

WASTEWATER TESTING & REPORTING

1

- ▶ Sampling Wastewater
- ▶ Proper Paperwork Required
- ▶ Shipping Requirements

Sampling Wastewater

- ▶ Proper Bottles
- ▶ Preserving Samples

USE PROPER BOTTLE(s)



Proper Bottle

Plastic vs Glass



Proper Bottles

Foam vs Teflon Lined Lid



Proper Bottles

- ▶ Plastic vs Glass
- ▶ Foam vs Teflon Lined Lids
- ▶ Headspace vs No Headspace

VOC SAMPLE COLLECTION

**No Headspace in
Bottles!!!**



TRIP BLANK



Preserving Samples

► Which Acid: nitric, sulfuric, hydrochloric ?

HNO_3 H_2SO_4

HCl

► How Much?

PRESERVING SAMPLES



SAMPLE RECEIPT CHECKLIST

Company Name _____ Date/Time Received _____
 Project _____ Received by _____
 Lab Number(s) _____ Carrier Name _____

Yes	No		Initials
<input type="checkbox"/>	<input type="checkbox"/>	1. Shipping container in good condition?	_____
<input type="checkbox"/>	<input type="checkbox"/>	2. Custody seals present on shipping container? Condition: Intact <input type="checkbox"/> Broken <input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	3. Ice / Blue Ice (circle one) present in shipping container? Container(s) Temp. 1. _____ 2. _____ 3. _____ 4. _____	_____
<input type="checkbox"/>	<input type="checkbox"/>	4. Bottles broken and/or leaking? (Photograph broken bottles.)	_____
<input type="checkbox"/>	<input type="checkbox"/>	5. Custody seals on sample bottles? Condition: Intact <input type="checkbox"/> Broken <input type="checkbox"/>	_____

Yes	No		Initials
<input type="checkbox"/>	<input type="checkbox"/>	6. Chain of custody Present?	_____
<input type="checkbox"/>	<input type="checkbox"/>	7. Chain of custody includes signatures, dates, and times when relinquished and received?	_____
<input type="checkbox"/>	<input type="checkbox"/>	8. Chain of custody agrees with bottle count?	_____
<input type="checkbox"/>	<input type="checkbox"/>	9. Chain of custody agrees with labels?	_____
<input type="checkbox"/>	<input type="checkbox"/>	10. Samples received within holding times?	_____
<input type="checkbox"/>	<input type="checkbox"/>	11. Samples in proper container?	_____
<input type="checkbox"/>	<input type="checkbox"/>	12. Sufficient sample volume for indicated tests?	_____

Yes		No		Initials	Yes		No		Initials
<input type="checkbox"/>	<input type="checkbox"/>	13. Metals bottle(s) pH < 2?	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	17. TOC bottle(s) pH < 2?	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	14. Nutrient bottle(s) pH < 2?	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	18. Oil & Grease bottle(s) pH < 2?	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	15. Cyanide bottle(s) pH > 12?	_____	_____	<input type="checkbox"/>	<input type="checkbox"/>	19. Volatiles pH < 2?	_____	_____
<input type="checkbox"/>	<input type="checkbox"/>	16. Sulfide bottle(s) pH > 9?	_____	_____					

COMMENTS: _____

- | | | | |
|--------------------------|--------------------------|---|-------|
| <input type="checkbox"/> | <input type="checkbox"/> | 6. Chain of custody Present? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. Chain of custody includes signatures, dates, and times when relinquished and received? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. Chain of custody agrees with bottle count? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. Chain of custody agrees with labels? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. Samples received within holding times? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. Samples in proper container? | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. Sufficient sample volume for indicated tests? | _____ |

PRESERVATIVE

- | Yes | No | Initials | Yes | No | Initials |
|--------------------------|--------------------------|--------------------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Metals bottle(s) pH < 2? _____ | <input type="checkbox"/> | <input type="checkbox"/> | 17. TOC bottle(s) pH < 2? _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. Nutrient bottle(s) pH < 2? _____ | <input type="checkbox"/> | <input type="checkbox"/> | 18. Oil & Grease bottle(s) pH < 2? _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. Cyanide bottle(s) pH > 12? _____ | <input type="checkbox"/> | <input type="checkbox"/> | 19. Volatiles pH < 2? _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. Sulfide bottle(s) pH > 9? _____ | | | |

