

BUTLER COUNTY TIER II EVALUATION:

Blue Rock noted the following:

- 224 facilities with 1670 chemicals existing in the following communities:
 - 18 identified in Cincinnati
 - 1 identified in College
 - 50 identified in Fairfield
 - 52 identified in Hamilton
 - 2 identified in Liberty Township
 - 38 identified in Middleton
 - 10 identified in Monroe
 - 1 identified in Overpeck
 - 4 identified in Oxford
 - 2 identified in Ross
 - 1 identified in Seven Mile
 - 6 identified in Trenton
 - 38 identified in West Chester
 - 1 identified in Williamsburg
- Of the 1670 chemicals reported, 267 were identified as Extremely Hazardous Substances (EHS).
- The reported chemicals were broken down into the following forms:
 - 349 were indicated as being in the SOLID form
 - 1318 were identified as being in the LIQUID form
 - 72 were identified as being in the GAS form

NOTE: It appears as though some of the chemicals were not properly classified and listed as multiple forms.

- 650 chemicals were listed as PURE, while 1002 were listed as MIXTURES.

NOTE: 18 were not classified.

- 1441 chemicals were identified as having an ACUTE hazard potential.
- 587 were identified as posing a CHRONIC health risk.

Of the 267 EHS chemicals identified the following summary was developed, based on the most common or large amount chemicals existing in reportable amounts:

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOC
			HEALTH	FLAM.	REACT.		
2078	Toulene (Spelling was incorrect and should have been) Toluene Diisocyanate	Toxic	3	1	0	156	1
1090	Acetone	Flammable	1	3	0	127	1
1093	Acrylonitrile	Flammable / Poison	4	3	2	131	1
1005	Ammonia	Corrosive Gas	3	1	0	125	33
2672	Ammonium Hydroxide	Corrosive	2	0	0	154	1
1006	Argon	Compressed Gas	3	0	0	121	1
2794	Battery Acid	Toxic / Corrosive	3	0	2	153	11
1017	Chlorine	Toxic / Corrosive Gas	4	0	0	124	9
1883	Chloroform	Toxic / Poison	2	0	0	151	3
2357	Cyclohexylamine	Corrosive / Flammable	3	3	0	132	3
1773	Ferric Chloride	Toxic / Corrosive	3	0	2	157	1
1198	Formaldehyde (improper spelling in Tier II "Formal Dehyde")	Flammable / Corrosive	3	2	0	132	3
2029	Hydrazine	Flammable / Corrosive	3	3	2	132	3
1789	Hydrochloric Acid	Toxic / Corrosive	3	0	1	157	6
1790	Hydrofluoric Acid	Poisonous / Corrosive	4	0	1	157	1
1052	Hydrogen Fluoride	Corrosive / Poison	4	0	1	125	7
2014	Hydrogen Peroxide	Corrosive	2	0	1	140	3
2031	Nitric Acid	Toxic / Corrosive	4	0	0	157	17
1662	Nitrobenzene	Toxic / Combustible	3	2	1	152	1
1680	Potassium Cyanide	Toxic Corrosive	3	0	0	157	2

1077	Propylene	Flammable	1	4	0	115	1
1689	Sodium Cyanide	Toxic / Corrosive	3	0	0	157	3
1791	Sodium Hypochlorite	Corrosive	1	0	0	154	3
1079	Sulfur Dioxide	Corrosive	3	0	0	125	2
1830	Sulfuric Acid	Corrosive	3	0	2	137	98
2078	Toluene Diisocyanate	Toxic / Corrosive	3	1	2	156	1
1301	Vinyl Acetate	Flammable	2	3	2	129	1

NOTES:

- Many facilities did not include the amounts of products in the reporting.
- A number of the reported chemicals were classified incorrectly in the reporting. The most predominant example was Ammonia classifications between the different reports.

Norfolk Southern Rail Chemical Analysis:

In review of the information provided by the Norfolk Southern Railroad on the top 25 commodities they transport the following analysis was completed, which is consistent with the on-site surveys:

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF RAIL CARS
			HEALTH	FLAM.	REACT.		
1987	Alcohol NOS	Flammable	1	3	0	127	N/R
2924	Flammable Liquids	Flammable				132	N/R
3363	HAZARDOUS MATERIALS • Not otherwise specified	All Hazard				111	N/R
1075	PETROLEUM GASES • Butane • Propane (LPG)	Flammable	1	4	0	115	N/R
3257	Elevated Temperature	Flammable	1	2	1	128	N/R
1114	Benzene	Flammable	2	3	0	130	N/R
1789	Hydrochloric Acid	Corrosive	3	0	1	157	N/R
1830	Sulfuric Acid	Corrosive	3	0	2	137	N/R
1824	Sodium Hydroxide	Corrosive	3	0	1	154	N/R
1993	Combustible Liquid • Fuel Oil	Combustible Liquid	1	2	0	128	N/R
2312	Phenol, Molten	Toxic, Corrosive, Combustible	4	2	0	153	N/R
3077	Waste	Low to Moderate Hazards	2	2	2	171	N/R
2448	Molten Sulfur	Flammable Solids	4	0	4	133	N/R
1814	Potassium Hydroxide	Corrosive	3	0	1	154	N/R
1170	Ethanol	Flammable • Water miscible	2	3	0	127	N/R
3082	Dangerous, Environmental Hazard	Toxic	2	1	1	171	N/R
1247	METHYL METHACRYLATE	Flammable • Water miscible	2	3	2	129	N/R

