



## McClellan Air Force Base, California

Snap Sampler

### Summary

<b>Media:</b>	Groundwater
<b>Study Type:</b>	Side-by-side comparison study
<b>Technology:</b>	Snap Sampler (grab)
<b>Peer Reviewed:</b>	No
<b>Publication Date:</b>	2005

### Study Description

The overall objective of the method demonstration at McClellan Air Force Base was to evaluate and demonstrate the use of selected passive diffusion and grab sampling technologies that potentially represent useful and cost-effective alternatives to conventional groundwater sampling approaches. The site itself and stage of remediation were unimportant in the study other than to provide wells with a range and variety of contaminant types that could be sampled and compared among different devices. Devices tested included Snap Samplers, PDBs, diffusion-based devices including different membrane types, and HydraSleeves. All passive samplers were compared to low-flow purging and sampling, volume-based purging and sampling, and passive devices to each other. Snap Samplers and HydraSleeves were not deployed in the same wells and therefore were not compared directly.

### Remedial Phase

Long-term monitoring

### Outcome

As the final results report for the study concluded, most of the devices were able to collect samples and provide results comparable to traditional sampling methods. All were cost-reducing compared to traditional sampling approaches. Specific to the Snap Sampler technology, the report explained:

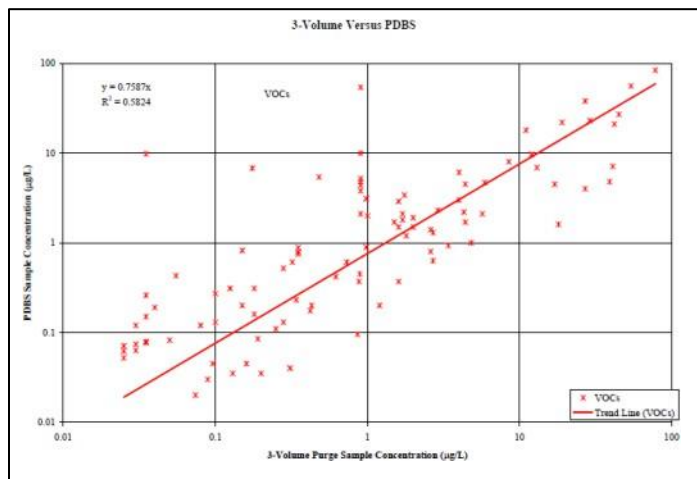
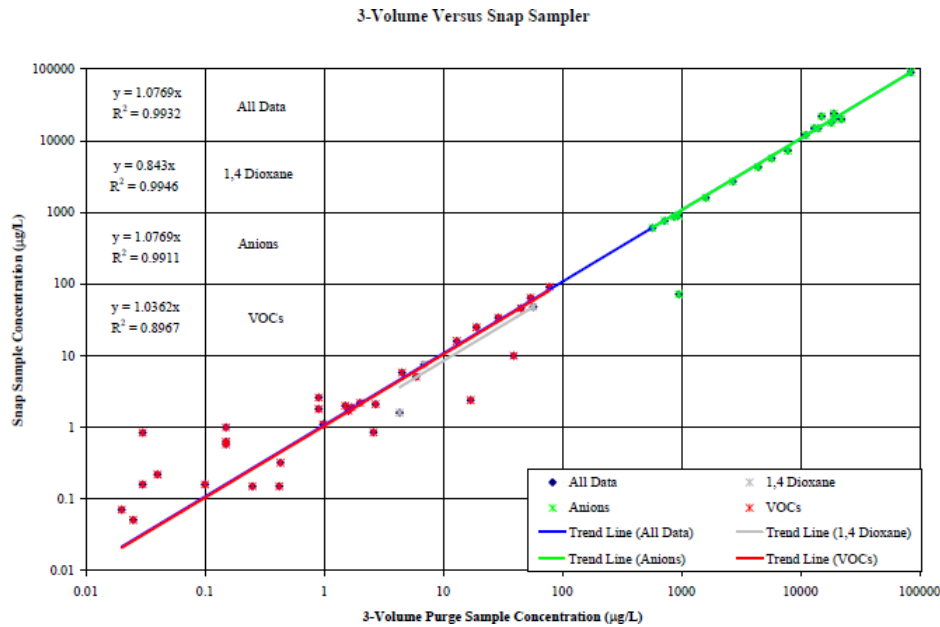
Snap Sampler™ comparisons indicate that the VOC data set for this sampler may be more consistently representative of the actual VOC concentrations in the well at the time of sample collection.

The results from the VOC data indicate that minimizing VOC sample transfer can result in more accurate detection of VOC concentrations present.

It was demonstrated that the Snap Sampler™ appears to be a technically viable method for monitoring all of the compounds it was tested for.



The following graphically represents the comparison between volume-base purging and the Snap Sampler. The illustration also shows the slope and correlation coefficients of the regression, illustrating that the Snap Sampler compared most closely with the traditional comparator method. Other passive methods showed poorer recovery and poorer correlation with the traditional method. While other methods were generally correlative with the traditional methods, the Snap Sampler performed best in the data comparisons.



3 vol purge vs:	Y-slope (RECOVERY)	R <sup>2</sup> (SCATTER)
Snap	1.04	0.90
PDB	0.75	0.58
RPPS	0.63	0.70
HS	0.59	0.50

### Case Study Reference

Parsons. 2005. "Final Results Report for the Demonstration of No-Purge Groundwater Sampling Devices at Former McClellan Air Force Base, California." [https://clu-in.org/download/char/passamp/mcclellan\\_final\\_results\\_report.pdf](https://clu-in.org/download/char/passamp/mcclellan_final_results_report.pdf)