



Michigan Department of Agriculture & Rural Development

Laboratory Division

Consumer Protection Section Annual Report 2012

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Consumer Protection Section Mission Statement

Prevent economic fraud and deception concerning weights and measures, motor fuels quality, labeling and advertising of all commodities.

Be responsible for environmental issues as they relate to the distribution of gasoline products.

Provide National Institute of Standards and Technology traceability on the state's standards and measures.

Provide regulatory resource expertise to the public, industry, and government.

**Michigan Department of Agriculture & Rural Development
Laboratory Division • Consumer Protection Section
Annual Report**

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Metrology Laboratory

The E.C. Heffron Metrology Laboratory calibrated more than 8,400 standards during fiscal year (FY) 2012. This included internal standards for the State of Michigan, official standards for field investigations, and the overall monitoring of commerce including approximately 150 industry customers. External customers utilizing this “fee-for-service” support included other state metrology laboratories, registered service agencies, the automotive industry, pharmaceutical manufacturers, and a variety of other companies. The Lab also participated in three “round-robin” inter-laboratory comparisons where all test data is reviewed and compared against official data gathered from other states throughout the Midwest. These comparisons assist the Lab in monitoring its uncertainty controls to ensure traceability to official U.S. standards of length, mass, and volume.

As part of its program to encourage a high degree of technical and professional competence, the Weights and Measures Division (WMD) at the National Institute of Standards and Technology (NIST) developed performance standards and formalized procedures for recognition of state legal metrology laboratories on a voluntary basis. Certificates of Measurement Traceability are issued upon evaluation of a laboratory’s ability to make reliable metrological measurements (principally mass, volume, length, and temperature). The Lab’s Certificate of Measurement Traceability was renewed by NIST on January 1, 2012.

An onsite audit was conducted by the National Voluntary Laboratory Accreditation Program (NVLAP) in September 2012; and the lab maintained its accreditation for a broad range of high echelon calibrations. NVLAP provides third-party accreditation to testing and calibration laboratories and its programs are established in response to Congressional mandates or administrative actions by the Federal Government or from requests by private-sector organizations. NVLAP is in full conformance with the standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), including ISO/IEC 17025 and Guide 58. Michigan’s scope of accreditation can be found online at <http://ts.nist.gov/ts/htdocs/210/214/scopes/2004080.pdf>.

Benefits of the Lab include: ensuring accuracy and stability in the commercial measurement system; technical support of other state agencies; the facilitation of high tech and precision manufacturing; protecting Michigan’s roads from overweight vehicles through the use of portable wheel load scales; and the promotion of safety.



Portable Wheel Load scales utilized by police road patrols to detect overweight commercial vehicles that potentially damage Michigan roadways are tested for accuracy by a metrologist at the EC Heffron Laboratory.

***Metrology—
“the science of measurement” - provides the uniform standards
upon which all other measurements utilized in commerce are based.***

Michigan's standards are traceable to National and International Standards.



NVLAP Lab Code 200408-0

The E.C. Heffron Laboratory is nationally accredited and provides the most precise calibration services to industry and laboratories across the nation.

Laboratory Activities

Mass standards are test weights used by industry, service companies, and enforcement programs to determine the accuracy of weighing devices. They vary in size from 6,000 pounds to one micropound and from 500 kilograms to one milligram.

Mass Standards Testing Results

	<u>Echelon I</u>	<u>Echelon II</u>	<u>Echelon III</u>
Internal	82	-	406
External	-	1521	5795

Volumetric Standards are provers used in the testing of liquid measuring devices such as gas pumps, fuel oil, and LP Gas measuring meters.