Norfolk Southern Rail Chemical Analysis: Continued

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF RAIL CARS
			HEALTH	FLAM.	REACT.		
1805	Phosphoric Acid	Corrosive	3	0	0	154	N/R
1805 1760 3266	Corrosive Liquid	Corrosive	2	0	1	154	N/R
3256	Elevated Temperature	Flammable	1	2	1	128	N/R
1402	Calcium Carbide	Water Reactive	3	3	2	138	N/R
3065	Alcoholic Beverages	Flammable • Water miscible	1	3	0	127	N/R

N/R – Indicates NOT REPORTED (Number of Rail Cars)

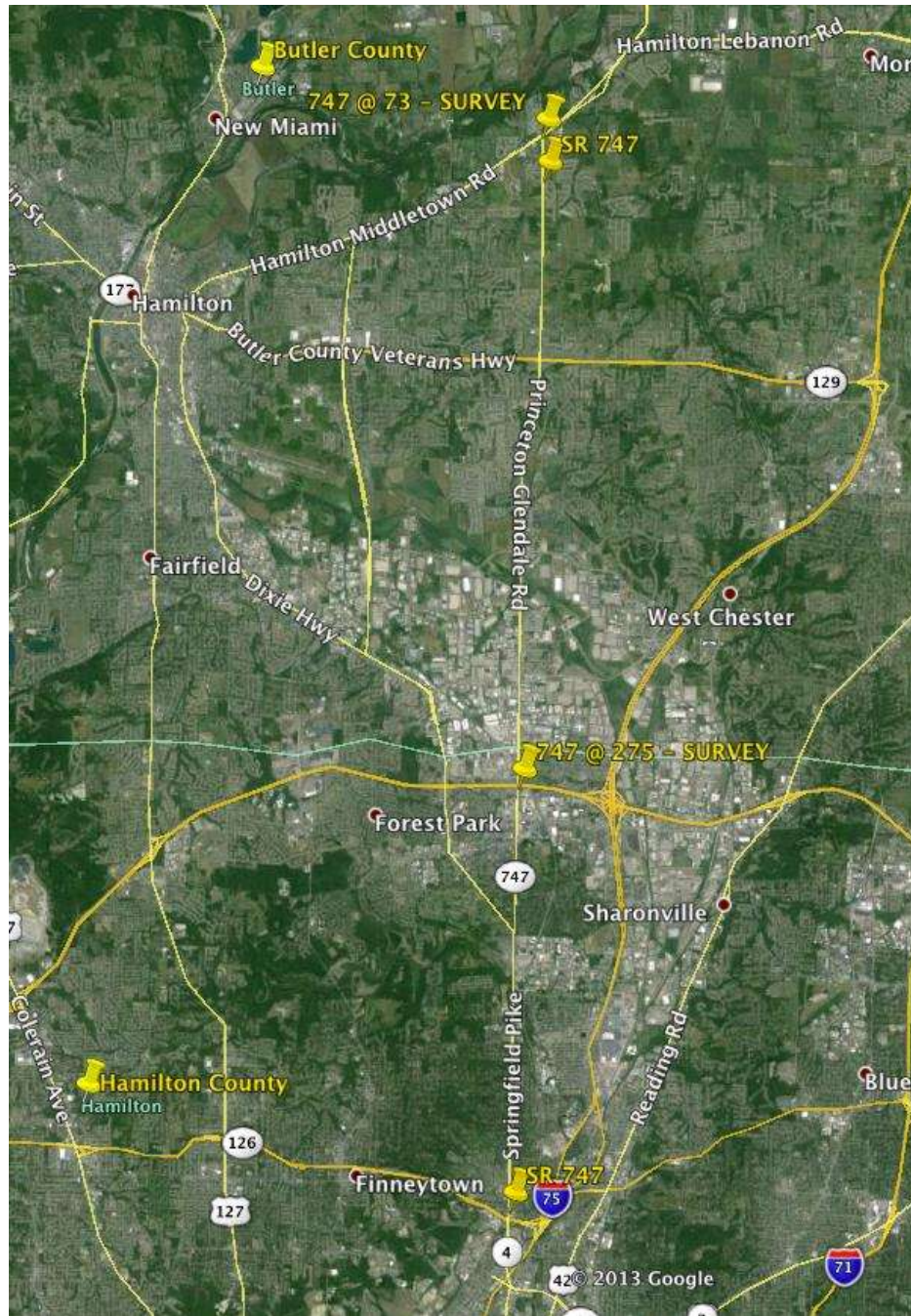
CSX transported a total of 25,155 shipments of the following top 25 chemicals through Butler County:

