

**GW TECHNOLOGY:****Air Sparging**

<b>RACER PARAMETERS</b>	<b>Scenario A</b>	<b>Scenario B</b>	<b>Scenario C</b>	<b>Scenario D</b>
	<b>Small Site</b>		<b>Large Site</b>	
	<b>Easy</b>	<b>Difficult</b>	<b>Easy</b>	<b>Difficult</b>
<b>Soil Type</b>	Gravel/Sand	Sand-Silt / Sand-Clay	Gravel/Sand	Sand-Silt / Sand-Clay
<b>Surface Area of Contamination (SF)</b>	2,700	2,700	54,000	54,000
<b>Depth to Groundwater (ft)</b>	10	50	10	50
<b>Depth to Contamination (ft)</b>	11	51	11	51
<b>Safety Level</b>	D	D	D	D
<b>Contaminated Volume (Cubic Feet)</b>	29,700	137,700	594,000	2,754,000
<b>Contaminated Volume (Cubic Yards)</b>	1,100	5,100	22,000	102,000
<b>Drilling</b>				
<b>Avg. Well Depth (ft)</b>	15	55	15	55
<b>Formation type</b>	Unconsolidated	Unconsolidated	Unconsolidated	Unconsolidated
<b>Safety Level</b>	D	D	D	D
<b>Well Diameter (in)</b>	2	2	2	2
<b>Drilling Method</b>	Hollow Stem	Hollow Stem	Hollow Stem	Hollow Stem
<b>Well Construction Material</b>	PVC Schedule 40	PVC Schedule 40	PVC Schedule 40	PVC Schedule 40
<b>Avg. # of soil samples per well</b>	1	1	1	1
<b>Contaminant of interest</b>	Fuels	Fuels	Fuels	Fuels
<b>Quantity of Air Sparge Points</b>	3	9	43	172
<b>Air Flow Rate per Well (CFM)</b>	5	5	5	5
<b>Air Sparging Marked-up Costs</b>	\$30,648	\$79,300	\$174,047	\$1,178,583
<b>Additional Costs:</b>				
<b>O&amp;M</b>	\$30,169	\$53,869	\$206,194	\$797,662
<b>Years of O&amp;M</b>	2.0	2.0	5.0	5.0
<b>Remedial Design</b>	\$10,000	\$10,000	\$19,145	\$94,287
<b>TOTAL MARKED-UP COSTS</b>	\$70,817	\$143,169	\$399,386	\$2,070,532
<b>COST PER CUBIC FOOT</b>	<b>\$2</b>	<b>\$1</b>	<b>\$0.67</b>	<b>\$0.75</b>
<b>COST PER CUBIC METER</b>	<b>\$84</b>	<b>\$37</b>	<b>\$24</b>	<b>\$27</b>
<b>COST PER CUBIC YARD</b>	<b>\$64</b>	<b>\$28</b>	<b>\$18</b>	<b>\$20</b>