Volumetric Standards Testing Results

	<u>Glassware</u>	<u>LP Gas</u>	<u>Small Volume Provers</u>	<u><= 5 Gallon Test Measures</u>	<u>> 5 and <= 100 Test Measures</u>	<u>> 100 Gallon Test Measures</u>
Internal	-	3	-	57	6	2
External	5	4	42	85	18	9

Other Standards Testing Results

	<u>Thermometers</u>	<u>Linear Standards</u>	<u>Wheel Load Weighers</u>
Internal	-	-	-
External	-	-	747

Weights and Measures Program

Weights and Measures staff investigated 1,891 consumer complaints involving retailers, wholesalers, and manufacturers throughout the state. Consumer concerns involved inaccurate deliveries of gasoline, home heating fuels and propane, short weight packages, product misbranding, deceptive advertising, price advertising violations, scanner errors, commercial device calibrations, and short weight packages.

Conducting investigations of consumer complaints is the number one priority for the Weights and Measures Program. The program also maximizes efficiency and effectiveness through limited duration special projects with a specific focus on areas not commonly involved with consumer related complaints. These projects may include surveying bulk deliveries of commodities to businesses such as agricultural facilities and processing plants to homes deliveries of items like landscaping supplies. Additionally, year round random, or risk-based inspections, auditing transactions of commercially traded products sold by weight, measure or count are conducted resulting in increased industry awareness and consumer confidence in the marketplace.

Small errors, when combined with steadily increasing material costs and continual advancement in equipment technology, challenge staff as they apply sound judgment and skill in various technical disciplines to protect the budgets of Michigan residents, businesses, and government agencies. Consumers can count on weights and measures staff to ensure they get what they pay for; and businesses can take assurance they are competing in a fair marketplace. The sheer volume of goods and services bought or sold on the basis of weight, measure or count magnifies the importance of weights and measures oversight as it touches virtually every area of commerce in Michigan.

Michigan's Weights & Measures Program - one of the nation's oldest - takes great pride in maintaining a strong and active industry outreach initiative through participation in trade events, the development of training curriculum, and offering guidance regarding weights and measures compliance through informative articles and other media. This proactive approach to "Compliance through Cooperation" solidifies a collaborative relationship throughout the marketplace to support Michigan's businesses and consumers on a local, national, and global stage.

The program provides sole oversight of the state's service industry to ensure compliance with new and repaired commercial weighing/measuring devices. The service registration program continues to thrive as 137 agencies and 516 individuals retain their State registration in good standing. More than 3,500 internal and external administrative audits were conducted as part of the program's routine responsibilities.

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Net content inspections determine if package labeling accurately depicts products weight or volume to the purchaser.

State Officials' Inspections

Net Content Inspections

Field	<u>Surveys</u>	<u>Packages Approved</u>	<u>Packages Rejected</u>	<u>Compliant</u>	<u>Lots Approved</u>	<u>Lots Rejected</u>	<u>Compliant (%)</u>
	304	6958	4748	59.09%	222	510	30.33%

Weights and Measures Device Inspections *

<u>Commercial Device Type</u>	<u>Approved</u>	<u>Condemned for Use</u>	<u>Condemned for Repair</u>	<u>Compliant (%)</u>
Animal Livestock Scale	1	1	0	50
Counter Scale	667	3	39	94.08
Crane Scale	1	0	0	100
Fuel Truck meter	51	5	16	70.83
LPG Meter (25 GPM or less)	28	0	3	90.32
LPG Meter (over 25 GPM)	46	0	6	88.46
Monorail	0	0	0	N/A
Multiple Grade Gasoline Dispenser	31,094	1,031	1,945	91.27
Platform Scale (1,500 lbs or less)	49	0	1	98
Platform Scale (over 1,500 lbs)	83	16	19	70.34
Single Grade Gasoline Dispenser	10,177	304	359	93.88
Single Product Meter (over 25 GPM)	263	5	33	87.38
Terminal Meter	38	1	0	97.44
Vehicle scale (2 section)	56	5	3	87.5
Vehicle scale (3+ section)	512	16	54	87.97
TOTAL	43,067	1,387	2,478	91.76

<u>Miscellaneous Devices / Standards</u>	<u>Approved</u>	<u>Condemned for Use</u>	<u>Condemned for Repair</u>	<u>Compliant (%)</u>
Weights (Field Tested)	0	0	0	N/A

Certificates Issued

Livestock Weighmasters	3
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Weights and Measures Program field tests are performed on site at near capacity conditions to ensure accurate measurements are made across the full range of the devices' design. Devices giving accurate results are "Sealed" for use.