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF RAIL CARS
			HEALTH	FLAM.	REACT.		
1075	PETROLEUM GASES - Butane - Propane (LPG)	Flammable	1	4	0	115	3,514
1987	Alcohol NOS	Flammable	1	3	0	127	2,020
1824	Sodium Hydroxide	Corrosive	3	0	1	154	1,818
1830	Sulfuric Acid	Corrosive	3	0	2	137	1,608
1093	Acrylonitrile, Stabilized	Flammable / Poison	4	3	2	131	1,297
1005	Anhydrous Ammonia	Corrosive Gas	3	1	0	125	1,214
1789	Hydrochloric Acid	Corrosive	3	0	1	157	1,018
3257	Elevated Temperature	Flammable	1	2	1	128	868
1010	Butadienes, Stabilized	Gases, Flammable / Unstable	3	4	3	116	717
1280	Propylene Oxide	Flammable / Toxic	3	4	2	127	668
2448	Molten Sulfur	Flammable Solids	4	0	4	133	666
1956	Compressed Liquidified Gases	Compressed or Liquefied	3	0	0	126	573
1992	Styrene Monomer, Stabilized	Flammable	2	3	2	131	507
1114	Benzene	Flammable	2	3	0	130	486
1265	Pentanes, Isoprene, Pentadiene	Flammable Water miscible	2	3	1	128	483
1063	Methyl Chloride	Gases Flammable	2	4	2	115	443
1170	Ethanol	Flammable Water miscible	2	3	0	127	442
1805	Phosphoric acid	Toxic / Corrosive	3	0	0	154	399
3082	Dangerous, Environmental Hazard	Toxic	2	1	1	171	380
1250	Methyltrichlorosilane	Toxic / Corrosive / Water Sensitive	4	2	2	155	370
1219	Isopropanol	Flammable Water miscible	1	3	0	129	325
1773	Ferrous Chloride	Toxic / Corrosive	3	0	2	157	302

	Solution						
1495	Sodium Chlorate	Oxidizer	2	0	0	140	265
3065	Alcoholic Beverages	Flammable • Water miscible	1	3	0	127	263
2187	Carbon Dioxide, Refrigerated Liquid	Inert Gas	3	0	0	120	262

SR 747:

During the Blue Rock surveys of SR 747 it was determined that this roadway contained a MODERATE volume of commercial vehicle traffic. The specific survey points are depicted on the following map:



SR 747 @ 73 on 7-16-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-16-2013

Start Time: 1220 1620

Study Number: 004

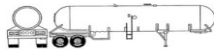
747 @ 73

DATA COLLECTION STATISTICS:

268	• Documented Vehicles Recorded;
142	• Northbound
126	• Southbound
	• Eastbound
	• Westbound

Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

-	• MC-331 - Compressed Gas Tankers 
1	• MC-338 - Cryogenic Tankers 
3	• MC-306 - Flammable/Comb. Liq. Tankers 
6	• MC-307 - Low Pressure Chem. Tankers 
-	• MC-312 - Corrosive Tankers 
72	• Standard Cargo Carriers 
188	• Other Containers 

PLACARD STATISTICS:

262	• NO PLACARDS VISIBLE
5	• WITH PLACARDS
-	• Explosives
-	• Flammable Gases
-	• Non-Flammable Gases
-	• Oxidizing Gases
-	• Toxic / Poison Gases
5	• Flammable Liquid
-	• Combustible Liquid
-	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
-	• Oxidizers
-	• Organic Peroxide
-	• Toxic / Poison
-	• Inhalation Hazard
-	• Infectious Substance
-	• Radiological
-	• Corrosive
-	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on 747 @ 73. This report pertains ONLY to the traffic on 747.

SR 747 @ 275 on 7-16-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-16-2013

Start Time: 0730 1130

Study Number: 003

747 @ 275

DATA COLLECTION STATISTICS:

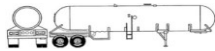
	• Documented Vehicles Recorded;
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27	• Northbound
43	• Southbound
	• Eastbound
	• Westbound

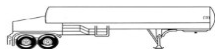
Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

-	• MC-331 - Compressed Gas Tankers
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-	• MC-338 - Cryogenic Tankers
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2	• MC-306 - Flammable/Comb. Liq. Tankers
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1	• MC-307 - Low Pressure Chem. Tankers
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-	• MC-312 - Corrosive Tankers
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26	• Standard Cargo Carriers
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41	• Other Containers
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Cement Trucks
Dump Trucks

