2004 Statistical Report Division of Response Services Spill Report Case Load

Bureau of Remediation & Waste Management



Compiled by: Diana J. Frith

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INTRODUCTION

This report is the Maine Department of Environmental Protection's (DEP) statewide Statistical Report for the Division of Response Services spill caseload in 2004. Response Services Division staff in the Bureau of Remediation and Waste Management respond to oil and hazardous material spills throughout the state and act to mitigate the damage of these events to Maine's environment, public safety, and public health. In 2004, the Division of Response Services employees included 25 Oil and Hazardous Material Specialists (OHMS), three Environmental Specialists, three Maintenance Mechanics, two Staff Development Specialists, one Health and Safety Director, and one Division Director. In 2004, Response Services filed 2,878 reports dealing with oil and hazardous incidents throughout Maine. A summary of these filings is contained in this report. These statistics examine Response Services' activity from a variety of perspectives in an attempt to highlight both Maine's environmental concerns and the varieties and numbers of situations Response Services personnel handle in a year.

The reader may notice a slight discrepancy in the total number of reports for the year. Several months are needed to compile all of the data, and the database content may change slightly during that time period. However, we at the Department are confident that these discrepancies are insignificant in regards to the statistical summaries. This report was run on May 23, 2007. Data is representative of his date.

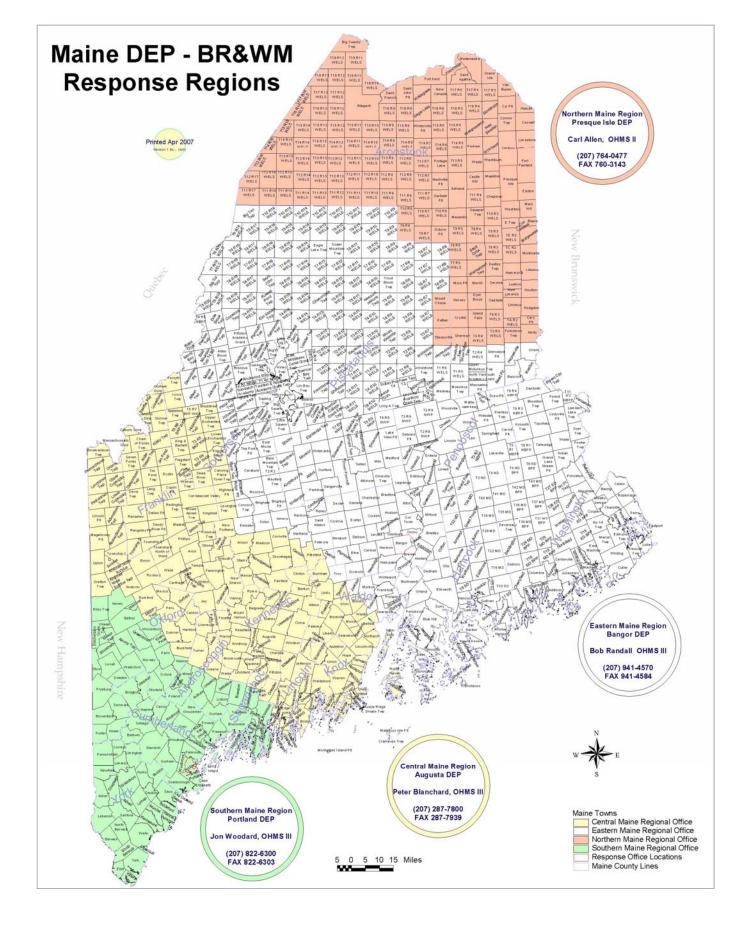
A Response report concerns a product that is classified as an oil incident, hazardous material incident, or as a non-oil/non-hazardous incident. An oil incident or a hazardous material incident is where a known or unknown product was released to the environment. The product also may have spilled at an industrial site, but was contained and diverted to a neutralization system, or fully recovered from a containment area and put back into a production process. A non-oil/non-hazardous incident is where a known or unknown product was reported to have been released to the environment; but upon investigation none could be found or the product found did not meet the criteria of an oil or hazardous material. Therefore, the product did not fall within this division's jurisdiction or DEP was on site in an advisory role (i.e.: tank removals).

