STATEWIDE

Statistical Report of the Division of Response Services

Case Load

for 1986

Compiled by:

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Division of Response Services
Bureau of Oil & Hazardous Material Control
Department of Environmental Protection

INDEX

INTRODUCTION

In 1986 the Division of Response Services staff; consisting of thirteen (13) Oil and Hazardous Materials Specialists (OHMS), one (1) Environmental Specialist (ES) and one (1) Division Director, filed one thousand six hundred seventy four (1,674) reports dealing with oil and hazardous materials incidents and investigaitons in the State of Maine. The following pages summarize those reports from a variety of aspects in an attempt to highlight both Maine's environmental concerns and the kinds and numbers of situations Response Services' personnel handle.

Comments on each section have been kept to a minimum. Most of the presentations require no explanation. In a few places comments have been added to help the reader examine a particular graph or data field. For example, several pages have column headers "A", "B", "I", and "P". in each of these cases, the letters are abbreviations of the response office's name:

A - Augusta
B - Bangor
I - Presque Isle
P - South Portland

NOTE 1: Of Maine's four hundred ninety five communities, three hundred ninety, or **seventy nine percent** of those communities, experienced at least one oil or hazardous materials incident or investigation.

NOTE 2: Eighty eight wells were contaminated in 1986. At this rate of contamination, every community in Maine could have at least one contaminated groundwater source within six years.

Personnel Responsible for Writing Reports

for 1986

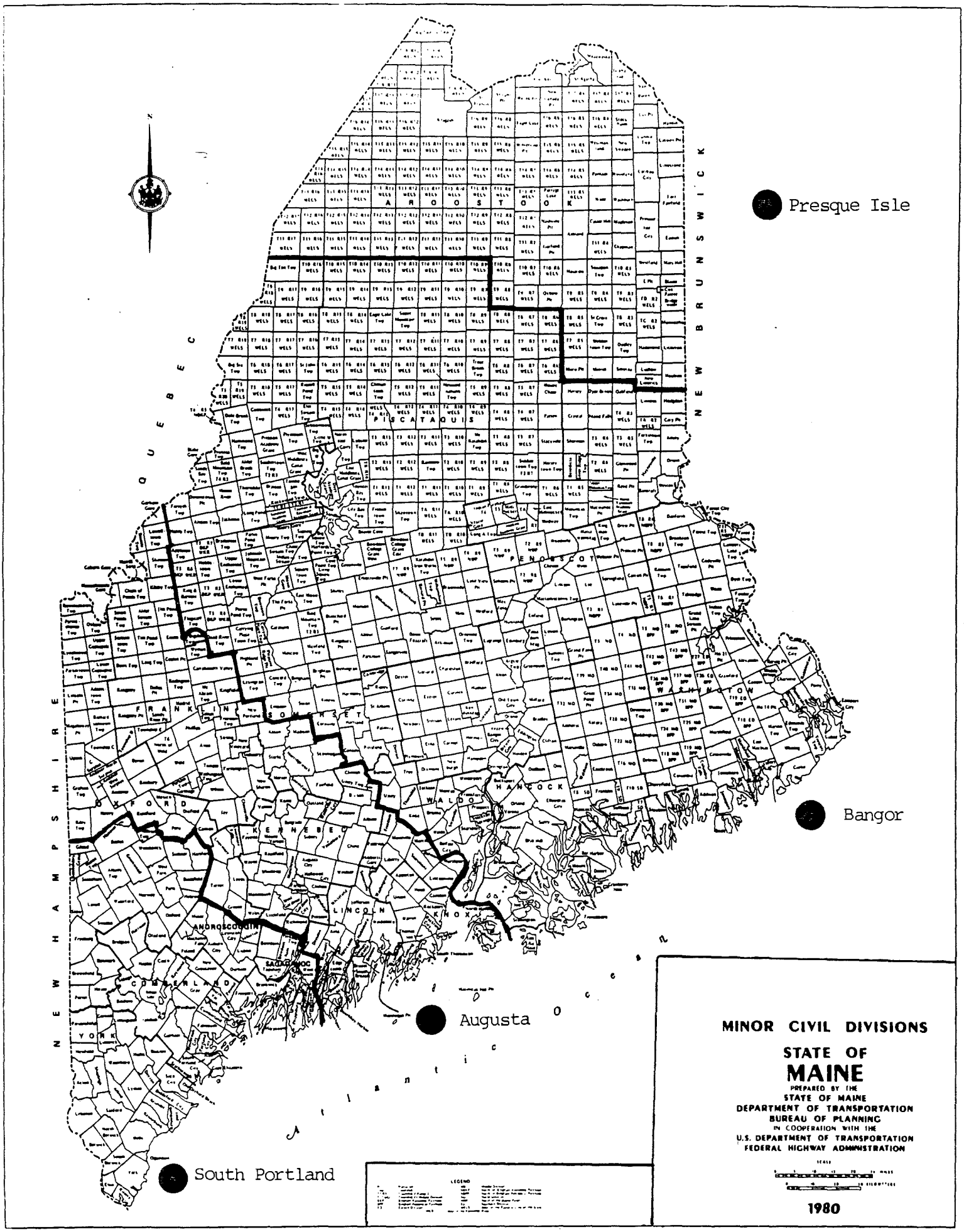
Name	Position	Location
David Sait	Division Director	Augusta
Fred Brann	OHMS	"
Perry Cogburn	OHMS	"
Denny Phillips	OHMS	"
Jim Pray	OHMS	"
Tom Maleck	OHMS	Bangor
Bob Randall	OHMS	"
Barbara Taylor	OHMS	"
Tom Varney	OHMS	"
Jake Ward	ESS	"
Ed Antz	OHMS	South Portland
Jim Daye	OHMS	"
Steven Eufemia	OHMS	"
Mark St. Germaine	OHMS	"
Carl Allen	OHMS	Presque Isle

Telephone Numbers:

South Portland	767-4761
Presque Isle	764-2044
Bangor	941-4570
Augusta	289-2651

24 Hour Emergency Oil Spill Hotline 1-800-481-0777

* REPONSE ZONES *



MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF RESPONSE SERVICES

A BREAK DOWN, BY MONTH, OF REPORTS IN

1986

Month of Report	Number of Reports Filed
January	102
February	75
March	114
April	167
May	140
June	149
July	174
August	198
September	163
October	155
November	126
December	111
Total	1,674

The table "A Listing by Office of the Number of Oil vs. Hazardous Materials Incidents and Investigations Response Services Handles" lists the number and kind of reports filed in a particular office. Below each office's report type is a percentage which represents what percent of that office's reports were of this type. Looking at these percentages it is clear that there is a uniformity of events through out the state. The average office puts forth nearly 60% of its efforts in oil incidents, 4% goes to hazardous material incidents, 30% to oil investigations and 6% to hazardous material investigations.