PLACARD STATISTICS:

66	• NO PLACARDS VISIBLE
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4	• WITH PLACARDS
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-	• Explosives
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-	• Flammable Gases
---	-------------------

-	• Non-Flammable Gases
---	-----------------------

-	• Oxidizing Gases
---	-------------------

-	• Toxic / Poison Gases
---	------------------------

2	• Flammable Liquid
---	--------------------

-	• Combustible Liquid
---	----------------------

	• Dangerous Solids
--	--------------------

-	• Flammable Solids
---	--------------------

-	• Spontaneously Combustible
---	-----------------------------

-	• Oxidizers
---	-------------

-	• Organic Peroxide
---	--------------------

1	• Toxic / Poison
---	------------------

-	• Inhalation Hazard
---	---------------------

-	• Infectious Substance
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-	• Radiological
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1	• Corrosive
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-	• Dangerous
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SUMMARY COMMENTS:

Tracking traffic on 747 @ 275. This report pertains ONLY to the traffic on 747.

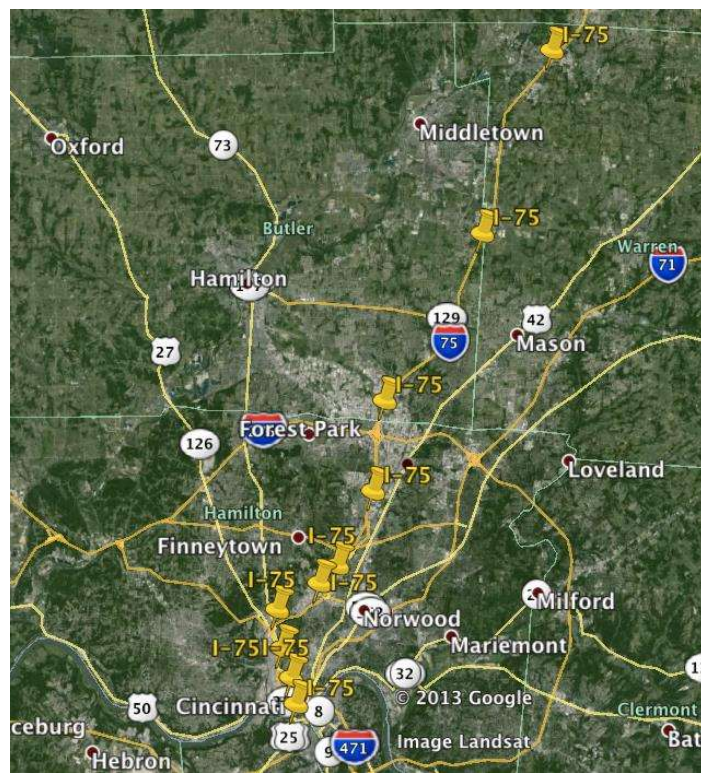
Summary of ALL chemicals observed at the locations:

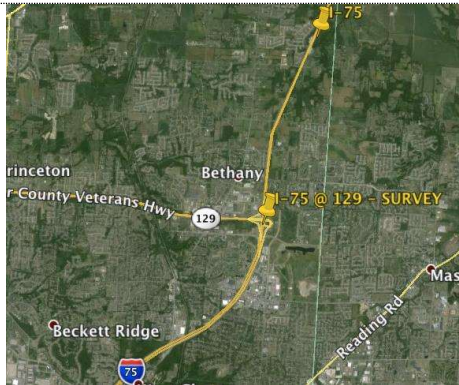
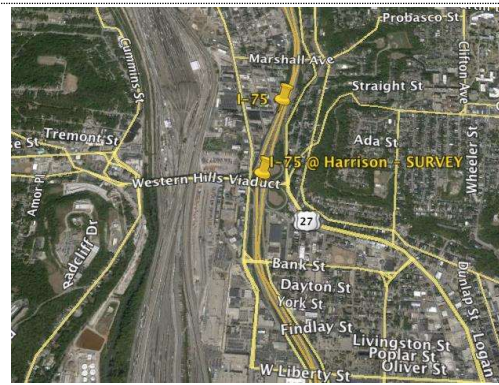
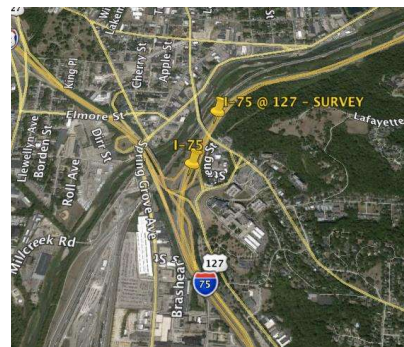
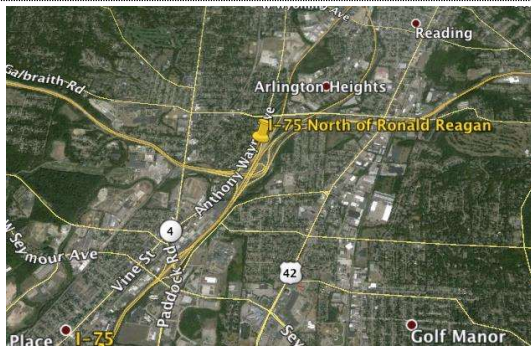
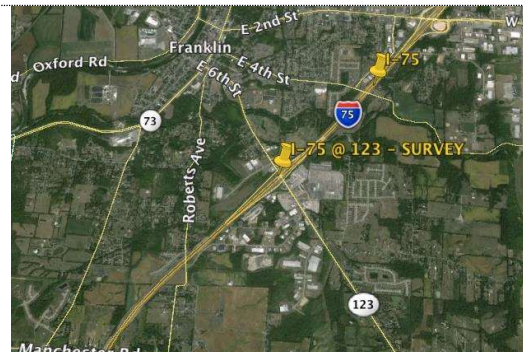
UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOADS
			HEALTH	FLAM.	REACT.		
1203	Gasohol, Gasoline, etc.	Flammable Liquid	1	3	0	128	7
2810	TOXIC / POISONS - Hazard Class 6	Toxic / Corrosive	4	0	2	153	1
3264	CORROSIVE - Hazard Class 8	Corrosive	3	1	2	154	1

