



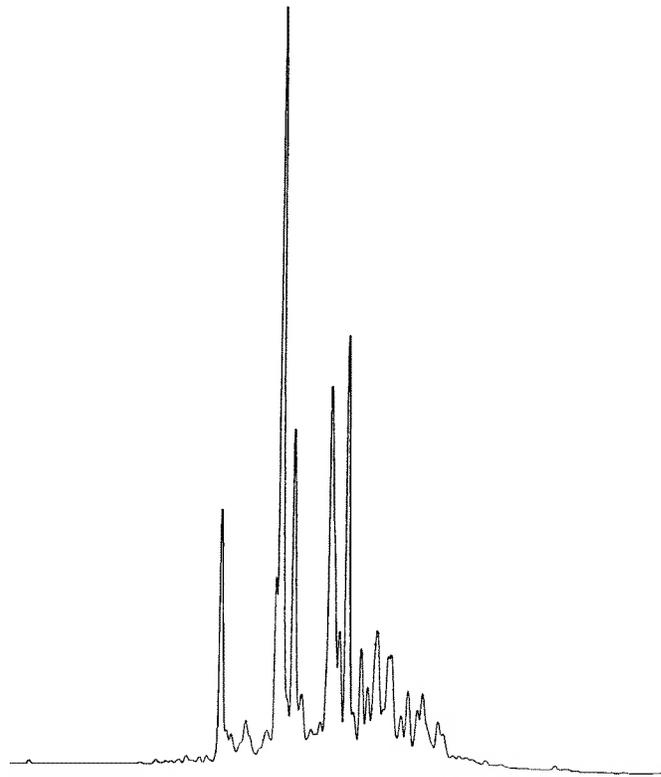
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# Arson Laboratory Improvement Program [ALIP] - 2009 Report

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## 12 Month Analysis

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## Section 1 - INTRODUCTION

Arson is a crime against society which left unchecked can spread rapidly throughout a neighborhood, community and county, even statewide. It can grow

to national proportions at an alarming rate, causing lost and ruined lives, economic losses and burdens including lost businesses and jobs. Arson leaves death and devastation in its wake and has become the weapon of choice for terrorists, gangs and individuals with little or no concern for others who are enveloped in the fires fury.

Many people believe arson as simply a property crime whereby someone's building or vehicle is destroyed by fire. In reality, arson is a crime of violence which affects all of us in some fashion, it reaches into the very lives and fabric of our communities instilling fear and uncertainty, causing all within our society to pay. In 1979 the New York State Legislature charged the Department of State, Office of Fire Prevention and Control with the responsibility of administering a coordinated, statewide arson control program. A component of this anti-arson effort includes the Arson Laboratory Improvement Program (ALIP). This program utilizes facts specifically related to the analysis of fire debris by forensic laboratories. Over the past 30 years, the ALIP has helped fortify the role of fire debris analysis in collaboration with police and fire investigations conducted in fighting the crime of arson in our state. Today more so than ever, the role of the Forensic Laboratory has become vital to the preparation and successful prosecution of Arson Crimes. The ALIP has also proven to be an asset in identifying training needs benefiting both the laboratory and the fire investigation community.

The ALIP currently includes ten laboratories in New York State that provide forensic services to local fire and law enforcement agencies. Presently, one lab is not processing fire debris. Nassau County lab is in a transition and while the plan is indefinite for now, fire debris samples collected from fire investigation units in



Nassau County are being processed by the New York State Police Forensic Laboratory. This years report reflects data from nine labs reporting 12 months. As part of this program, each laboratory submits data monthly to OFPC Arson Bureau for review and tabulation. This data is then provided to the New York State Division of Criminal Justice Services, the

participating Laboratories, and the New York State Crime Laboratory Advisory Committee (CLAC).

The 2009 ALIP report tracks several data elements including a new five-year comparison of total fire debris cases examined, by the number of positive samples found, broken down by category of ignitable liquid, total samples examined and case processing time either as a percentage of the analyst's time or as direct contact hours in processing. An additional element of the report allows for general comments that often provide valuable feedback from the Laboratories relative to proper evidence packaging and submission by the investigation community.

The crime Laboratories participating in ALIP also receive financial support through a grant program coordinated by the New York State Office of Fire Prevention and Control. This program provides laboratories with annual funding specific to supporting the cost of fire debris analysis. The current ALIP grant contract period runs from 2006 continuing through 2010.