*Revised - 9/18/14

Weights and Measures Information and Statistics

Weights and Measures Undercover Activities

Consumer Protection Section employees are equipped with unmarked vehicles holding calibrated false tanks used to conduct unannounced dispenser accuracy checks. Following are the results of these unannounced purchases during FY2011

Number of Purchases	12
Number of Shortages ≥ 1.0%	3
Percentage of Purchases ≥ 1.0% Short	25%

Weights and Measures Complaints Investigated

Item Pricing and Accuracy	131
Retail Motor Fuels Dispensers	*1648
Short Weight / Measure	94
All Other Complaints	18
TOTAL	1,891

*Motor Fuel complaints were jointly investigated with MDARD's Motor Fuels Quality Program

Disposition of P.A. 283 Violations

Compliance Meetings	25
Warning Letters	52
Consent Agreements	49
Prosecutions	-
Seizures / Detainment (Short Weight / Measure)	96
Seizures / Detainment (Amount / lbs)	165,850
Seizures / Detainment (Value)	\$274,221
Fine Amounts	\$269,200



Registered Serviceperson Activities

Registration Activities

Agencies Registered	42
Technicians Registered	182
Service Tests Administered	289

Test standards used by Registered Service Agencies to calibrate equipment utilized in all phases of buying and selling of product in Michigan are compared to the State standard in the E.C. Heffron Metrology Laboratory. Adjustments are made to the artifact so it provides an accurate

Devices Placed-In-Service by Registered Agencies

Retail Motor Fuel Dispensers	1187
All Other Meters	159
Small Capacity Weighing Devices	897
Large Capacity Weighing Devices	298

Audit of Serviceperson Activities

	<u>Number Conducted</u>	<u>Compliance Rate</u>
Internal	2,883	94.6%
Field	161	88.5%

Currently 137 Agencies and 516 technicians are successfully registered under the Serviceperson Program.

Motor Fuels Quality Program

In addition to the motor fuels quality inspection and testing work done at motor fuel retail outlets during FY 2012, wholesale marketers were also closely monitored for compliance with gasoline quality and environmental standards. Motor fuels quality specialists conducted 43 inspections and sampled product at the state's 26 motor fuel distribution terminals that receive products by pipeline or barges and sell gasoline. Quality specialists monitored Michigan's only refinery for compliance with the state's motor fuel standards. Staff reviewed wholesalers' procedures and documents including checking for compliance with tank labeling requirements.

Quality specialists obtained 240 enforcement samples including 43 fuel grade ethanol samples and 86 laboratory blends submitted for official testing. Laboratory blends are blends of gasoline and ethanol made to simulate blends of gasoline sold at retail. These blends are then tested for compliance with gasoline standards. Follow up investigations were conducted at four terminals when testing revealed quality issues with low octane, or high end point temperature.

Monitored terminals continued to make improvements to their policies and procedures for the re-blending of pipeline trans-mix products into the regular grade gasoline; and continue to improve their ethanol blending procedures based on the Motor Fuels Quality program's inspection findings. This continuous improvement has helped prevent misrepresented or poorly blended gasoline products from leaving the terminals, and protects hundreds of retailers and their customers from receiving poor quality gasoline.



Michigan's 26 distribution terminals were visited where inspectors collected samples and reviewed procedures.