I-75:

I-75 • 75 @ 129 (x2) • 75 @ Harrison Ave. • 75 @ Bridge • 75 @ 127 • 75 @ North of Ronald Reagan • 75 @ 123	I-75 was monitored with the other locations for a total of: • 7 – 4 hour segments
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During the Blue Rock surveys of I-75 it was determined that this roadway contained a EXTREMELY HIGH volume of commercial vehicle traffic. During the surveys it was learned that the route is to only be used for commercial vehicles that have deliveries along the route, however while survey teams moved along the corridor they followed a number of commercial vehicles that traveled along the entire route without stopping. The specific survey points are depicted on the following maps:



I-75 @ Multiple Locations:**I-75 @ 129****I-75 @ Harrison Ave****I-75 @ Bridge****I-75 @ 127****I-75 North of Ronald Reagan****I-75 @ 123**

I-75 @ 129 on 7-15-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-15-2013

Start Time: 0730 1130

Study Number: B1a

I-75 @ 129

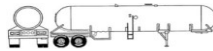
DATA COLLECTION STATISTICS:

2642	• Documented Vehicles Recorded;
1266	• Northbound
1222	• Southbound
-	• Eastbound
156	• Westbound

Other: (comment below)

1266	Trucks traveling NB on 75
1222	Trucks traveling SB on 75
156	NO EASTBOUND TRAVEL POSSIBLE
	Trucks traveling WB on 129

TRANSPORT VEHICLE STATISTICS:

31	• MC-331 - Compressed Gas Tankers
	
8	• MC-338 - Cryogenic Tankers
	
66	• MC-306 - Flammable/Comb. Liq. Tankers
	
85	• MC-307 - Low Pressure Chem. Tankers
	
24	• MC-312 - Corrosive Tankers
	
1440	• Standard Cargo Carriers
	
828	• Other Containers
	

PLACARD STATISTICS:

2324	• NO PLACARDS VISIBLE
174	• WITH PLACARDS
-	• Explosives
13	• Flammable Gases
17	• Non-Flammable Gases
6	• Oxidizing Gases
5	• Toxic / Poison Gases
66	• Flammable Liquid
-	• Combustible Liquid
3	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
2	• Oxidizers
-	• Organic Peroxide
5	• Toxic / Poison
1	• Inhalation Hazard
-	• Infectious Substance
-	• Radiological
42	• Corrosive
9	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 tracked in this survey as well as the 129 ramps, This report pertains ONLY to the traffic on I-75. (See SR 129 results for the trucks exited onto West 129).

UN 2448 = 1 truck

UN 3266 = 1 truck

I-75 Near Harrison Avenue on 7-17-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-17-2013

Start Time: 1250 1650

Study Number: 013

I-75 Near Harrison Avenue

DATA COLLECTION STATISTICS:

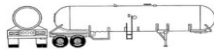
1883 • Documented Vehicles Recorded;

1017 • Northbound
866 • Southbound
• Eastbound
• Westbound

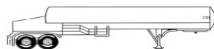
Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

9 • MC-331 - Compressed Gas Tankers



1 • MC-338 - Cryogenic Tankers



49 • MC-306 - Flammable/Comb. Liq. Tankers



110 • MC-307 - Low Pressure Chem. Tankers



16 • MC-312 - Corrosive Tankers



1662 • Standard Cargo Carriers



41 • Other Containers



Septic pump / tanker trucks - Under 2000 gal

PLACARD STATISTICS:

1655 • NO PLACARDS VISIBLE

228 • WITH PLACARDS

2 • Explosives

6 • Flammable Gases

7 • Non-Flammable Gases

1 • Oxidizing Gases

1 • Toxic / Poison Gases

96 • Flammable Liquid

- • Combustible Liquid

1 • Dangerous Solids

- • Flammable Solids

- • Spontaneously Combustible

2 • Oxidizers

3 • Organic Peroxide

4 • Toxic / Poison

2 • Inhalation Hazard

- • Infectious Substance

- • Radiological

66 • Corrosive

37 • Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 @ Harrison. This report pertains ONLY to the traffic on I-75.