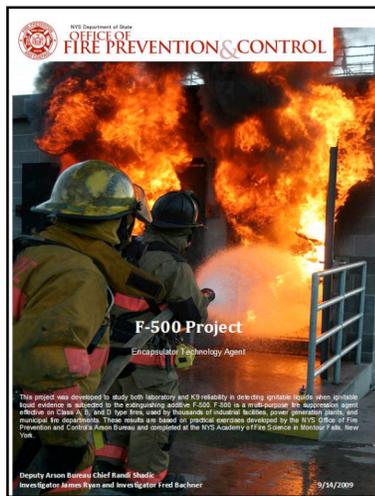
A beneficial addition to the ALIP program has been the development of the Arson Technical Working Group, ATWG. This group established through NYS-CLAC is currently co-chaired by the OFPC Arson Bureau and includes representatives from each of the ten crime labs comprising the ALIP as well as from the NYS Division of Criminal Justice Services. The ATWG generally meets twice a year to review current issues specific to fire debris analysis, as well as providing a medium for discussion and education focused on improving aspects of analyzing fire debris evidence samples in support of arson prosecutions. The ATWG also undertakes projects which benefit the process of evidence identification, collection and analysis.



During 2009, the ATWG addressed a situation which surfaced indicating certain instances of premature evidence container failure as had been discovered in relation to fire debris placed in new unused unlined metal paint can evidence containers with resulting degradation of the container in as little as less than a week contact time. The

degradation was identified at the forensic laboratory as random rust perforations of the unlined metal evidence container. Having been apprised of this information the OFPC

released a Technical Alert prepared as a Quality Assurance Bulletin and distributed it to the fire investigation community with a remedial plan for fire debris evidence sampling. The identification of the container failure issue and the preparation of an advisory bulletin were as a result of the working relationship of the ATWG and interaction of the ALIP group. As a means to provide a more in-depth study to the identified evidence can failure issue and offer further findings and guidance for the fire investigation community, the ATWG supported a *Special Study Project* to include collaboration between the NYSP Forensic Investigation Center and the Masters Forensic Chemistry program of SUNY Albany. That study project is currently underway with findings projected during 2010.



An additional ATWG project conducted during 2009 involved the testing of fire suppression additives commonly utilized by fire departments and its affect on the ability for the detection of ignitable liquids in fire debris by the accelerant detection canine team and/or the forensic laboratory. This special study project identified critical information to support that the particular additive studied, F500, did not impede the ability of detection for either the canine or the laboratory. A report of findings was prepared and distributed to the ALIP group and is additionally available at the OFPC , Department of States web site.

[www.dos.state.ny.us/fire/pdfs/publications/F500.pdf](http://www.dos.state.ny.us/fire/pdfs/publications/F500.pdf)

In 2009, a pilot study was initiated within the ALIP to include tracking two new new data fields. The first identifying laboratory sample submissions obtained through canine identification and the second tracking the fire debris data submitted as analyzed specifically from vehicle



fire investigations. Accelerant Detection K9 Teams aid in identifying the location of ignitable liquids in fire debris as a means to provide for the best analytical sample possible for the crime laboratory. Adding this data element to the ALIP provides a means to monitor the number of evidence samples that are being submitted for laboratory analysis and the correlation of laboratory confirmations a direct result of K9 Team indications. Adding a data element to track evidence samples as related specifically to vehicle fire investigations will also provide a measure of how the forensic services of the crime laboratory are being utilized to combat the ever escalating vehicle arson problem.

### Results of 2009 ALIP Data Pilot

<b>Reporting Lab</b>	<b>K9 Cases</b>	<b>Positive K9 Cases</b>	<b>K9 Cases Percentage Positive</b>	<b>Vehicle # Cases</b>	<b>Positive Vehicle Cases</b>	<b>Vehicle Cases Percentage Positive</b>
NYSP WRCL	36	22	61%	28	19	68%
Erie County	2	1	50%	10	5	50%
Niagara County	4	4	100%	7	6	86%
Onondaga County	0	0	0%	4	0	0%
Suffolk County	2	2	100%	24	16	67%
Westchester	1	0	0%	4	2	50%
	<b>44</b>	<b>29</b>		<b>77</b>	<b>48</b>	
		<b>66%</b>			<b>62%</b>	

