

# SOIL CONTAMINATED WITH CHLORIDE REMEDIATED USING ADVANCED REMEDIATION TECHNOLOGY (ART)





#### **Client Challenge**

An ice storm caused an electricity blackout at a client's site, resulting in their tank battery alarm system to fail when a pump busted. The amount of produced water released during this time remains unknown. The client sought an alternative, more costeffective and limited liability option for remediation instead of digging up the contaminated soil and hauling it to landfill.



# WASTE GENERATION HAULING OFF USE OF LANDFILLS HAULING IN

#### **Challenge's Potential Impact**

The impacts salt/chloride can have on soil and plants when spills occur can be critical. When spills occur, soil particles are dispersed, which results in destroyed aggregation. Additionally, osmotic potential reduces the plants' ability to uptake water and the ionic balance of the soil solution is impacted reducing nutrient absorption.

## The Solution - Advanced Remediation Technology (ART)

To minimize the negative effects of contaminated soil, Amerapex implemented the use of Advanced Remediation Technology (ART). ART utilizes an ex-situ soil pulverization, aeration, and chemical solution to treat the contaminated soil. Amerapex excavated approximately 2,800 cubic yards of affected soil with contamination ranging from 25,000 to 62,000ppm Total Soluble Salts (TSS). All the samples met the OCC clean standards of 2640 within 12 days. This allowed the existing soil to be treated, as well as provided a solution that minimized liabilities and was cost-effective.

As a result of ART, there was zero waste generation, zero hauling off, zero use of landfills and zero need to haul in new soil.

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### Sampling - Total Soluable Salts (TSS)

Pre-ART ppm	≤ 5 days	≤ 13 days	≤ 19 days
1A- 59,800	16570	1B1070	1T232
2A- 55,800	24700	2B1050	2T883
3A-61,500	32290		
	42570		
	51820		
	62130		

*Note*: The pretesting was done of excavated soil and the first sampling was done five days after ART treatment. All samples meet the OCC clean standards of 2640 except 1 & 2. As a result, both were resampled 8 days later and results show they both met the clean up standard at that time. Two additional samples were taken 5 days later to see if the remediation was continuing to work, and the results proved it was.

#### **Contact Us**

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