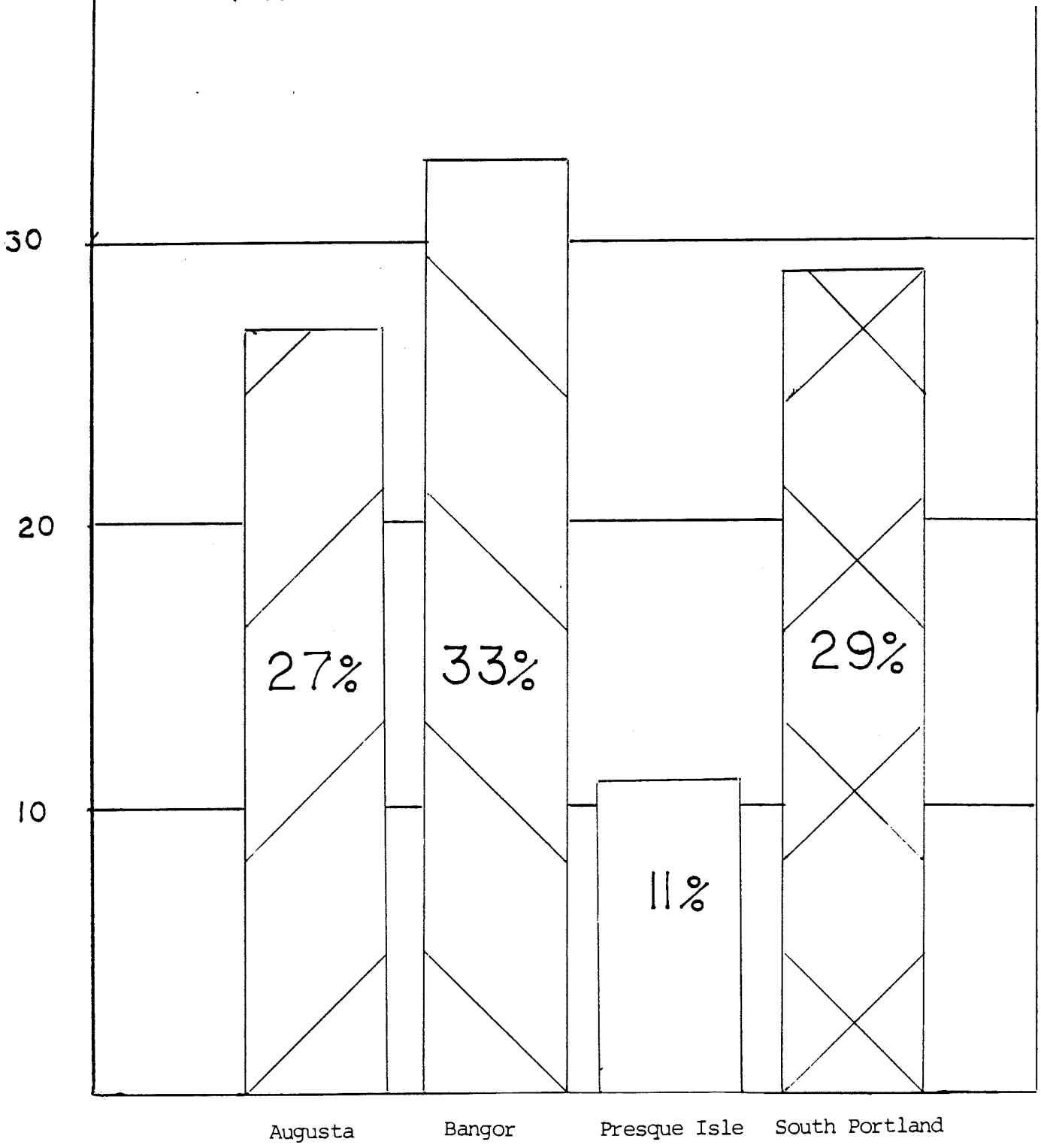
A LISTING BY OFFICE OF THE NUMBER

OF OIL vs. HAZARDOUS MATERIAL INCIDENTS AND INVESTIGATIONS

RESPONSE SERVICES HANDLES

Office	Oil Incident	Hazardous Material Incident	Oil Investigation	Hazardous Material Investigation	Total
Augusta	224	13	178	23	458
Percent	53%	03%	39%	05%	
Bangor	349	13	177	19	558
Percent	63%	02%	32%	03%	
Presque Isle	117	12	36	12	117
Percent	66%	07%	20%	07%	
South Portland	269	22	151	39	481
Percent	56%	05%	31%	08%	
				Final Total	1,674

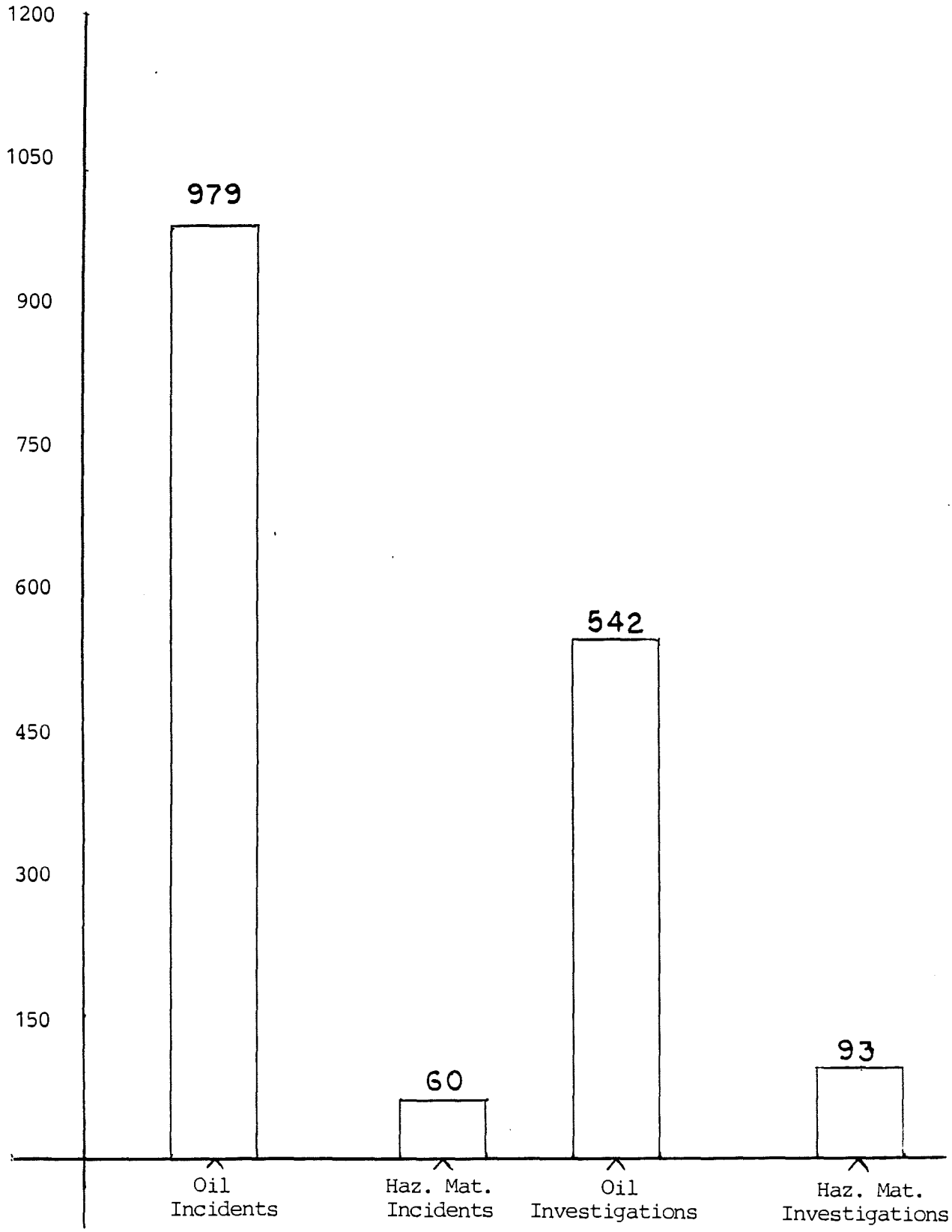
COMPARISON OF REPORTS FILED BY EACH OFFICE



This graph compares each office's share of the 1674 reports filed.