I-75 @ the Bridge into Ohio on 7-18-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-18-2013

Start Time: 0730 1145

Study Number: 013a

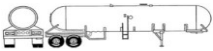
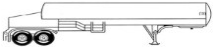
I-75 @ the bridge into Ohio

DATA COLLECTION STATISTICS:

703	• Documented Vehicles Recorded;
362	• Northbound
341	• Southbound
-	• Eastbound
-	• Westbound

Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

4	• MC-331 - Compressed Gas Tankers 
-	• MC-338 - Cryogenic Tankers 
12	• MC-306 - Flammable/Comb. Liq. Tankers 
19	• MC-307 - Low Pressure Chem. Tankers 
11	• MC-312 - Corrosive Tankers 
67	• Standard Cargo Carriers 
592	• Other Containers 

PLACARD STATISTICS:

646	• NO PLACARDS VISIBLE
57	• WITH PLACARDS
-	• Explosives
11	• Flammable Gases
10	• Non-Flammable Gases
2	• Oxidizing Gases
-	• Toxic / Poison Gases
14	• Flammable Liquid
-	• Combustible Liquid
1	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
-	• Oxidizers
-	• Organic Peroxide
2	• Toxic / Poison
-	• Inhalation Hazard
-	• Infectious Substance
-	• Radiological
9	• Corrosive
8	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 @ Bridge. This report pertains ONLY to the traffic on I-75.

I-75 @ 129 on 7-18-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 7-19-2013

Start Time: 1200 1600

Study Number: 009

I-75 @ 129

DATA COLLECTION STATISTICS:

3850 • Documented Vehicles Recorded;

1861 • Northbound

1989 • Southbound

-

• Eastbound

-

• Westbound

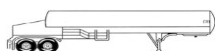
Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

21 • MC-331 - Compressed Gas Tankers



2 • MC-338 - Cryogenic Tankers



66 • MC-306 - Flammable/Comb. Liq. Tankers



127 • MC-307 - Low Pressure Chem. Tankers



28 • MC-312 - Corrosive Tankers



2253 • Standard Cargo Carriers



1318 • Other Containers



PLACARD STATISTICS:

3548 • NO PLACARDS VISIBLE

302 • WITH PLACARDS

- • Explosives

10 • Flammable Gases

11 • Non-Flammable Gases

4 • Oxidizing Gases

6 • Toxic / Poison Gases

92 • Flammable Liquid

- • Combustible Liquid

- • Dangerous Solids

1 • Flammable Solids

1 • Spontaneously Combustible

2 • Oxidizers

- • Organic Peroxide

8 • Toxic / Poison

3 • Inhalation Hazard

1 • Infectious Substance

- • Radiological

37 • Corrosive

18 • Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 @ 129. This report pertains ONLY to the traffic on I-75.

I-75 @ 127 on 7-19-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 07-19-2013

Start Time: 0830 1230

Study Number: 011

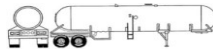
I-75 @ 127

DATA COLLECTION STATISTICS:

1068	• Documented Vehicles Recorded;
839	• Northbound
229	• Southbound
-	• Eastbound
-	• Westbound

Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

1	• MC-331 - Compressed Gas Tankers
	
-	• MC-338 - Cryogenic Tankers
	
21	• MC-306 - Flammable/Comb. Liq. Tankers
	
50	• MC-307 - Low Pressure Chem. Tankers
	
10	• MC-312 - Corrosive Tankers
	
592	• Standard Cargo Carriers
	
516	• Other Containers
	

PLACARD STATISTICS:

1021	• NO PLACARDS VISIBLE
47	• WITH PLACARDS
-	• Explosives
3	• Flammable Gases
3	• Non-Flammable Gases
1	• Oxidizing Gases
1	• Toxic / Poison Gases
22	• Flammable Liquid
-	• Combustible Liquid
1	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
1	• Oxidizers
-	• Organic Peroxide
1	• Toxic / Poison
-	• Inhalation Hazard
-	• Infectious Substance
-	• Radiological
14	• Corrosive
-	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 @ 127. This report pertains ONLY to the traffic on I-75.