Motor Fuels Quality Information and Statistics

Stop Sale Information

Excess Water in Underground Storage Tank	38
Failure to Meet Quality Standards	14
Gallons of Product Embargoed Per Stop Sale	3,577
Retail Cost of Embargoed Product per Gallon	\$3.579
Total Estimated Retail Value of Embargoed Product	\$655,894
Average Vehicle Repair Cost Resulting from Motor Fuel Quality Issue as Reported to MDA	\$672

Complaint and Motor Fuels Quality Hotline Information

Complaints Received through 1-800-MDA-FUEL	2,150*
Gasoline Quality Complaints Investigated	290

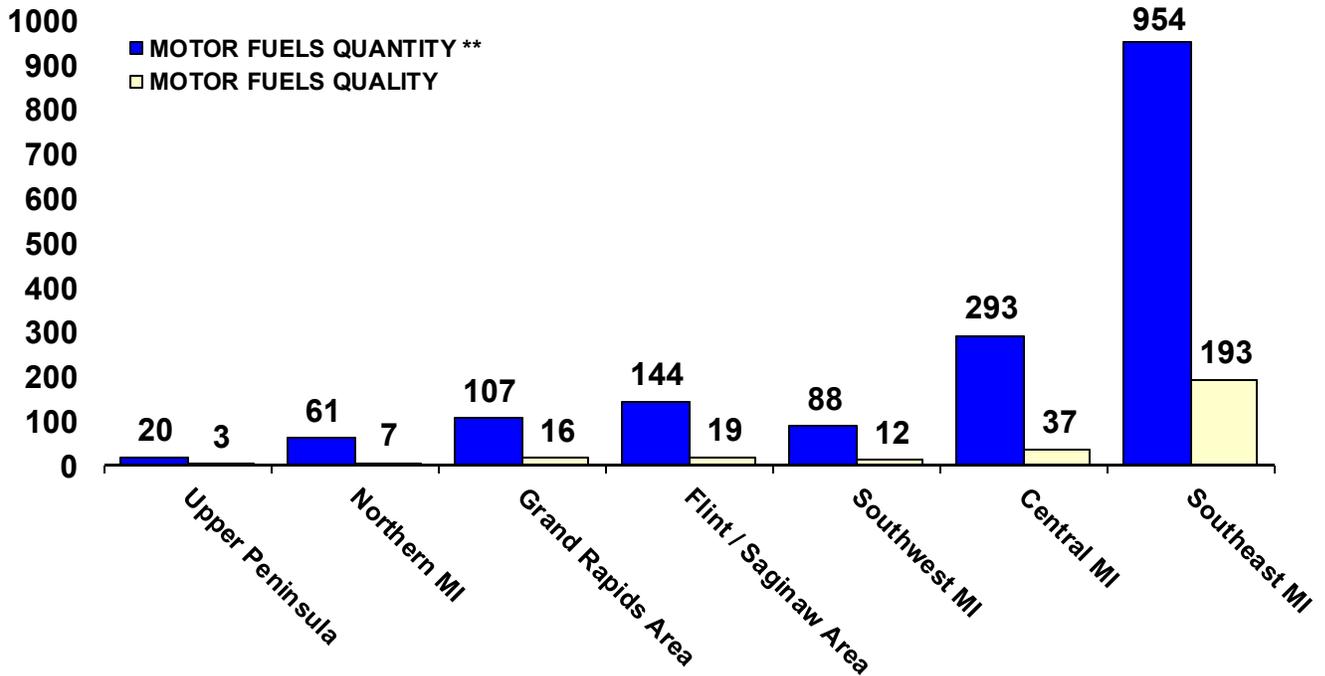
Disposition of P.A. 44 Violations

Compliance meetings	23
Warning Letters	1,164
Administrative Fines	83
Prosecutions	0
Fine Amounts	\$63,395

Note: Complaints outside the Program's area of responsibility received via the MFQ Hotline were forwarded to the appropriate agency. All gasoline quality complaints were investigated.

Motor Fuels Quality Information and Statistics (continued)

Complaints Investigated by Region



**Jointly investigated with the Weights and Measures program

Samples Procured

In addition to licensing, inspection, and complaint investigation responsibilities, Motor Fuels Quality Program staff regularly procures gasoline samples for quality testing. The following results are for fiscal year 2012.