OIL AND HAZARDOUS MATERIALS

INCIDENTS AND INVESTIGATIONS



REPORTS FOR 1986

BROKEN DOWN BY MEDIUM EFFECTED

	A	B	I	P	Totals
Atmosphere	4	2	1	1	8
Coastal and Surface Water	18	14	0	38	70
Groundwater	30	62	12	20	124
Ground and Coastal Surface Water	1	4	0	4	9
Ground and Inland Surface Water	7	5	5	5	22
Inland Surface Water	33	24	5	30	92
Land	195	185	62	174	616
Land and Coastal Water	1	1	0	5	7
Land and Groundwater	67	47	25	45	184
Land and Inland Surface Water	16	32	21	42	111
None	86	182	46	117	431
Totals	458	558	117	481	1677

REPORTS ON FILE

by

METHOD OF DETECTION

	A	B	I	P	Totals
Standard Inventory	1	4	0	0	5
Statistical Inventory Analysis	0	0	6	0	6
Monitoring Well	0	0	1	0	1
Precision Test	5	6	6	0	17
Water in Tank	12	12	0	1	25
Surface Breakout	5	6	1	1	13
Contaminated Well	8	12	4	1	25
Fumes in Structure	0	4	0	0	4
Other	90	214	44	12	360
Routine Surveillance	14	7	9	36	66
Spillor	159	115	45	205	524
Citizen Complaint	68	92	26	105	291
Public Official	89	78	26	115	308
Anonymous	7	8	9	5	29
Totals	458	558	117	481	1674

REPORTS BY CAUSE

Non-Vessel	A	B	I	P	Totals
00	38	180	52	82	352
Tank, External Corrosion	45	58	14	40	157
Tank Movement	7	14	0	7	28
Vehicle Accident	40	38	9	46	133
Vandalism	7	12	2	6	27
Other Known Source	158	73	15	127	373
Unknown	40	74	16	42	172
Human Error	22	23	18	37	100
Tank, Internal Corrosion	20	10	1	3	34
Tank, Physical Breakage	10	5	4	3	22
Tank, Poor Workmanship	3	1	0	1	5
Piping, Corrosion	3	3	4	8	18
Piping, Physical Breakage	11	16	10	16	53
Piping, Loose Joint	16	15	16	11	58
Piping, Poor Workmanship	1	1	0	4	6
Tank Overfill	28	27	16	29	100

REPORTS BY CAUSE (cont.)

Vessel (Ship)						
Structural Failure		0	0	0	2	2
Tank Overfill		0	0	0	0	0
Piping or Hose Failure		1	0	0	1	2
Valve Failure		0	0	0	0	0
Collision or Grounding		0	1	0	0	1
Sunken Vessel		0	1	0	5	6
Bilge Discharge		3	2	0	3	8
Other Known Source		2	1	0	4	7
Unknown		3	3	0	4	10
Human Error		0	0	0	0	0
	Totals	458	558	177	481	1674

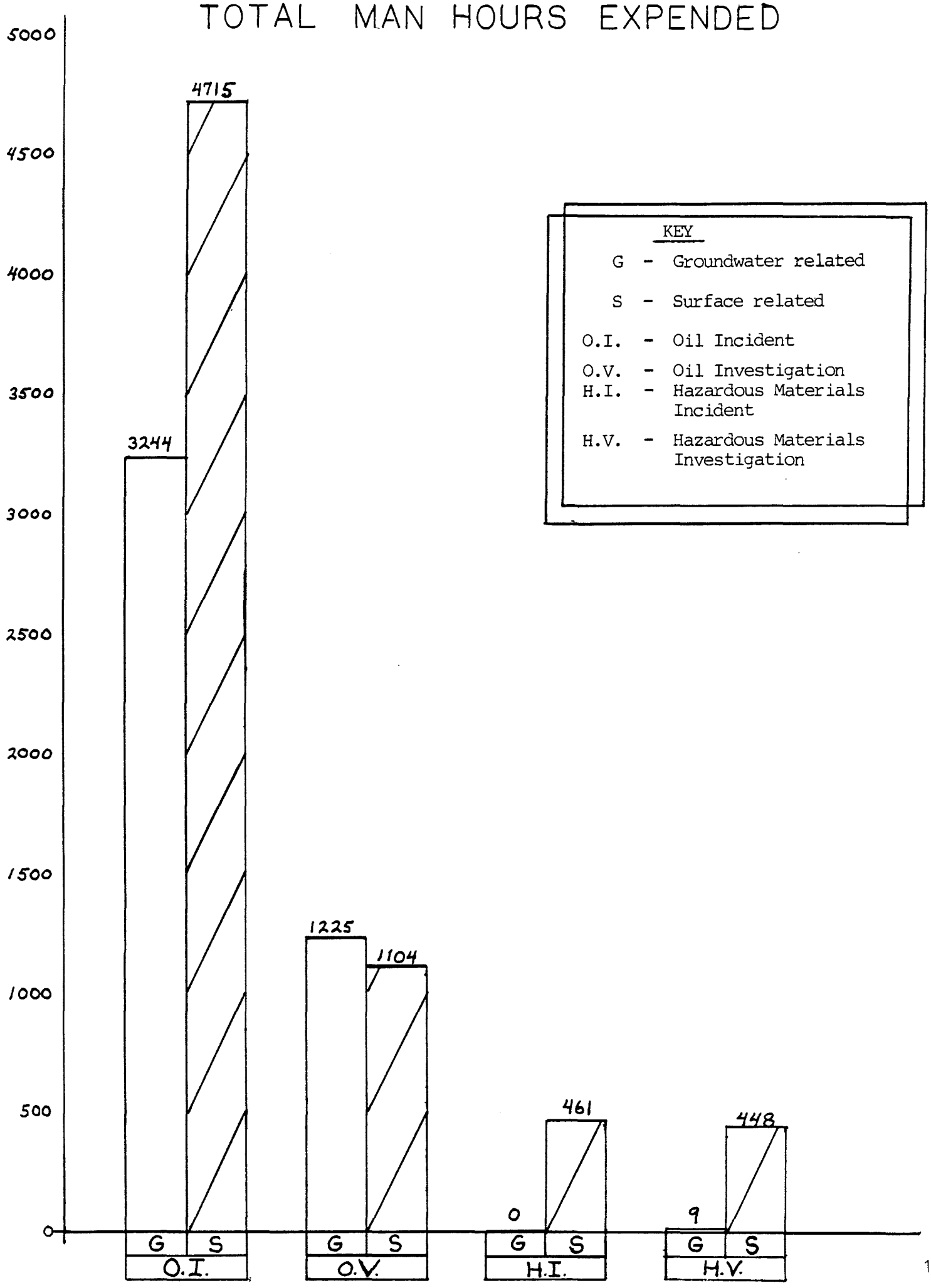
MAN HOURS EXPENDED ON SPILLS

	Augusta	Bangor	Presque Isle	South Portland
Oil Incident				
Ground	506.0	2189.5	407.0	142.0
Surface	1152.4	1565.0	481.8	1516.3
Hazardous Materials Incident				
Ground	0.0	0.0	0.0	0.0
Surface	68.5	90.5	97.0	205.0
Oil Investigation				
Ground	314.0	793.0	94.0	24.5
Surface	315.0	163.0	76.3	550.0
Haz. Materials Investigation				
Ground	6.0	2.0	1.0	0.0
Surface	98.5	113.5	73.6	162.5
Each Office's Total Time Expended				
Groundwater	826.0	2984.8	502.0	166.5
Surfacewater	1634.4	1932.0	728.7	2433.8

