

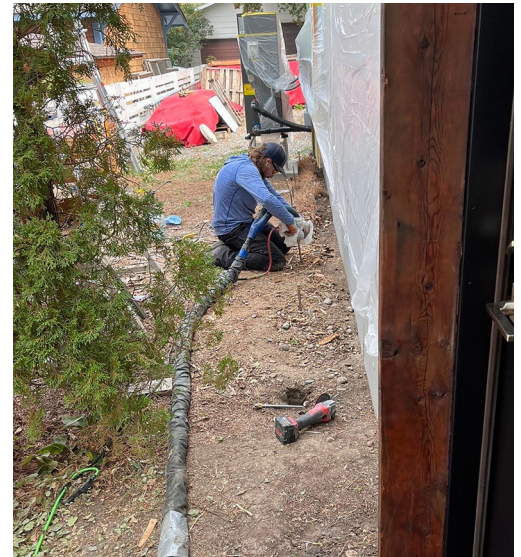


## Strengthening Deep Soil Underneath a House

The owner of a home in Montana contacted a geotechnical specialty contractor about a distressing issue: one side of their house was starting to settle into the soil. This 1970s-era home did not have the proper drainage systems in place, allowing rainwater to accumulate and erode away at the soil underneath. Poor compaction of soil during the construction process was another likely cause of instability. This property owner needed a permanent solution quickly before the exterior, interior, and even the roof of the home were damaged beyond repair.

### Powerful Polymers

The contractor chose to perform deep soil stabilization with Alchemy-Spetec’s AP Lift 430. This high-strength structural polymer is ideal for challenging soil compaction and void-fill jobs. AP Lift 430 also meets NSF/ANSI/CAN 61 standards for contact with drinking water, an important quality for any material to be installed around a residential dwelling.



### Physical Properties - Cured

AP LIFT 430			
Compressive Strength	(ASTM D-1621)	50 p.s.i. or 7,200 p.s.f.	3,447 millibar
Tensile Strength	(ASTM D-638)	88 p.s.i.	6,067 millibar
Expansion	(Unconfined)	22-26 times	-
Density	(ASTM-D 1622)	2.75 to 3.25 lb/ft3	44.05 to 52.06 kg/m3

Properties will vary depending on application conditions.

### **Painless Procedure**

Contractors performing the Deep Lock® soil stabilization process strengthen the soil at all levels with minimal imposition or downtime to the property owner. In this case, the crew installed a pair of injection tubes every three feet along the footing of the house on the side that was beginning to sink. Next, they stabilized the supporting soil with AP Lift 430, injecting the structural polymer to depths of eight feet, and then four feet at each injection point until full compaction was achieved.

### **Rapid Result**

Two technicians completed this job within six hours. They permanently stabilized the soil underneath the sinking side of the house with minimal equipment and no collateral damage to the structure or surrounding property.

### **About Alchatek**

Alchatek is an international leader in the manufacture and supply of chemical grouts and construction products for Geotechnical, Leak Seal, and Seawall Repair applications. Providing solutions from its headquarters in Tucker, Georgia and its manufacturing facility in Reno, Nevada, Alchatek specializes in advanced construction technologies for sealing leaks, stabilizing soils, lifting concrete, and protecting infrastructure and seawall structures. To best serve its customers, Alchatek is organized onto three divisions:

**The Leak Seal Division** combines a full system offering of polymer chemical grouts and equipment with perhaps the most experienced technical team in the industry. It specializes in preventing water ingress through concrete infrastructure including parking garages, culverts, basements and foundations, and sewer manholes.

**The Geotechnical Division** offers a complete line of single component products for soil stabilization as well as two component polyurethane foams for concrete lifting, void filling, and stabilization of infrastructure. This includes lifting sunken structures such as warehouse floors, back into place.

**Seawall Repair Network®** is the only national network of certified contractors in the repair, preservation, and protection of Seawalls waterfront barriers. Its proprietary methods and materials are environmentally friendly and safe for use in all marine environments and provide a non-destructive solution for seawall repair at 80% less than the cost of replacement.

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