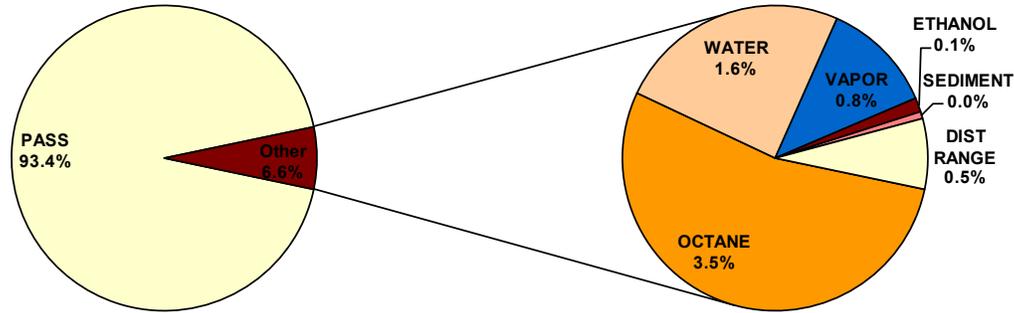
Results	Number
Approved	1908
Warning Letters	71
Non-actionable	1
Administrative Fines	41
Investigations in Progress	0
TOTAL	2021



Motor fuels quality inspectors visit retail gas stations to perform a complete and thorough evaluation of the establishment with regard to the product consumers purchase at the pump. Routine fuel samples are collected for laboratory analysis in addition to measuring the amount of fuel dispensed for comparison against the pumps' display reading.



Motor Fuels Quality Information and Statistics (continued)
Total Sample Violation Rate Breakdown



Samples were procured for the following reasons: a monthly random quality assurance program, ongoing investigations, consumer complaints, and to assure establishment compliance when there has been a previous violation.

Sample Results by Sampling Method

<u>Sampling Reason</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
Complaint	257	9	96.5
Re-Sample	83	17	79.5
Investigation	64	10	84.4
Confidential / Undercover	11	0	100
Other	1023	50	95.1
Delinquent License	17	1	94.1
Quality Risk Assessment	416	23	94.5
Terminal Sampling	150	3	98
TOTAL	2,021	113	94.4

Sample Results by Octane ((R+M)/2)

<u>Octane (AKI)</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
86	18	0	100
87	789	14	98.2
88	-	-	-
89	424	23	94.6
90	12	1	91.7
91	68	10	85.3
92	51	6	88.2
93	534	59	89
94	-	-	-
Other	125	0	100
TOTAL	2,021	113	94.4

Sample Results by Region

<u>Region</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
Upper Peninsula	94	21	77.7
Northern Michigan	97	2	97.9
Grand Rapids Area	247	10	96
Flint / Saginaw Area	227	16	93
Southwest Michigan	178	9	94.9
Central Michigan	311	12	96.1
Southeast Michigan	867	43	95
TOTAL	2021	113	94.4



The Michigan Department of Agriculture & Rural Development's toll free complaint hotline is available 24 hours a day year round for consumers that feel they have received a short measure of, or poor quality motor fuel.