Response Services operates out of four regional offices. These are located in Augusta, Bangor, Portland, and Presque Isle. Office names are, on occasion, abbreviated:

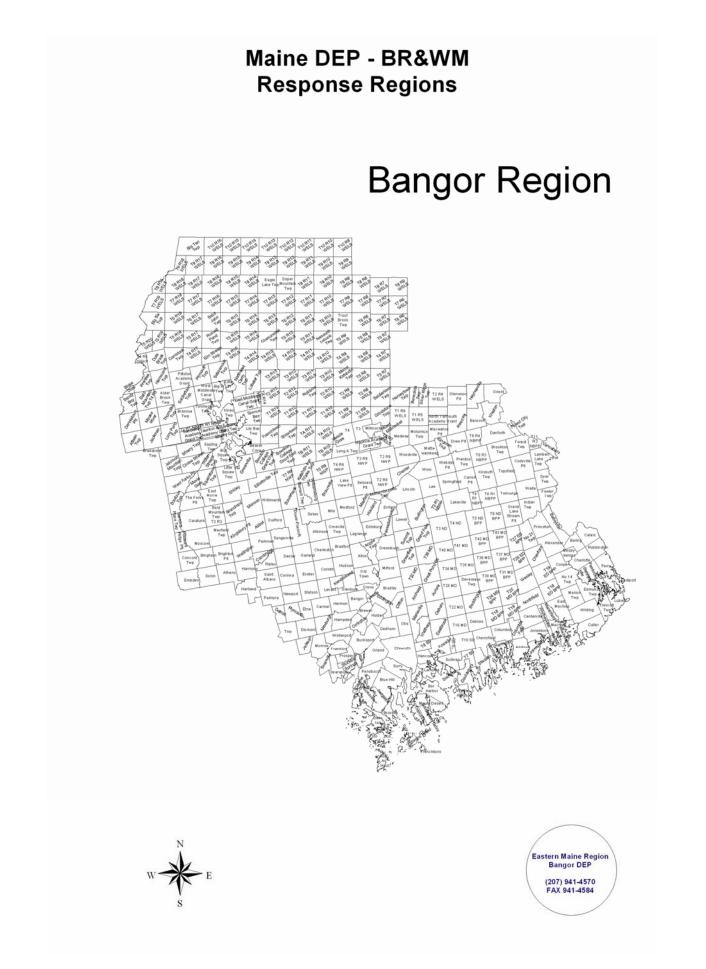
Augusta	А
Bangor	В
Portland	Р
Presque Isle	PI

Abbreviations may also be used with Incidents and Hazardous Material:

Incident	Inc
Hazardous	Haz
Materials	Mat







Maine DEP - BR&WM Response Regions







Maine DEP - BR&WM Response Regions

Presque Isle Region

				В	ig Twenty Twp	mary									
			/	T19 R12 WELS	T19 R11 WELS				~	\sim	thuile	ladawaska	2		
		/	T18 R13 WELS	3 T18 R12 WELS	T18 R11 WELS	T18 R10	~ 1		Fort	t Kent	Frenchville Agat		Grand Isle	Van	
		Nelse	T17 R13 WELS	T17 R12 WELS		WELS	Saint Francis	Saint John Plt	Wallagra	New s5Canada	T17 R5 WELS	WELS	T17 R3 WELS	Buren	2
	12	VELS	T16 R13 WELS	T16 R12 WELS	Alla	igash	T16 R9 WELS	T16 R8 WELS	Eagle La	T16 R6 WELS	T16 R5 WELS	T16 R4 WELS	Stockholm	Cyr Plt	Hamlin
/	WELS	T15 R14 WELS	T15 R13 WELS	T15 R12 WELS	T15 R11 WELS	T15 R10 WELS	T15 R9 WELS	T15 R8 WELS		eT15 R6 WELS	T15 R5 WELS	Westmanland	New Sweden	Twp	Caswell
WELSTO WELSTO	T14 R15 WELS	T14 R14 WELS	T14 R13 WELS	T14 R12 WELS	T14 R11 WELS	T14 R10 WELS	T14 R9 WELS	T14 R8 WELS	T14 R7 WELS		T14 R5 WELS	Perham	Woodland	Caribou	Limestone
113 R16	T13 R15 WELS	T13 R14 WELS	T13 R13 WELS	T13 R12 WELS	T13 R11 WELS	T13 R10 WELS	T13 R9 WELS	T13 R8 WELS	T13 R7 WELS	Portage Lake	T13 R5 WELS	Wade	Washbur	n	Fort Fairfield
T12 R17 WELS	WELS	T12 R14 WELS	T12 R13 WELS	T12 R12 WELS	T12 R11 WELS	T12 R10 WELS	T12 R9 WELS	T12 R8 WELS	T12 R7 WELS	Nashvill Pit	e	Castle Hill	Mapletor	Presque Isle	
T11 R17 T11 R16 WELS WELS	T11 R15 WELS	T11 R14 WELS	T11 R13 WELS	T11 R12 WELS	T11 R11 WELS	T11 R10 WELS	T11 R9 WELS	T11 R8 WELS	T11 R7 WELS	Garfield Pit	Ashland	T11 R4 WELS	Chapma	in	Easton
·								T10 R8 WELS	T10 R7 WELS	T10 R6 WELS	Masardis	Squapar Twp	T10 R3 WELS	Westfiel	Plain
								T9 R8 WELS	T9 R7 WELS	Oxbow Pit	T9 R5 WELS	T9 R4 WELS	T9 R3 WELS	TD R2	P allo
									1		T8 R5 WELS	Saint Croix Twp	T8 R3 WELS	WELS TC R2 WELS	Monticell
											T7 R5 WELS	Webberto	Dudley Twp	Hammo	Littleto
											Moro Pl		Smyrr	na Ludio New	w Houlton
										Mount Chase	Hersey	Dyer Brook	Oakfie	Limerick Id Linner	
										Patten	Crystal	Island Falls	T4 R3 WELS		Cary
										Staceyvi	lle Sherm	an T3 R4 WELS	T3 R3 WELS	Forksto	-

Northern Maine Region Presque Isle DEP (207) 764-0477 FAX 760-3143

Spills of Interest in 2004

The next two pages list some of the interesting spills that took place during the year. The spill number, location town, and responsible party are listed. A brief synopsis of the official spill report provides basic information about the incident, including the amount spilled.

A-28-2004 Port Clyde Edward Thorbjornson

Although considered a smaller spill, 50 gallons of diesel fuel was discharged from the vent line of a grounded, listing fishing vessel. Compounding the unfortunate nature of the spill, the release occurred in the immediate vicinity of a local shellfish farm. Due to predominantly sub-zero temperatures and the sensitivity of the area, protective booming was deployed and labor intensive manual removal of ice commenced. The combination of manual labor and sea action caused the sheen to dissipate and the shellfish farm was spared.





B-41-2004 Lincoln Lincoln Pulp & Paper **B-42-2004** Brewer Eastern Fine Paper Due to financial difficulties, two mills in the greater Bangor area were forced to abruptly stop operations. With the assistance of contractors, and eventually by themselves, Bangor Responders assumed operations of the facilities during the winter months until a suitable purchaser could be found. Activities assumed also included the transport and disposal of many of the

hazardous chemicals abandoned at the facilities.

B-216-2004 Athens Samavrec Inc.