Total Time All Offices

Groundwater	4479.3
Surfacewater	6664.9

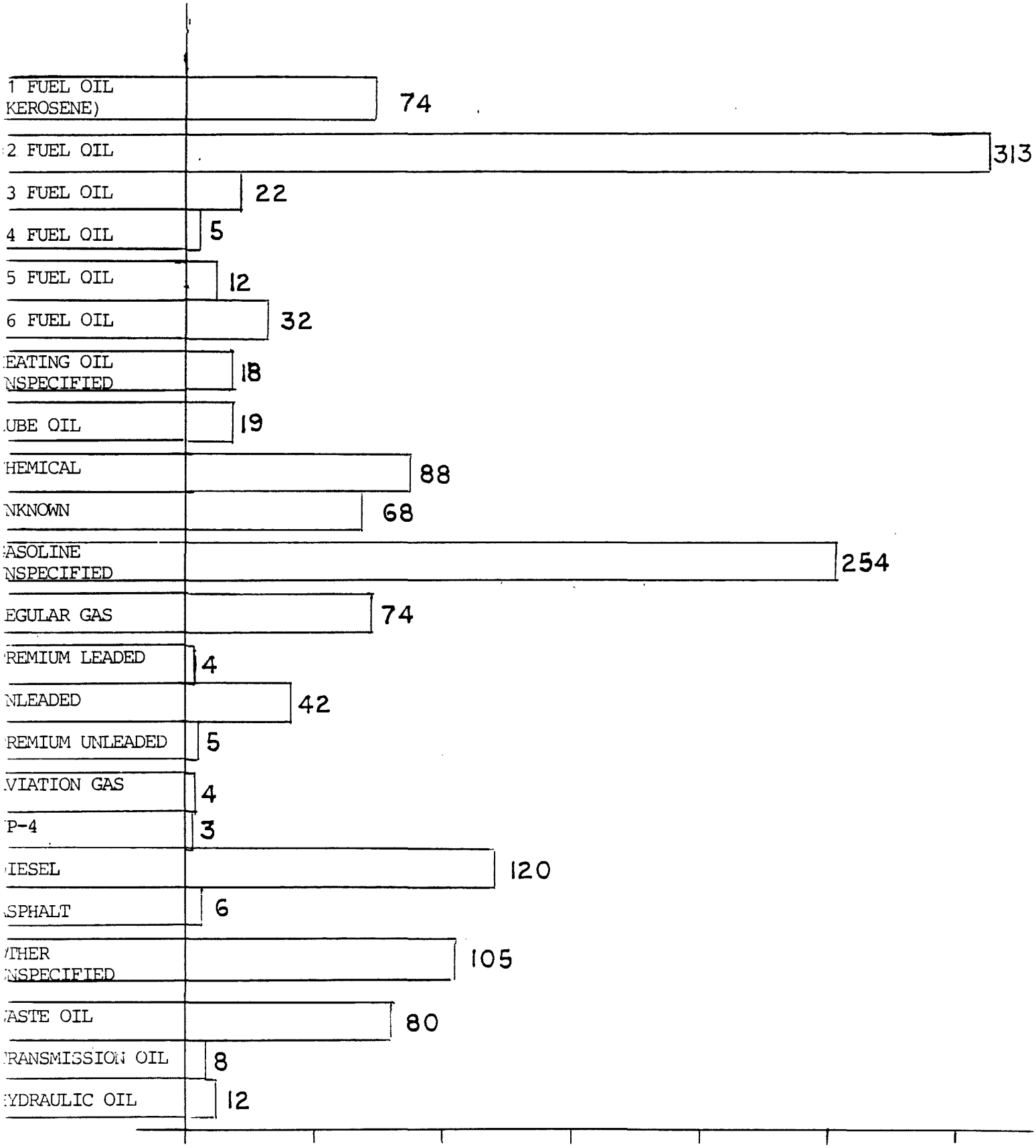
TOTAL MAN HOURS EXPENDED



PRODUCTS SPILLED IN 1986

Product Type	Number of Spills
none	303
#1 fuel oil or kerosene	74
#2 fuel oil	313
#3 fuel oil	22
#4 fuel oil	5
#5 fuel oil	12
#6 fuel oil	32
heating oil unspecified	18
lube oil	19
chemical	88
12	1
unknown	68
gasoline unspecified	254
regular gasoline	74
premium leaded gasoline	4
unleaded gasoline	42
aviation gasoline	4
JP-4	3
premium unleaded gasoline	5
diesel	120
asphalt	6
other unspecified	105
waste oil used motor oil	80
bulk oil	2
transbission oil	8
hydraulic oil	12
Total	1674

Products Spilled In 1986



TYPES RESPONDED TO BY OFFICE
AUGUSTA

Type of Spill	Number of Spills	Wells Impacted
None	34	0
#1 Fuel Oil or Kerosene	19	2
#2 Fuel Oil	107	9
#3 Fuel Oil	5	0
#4 Fuel Oil	1	0
#6 Fuel Oil	9	0
Heating Oil, Unspecified	3	0
Lube Oil	3	1
Chemical	19	0
Unknown	22	0
Gasoline, Unspecified	97	8
Regular Gasoline	28	0
Premium Leaded Gasoline	1	0
Unleaded Gasoline	5	0
JP-4	1	0
Diesel	32	0
Other, Unspecified	40	0
Waste Oil, Used Motor Oil	28	0
Hydraulic Oil	3	0
Total (Augusta)	458	20

TYPES RESPONDED TO BY OFFICE

BANGOR

Type of Spill	Number of Spills	Wells Impacted
None	183	3
#1 Fuel Oil or Kerosene	36	6
#2 Fuel Oil	83	4
#3 Fuel Oil	3	0
#4 Fuel Oil	1	0
#5 Fuel Oil	10	0
#6 Fuel Oil	10	0
Heating Oil, Unspecified	2	1
Lube Oil	11	0
Chemical	18	0
Unknown	13	0
Gasoline, Unspecified	53	18
Regular Gasoline	23	6
Premium Leaded Gasoline	2	1
Unleaded Gasoline	18	0
Aviation Gasoline	4	0
JP-4	1	0
Premium Unleaded Gasoline	2	0
Diesel	45	0
Asphalt	3	0
Other Unspecified	17	3
Waste Oil, Used Motor Oil	11	0
Transmission Oil	6	0
Hydraulic Oil	3	0
Total (Bangor)	558	42