Vapor Recovery and Reduction

The Motor Fuel Quality Program helps to protect the environment and Michigan residents through the Low Vapor Pressure gasoline sampling/testing program. Gasoline is a mixture of very volatile organic compounds and some of these compounds are toxic to human health and harmful to the atmosphere. The State of Michigan is under a 1990 U.S. Environmental Protection Agency (EPA) mandate to improve the quality of the air in select counties. Eight of these counties in Southeastern Michigan are under lower vapor pressure gasoline contingency measures as part of an air maintenance plan. In those counties, gasoline vaporization is restricted to limit the amount of pollutants released into the atmosphere from tankers refilling storage tanks and vehicle usage. These programs benefit people in the ozone maintenance areas by preventing health risks caused by breathing gasoline vapors or smog created from the vapors. To attain these benefits, the program requires that gasoline dispensed or sold be less volatile (reduction of 2 pounds per square inch from conventional gasoline). The program audits and samples approximately 600 gas dispensing facilities located in Wayne, Oakland, Macomb, Monroe, St. Clair, Livingston, Lenawee, and Washtenaw counties from June 1 to September 15. During the 2012 fiscal year, 489 locations were visited for field audits conducted by Motor Fuel Quality Program field staff to monitor for vapor pressure of the Southeast Michigan area gasoline. Fourteen of these audits did not contain ethanol. The violation rate for these field audits was found to be 2.1% and six locations were found to be in violation when field audits were conducted.

Field Audit and Sample Results*

	<u>Field Audits</u>	<u>Official Samples</u>	<u>Total</u>
Number of Establishments	489	274	679
Number of Audits Conducted*	514	308	822
Overall Establishments in Violation	6	7	10
Establishment Violation Rate	1.2%	2.6%	1.5%

*When establishments were found in violation, multiple audits were conducted; and at some establishments multiple samples were collected.

Number of Field Audits and Samples Per County

Number of Field Audits per County

Lenawee.....	27
Livingston.....	18
Macomb.....	86
Monroe	21
Oakland.....	74
St. Clair	31
Washtenaw.....	11
Wayne.....	246

Field Audits without Ethanol (7.0 psi RVP limit)

<u>Octane</u>	<u>RVP Average</u>	<u># of Audits</u>	<u># of Violative Audits</u>
86	-	-	-
87	6.9	1	0
88	-	-	-
89	6.72	7	1
90	6.94	5	2
91	6.79	1	0
92	-	-	-
93	-	-	-
94	-	-	-
TOTAL	6.82	14	3

Field Audits with Ethanol (8.0 psi RVP limit)

<u>Octane</u>	<u>RVP Average</u>	<u># of Audits</u>	<u># of Violative Audits</u>
86	-	-	-
87	7.77	444	2
88	7.79	1	0
89	7.85	25	2
90	-	-	-
91	-	-	-
92	8.77	2	1
93	8.0	28	3
94	-	-	-
TOTAL	7.79	500	8

STATE OF MICHIGAN



CERTIFICATE OF PROCLAMATION

ON BEHALF OF THE PEOPLE OF MICHIGAN

I, Rick Snyder, governor of Michigan, do hereby proclaim
March 1 through 7, 2012 as

**WEIGHTS AND
MEASURES WEEK**

WHEREAS, the weights and measures program of the Michigan Department of Agriculture and Rural Development's Laboratory Division serves to meet the public need of standard weights and measures in the state of Michigan; and,

WHEREAS, the employees of the weights and measures program are responsible for ensuring that all weighing and measuring devices used in commerce are accurate in both design and operation; and,

WHEREAS, with growing awareness of consumer needs for accurate measurement, clear labeling of products has become a necessity for anyone trying to make an informed purchasing decision; and,

WHEREAS, with an increased need to protect businesses from unfair trade practices, standards used in manufacturing and commerce must remain accurate and traceable back to national and international standards; and,

WHEREAS, this year, the national conference on weights and measures theme is "Taking Measure of Our Worth;" by investing just 55 cents per Michigan resident in regulatory oversight per year, we're ensuring that when consumers are spending their limited resources, they are getting what they pay for during a single trip to the store or gas station;

NOW, THEREFORE, I, Rick Snyder, governor of Michigan, do hereby proclaim Thursday, March 1 through Wednesday, March 7, 2012 as Weights and Measure Week in Michigan.




Rick Snyder
Governor



This report is issued under the provision of Act No. 283 of the Public Acts, as amended,
Section 7, being Section 290.607 of the Compiled Laws of 1979.

Electronic copies of this 2012 Annual Report may be obtained via www.michigan.gov/mdard

