

## Early, Marti (DEC)

---

**From:** Early, Marti (DEC)  
**Sent:** Thursday, March 04, 2010 3:10 PM  
**To:** Undisclosed recipients  
**Subject:** Sulfolane update #10, sulfolane investigation

Dear concerned citizen,

The investigation continues in areas where sulfolane may affect private water wells. Flint Hills' contractor, Shannon and Wilson, has now completed initial contact with everyone in the primary areas of concern for sulfolane and sampled 184 properties. Their staff is continuing to try to complete all private well testing by going back to homes where owners have not been home. They hope to complete all sampling of wells in the plume by mid-March.

The plume area is determined by examining test results from private and monitoring wells and noting the locations of samples which showed no detections of sulfolane. Flint Hills will continue to sample the monitoring wells in order to confirm that the plume is not moving. Questions and answers added to DEC's website last week go into more detail on the plume and why it's unlikely to be growing or moving. See [www.dec.state.ak.us/spar/csp/sites/npole-ga.htm](http://www.dec.state.ak.us/spar/csp/sites/npole-ga.htm)

The following question and answer has been added to the DEC web site's summary of the sulfolane issue at the refinery:

### **Q. How will the plume of sulfolane eventually go away and the groundwater become clean?**

**A.** Groundwater cleanup is very time-consuming and difficult. Flint Hills is completing a complete evaluation of treatment options for both the dissolved groundwater contamination and the underground free-phase gasoline. Until that is complete, DEC has asked Flint Hills to focus on enhancing their current treatment system on the refinery, which removes fuel and contaminated water through four pumping wells. The oil is separated from the water, and then the contaminated water goes through an "air stripper," that removes the contamination from the water with air. This effort is a good way to clean the groundwater by reducing the source of the sulfolane. Once the source is removed, concentrations in groundwater away from the source will lessen over time through dilution and other natural processes.

Active treatment of sulfolane dissolved in the groundwater at low concentrations, like those found far away from the source, is generally very difficult because the effort to reach diffuse contamination and effectively treat it is technically challenging. The current treatment system with four wells processes approximately 260-280 gallons per minute of oil/water mixture. Upgrades to the remediation system are being designed and may include a combination of more pumping units and faster processing. Flint Hills' contractor, Barr Engineering, is researching the most effective methods to improve the system. These upgrades will take place as soon as is practical and no later than this summer.

DEC continues to oversee Flint Hills' work to remediate the groundwater and plans which affect the area's public water systems. We are also looking at the possibility of sulfolane contamination from other historic gasoline spills.

If you have questions about DEC's work on this issue, please write or call me or those listed.

Sincerely,

Marti Early

Community Involvement Specialist  
ADEC - Spill Prevention and Response - Contaminated Sites Program  
[marti.early@alaska.gov](mailto:marti.early@alaska.gov)  
907-465-5206  
[www.dec.state.ak.us/spar/csp/sites/npolerefinery.htm](http://www.dec.state.ak.us/spar/csp/sites/npolerefinery.htm)

**For more information:**

On contaminated sites, contact DEC: Marti Early, 907-465-5206, [marti.early@alaska.gov](mailto:marti.early@alaska.gov) or  
Ann Farris, 907-451-2104, [ann.farris@alaska.gov](mailto:ann.farris@alaska.gov)

On health related information, contact the Alaska Division of Public Health, Nim Ha,  
907-269-8028, [nim.ha@alaska.gov](mailto:nim.ha@alaska.gov)

On public water supplies, contact DEC, Cindy Christian, 907-451-2222, [cindy.christian@alaska.gov](mailto:cindy.christian@alaska.gov)

On water testing or other refinery issues, contact Jeff Cook, Flint Hills Resources,  
907-488-5104, [jeff.cook@fhr.com](mailto:jeff.cook@fhr.com)