Hickam AFB Hawaii
Maximum Utilization of Multiphase Extraction Capital Equipment

Implementation of Bioslurping Technology at Hickam AFB Hawaii
HICKAM AFB BOUNDARY
Northeast Portion of Hickam
Spill Site 01
Project Background
Spill Site 01

- CERCLA Action
- Currently Implementing Nov 2000 Action Memorandum
- Site Boundaries Cover Over 80 acres
- Five Distinct Aviation Gas Plume Lobes
Plume Map
Action Memo Plan - Nov 2000
Funding Profile

Millions

2.5
2
1.5
1
0.5
0

2000 2001 2002 2003

MPX Costs
Drilling Extraction Wells
Extraction Well
Ball Field/Houses Cross Section
Trench Construction
After Construction
Bioslurper 2 Extraction Well Lines
Vapor Liquid Separator
Oil Water Separator & AST
AST Level
Air Stripper
50 and 10 $\mu$m Filters
Granular Activated Carbon
Effluent Flow Recorder
25 HP Liquid Ring Pump
Thermal Oxidizer
Thermal Oxidizer Flame
Control Panel
Bioslurper 2 Interior
Propane Tank & Bioslurper 3
Intake Silencer
Product Extraction Graph

Fuel Removal By MPX 1, MPX 2, MPX 3 and MPX 4

- Start-up of MPX 2
- Start-up of MPX 3 & 4

Graph showing cumulative removal of LNAPL and fuel in vapor and groundwater.
Spill Site 01
Biosluper Site Layout
Ball Field Vaults
Ball Field Manifold Vault
Silencer, VLS, & Pump
Summary

- Trenching over long distances is feasible
- Fewer Bioslurpers saves money
- Safety and base appearance is improved by having fewer systems.
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