

Sampling Preparation, Sample Collection, Documentation & Shipment

Tim Portner



What Makes Good Data

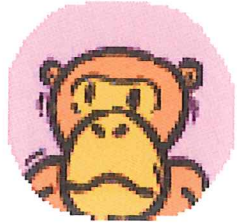
- Sampling Plans
- Sampling Procedures
- Sample Handling
- Laboratory Procedures

Why is the sampling important?

- 1st Step to Accurate Data
- Analytical data is only as accurate as the sample collected

Sampling Plan

- Written Procedures
- Consistency
- Avoid Trouble
- Training Tool




Record Keeping

- Documentation Beats Memory
- Exceptions to Sampling Plan
- Paper Trail
- Information for Laboratory

Chain of Custody

- Make sure to fill out the chain of custody completely
 - This is how the laboratory knows what needs to be completed.
 - Make sure that the sample IDs on the sample containers match the chain of custody.

		LABORATORIES, Inc. 1126 North Front Street New Ulm, MN 56073 Phone: (507) 354-8517 Toll Free: (800) 762-3687 Fax: (507) 359-2890		Chain of Custody Record		Page _____ of _____										
Company Name and Address: TP INC 1234 Main Street New Ulm, MN 56073				Account #: IF KNOWN		Phone #: Your Contacts Number										
Billing Address (Indicate if different from above): SAME AS REPORT TO or TP INC PO BOX 1 New Ulm, MN 56073				Contact: who the lab should call with any questions		Fax #: For faxed report check box <input type="checkbox"/>										
Sample Information				Name of Sampler: YOUR Name		E-mail: For e-mail report check box <input type="checkbox"/>										
Date Sampled				Quote Number: +B-14-11		Date Submitted:										
Time Sampled				Project Name/Number:		Purchase Order#:										
Bottle Type				Analysis												
Lab Number	Sample ID	Sample Type (Food, Soil, Water, Etc.)		VOC Vial	500 ml Imprec.	1000 ml Imprec.	500 ml INHO3	1000 ml INHO3	500 ml INH2SO4	1000 ml INH2SO4	Sterile plastic	Amber INH2SO4	500 ml INOH	Filtered or N	Other:	Analysis Required
				3	1		1									Total Suspended Solids, Aluminum, Iron, Lead BTEX
Comments:																
Transferred by:		Date:	Time:	Sample Condition:	Received by:		Date:	Time:	Temp:							
1.																
2.																

Information Gathering

- What are we sampling for?
- How are we sampling?
- Where are we sampling?
- How are we getting the samples to the Lab?

What are we Sampling For?

Automobile Salvage Yards
Subsector M1

- Total Suspended Solids (TSS)
 - Unpreserved container
 - 7 day holding time
- Total Aluminum, Iron, Lead
 - Nitric Acid preserved container
 - 6 month holding time
- Benzene, Toluene, Ethylbenzene, Xylene (BTEX)
 - Hydrochloric Acid preserved container
 - 14 day holding time

What are we Sampling For?

Scrap Recycling and Waste Recycling Facilities
Subsector N1

- Total Suspended Solids (TSS)
 - Unpreserved container
 - 7 day holding time
- Chemical Oxygen Demand (COD)
 - Sulfuric Acid preserved container
 - 28 day holding time
- Total Aluminum, Copper, Iron, Lead, and Zinc
 - Nitric Acid preserved container
 - 6 Month holding time
- pH
 - Unpreserved container
 - ASAP

How are we sampling?

Sample Containers

- Order Containers in Advance from Lab
- Receive Proper Containers and Quantity!
 - Ask questions to make sure you receive what you need!
- Be Sure to Fill Containers Correctly
- Clearly Label Containers Before Sampling

How are we sampling?

- Make sure to wear clean powder free gloves while sampling
 - This not only to keep the sample off you but to keep you out of the sample.
- Fill containers completely without over filling them.
 - Some containers are pre-preserved with acids or bases
- The mouth of the bottle should face upstream while sampling.

How are we sampling?

- Do not disturb the bottom of the area you are sampling.
- After sampling immediately place the sample on ice
 - This means you must keep ice on hand
 - If you do not have ice on hand place the sample in the refrigerator and get ice

Where are we sampling?

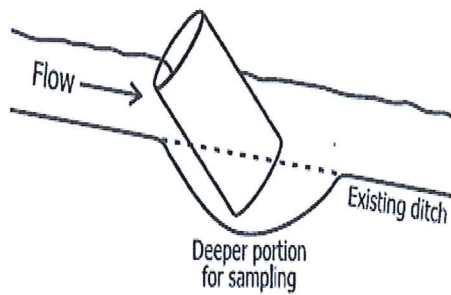
- Pipes?
- Ditches?
- Manholes?
- Others?

Pipes



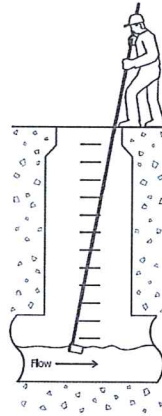
- Safety
- Avoid contact with the pipe or other surfaces

Ditches



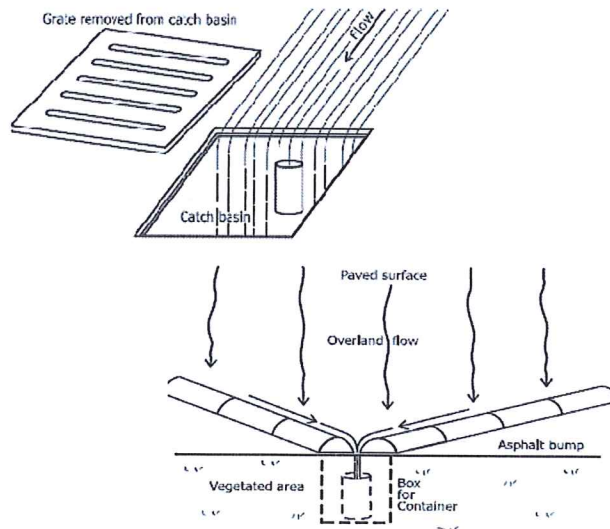
- Safety
- Avoid contact with the bottom of the sampling location
- Place bottle opening upstream when collecting sample

Manholes



- Safety
- Avoid contacting surfaces in manhole
- Place the bottles opening upstream when collecting a sample

Other



Who is testing?

- Make sure the lab is certified to complete the testing.
- Inform the lab when you will be sending samples in.
 - This is especially important if you have time sensitive samples

Shipping & Handling

- Packing
- Paperwork
- Holding Times
 - Overnight delivery?
 - 2nd Day?
- Avoid Weekends if possible
- Use a Good Courier
- Leaks

Custody Seals for Security



Iced for Transport



Loose Ice for Hand Delivery Only!

Bag Ice for Shipping

Must arrive at 0-4°C

Securely Taped For Shipping



Sampling and Handling Done Right

- Proper sampling and handling = accurate data.
- Poor sampling and handling will lead to poor data.
- Improper sample collection and handling is worse than no sample at all.
- Remember: Plan It, Do It, Document It, Review It!

Questions????????

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**We will email
information on
request.**