A tanker truck hauling sodium hydrosulfite overturned on Route 150. An estimated 200 gallons of product was discharged onto the shoulder of the road. Much to the advantage of the environment, sodium hydrosulfite readily reacts with oxygen to form inert compounds. A small excavation was conducted to remove diesel contamination which emanated from a damaged saddle tank.





P-101-2004 Sanford Goodall Hospital Estimated at 500 gallons or more, #4 fuel oil was discharged from a subsurface piping leak at the Goodall Hospital facility. Several remedial tactics were employed including excavation, vacuum trucks, and sorbent materials. Oil discharged followed preferential subsurface pathways subsequently impacting an abutting wetland. A passive response was deemed best for the area, replacing sorbents as needed and ultimately replanting the open water and shore with restorative vegetation.

P-371-2004 Portland Portland Tugboat LLC

As a result of human error, an estimated 1,000 gallons of #2 fuel oil was discharged overboard from the bilge of a tugboat in the vicinity of the State Pier. A multi-faceted approach to product retrieval was utilized with the employment of protective boom, sorbent materials, vacuum trucks, and skimming equipment.





P-693-2004 Limerick Lin-Cor Environmental LLC During the investigation of an anonymous citizen complaint, DEP personnel discovered over 100 drums of gasoline and mixed vehicle fluids located on a residential property. Over 90 of those drums were stockpiled in an unmarked barn (see left). DEP assumed responsibility for mitigating the issue associated with improperly stored hazardous materials by removing the contents of the drums via vacuum truck.

P-1095-2004 Scarborough

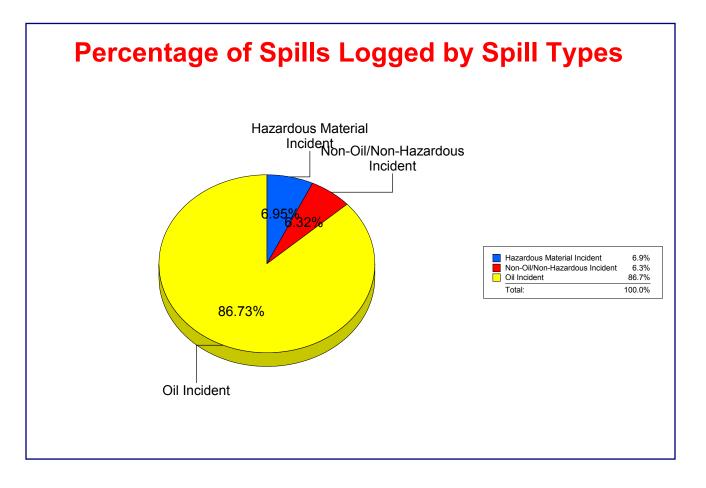
ECT, Inc.

Due to a combination of factors, a heating tub of hydrogen peroxide used in a microchip manufacturing process burst into flames amongst other tubs of hazardous materials. With a collaborative effort between local fire departments, private industry, and various haz-mat personnel, the issue was mitigated with the use of Level A attire. Ventilation was introduced to the building and subsequently it was deemed suitable for entrance with downgraded personal protective equipment.