**Arson Laboratory Improvement Project  
Participating Laboratories  
2009**

<p>Erie County Dept. of Central Police Services Forensic Laboratory Public Safety Campus Building 45 Elm Street Buffalo NY 14203 John Simich, Director</p>	<p>New York City Forensic Investigations Division 150-14 Jamaica Avenue Jamaica NY 11432 Dr. Peter Pizzola, Director</p>
<p>Monroe County Rm 524 Public Safety Building 150 Plymouth Avenue So. Rochester NY 14614 Harvey VanHoven, Director</p>	<p>Niagara County P.O. Box 496 5526 Niagara Extension Lockport NY 14095 Al Mack, Director</p>
<p>New York State Police Albany Lab 1220 Washington Avenue Albany NY 12226-3000 Inspector Gerald Zeosky, Director</p>	<p>Onondaga County Center for Forensic Sciences 100 Elizabeth Blackwell Street Syracuse NY 13210 Dr. Kathy Corrado, Director</p>
<p>New York State Police Western Regional Crime Lab 722 Homer Street Olean NY 14760-1130 Lt. Robert Campbell, Supervisor</p>	<p>Suffolk County Crime Laboratory Forensic Sciences Building #487 725 Veterans Memorial Highway P.O. Box 6100 Hauppauge NY 11787-0099 Robert Genna, Director</p>
	<p>Westchester County 10 Dana Road Valhalla NY 10595 Robert Admono, Director</p>

## Section 2 – Statistical Summaries

This report reflects the annual summary of the laboratories analysis of fire debris evidence.

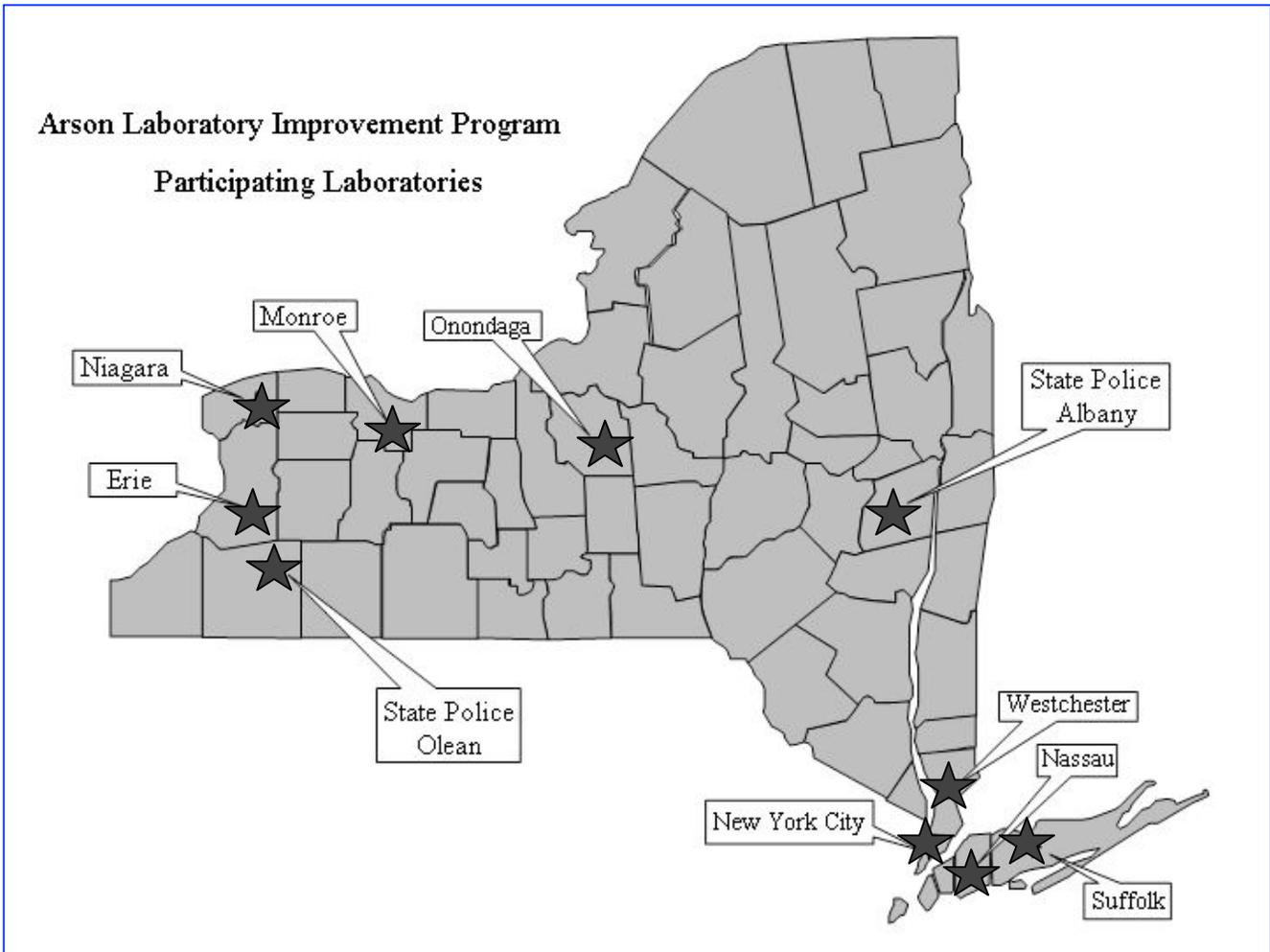
### Statewide Annual Averages 2005 - 2009