TYPES RESPONDED TO BY OFFICE

PRESQUE ISLE

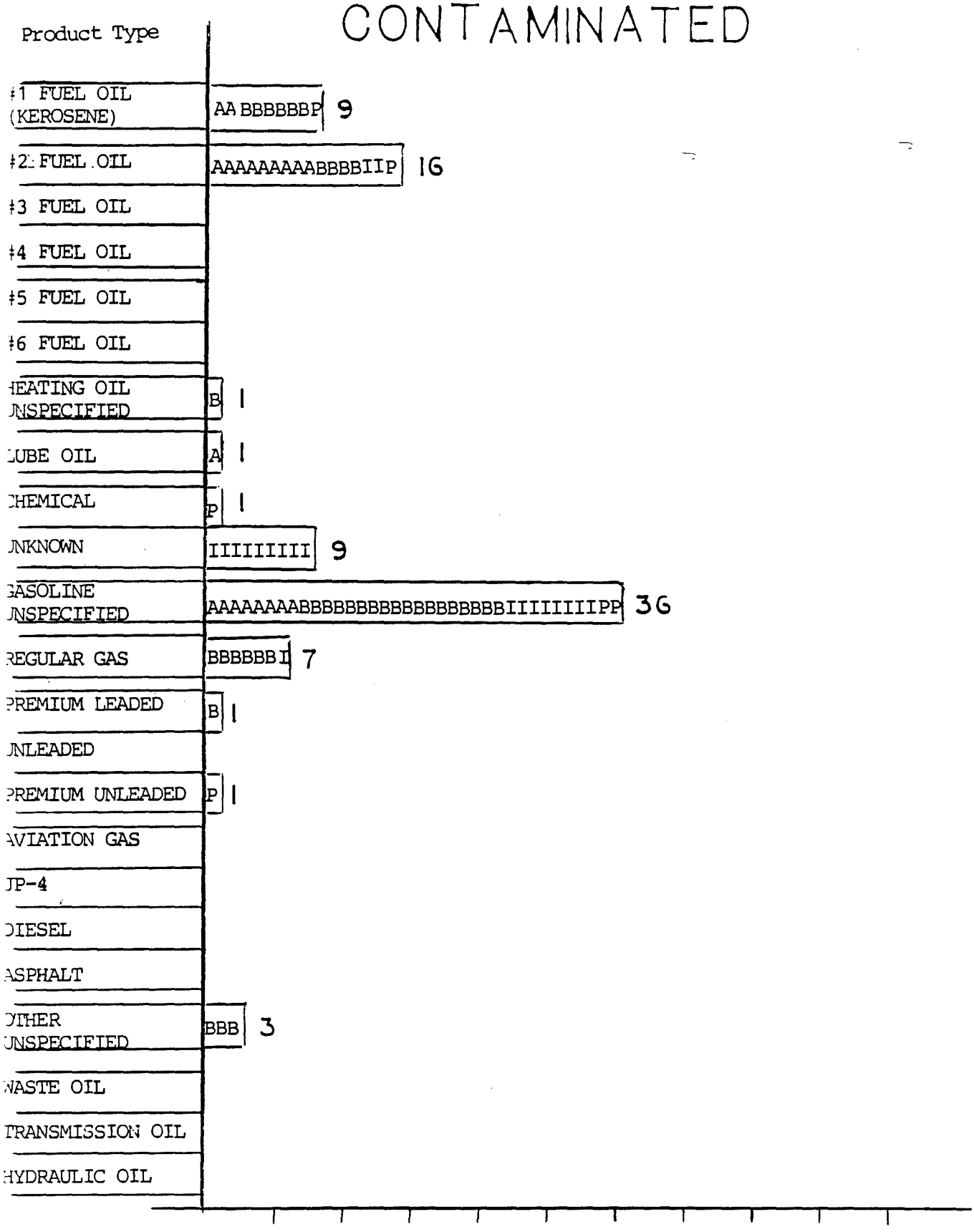
Type of Spill	Number of Spills	Wells Impacted
None	9	0
#1 Fuel Oil or Kerosene	3	0
#2 Fuel Oil	39	2
#5 Fuel Oil	1	0
#6 Fuel Oil	4	0
Heating Oil, Unspecified	2	0
Lube Oil	1	0
Chemical	19	0
Unknown	14	9
Gasoline, Unspecified	39	8
Regular Gasoline	17	1
Unleaded Gasoline	4	0
JP-4	1	0
Diesel	10	0
Other, Unspecified	3	0
Waste Oil, Used Motor Oil	11	0
Total (Presque Isle)	177	20

TYPES RESPONDED TO BY OFFICE

SOUTH PORTLAND

Type of Spill	Number of Spills	Wells Impacted
None	77	0
# Fuel Oil or Kerosene	16	1
#2 Fuel Oil	84	1
#3 Fuel Oil	14	0
#4 Fuel Oil	3	0
#5 Fuel Oil	1	0
#6 Fuel Oil	9	0
Heating Oil, Unspecified	11	0
Lube Oil	4	0
Chemical	32	1
Unknown	19	0
Gasoline, Unspecified	65	2
Regular Gasoline	6	0
Premium Leaded Gasoline	1	0
Unleaded Gasoline	15	0
Premium Unleaded Gasoline	3	1
Diesel	33	0
Asphalt	3	0
Other, Unspecified	45	0
Waste Oil, Used Motor Oil	30	0
Bulk Oil	2	0
Transmission Oil	2	0
Hydraulic Oil	6	0
Total (South Portland)	481	6

GRAPH OF PRODUCTS VS WELLS CONTAMINATED



A - Augusta Office
B - Bangor "
I - Presque Isle "
P - South Portland "

"Total Amounts of Spill Products Lost and Recovered" contains four information fields. These fields are: Amount Spilled, Product Recovered, Percentage Recovered and Clean-up Information. We consider amount spilled to be the best estimate of the total product discharged during an incident. Product recovered is defined as the best estimate of the total product removed from the environment including all means of removal. Estimates are made by the responding OHMS based on the best data and information available at the time he files his report.

Percentage recovered has been based on the division of the value in a Product Recovered field by a related value in the Amount Spilled field. It should be remembered that this page represents the total amounts of all products spilled. It is not a summary of the success of this division in recovering any one product.

Clean-up Information is based on the following definitions:

- Non-recyclable - this is the liquid removed that can not be used as product.

- Solids Combustible (Cubic Yards Combustible) - this is the best estimate of the volume of material removed from a site that is incinerated.

- Solids Non-combustible (Cubic Yards Non-Combustible) - this is a best estimate of the volume of material removed from site no incinerated or reused as product.

- Recyclable - the volume of material, solid or liquid, that is reused for the products original use or other acceptable beneficial use.

TOTAL AMOUNTS

OF SPILL PRODUCTS LOST AND RECOVERED

	Gallons	Pounds	Yds^3
Amount Spilled			
Augusta	22019.17	10.00	0.00
Bangor	127038.47	0.00	8.00
Presque Isle	19059.00	1.00	0.00
South Portland	34071.60	810.00	20.00
	202188.24	821.00	28.00
Product Recovered			
Augusta	15970.67	0.00	0.00
Bangor	39148.11	00.00	9.00
Presque Isle	11838.50	230.00	.50
South Portland	17556.65	2.50	812.00
	84513.93	232.50	821.50
Percentage Recovered			
Augusta	73%	0%	FR
Bangor	31%	100%	FR
Presque Isle	62%	FR	FR
South Portland	52%	.003%	FR

FR - Fully recovered or seemingly so

Clean-Up Information

		A	B	I	P	Total
Gal	Non-recyclable	24845.5	1918.5	1595.5	3405.0	31765.0
Yds^3	Combustible	75.5	145.5	807.8	157.9	1186.7
Yds^3	Non-Combustible	2631.9	8331.3	1489.6	1817.7	14270.5
Gal	Recyclable	5562.0	17471.0	6550.0	8179.1	37762.1
Yds^3	Recyclable	12.0	23.0	0.0	1022.1	1057.1

Yds^3 - Cubic Yards
Gal - Gallons

METHOD USED TO RECOVER SPILLED PRODUCT

IN

AUGUSTA

Number of Spills	Product Type
32	None
8	#1 Fuel Oil or Kerosene
32	#2 Fuel Oil
1	#3 Fuel Oil
1	#4 Fuel Oil
1	#6 Fuel Oil
1	Heating Oil Unspecified
13	Chemical
1	12
17	Unkown
42	Gasoline Unspecified
9	Regular Gasoline
1	Premium leaded Gasoline
3	Unleaded Gasoline
1	JP-4
16	Diesel
17	Other, Unspecified
18	Waste Oil, Used Motor Oil
214	

Vacuum Trucks

7	#2 Fuel Oil
2	#6 Fuel Oil
1	Heating Oil, Unspecified
1	Unknown
7	Gasoline, Unspecified
4	Regular Gasoline
2	Diesel
1	Waste Oil, Used Motor Oil
25	

Pumps, Skimmers

1	#1 Fuel Oil or Kerosene
12	#2 Fuel Oil
1	Heating Oil, Unspecified
1	Lube Oil
3	Gasoline, Unspecified
1	Regular Gasoline
1	Unleaded Gasoline
20	

METHOD USED TO RECOVER SPILLED PRODUCT IN AUGUSTA (Cont.)

