GW TECHNOLOGY:

Phytoremediation

RACER PARAMETERS Contaminated Media Fencing Site Distance Safety Level Approach Area of Remediation Area of Remediation (SF) Tree size	Smal Easy Groundwater None 250 D In-situ Full Coverage 135,000 3' Whip 3 10 Metals	Difficult Groundwater None 250 D In-situ Full Coverage 135,000 15' Tree 3	Large Easy Groundwater None 250 D D In-situ Full Coverage 2,700,000 3' Whip 3	Site Difficult Groundwater None 250 D In-situ Full Coverage 2,700,000 15' Tree
Fencing Site Distance Safety Level Approach Area of Remediation Area of Remediation (SF)	Groundwater None 250 D In-situ Full Coverage 135,000 3' Whip 3 10	Groundwater None 250 D In-situ Full Coverage 135,000 15' Tree 3	Groundwater None 250 D In-situ Full Coverage 2,700,000 3' Whip	Groundwater None 250 D In-situ Full Coverage 2,700,000
Fencing Site Distance Safety Level Approach Area of Remediation Area of Remediation (SF)	None 250 D In-situ Full Coverage 135,000 3' Whip 3 10	None 250 D In-situ Full Coverage 135,000 15' Tree 3	None 250 D In-situ Full Coverage 2,700,000 3' Whip	None 250 D In-situ Full Coverage 2,700,000
Site Distance Safety Level Approach Area of Remediation Area of Remediation (SF)	250 D In-situ Full Coverage 135,000 3' Whip 3 10	250 D In-situ Full Coverage 135,000 15' Tree 3	250 D In-situ Full Coverage 2,700,000 3' Whip	250 D In-situ Full Coverage 2,700,000
Safety Level Approach Area of Remediation Area of Remediation (SF)	D In-situ Full Coverage 135,000 3' Whip 3 10	D In-situ Full Coverage 135,000 15' Tree 3	D In-situ Full Coverage 2,700,000 3' Whip	D In-situ Full Coverage 2,700,000
Approach Area of Remediation Area of Remediation (SF)	In-situ Full Coverage 135,000 3' Whip 3 10	In-situ Full Coverage 135,000 15' Tree 3	In-situ Full Coverage 2,700,000 3' Whip	In-situ Full Coverage 2,700,000
Area of Remediation Area of Remediation (SF)	Full Coverage 135,000 3' Whip 3 10	Full Coverage 135,000 15' Tree 3	Full Coverage 2,700,000 3' Whip	Full Coverage 2,700,000
Area of Remediation Area of Remediation (SF)	Coverage 135,000 3' Whip 3 10	Coverage 135,000 15' Tree 3	Coverage 2,700,000 3' Whip	Coverage 2,700,000
	135,000 3' Whip 3 10	135,000 15' Tree 3	2,700,000 3' Whip	2,700,000
	3' Whip 3 10	15' Tree 3	3' Whip	
	3 10	3		
Depth of Groundwater (ft)	10	-		3
Depth to Contamination (ft)		10	10	10
Type of Contaminant	iviciais	Metals	Metals	Metals
Natural Attenuation (Sampling)				
Crew Size	2 field	2 field	2 field	2 field
	technicians	technicians	technicians	technicians
Site Distance (miles)	250	250	250	250
Analytical Water	Groundwater	Groundwater	Groundwater	Groundwater
Analytical Soil	None	None	None	None
Analytical Template	MNA-Metals	MNA-Metals	MNA-Metals	MNA-Metals
Include QA/QC Samples	Yes	Yes	Yes	Yes
Include Data Analysis/Reporting	Yes	Yes	Yes	Yes
Groundwater Monitoring- Avg. Depth (ft)	5	5	5	5
Groundwater Monitoring- # of events	1	1	1	1
Groundwater Monitoring- # of samples	2	2	31	31
Groundwater Monitoring- # of years	5	5	5	5
Phytoremediation Marked-up Costs	\$43,148	\$67,480	\$556,722	\$1,037,020
Natural Attenuation (Sampling) Costs	\$151,541	\$149,886	\$594,330	\$594,330
Additional Costs:				
O&M	\$0	\$0	\$0	\$0
Remedial Design	\$10,000	\$11,095	\$59,020	\$90,886
TOTAL MARKED-UP COSTS	\$204,689	\$228,461	\$1,210,072	\$1,722,236
COST PER SQUARE FOOT	\$1.52	\$1.69	\$0.45	\$0.64