COMMENTS: _____

PAPERWORK

- ▶ Bottle Labels
- ▶ Chain-of-Custody

PAPERWORK

mc MIDCONTINENT
TESTING LABORATORIES INC.
2381 S. Plaza Dr. • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

COMPANY: _____

SAMPLE LOCATION: _____

SAMPLING DATE: _____ TIME: _____

MINERAL BOTTLE

Preservative: None

Form 107-C

mc MIDCONTINENT
TESTING LABORATORIES INC.
2381 S. Plaza Dr. • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

COMPANY: _____

SAMPLE LOCATION: _____

SAMPLING DATE: _____ TIME: _____

METALS BOTTLE

Preservative: Nitric Acid ☐ FILTERED ☐ UNFILTERED

Form 110-C

mc MIDCONTINENT
TESTING LABORATORIES INC.
2381 S. Plaza Dr. • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111

COMPANY: _____

SAMPLE LOCATION: _____

SAMPLING DATE: _____ TIME: _____

NITROGEN BOTTLE

Preservative: ☐ Sulfuric Acid ☐ Refrigeration

Form 109-C

[illegible]

Seal Intact (Y/N)/Number

[illegible]

Temperature of Container

STANDARD	RUSH
----------	------

Company	
Project Name / Mgr.	/
Project Number	
Sampled by	Signature
Sampled by	Print

[illegible]


RELINQUISHED BY (Signature)	COMPANY NAME	DATE	TIME	RECEIVED BY (Signature)	COMPANY NAME	DATE	TIME

PAPERWORK

Project Name / Mgr.		REFRIGERATED (Y/N) ANALYSES REQUESTED	
Project Number			
Sampled by	Signature Joe Smith		
Sampled by	Print Joe Smith		

	SAMPLE NAME	DATE	TIME	MATRIX	NO. OF CONTAINERS
1	Heavy Metals	5-2-25	10:01	H ₂ O	1
2	BOD	5-2-25	10:01	↓	1
3	Ammonia	5-2-25	10:02		1
4	VOC'S	5-2-25	10:03		3
5	Chloride	5-2-25	10:04		1
6					
7					
8					
9					
10					

PAPERWORK



MIDCONTINENT
TESTING LABORATORIES, INC.

2381 S. Plaza Dr. • P.O. Box 3388 • Rapid City, SD 57709
(605) 348-0111 • www.TheChemistryLab.com

CHAIN OF CUSTODY

Company	Some Town Sanitary				
Project Name / Mgr.	/				
Project Number					
Sampled by	Signature: Joe Smith				
Sampled by	Print: Joe Smith				

	SAMPLE NAME	DATE	TIME	MATRIX	NO. OF CONTAINERS	ANALYSES REQUESTED				
1	Man hole	5/2/25	10:15	H ₂ O	7	X	X	X	X	X
2										
3										
4										
5										
6										
7										

PRESERVED WITH HNO₃
 FILTERED (Y/N) ✓
 REFRIGERATED (Y/N)
 ANALYSES REQUESTED:
 8 Heavy Metals
 BOD
 Ammonia
 VOC's
 Chloride



PRESERVED WITH

FILTERED (Y/N)

REFRIGERATED (Y/N)

ANALYSES
REQUESTED

Seal Intact (Y/N)/Number

Sample Condition

Temperature of Container

REQUESTED TURN AROUND

STANDARD	RUSH
----------	------

Company	
Project Name / Mgr.	/
Project Number	
Sampled by	Signature
Sampled by	Print

[illegible]

RELINQUISHED BY (Signature)	COMPANY NAME	DATE	TIME	RECEIVED BY (Signature)	COMPANY NAME	DATE	TIME

SHIPPING

- ▶ Hold Times
- ▶ Temperature
- ▶ Weather
- ▶ Breakage

HOLD TIMES

Know the Hold Time Before Sampling

- ▶ BOD = 48 Hours
- ▶ Bacteria = 30 Hours (some 6 Hrs)
- ▶ Metals = 6 Months
- ▶ SOC's = 7 Days