Number of Spills	Product Type
Commercial Sorbents	
6	#1 Fuel Oil or Kerosene
26	#2 Fuel Oil
2	#3 Fuel Oil
2	#6 Fuel Oil
2	Lube Oil
1	Unknown
12	Gasoline, Unspecified
4	Regular Gasoline
1	Unleaded Gasoline
8	Diesel
7	Other, Unspecified
1	Waste Oil, Used Motor Oil
2	Hydraulic Oil
74	
Sand	
1	#2 Fuel Oil
2	#6 Fuel Oil
2	Gasoline, Unspecified
1	Other, Unspecified
6	
Other Natural Sorbents	
2	#2 Fuel Oil
1	Diesel
3	
Excavation	
1	None
4	#1 Fuel Oil or Kerosene
21	#2 Fuel Oil
1	#3 Fuel Oil
2	#6 Fuel Oil
2	Chemical
2	Unknown
29	Gasoline, Unspecified
10	Regular Gasoline
5	Diesel
13	Other, Unspecified
5	Waste Oil, Used Motor Oil
1	Hydraulic Oil
96	

METHOD USED TO RECOVER SPILLED PRODUCT IN AUGUSTA (Cont.)

Number of Spills	Product Type
Treatment in Place	
1	#2 Fuel Oil
1	Chemical
1	Gasoline, Unspecified
3	
Other	
1	None
5	#2 Fuel Oil
1	#3 Fuel Oil
3	Chemical
1	Unknown
1	Gasoline, Unspecified
2	Other, Unspecified
3	Waste Oil, Used Motor Oil
17	
458	

METHOD USED TO RECOVER SPILLED PRODUCT

IN

BANGOR

Number of Spills	Product Type
169	None
7	#1 Fuel Oil or Kerosene
18	#2 Fuel Oil
1	#3 Fuel Oil
3	#5 Fuel Oil
1	#6 Fuel Oil
1	Heating Oil, Unspecified
4	Lube Oil
11	Chemical
8	Unknown
24	Gasoline, Unspecified
11	Regular Gasoline
1	Premium Leaded Gasoline
4	Unleaded Gasoline
2	Aviation Gasoline
1	Premium Unleaded Gas
7	Diesel
5	Other, Unspecified
2	Waste Oil, Used Motor Oil
3	Hydraulic Oil
283	

Vacuum Trucks

1	#2 Fuel Oil
1	#5 Fuel Oil
1	#6 Fuel Oil
1	Diesel
4	

Pumps, Skimmers

3	#1 Fuel Oil or Kerosene
3	#2 Fuel Oil
1	#6 Fuel Oil
1	Lube Oil
1	Gasoline, Unspecified
2	Regular Gasoline
2	Diesel
13	

METHOD USED TO RECOVER SPILLED PRODUCT IN BANGOR (Cont.)

	Number of Spills	Product Type
Commercial Sorbents		
	1	None
	14	#1 Fuel Oil or Kerosene
	34	#2 Fuel Oil
	1	#3 Fuel Oil
	2	#5 Fuel Oil
	2	#6 Fuel Oil
	1	Heating Oil, Unspecified
	4	Lube Oil
	2	Chemical
	2	Unknown
	5	Gasoline, Unspecified
	4	Regular Gasoline
	3	Unleaded Gasoline
	16	Diesel
	5	Other, Unspecified
	2	Waste Oil, Used Motor Oil
	2	Transmission Oil
	100	
Sand		
	1	#1 Fuel Oil or Kerosene
	2	#2 Fuel Oil
	1	#3 Fuel Oil
	1	#4 Fuel Oil
	4	#5 Fuel Oil
	1	#6 Fuel Oil
	1	Gasoline, Unspecified
	2	Unleaded Gasoline
	1	JP-4
	3	Diesel
	1	Asphalt
	1	Other, Unspecified
	19	
Other Natural Sorbents		
	2	#6 Fuel Oil
	2	
Bangor	558	

METHOD USED TO RECOVER SPILLED PRODUCT

IN

PRESQUE ISLE

Number of Spills	Product Type
9	None
18	#2 Fuel Oil
2	#6 Fuel Oil
1	Heating Oil, Unspecified
1	Lube Oil
11	Chemical
8	Unknown
26	Gasoline, Unspecified
10	Regular Gasoline
2	Unleaded Gasoline
1	JP-4
4	Diesel
2	Other Unsecified
4	Waste Oil, Used Motor Oil
99	

Pumps, Skimmers

5	#2 Fuel Oil
1	Gasoline Unspecified
1	Unleaded Gasoline
1	Diesel
8	

Commercial Sorbents

7	#2 Fuel Oil
1	#5 Fuel Oil
2	Chemical
1	Unknown
2	Gasoline Unspecified
1	Regular Gasoline
2	Diesel
16	

Sand

1	Chemical
1	

Other Natural Sorbents

1	#2 Fuel Oil
1	Gasoline, Unspecified
1	Regular Gasoline
1	Diesel
4	

METHOD USED TO RECOVER SPILLED PRODUCT IN PRESQUE ISLE (Cont.)

	Number of Spills	Product Type
Excavation		
	2	#1 Fuel Oil or Kerosene
	8	#2 Fuel Oil
	2	#6 Fuel Oil
	1	Heating Oil, Unspecified
	4	Chemical
	5	Unknown
	9	Gasoline, Unspecified
	5	Regular Gasoline
	1	Unleaded Gasoline
	2	Diesel
	1	Other, Unspecified
	7	Waste Oil, Used Motor Oil
	47	
Burning		
	1	#1 Fuel Oil or Kerosene
	1	
Other		
	1	Chemical
	1	
Presque Isle	177	

METHOD USED TO RECOVER SPILLED PRODUCT

IN

SOUTH PORTLAND

Number of Spills	Product Type
74	None
9	#1 Fuel Oil or Kerosene
31	#2 Fuel Oil
4	#3 Fuel Oil
1	#5 Fuel Oil
3	#6 Fuel Oil
8	Heating Oil, Unspecified
2	Lube Oil
20	Chemical
16	Unknown
36	Gasoline, Unspecified
4	Regular Gasoline
8	Unleaded Gasoline
2	Premium Unleaded Gasoline
12	Diesel
1	Asphalt
14	Other, Unspecified
10	Waste Oil, Used Motor Oil
1	Bulk Oil
4	Hydraulic Oil
260	

Vacuum Trucks

1	None
3	#1 Fuel Oil or Kerosene
6	#2 Fuel Oil
2	#4 Fuel Oil
3	#6 Fuel Oil
1	Lube Oil
2	Gasoline, Unspecified
1	Regular Gasoline
1	Premium Leaded Gasoline
1	Diesel
2	Waste Oil, Used Motor Oil
23	

Pumps, Skimmers

5	#2 Fuel Oil
2	Unknown
1	Gasoline, Unspecified
1	Diesel
1	Other, Unspecified
1	Waste Oil, Used Motor Oil
11	

METHOD USED TO RECOVER SPILLED PRODUCT IN SOUTH PORTLAND (Cont.)

