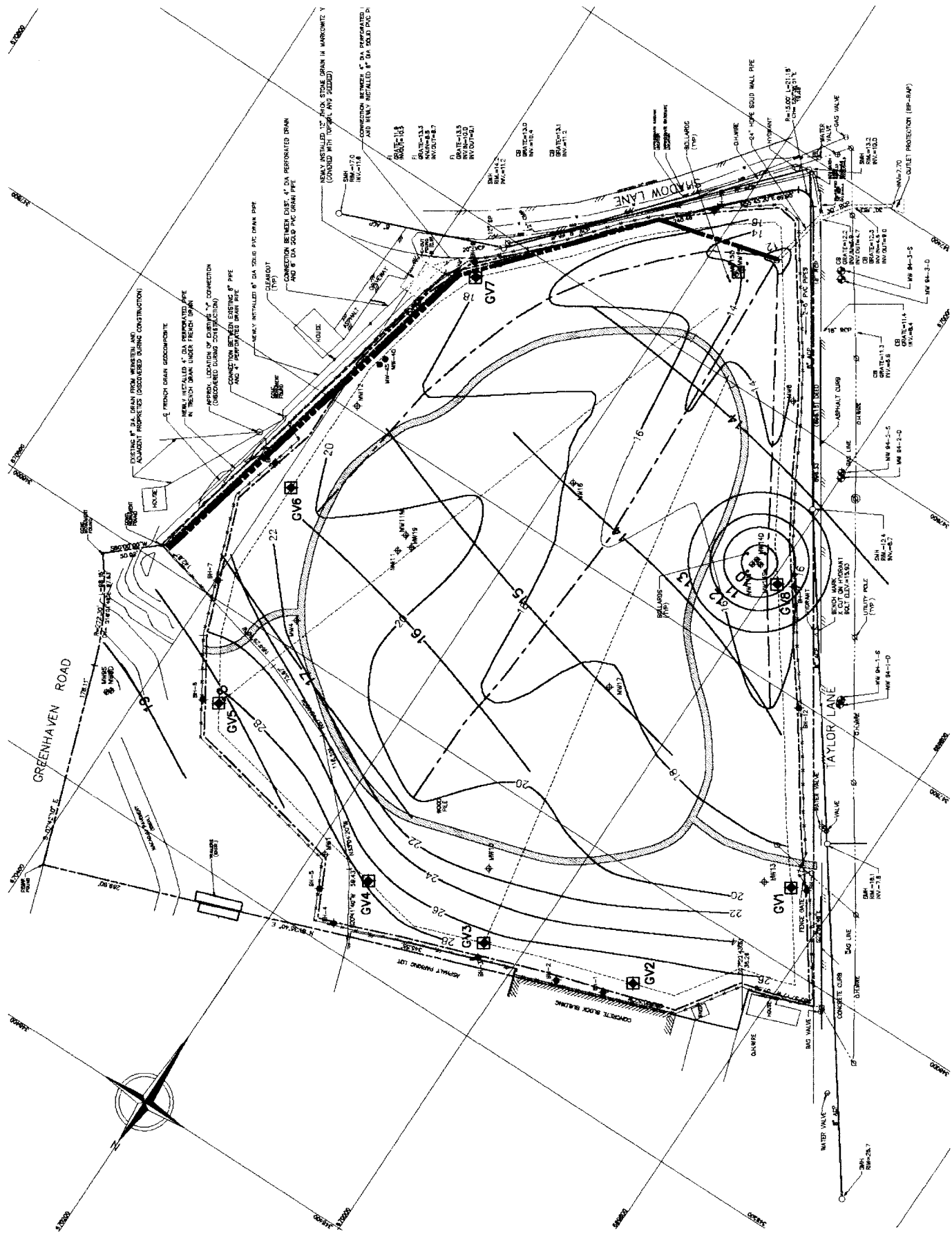


Conclusions

- There is a large available supply of water in the landfill and flowing into the landfill.
- Water levels at 4S and 4D drop only 0.1 feet in response to the pump. This is not significant since the water elevation needs to drop to EL. 12 feet (basement elevations) to be effective.
- Groundwater flows exhibit upward gradient flow.
- Typically, upward gradient flows difficult to dewater.
- Pumping/dewatering from within landfill to solve leachate intrusion into residences is not a practical solution.

Recommendations

- Re-visit Interceptor drain design between landfill and residences.
- Capture flows from landfill before migrating to residences.
- Flow can be captured either North of Landfill where groundwater elevation is at its highest or along the residences before it enters into basements.



1. Title: Sanitary Sewerage System
2. Date: 10/1/88
3. Drawn by: J. Smith
4. Checked by: M. Jones
5. Approved by: R. Brown
6. Scale: As Shown
7. Notes: See Notes on Sheet 1 of 2
8. Revision: 1.0
9. Project: 100-100-100
10. Sheet: 1 of 2

Other Considerations

- The landfill appears to be located at the lower end of an aquifer. The plan below presumes this to be the Beaver Brook aquifer however it may have been classified by another name.
- Frequently, valleys such as the Beaver Brook Valley have an aquifer associated with the stream channel, both along and adjacent to stream.
- The aquifer appears to split up near Rye High School, with the majority of the flow traveling to the east and down under / through the landfill , and then discharging into Otter Creek.
- While this scenario is not confirmed, the copious amounts of water apparently in the landfill would indicate this possibility.