TEMPERATURE

Must be 6C (43F) or less

IF Sampled Same Day, any Temperature

IF The Sample is “ON ICE”

TEMPERATURE

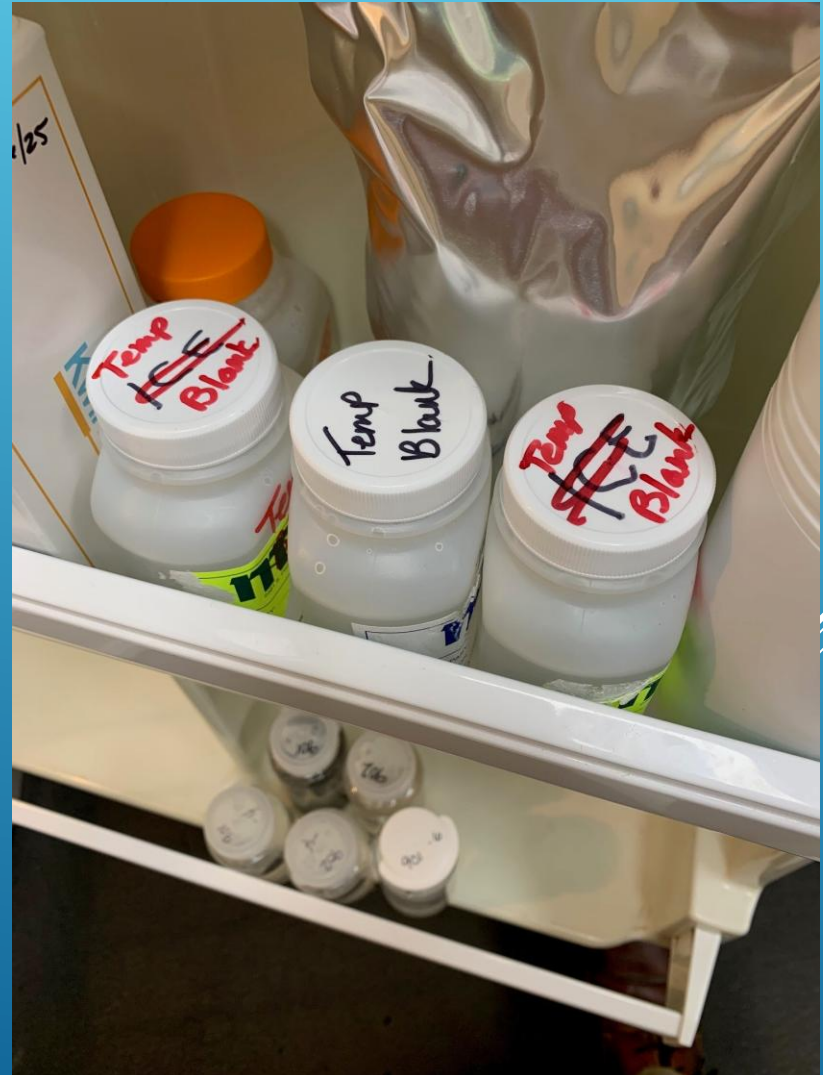
RECORD

FOR LAB USE ONLY	
Seal Intact (Y/N)/Number	
Sample Condition	On Ice
Temperature of Container	10.3 °C

REQUESTED TURN AROUND	
STANDARD	X RUSH

COMMENTS	LAB #

TEMPERATURE



WEATHER

Weather Affects:

- ▶ Hold Times
- ▶ Temperature



Weather Affects: Hold Times

**When Shipping
Know the Weather**

FedEx Flies to Memphis, TN
UPS Flies to Louisville, KY
Speedee Drives to Pierre, SD