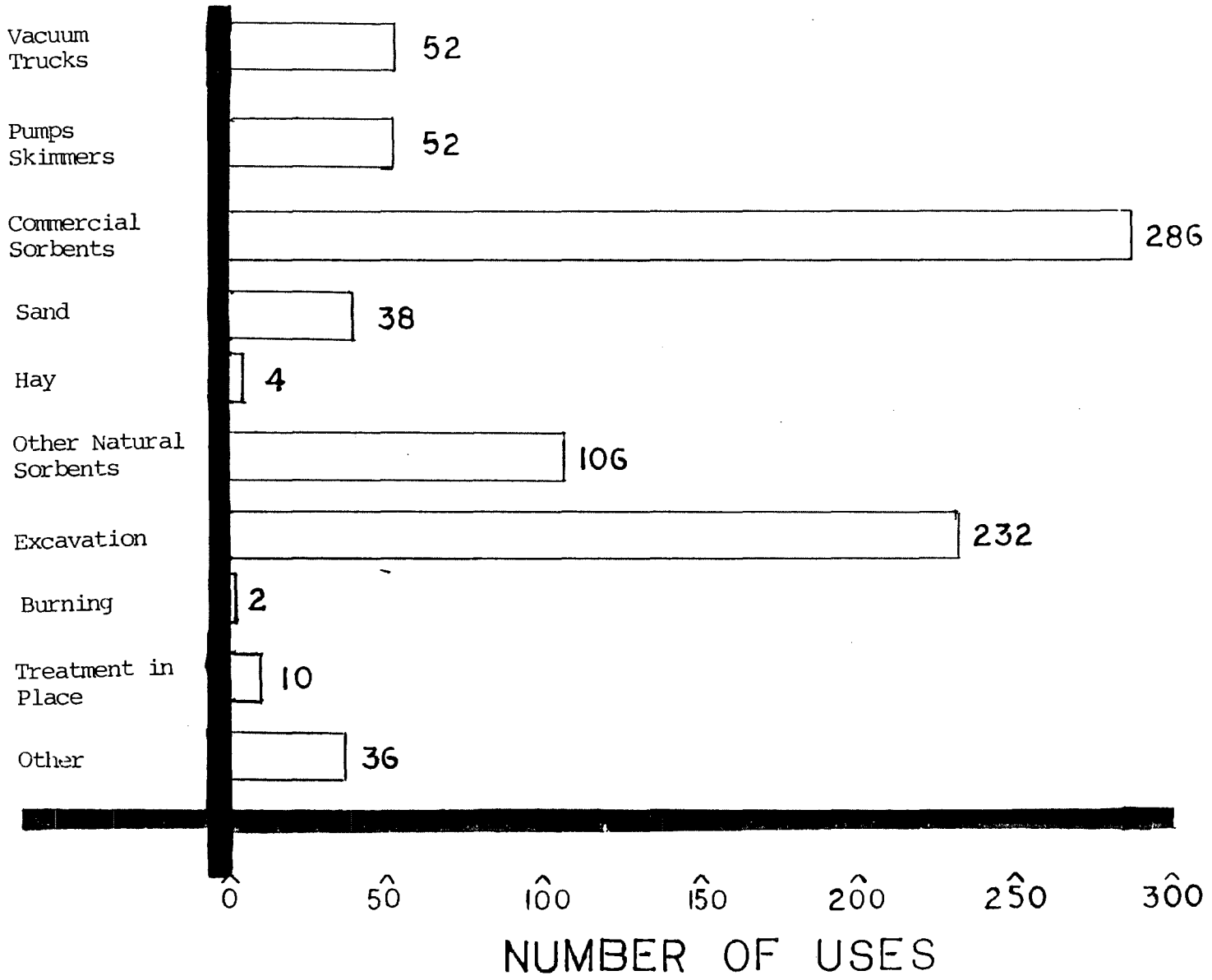
	Number of Spills	Product Type
Commercial Sorbents		
	1	#1 Fuel Oil or Kerosene
	29	#2 Fuel Oil
	7	#3 Fuel Oil
	1	#6 Fuel Oil
	1	Heating Oil, Unspecified
	3	Chemical
	6	Gasoline, Unspecified
	1	Regular Gasoline
	4	Unleaded Gasoline
	12	Diesel
	1	Asphalt
	18	Other, Unspecified
	9	Waste Oil, Used Motor Oil
	1	Bulk Oil
	2	Hydraulic Oil
	96	
Sand		
	1	#2 Fuel Oil
	1	#3 Fuel Oil
	2	Gasoline, Unspecified
	1	Unleaded Gasoline
	1	Premium Unleaded Gasoline
	3	Diesel
	1	Asphalt
	2	Waste Oil, Used Motor Oil
	12	
Hay	1	#6 Fuel Oil
	1	
Other Natural Sorbents		
	1	#2 Fuel OIl
	1	Chemical
	1	Other, Unspecified
	1	Transmission Oil
	4	

METHOD USED TO RECOVER SPILLED PRODUCT IN SOUTH PORTLAND (Cont.)

Number of Spills	Product Type
Excavation	
1	None
3	#1 Fuel Oil or Kerosene
11	#2 Fuel Oil
1	#3 Fuel Oil
1	#6 Fuel Oil
2	Heating Oil, Unspecified
3	Chemical
1	Unknown
15	Gasoline, Unspecified
2	Unleaded Gasoline
4	Diesel
10	Other, Unspecified
6	Waste Oil, Used Motor Oil
60	
Treatment in Place	
1	None
2	Chemical
1	Gasoline, Unspecified
1	Transmission Oil
5	
Other	
1	#3 Fuel Oil
1	#4 Fuel Oil
1	Lube Oil
3	Chemical
2	Gasoline, Unspecified
1	Other, Unspecified
9	

South Portland 481

RECOVERY METHODS USED



INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Industrial				
Atmosphere		2		
"				1
Coastal Surface Water	10			
"		1		
"				2
Groundwater	4			
"		2		
Ground and Coastal Surface Water	2			
"		1		
Ground and Inland Surface Water	3			
Inland Surface Water	14			
"		3		
"			2	
Land	54			
"		17		
"			21	
"				13
Land and Coastal Water	3			
"			1	
Land and Groundwater	10			
"		3		
"				3
Land and Inland Surface Water	13			
"		1		
"			3	
"				1

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Industrial (cont.)				
None	2			
"		3		
"			23	
"				7
Residential				
Atmosphere				2
Groundwater	18			
"			4	
"				1
Ground and Coastal Surface Water	2			
Ground and Inland Surface Water	4			
Inland Surface Water	13			
"			4	
"				1
Land	95			
"		3		
"			15	
"				10
Land and Coastal Water	1			
Land and Groundwater	22			
"			1	
Land and Inland Surface Water	20			
"			1	
None	1			
"			32	
"				8

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Terminal - Bulk Plant				
Groundwater			1	
Land	21			1
"		1		
"			3	
Land and Coastal Water	1			
Land and Groundwater	4			
"		1		
Land and Inland Surface Water	1			
None			3	
- Commercial				
Groundwater	13			
"			4	
Ground and Coastal Surface Water	2			
Ground and Inland Surface Water	3			
Inland Surface Water	2			
"			1	
Land	39			
"		1		
"			13	
"				2
Land and Groundwater	30			
"		1		
"			5	
Land and Inland Surface Water	2			
None	2			
"			88	
"				3

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Terminal - Industrial				
Coastal Surface Water			1	
Groundwater	3			
"			1	
Ground and Inland Surface Water	2			
Land	20			
"		2		
"			8	
Land and Groundwater	10			
"			4	
Land and Inland Surface Water	5			
None	1			
"			39	
"				2
- Licensed				
Coastal Surface Water	2			
Land	6			
Land and Groundwater			1	
Land and Inland Surface Water	1			
None			2	
- Multiple Family Residential				
Inland Surface Water	1			
Land	1			
"			1	
None			8	

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Terminal - Single Family Residential				
Groundwater	2			
Ground and Inland Surface Water	1			
Land			7	
Land and Groundwater	5			
"		2		
Land and Inland Surface Water	1			
None	3			
"		1		
"			39	
"				1
- Service Station				
Coastal Surface Water	1			
Groundwater	50			
"			9	
Ground and Coastal Surface Water	2			
Ground and Inland Surface Water	3			
Inland Surface Water	4			
Land	76			
"			20	
Land and Groundwater	52			
"			15	
Land and Inland Surface Water	9			
"			1	
None	2			
"		1		
"			91	