Year	Total Fire Debris Cases Examined	Percent Cases Positive for Ignitable Liquids	Total Fire Debris Samples Examined	Percent of Samples Positive for Ignitable Liquids
2009	1228	62.4%	1870	48.3%
2008	870	53%	2432	44.8%
2007	807	65.6%	2249	56.8%
2006	1031	59.4%	1967	47.4%
2005	847	55.3%	1919	45.5%
<b>5 Yr Average</b>	<b>956</b>	<b>59.0%</b>	<b>2087</b>	<b>48.6%</b>

### 2009 ALIP Summary Data by Laboratory

Laboratory	Months Reported	Cases Received	Cases Examined	Total Cases Percentage Positive	Total Samples Examined	Percentage of Positive Samples
<b>State Police</b>						
Headquarters - Albany	12	138	145	48%	407	36%
Western Region - Olean	12	112	111	59%	343	61%
<b>City Labs</b>						
New York City	12	143	280	74%	322	60%
<b>Counties</b>						
Erie	12	136	133	74%	288	57%
Monroe	12	127	110	55%	269	37%
Niagara	12	38	38	74%	52	55%
Onondaga	12	27	30	57%	71	42%
Suffolk	12	101	73	78%	240	63%
Westchester	12	22	46	43%	140	24%

### Section 3 – INDIVIDUAL LABORATORY DATA



# State Police Laboratory Summary

## Laboratory: Headquarters, Albany

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	*30%	1

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
138	137	66	48%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
426	407	145	36%

Analytical method(s) utilized: GC/MS 407 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
53%	26%	0%	0%	3%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	5%	13%	

### CASE TURN AROUND TIME

Completed in 7 days	09.6%
Completed in 8-14 days	18.4%
Completed in 15 – 21 days	30.1%
Completed in 22-28 days	14.1%
Completed in more than 28 days	27.8%
Average number of days for case completion	19.89

#### Comment Section

\*Reported as a percentage of total work hours per laboratory policy.

# State Police Laboratory Summary

## Laboratory: Western Regional, Olean

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	776	3

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
112	111	65	59%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
352	343	208	61%

Analytical method(s) utilized: GC/MS 343 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
56%	19%	0%	1%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	3%	21%	

### CASE TURN AROUND TIME

Completed in 7 days	16.8%
Completed in 8-14 days	70.0%
Completed in 15 – 21 days	12.4%
Completed in 22-28 days	00.8%
Completed in more than 28 days	00.0%
Average number of days for case completion	10.64

Comment Section

# City Laboratory Summary

## Laboratory: New York City

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	*72%	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
143	280	206	74%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
265	534	322	60%

**Analytical method(s) utilized: GC/MS 534 Other 0**

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
67%	25%	0%	0%	1%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	7%	0%	

### CASE TURN AROUND TIME

Completed in 7 days	16.6%
Completed in 8-14 days	09.8%
Completed in 15 – 21 days	03.4%
Completed in 22-28 days	03.2%
Completed in more than 28 days	67.0%
Average number of days for case completion	24.9

#### Comment Section

\*Reported as a percentage of total work hours per laboratory policy.