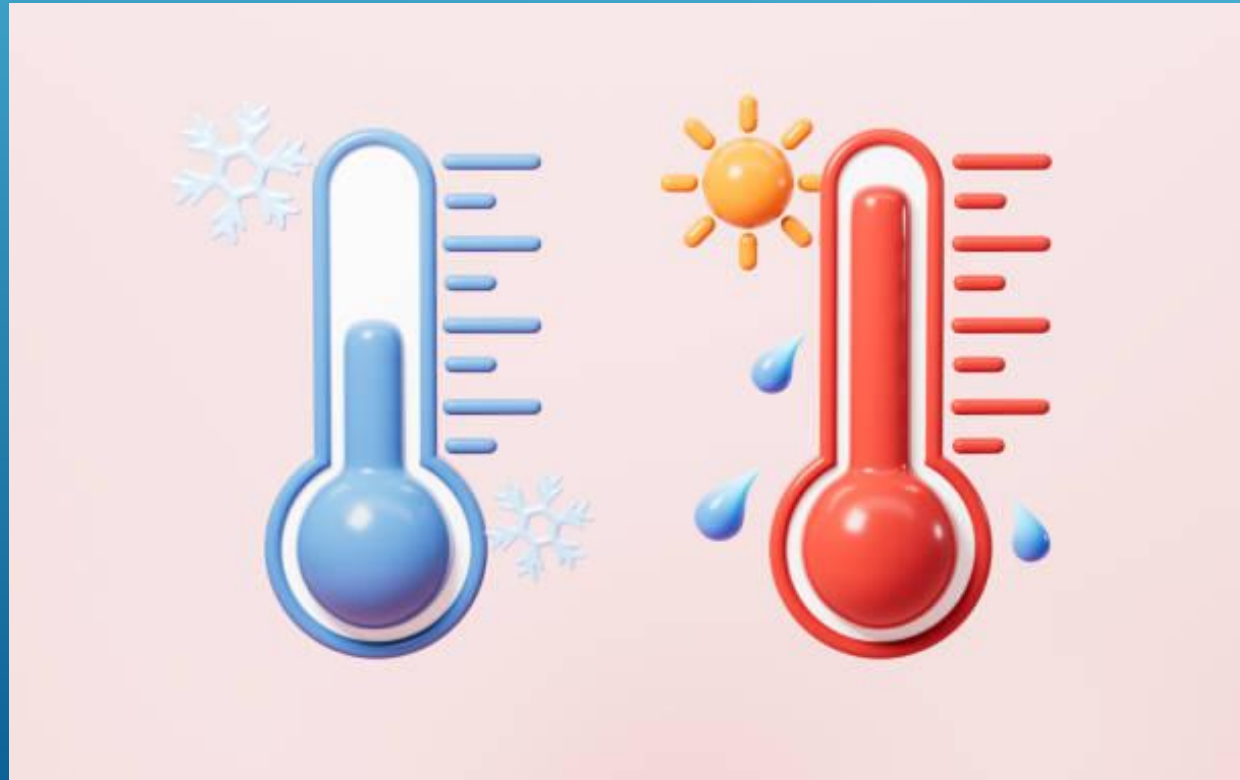


Weather Affects:

► Sample Temperature

Will it Freeze?

Will the Ice Melt?



SHIPPING

► Breakage



- ▶ Sampling Wastewater
- ▶ Proper Paperwork Required
- ▶ Shipping Requirements

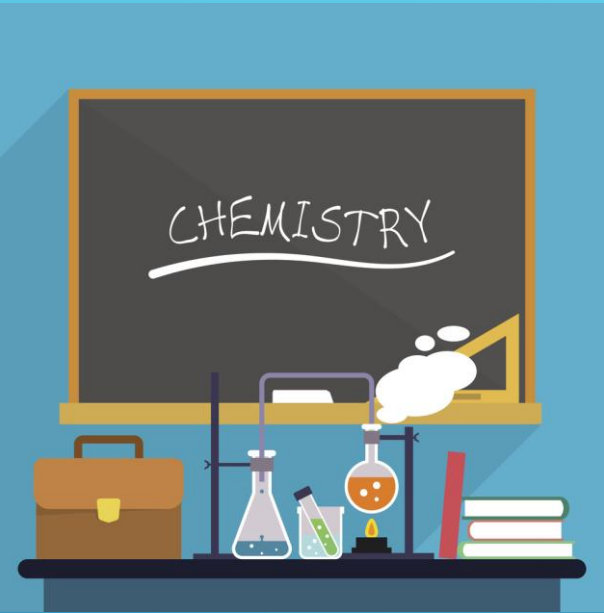
QUESTIONS ?