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Vessel - Fishing Vessel				
Coastal Surface Water	13			
"			1	
- Government Vessel				
Coastal Surface Water	6			
"				1
Inland Surface Water	1			
- Other				
Coastal Surface Water	1			
None			1	
- Pleasure				
Coastal Surface Water	1			
Inland Surface Water	2			
"			1	
- Tanker				
Coastal Surface Water	6			
"			1	
None			1	

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Transportation - Private Car				
Coastal Surface Water			1	
Inland Surface Water	12			
Land	11			
"		1		
"			1	
Land and Inland Surface Water	2			
None	1			
"			2	
- Railroad				
Groundwater				1
Inland Surface Water	3			
Land	1			
"			1	
"				1
- Commercial Truck				
Coastal Surface Water	2			
Ground and Inland Surface Water	1			
Inland Surface Water	5			
Land	40			
"		2		
"			2	
"				2
Land and Coastal Water	1			

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
- Commercial Truck (cont')				
Land and Groundwater	2			
Land and Inland Surface Water	13			
"				1
None			1	
Transportation - Tank Truck				
Coastal Surface Water	1			
"				1
Ground and Inland Surface Water	1			
Land	37			
"		2		
"				1
Land and Groundwater	4			
Land and Inland Surface Water	13			
None	5			
"		2		
"				1

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

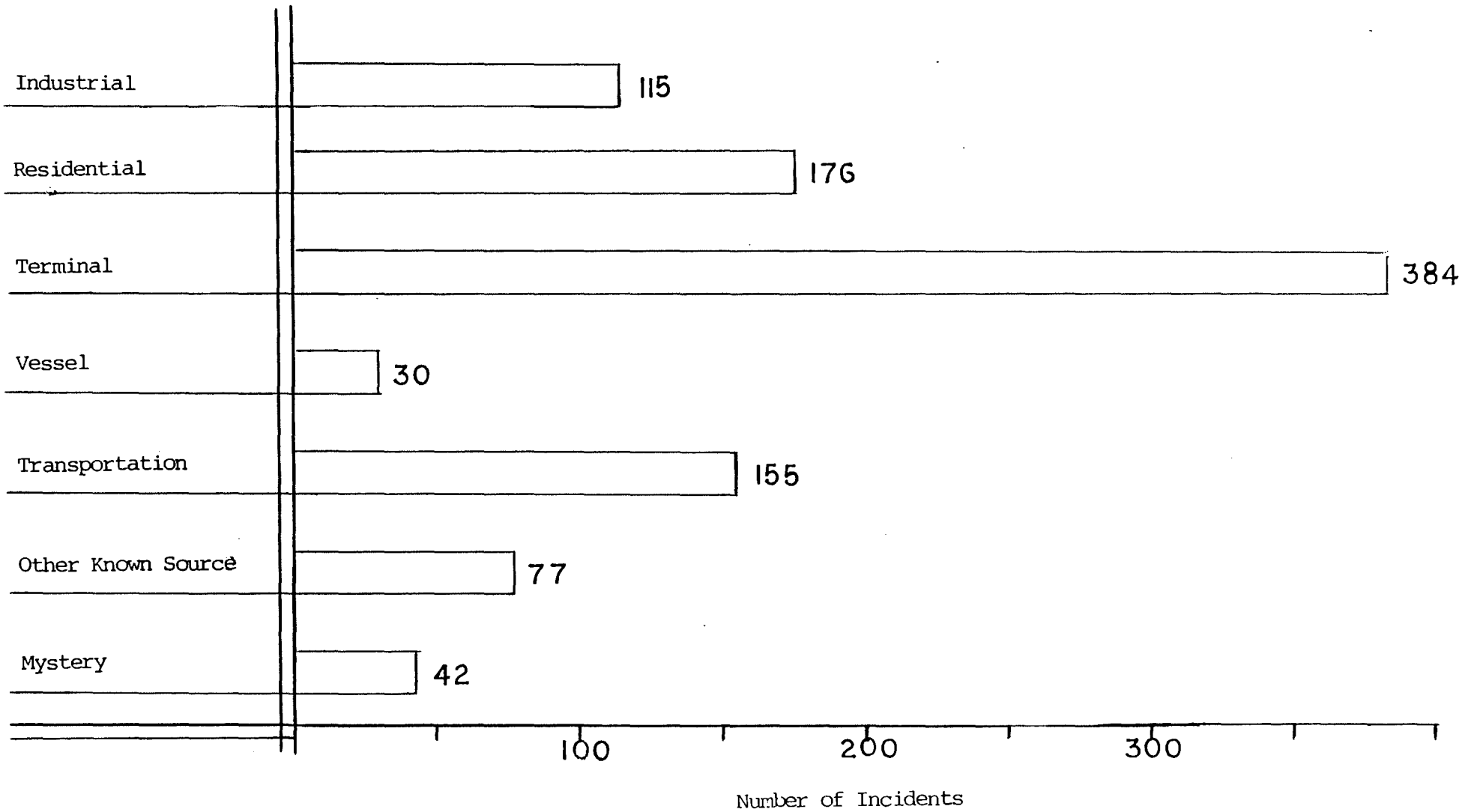
Other Known Source	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Atmosphere		2		
Coastal Surface Water	4			
Groundwater	3			
"			2	
"				1
Ground and Inland Surface Water	2			
Inland Surface Water	7			
Land	38			
"		5		
"			3	
				7
Land and Groundwater	8			
Land and Inland Surface Water	12			
"		1		
"			1	
"				1
None	3			
"		1		
"			27	
"				10

INCIDENTS CODES OF REPORTS

TIED TO TYPES OF REPORTS FILED

Mystery	Oil Inc.	Haz. Inc.	Oil Invest.	Haz. Invest.
Atmosphere	1			
Coastal Surface Water	10			
"		1		
"			1	
"				1
Groundwater	5			
Ground and Inland Surface Water	2			
Inland Surface Water	10			
"		2		
"			4	
Land	6			
"		1		
"			2	
				3
Land and Groundwater	1			
Land and Inland Surface Water	7			
"		1		
None			10	
"				4

TYPES OF OIL INCIDENTS



The table "Types of Chemicals Involved in Hazardous Materials Incidents for 1986" contains a summary of the best information available to Response Services as to the types of chemicals spilled during 1986. This is delimited by "best information" as it is not always possible to identify the hazardous materials this division handles as anything more specific than hazardous materials. Further, due to the nature of uncontrolled sites, estimates of amounts spilled are often only a best guess. In the case of each substance, at least the amounts listed were lost, it is reasonably safe to assume that in reality more than the listed amounts were lost.

Fortunately, from the perspective of quantification, most hazardous materials spills are industrial and industries generally have a good idea of how much material they are shipping and using. Thus, the pure product fields should contain accurate data. Only the chemical family, general classification, and unspecified fields should contain data that could be quite a bit more than the amounts listed.

TYPES OF CHEMICALS INVOLVED IN

HAZARDOUS MATERIALS INCIDENTS

FOR 1986

Chemical	Approximate Amount in Gallons
PCB Oils	22.75
Solvents	33.00
Organics	2.00
Sulfuric Acid	3050.00
Guthion	20.25
Black and White Liquor	150.00
Resin, Unspecified	.50
Caustic Sode	10.00
Pesticides, Unspecified	65.00
Methine Family	15.00
Muriatic Acid	.25
Mineral Spirits	175.00
Nickel Sulfate	2.00
Copper Pyrophospate	100.00
Chlorine	10.00
Polymers, Unspecified	800.00
1,1,1-Trichloroethane	150.00
Etchant	25.00
Hazardous Materials, Unspecified	350.00

TYPES OF HAZARDOUS MATERIALS INCIDENTS FOR 1986