NVVTG
Soil Remediation Project
Venetie, Alaska
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In an effort to encourage other community members to clean-up small scale fuel spills associated with leaking fuel tanks, the Native Village of Venetie Tribal Government has embarked on a project to clean up our own site. During the winter we had several incidences of fuel leaks from our monitor heater fuel tank. This spring we could really see and smell the fuel around our tank. As the environmental leaders of our land we thought it would be good to demonstrate our dedication to the environment, by providing comprehensive clean up instructions and also to provide an estimated cost for clean-up of small scale spill sites.

We used recycled sewage pipes, and old tarps as liners, the only other cost was 16 hours of labor, and hauling gravel.

I have compiled a step by step instruction of what we did, so others who wish to do this can have a clear program to follow.

While this is not a professional soil remediation, it follows the basic principals of a major remediation project that was done in Venetie in the past.

If any one would like more information or ideas, please feel free to contact the Native Village of Venetie Tribal Government office in Venetie @ 907-849-8165

Inventory of supplies:

4”diameter PVC Leach field pipes(any type of plastic pipe would work if you drill lots of holes in it so the moisture can evaporate)

4” PVC Elbows 90’s, 45’s as many as needed to bring the ends above the soil level

Tarps or other waterproof liner (Fuel Resistant)

Clean Gravel to fill the hole that you have dug out.

1. **When starting out place one of the tarps on the ground where you will shovel fuel soaked soil to prevent further contamination.**
2. **Use wheel borrow, trailer, buckets or other way to transport contaminated soil to pit as you dig it out of spill site. If you have to store contaminated soil until later, make sure to place tarp or other liner under pile, so no further ground contamination occurs. When spill site is finished being dug out as deep as the contamination goes (if possible) place pipes with 90’s or 45’s in hole with ends sticking out above soil level at least 1 foot to prevent animals and water from entering pipes, cover ends of pipe with screen (if possible).**
3. **Back fill the spill site with clean gravel, this will minimize further contamination. As rain water soaks into the clean gravel it will stop at the bottom and seep into the pipes with any fuel still left in the hole. As water collects in pipes it will evaporate with airflow through the pipes.**

4. **Build your remediation pit. We used plywood sides 16 inches high to build a bottomless box. Staked on all sides to prevent sides from falling . You could build a pit with gravel pile shoveled out to form a bowl shape, this must be above all water levels of swamps, puddles, etc.**
5. **Place liner inside pit, place pipes with either 45's or 90's inside of pit with ends sticking up above top of soil level.**

6. **Fill remediation pit with contaminated soil**

But lets remember that the best action is prevention, so lets be careful in the future so we don't have spills in the first place.

With these principles and devices in place we can all look forward to a healthier environment, and peace of mind knowing that we have taken a first step toward ensuring that our land will be free from contamination for all generation to come.

Total Cost for this Project was only about $200, less than the cost of 1 drum of fuel.

Following is a picture guide of the project we completed in two days at the NVVTG office in Venetie.


1- Remove
Contaminated Soil
9 10:35 AM


2- Insert pipes
9 3:37 PM


3 - Fill with new gravel
10 10:34 AM
4 - Leave Ends above Soil
10 11:47 AM


5 - Install Fuel Tank
10 2:21PM


6 - Build pit
9 3:35PM


7 - Fill pit with Fuel
Soaked soil
10 11:47 AM


8 – Secure pit, pipes
with screens or fence
10 2:22 PM