# County Laboratory Summary

## Laboratory: Erie

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	864	1

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
136	133	99	74%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
257	288	164	57%

Analytical method(s) utilized: GC/MS 000 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
67%	25%	2%	3%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	1%	2%	0%	

### CASE TURN AROUND TIME

Completed in 7 days	05.3%
Completed in 8-14 days	22.6%
Completed in 15 – 21 days	17.6%
Completed in 22-28 days	22.1%
Completed in more than 28 days	32.4%
Average number of days for case completion	21.40

Comment Section

# County Laboratory Summary

## Laboratory: Monroe

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	Not Reported	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
127	110	60	55%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
294	269	99	37%

**Analytical method(s) utilized: GC/MS 269 Other 0**

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
58%	39%	0%	1%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	1%	1%	

### CASE TURN AROUND TIME

Completed in 7 days	10.2%
Completed in 8-14 days	41.2%
Completed in 15 – 21 days	18.6%
Completed in 22-28 days	12.5%
Completed in more than 28 days	17.5%
Average number of days for case completion	16.56

#### Comment Section

Lab experiences carryover of samples that create overages in samples examined for the year.

# County Laboratory Summary

## Laboratory: Niagara

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	Not Reported	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
38	38	28	74%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
94	94	52	55%

Analytical method(s) utilized: GC/MS 94 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
80%	16%	2	2%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	0%	0%	

### CASE TURN AROUND TIME

Completed in 7 days	44.7%
Completed in 8-14 days	39.5%
Completed in 15 – 21 days	13.2%
Completed in 22-28 days	02.6%
Completed in more than 28 days	0.0%
Average number of days for case completion	08.71

Comment Section

# County Laboratory Summary

## Laboratory: Onondaga

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	Not Reported	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
27	30	17	57%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
65	74	31	42%

Analytical method(s) utilized: GC/MS 74 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
82%	17%	0%	0%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	1%	0%	

### CASE TURN AROUND TIME

Completed in 7 days	13.3%
Completed in 8-14 days	03.4%
Completed in 15 – 21 days	13.3%
Completed in 22-28 days	26.7%
Completed in more than 28 days	43.3%
Average number of days for case completion	23.27

Comment Section

# County Laboratory Summary

## Laboratory: Suffolk

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2009	12	980	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
101	73	57	78%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
274	240	150	63%

**Analytical method(s) utilized: GC/MS 000 Other 3**

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
79%	11%	0%	1%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	2%	7%	

### CASE TURN AROUND TIME

Completed in 7 days	13.3%
Completed in 8-14 days	03.3%
Completed in 15 – 21 days	13.3%
Completed in 22-28 days	26.7%
Completed in more than 28 days	43.3%
Average number of days for case completion	31.22

Comment Section

# County Laboratory Summary

## Laboratory: Westchester

Reporting Year	Number of Months Reported	Total Work Hours	Yearly Testimony
2008	12	*52%	0

Cases Received	Cases Completed	Cases Positive	% of Positive Cases
22	46	20	43%
Samples Received	Samples Examined	Samples Positive	% of Positive Samples
55	140	34	24%

Analytical method(s) utilized: GC/MS 00 Other 0

### % OF IGNITABLE LIQUID IDENTIFIED BY ASTM CLASSIFICATION

Gasoline All Brands	Petroleum Distillates	Isoparaffinic Products	Aromatic Products	Napthenic Paraffnic
61%	19%	0%	7%	0%
	N-Alkanes	Oxygenated Solvents	Other	
	0%	13%	0%	

### CASE TURN AROUND TIME

Completed in 7 days	02.3%
Completed in 8-14 days	00.0%
Completed in 15 – 21 days	04.3%
Completed in 22-28 days	04.3%
Completed in more than 28 days	89.1%
Average number of days for case completion	29.57

#### Comment Section

\*Reported as a percentage of total work hours per laboratory policy.

The lab has been processing a back log of cases. This back log has caused the data to be out of balance in some categories.

The New York State Office of Fire Prevention and Control is empowered to advise and assist in coordination and strengthening the activities, programs and services, rules and regulations of these departments and agencies of the state, which have functions, powers and duties relating to arson suppression, detection, investigation and prosecution and to the end of providing more effective services to the public and strengthening governmental programs relating to such matters.

The Office of Fire Prevention and Control is committed to sustaining arson evidence analysis and testing through the Arson laboratory Improvement Program and working with the Division of Criminal Justice Services and the New York Crime Laboratory Advisory Committee to improve services aimed at combating the crime of arson.

**David A. Patterson**  
Governor

**Lorraine Cortés-Vázquez**  
Secretary of State



**Floyd A. Madison**  
State Fire Administrator

**Rich Barlette**  
Arson Bureau  
Chief

**Randi Shadic**  
Arson Bureau  
Deputy Chief