I-75 @ North of Ronald Reagan on 7-19-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 07-19-2013

Start Time: 1100 1500

Study Number: 013b

I-75 @ North of Ronald Reagan (126)

DATA COLLECTION STATISTICS:

3004	• Documented Vehicles Recorded;
1580	• Northbound
1424	• Southbound
-	• Eastbound
-	• Westbound

Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

8	• MC-331 - Compressed Gas Tankers	
-	• MC-338 - Cryogenic Tankers	
72	• MC-306 - Flammable/Comb. Liq. Tankers	
128	• MC-307 - Low Pressure Chem. Tankers	
32	• MC-312 - Corrosive Tankers	
2108	• Standard Cargo Carriers	
656	• Other Containers	

PLACARD STATISTICS:

2836	• NO PLACARDS VISIBLE
168	• WITH PLACARDS
-	• Explosives
4	• Flammable Gases
4	• Non-Flammable Gases
-	• Oxidizing Gases
-	• Toxic / Poison Gases
72	• Flammable Liquid
-	• Combustible Liquid
-	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
-	• Oxidizers
-	• Organic Peroxide
16	• Toxic / Poison
-	• Inhalation Hazard
-	• Infectious Substance
-	• Radiological
28	• Corrosive
44	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 North of 126. This report pertains ONLY to the traffic on I-75.

I-75 @ 123 on 8-13-2013



OHIO HAZMAT HIGHWAY TRANSPORTATION FLOW STUDY SUMMARY

Study Date: 8-13-2013

Start Time: 0730 1130

Study Number: 031

I-75 @ 123 (ONLY TRUCKS WITH PLACARDS OR VISIBLE HAZMAT)

DATA COLLECTION STATISTICS:

331	• Documented Vehicles Recorded;
178	• Northbound
153	• Southbound
-	• Eastbound
	• Westbound

Other: (comment below)

TRANSPORT VEHICLE STATISTICS:

35	• MC-331 - Compressed Gas Tankers
13	• MC-338 - Cryogenic Tankers
74	• MC-306 - Flammable/Comb. Liq. Tankers
92	• MC-307 - Low Pressure Chem. Tankers
38	• MC-312 - Corrosive Tankers
43	• Standard Cargo Carriers
28	• Other Containers

PLACARD STATISTICS:

112	• NO PLACARDS VISIBLE
219	• WITH PLACARDS
-	• Explosives
21	• Flammable Gases
25	• Non-Flammable Gases
8	• Oxidizing Gases
6	• Toxic / Poison Gases
61	• Flammable Liquid
-	• Combustible Liquid
3	• Dangerous Solids
-	• Flammable Solids
-	• Spontaneously Combustible
5	• Oxidizers
-	• Organic Peroxide
11	• Toxic / Poison
1	• Inhalation Hazard
2	• Infectious Substance
1	• Radiological
58	• Corrosive
17	• Dangerous



SUMMARY COMMENTS:

Tracking traffic on I-75 @ 123. This report pertains ONLY to the traffic on I-75.
 Unlike previous location surveys - this survey ONLY tracks commercial vehicles capable of transporting hazardous materials and/or those that were placarded.
 NOTE: The truck and placard information ONLY reflects those trucks on I-75.
 UN 3291 - 3

Summary of ALL chemicals observed at the locations:

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOC
			HEALTH	FLAM.	REACT.		
1005	Anhydrous Ammonia	Corrosive Gas	3	1	0	125	2
1073	Oxygen, Refrigerated	Oxidizer / Cryogenic	3	0	0	122	3
1075	PETROLEUM GASES • Butane • Propane (LPG)	Flammable	1	4	0	115	17
1093	Acrylonitrile	Flammable / Poison	4	3	2	131	1
1114	Benzene	Flammable	2	3	0	130	
1120	Butanols	Flammable Gas	1	3	0	129	1
1134	Chlorobenzene	Flammable • Water miscible	2	3	0	130	1
1160	Dimethylamine, aqueous solution	Flammable / Corrosive	3	4	0	132	1
1170	Ethanol	Flammable • Water miscible	2	3	0	127	6
1203	Gasohol, Gasoline, etc.	Flammable Liquid	1	3	0	128	166
1210	Printers Ink	Flammable	2	3	0	129	1
1230	Methanol	Flammable	1	3	0	131	3
1247	METHYL METHACRYLATE	Flammable • Water miscible	2	3	2	129	1
1263	Paint Related Material	Flammable	1	3	0	128	1
1268	Petroleum Distillates, NOS	Flammable	1	2	0	128	1
1274	Propyl Alcohol, normal	Flammable • Water miscible	1	3	0	129	1
1294	Toluene	Flammable	2	3	0	130	1
1307	Xylenes	Flammable	2	3	0	130	2
1402	Calcium Carbide	Water Reactive	3	3	2	138	1
1500	Sodium Nitrite	Oxidizer	3	0	1	140	1
1604	Ethylenediamine	Flammable / Corrosive	3	3	0	132	1
1649	Motor fuel anti-knock mixture	Flammable / Toxic	1	3	1	131	2