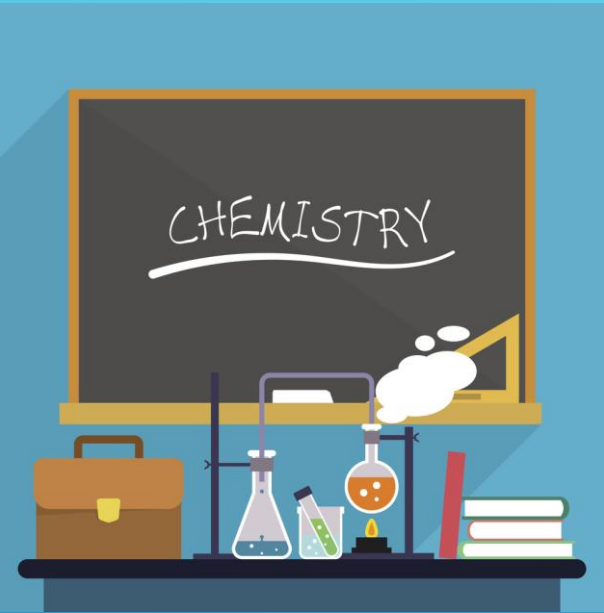
2

30

**AS LAB CLIENTS,
YOU KNOW HOW THE SYSTEM WORKS**

Send Sample to Lab





Send Sample to Lab



Pay Lots of Money



Send Sample to Lab



Pay Lots of Money



Get 5¢ Sheet of Paper

You Are Paying For The Data

- ▶ Better ways of utilizing data than from a sheet of paper
- ▶ PDF is better but is just an electronic sheet of paper
- ▶ You need live access to your data



We offer a full range of environmental testing, water quality testing, and oil analysis.