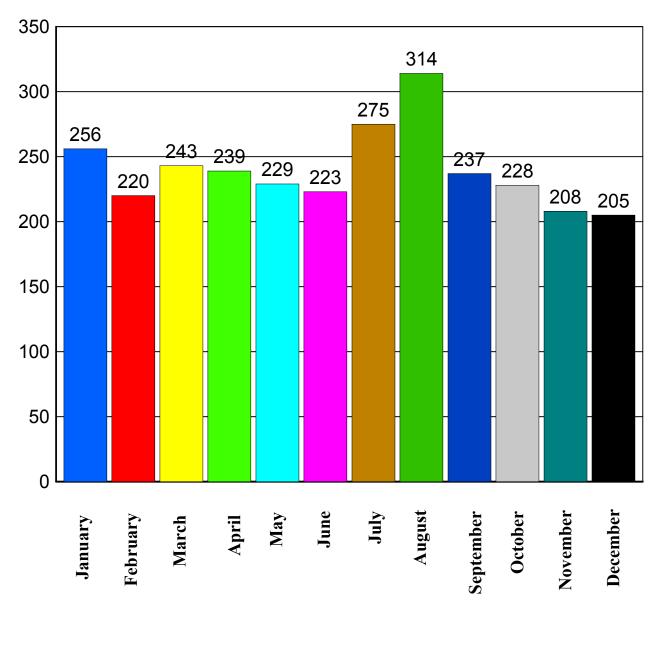


	Number of Spills Logged by Response Office						
Logged Spills by Response Office and Spill Type for the year of 2004	1200 1000	1199 254 Portland Presque Isle	Augusta Bangor Portland Presque Isle				
Augusta							
	Hazardous Material Incident	60	8.42%				
	Non-Oil/Non-Hazardous Incident	29	4.07%				
	Oil Incident	624	87.52%				
	Office Total Spills	713					
Bangor							
	Hazardous Material Incident	41	5.76%				
	Non-Oil/Non-Hazardous Incident	68	9.55%				
	Oil Incident	603	84.69%				
	Office Total Spills	712					
Portland							
	Hazardous Material Incident	92	7.67%				
	Non-Oil/Non-Hazardous Incident	78	6.51%				
	Oil Incident	1029	85.82%				
	Office Total Spills	<u>1199</u>					
Presque Isle							
	Hazardous Material Incident	7	2.76%				
	Non-Oil/Non-Hazardous Incident	7	2.76%				
	Oil Incident	240	94.49%				
	Office Total Spills	254					
Tot	al Spills for 2004	2878					

Type of Spill	<u>Number of</u> Spills Logged	Percentage of Spills Logged
Hazardous Material Incident	200	6.95%
Non-Oil/Non-Hazardous Incident	182	6.32%
Oil Incident	2496	86.73%

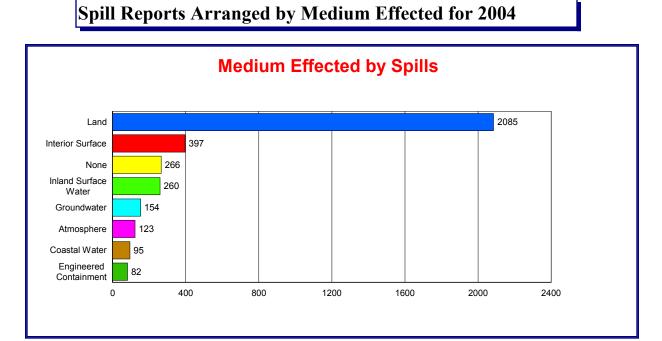


Number of Spills Reported by Month for 2004



Total Number of Spills for 20042,877

One report is missing due to either late reporting or incorrect reported spill dates.



	Augusta	Bangor	Portland	Presque Isle	Total
Land	482	527	859	217	2,085
Interior Surface	135	63	182	17	397
None	46	102	109	9	266
Inland Surface Water	94	52	93	21	260
Groundwater	18	20	101	15	154
Atmosphere	19	9	90	5	123
Coastal Water	17	17	61	0	95
Engineered Containment	20	19	40	3	82
Total	831	809	1,535	287	3,462

The number of Spill Reports reflected does not show the actual number of spills because one spill may have multiple mediums effected. We use "effected" for this report to mean the medium that the dishcarged product consequently contaminated.