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOC
			HEALTH	FLAM.	REACT.		
1733	Antimony Trichloride	Toxic / Corrosive	3	0	1	157	1
1760	Corrosive Liquid NOS	Toxic / Corrosive	3	1	2	154	11
1770	Diphenylmethyl Bromide	Toxic / Corrosive	3	1	2	153	1
1780	Fumaryl Chloride	Toxic / Corrosive	3	2	2	156	1
1789	Hydrochloric Acid	Toxic / Corrosive	3	0	1	157	8
1791	Hypochlorite Solution	Toxic / Corrosive	3	0	0	154	13
1803	Phenolsulfonic Acid	Toxic / Corrosive	3	1	0	153	1
1805	Phosphoric Acid	Toxic / Corrosive	3	0	0	154	1
1814	Potassium Hydroxide	Toxic / Corrosive	3	0	1	154	1
1823	Caustic	Corrosive	2	1	1	154	
1824	Sodium Hydroxide	Toxic / Corrosive	3	0	1	154	49
1825	Sodium Monoxide	Toxic / Corrosive / Water Sensitive	2	1	2	157	1
1826	Nitrating Acid Mixture	Toxic / Corrosive / Water Sensitive	3	0	1	157	1
1829	Sulfur Trioxide	Water Reactive / Corrosive	3	0	2	137	2
1830	Sulfuric Acid	Corrosive	3	0	2	137	4
1832	Sulfuric Acid	Water Reactive	3	0	2	137	1
1838	Titanium Tetrachloride	Corrosive	3	0	2	137	2
1845	Carbon Dioxide, Solid	Cryogenic	3	0	0	120	2
1863	Aviation Fuel	Flammable	1	2	0	128	3
1866	Resin solution	Flammable	1	2	0	127	2
1903	Disinfectants, corrosive, liquid NOS	Toxic / Corrosive	2	0	0	153	1
1907	Soda Lime	Toxic / Corrosive	2	0	2	154	1
1951	Argon, Refrigerated Liquid	Inert	3	0	0	120	1
1956	Compressed Gas	Compressed or Liquefied	3	0	0	126	1

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOC
			HEALTH	FLAM.	REACT.		
1975	Dinitrogen Tetroxide & Nitric Oxide Mixture	Toxic / Corrosive	3	0	0	124	1
1977	Nitrogen, Refrigerated	Inert / Cryogenic	3	0	0	120	9
1983	Chlorotrifluoroethane	Gas, Compressed or Liquified	2	4	0	126	4
1986	Alcohols, Flammable	Flammable • Water miscible	1	3	0	131	1
1987	Alcohol NOS	Flammable • Water miscible	1	3	0	127	18
1993	Combustible Liquid • Fuel Oil • Diesel Fuel	Combustible Liquid	1	2	0	128	36
2031	Nitric Acid	Toxic / Corrosive	4	0	0	157	3
2187	Carbon Dioxide – Refrigerated	Inert Gas / Cryogenic	3	0	0	120	7
2448	Molten Sulfur	Flammable Solids	4	0	4	133	2
2491	Ethanolamine	Toxic / Corrosive	3	2	0	153	1
2582	Ferric Chloride	Flammable	3	0	2	154	1
2790	Acetic Acid	Toxic / Corrosive	3	2	0	153	2
2924	Flammable Liquids	Flammable				132	1
3016	Paraquat Dichloride	Toxic	4	0	0	151	
3065	Alcoholic Beverages	Flammable • Water miscible	1	3	0	127	4
3077	Waste	Low to Moderate Hazards	2	2	2	171	1
3082	Dangerous, Environmental Hazard	Toxic	2	1	1	171	12
3083	Perchloryl Fluoride	Toxic / Corrosive / Oxidizing	2	3	0	124	1
3163	Liquified Gas NOS	Refrigerated Gas	3	0	1	126	1
3170	Aluminum dross	Water reactive / Flammable gas	1	1	1	138	2

UN NUMBER	CHEMICAL NAME	HAZARD	NFPA 704 RATING			ERG GUIDE	# OF LOC
			HEALTH	FLAM.	REACT.		
3252	Difluoromethane	Flammable	1	4	1	115	1
3257	Elevated Temperature Product	HOT / Flammable	1	2	1	128	75
3258	Elevated Temperature Product	HOT / Flammable	1	2	1	171	4
3264	CORROSIVE - Hazard Class 8	Corrosive	3	1	2	154	3
3265	Corrosive Liquid	Corrosive	3	1	2	153	1
3266	Corrosive Liquid NOS	Corrosive	3	1	2	154	1
3268	Air Bag Inflators	Low to Moderate Hazard	1	2	3	171	1
3291	(Bio) Medical Waste	Infectious Substance	2	1	0	158	4
3475	Ethanol and Gasoline Mixture (E-85)	Flammable Water miscible	2	3	0	127	1