## A.1 Technology Name

HydraSleeve™

### A.1.1 Source

GeoLogic Associates, In Association with Bryan A. Stirrat & Associates, 2009, Passive Sampling Pilot Study Report, Stringfellow Hazardous Waste Site, Submitted to California Department of Toxic Substances Control.

### A.1.2 Summary

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| **Media:** | Groundwater |
| **Study Type:** | Comparison study |
| **Technology:** | HydraSleeve™ |
| **Peer Reviewed:** | No |
| **Publication Date:** | July 2009 |

### A.1.3 Site Description

The objectives of this study were to evaluate the potential of depth-discrete concentration differences from HydraSleeve™ samples within the same monitoring well, and determine if averaged concentrations from depth-discrete passive sampling devices (HydraSleeve™) are comparable with traditional purge-and-sample (3-volume purge) methodologies. Samples were analyzed for perchlorate (EPA Method 314.0 and IC-MS/MS) and VOCs (EPA Method 8260).

The study area consisted of 6 wells located in 4 different site zones of a former industrial waste facility. Three HydraSleeve™ samplers were deployed at vertically discrete intervals in 2 wells, and 4 samplers were deployed at vertically discrete intervals in four wells. Samplers were deployed for an equilibration period of 49 to 50 days and sampled in March 2008. Passive sampler concentrations were compared to conventional purge method concentrations from routine Spring and Fall 2008 sampling events.

The report identifies the following advantages of HydraSleeve™: can be used to test all compounds, provides sampling repeatability, can be used in slow-recharge wells, reduced IDW, reduced sample time (less than 15 minutes), elimination of decontamination procedures between wells, and the ability to collect multiple vertically discrete samples.

The report also identified limitations of using the HydraSleeve™, including sample volume limitations per device, inability to collect field parameters affected by not having a flow-through cell, and potential damage to HydraSleeve™ if handled improperly during retrieval.

### A.1.4 Remedial Phase

Long Term Monitoring

### A.1.5 Outcome

The report concluded that the Hydrasleeve™ provided similar results as samples collected using traditional purge and sample methods. Several recommendations were also provided.

### A.1.6 References

Geologic Associates, 2001, "Work Plan, Groundwater Monitoring Program, Stringfellow Hazardous Waste Site," prepared for California Department of Toxic Substances Control, Stringfellow Branch, April.

HYDRASleeve, 2008, No-Purge Groundwater S ampler, http/www.nopurgesampling. com/.

LeBlanc, D.R., and Vroblesky, D.A. 2008, Comparison of pumped and diffusion sampling methods to monitor concentrations of perchlorate and explosive compounds in ground water, Camp Edwards, Cape Cod, Massachusetts, 200-05: U.S. Geological Survey Scientific Investigations Report 2008-5109, 16 p.

U.S. Environmental Protection Agency, 1989, "Test Methods for Evaluation Solid Waste," U.S. EPA SW-846.