Spill Reports for 2004 by Cause of Spill

Cause of Spill

Augusta

Number of Spills

Overfill	89
Accident - Transportation	88
Mechanical Failure - Piping/Hose	69
Other - Unknown	63
Accident - Human Error	56
Other - No Cause	45
Corrosion - Tank	44
Accident - Physical Breakage	42
Mechanical Failure - Gasket/Seal	39
Mechanical Failure - Other	30
Mechanical Failure - Loose Fitting	25
Accident - Poor Workmanship	23
Mechanical Failure - Valve	21
Accident - Storm Damage	16
Corrosion - Other	14
Discharge - Deliberate/Other	14
Other - Known Cause	9
Corrosion - Piping	8
Accident - Other	7
Discharge - Vandalism	7
Discharge - Bilge	2
Process Failure - Other	2
Office Total	713

Bangor Cause of Spill Number of Spills Other - No Cause 101 Overfill 84 **Accident - Transportation** 63 59 Other - Unknown **Mechanical Failure - Piping/Hose** 57 **Accident - Human Error** 56 **Mechanical Failure - Other** 42 **Corrosion - Tank** 41 **Mechanical Failure - Gasket/Seal** 41 **Accident - Physical Breakage** 34 **Other - Known Cause** 22 **Mechanical Failure - Valve** 21 **Accident - Storm Damage** 17 Accident - Other 14 **Corrosion - Piping** 14 **Mechanical Failure - Loose Fitting** 11 **Discharge - Deliberate/Other** 10 **Discharge - Vandalism** 9 7 **Corrosion - Other Accident - Poor Workmanship** 6 **Process Failure - Other** 2 **Discharge - Bilge** 1 **Office Total** 712

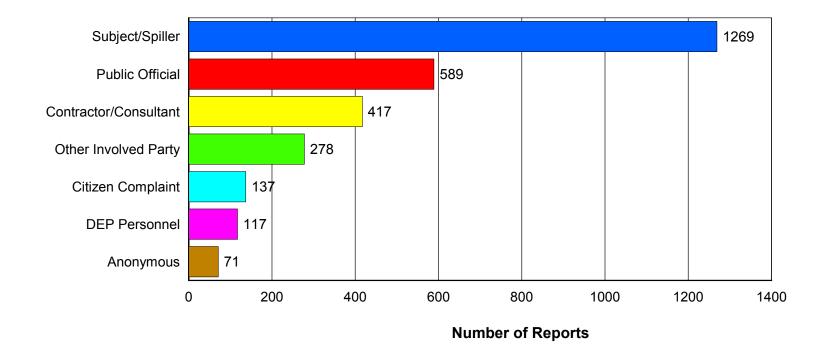
Spill Reports for 2004 by Cause of Spill