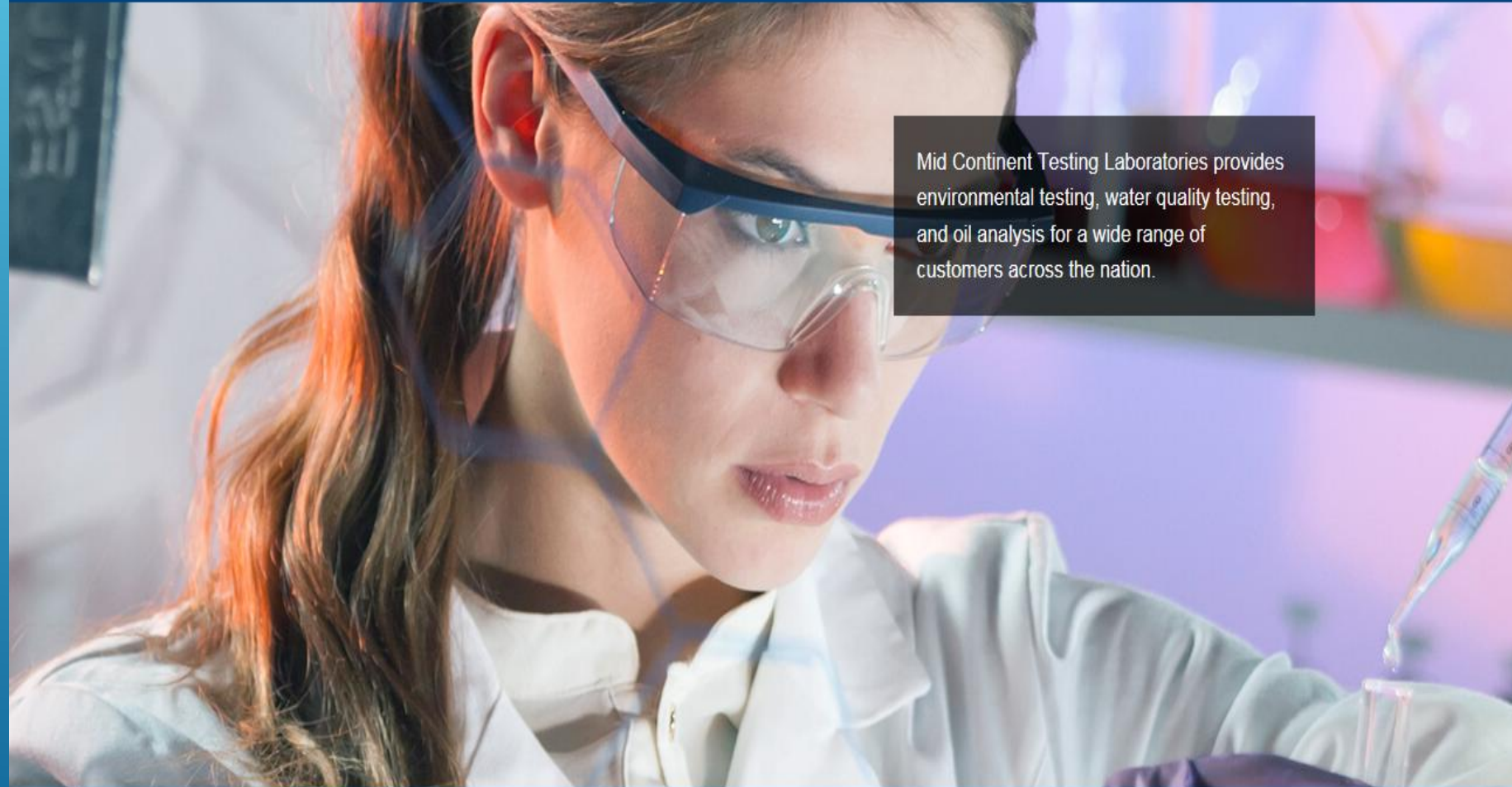
605-348-0111

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HOME ENVIRONMENTAL TESTING WATER QUALITY OIL ANALYSIS FORMALDEHYDE TESTING CONTACT US



Mid Continent Testing Laboratories provides environmental testing, water quality testing, and oil analysis for a wide range of customers across the nation.

INTERNET ACCESS TO LABORATORY DATA

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Our team of qualified professionals provide over 1,500 test results every day.



16 SECONDS DRINKING WATER QUARTERLY CHLORINE REPORT

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USER DATA MENU

User Data

- > Field Results
- > Maximum Limit Manager

U
S
E
R

D
A
T
A

OTHER ONLINE FEATURES

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12 SECONDS
TO TRANSFER
TO
EXCEL

40

12 SECONDS
TO TRANSFER
TO
EXCEL

41

Reports

REPORTS

- > [Custom Report](#)
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DATA EVALUATION IN EXCEL

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	A	B	C	D	E	F
1	Sample Name	Date Sampled	Time Sampled	Fecal Coliform	Total Coliform	Lab Number
2	732 Maple	6/18/2008	10:00 AM	Absent	Present	20080618846
3	732 Maple	4/19/2012	10:00 AM	Absent	Present	20120419806
4	732 Maple	8/19/2014	1:30 PM	Present	Present	20140819871
5	732 Maple	8/22/2014	11:10 AM	Present	Present	20140822818
6	732 Maple	2/3/2016	9:06 AM	Absent	Present	20160203837
7	742 Maple	8/22/2014	11:23 AM	Present	Present	20140822819
8	423 Main	4/2/2008	8:45 AM	Absent	Present	20080402842
9	477 Elm	10/6/2014	10:50 AM	Present	Present	20141006847
10	785 Ash	1/8/2004	5:00 PM	Absent	Present	20040109804
11	977 Ash	1/7/2004	1:55 PM	Absent	Present	20040107829
12	566 Apple Dr	10/6/2014	11:05 AM	Absent	Present	20141006846
13	812 Cottonwood	8/22/2012	10:20 AM	Absent	Present	20120822843
14	112 Main st	12/22/2003	8:00 AM	Absent	Absent	20031222839
15	321 Birch	1/28/2004	9:20 AM	Absent	Absent	20040128840

SUMMARY

You have already paid for the data

Utilize the Time Saving Features of Your
Lab's Online Access

QUESTIONS ?

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