Portland	Cause of Spill	<u>Number of Spills</u>
	Accident - Transportation	137
	Overfill	137
	Mechanical Failure - Piping/Hose	118
	Other - No Cause	105
	Other - Unknown	104
	Accident - Physical Breakage	96
	Accident - Human Error	93
	Corrosion - Tank	78
	Mechanical Failure - Gasket/Seal	73
	Mechanical Failure - Other	57
	Other - Known Cause	57
	Mechanical Failure - Loose Fitting	30
	Accident - Other	27
	Discharge - Deliberate/Other	25
	Accident - Poor Workmanship	15
	Mechanical Failure - Valve	11
	Corrosion - Other	9
	Accident - Storm Damage	8
	Corrosion - Piping	8
	Discharge - Vandalism	7
	Discharge - Bilge	2
	Process Failure - Other	2
	Office Total	1 100
	Office Total	1,199
	Unice Total	1,199
Presque Isle	Cause of Spill	Number of Spills
Presque Isle		
<u>Presque Isle</u>	Cause of Spill	Number of Spills
Presque Isle	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose	<u>Number of Spills</u> 74
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation	<u>Number of Spills</u> 74 29
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error	Number of Spills 74 29 28
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill	<u>Number of Spills</u> 74 29 28 20
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown	<u>Number of Spills</u> 74 29 28 20 17
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage	<u>Number of Spills</u> 74 29 28 20 17 13
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank	<u>Number of Spills</u> 74 29 28 20 17 13 13
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other	Number of Spills 74 29 28 20 17 13 13 13
<u>Presque Isle</u>	<u>Cause of Spill</u> Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause	Number of Spills 74 29 28 20 17 13 13 13 13 9
<u>Presque Isle</u>	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other	Number of Spills 74 29 28 20 17 13 13 13 13 9 8
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Poor Workmanship	Number of Spills 74 29 28 20 17 13 13 13 13 9 8 8 7 3
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Poor Workmanship Discharge - Vandalism	Number of Spills 74 29 28 20 17 13 13 13 13 13 9 8 8 7 3 3 3
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Other Accident - Poor Workmanship Discharge - Vandalism Other - Known Cause	Number of Spills 74 29 28 20 17 13 13 13 13 13 9 8 8 8 7 3 3 3 3
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Other Accident - Poor Workmanship Discharge - Vandalism Other - Known Cause Corrosion - Piping	Number of Spills 74 29 28 20 17 13 13 13 13 13 9 8 8 8 7 3 3 3 3 2
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Other Accident - Poor Workmanship Discharge - Vandalism Other - Known Cause Corrosion - Piping Discharge - Deliberate/Other	Number of Spills 74 29 28 20 17 13 13 13 13 13 9 8 8 8 7 3 3 3 3
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Other Accident - Poor Workmanship Discharge - Vandalism Other - Known Cause Corrosion - Piping Discharge - Deliberate/Other Mechanical Failure - Valve	Number of Spills 74 29 28 20 17 13 13 13 13 13 9 8 8 8 7 3 3 3 3 2
Presque Isle	Cause of Spill Mechanical Failure - Piping/Hose Accident - Transportation Accident - Human Error Overfill Other - Unknown Accident - Physical Breakage Corrosion - Tank Mechanical Failure - Other Other - No Cause Mechanical Failure - Gasket/Seal Mechanical Failure - Loose Fitting Accident - Other Accident - Other Accident - Poor Workmanship Discharge - Vandalism Other - Known Cause Corrosion - Piping Discharge - Deliberate/Other	Number of Spills 74 29 28 20 17 13 29 8 8 7 3 3 2 2

2004 Grand Total

2,878

Spill Reports by Reporter Method for 2004



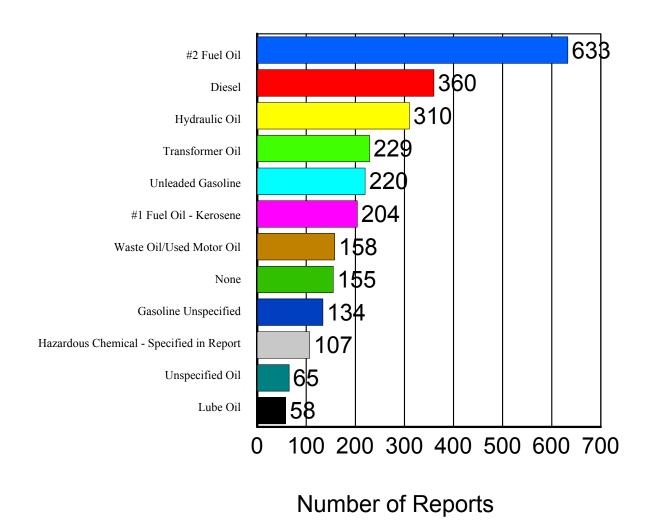
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2004 Statistical Report

Product Spilled	Number of Spills	Product Spilled	Number of Spills
#2 Fuel Oil	633	Aviation Gasoline	8
Diesel	360	Unspecified Motor Fuel	8
Hydraulic Oil	310	Non-Hazardous Chemical - Specified in report	7
Transformer Oil	229	Crude Oil	6
Unleaded Gasoline	220	Leaded Gasoline	6
#1 Fuel Oil - Kerosene	204	Waste Oil (as Haz Chem)	6
Waste Oil/Used Motor Oil	158	Algae Blooms/Plant Pollen Sheens	5
None	155	Corrosive	5
Gasoline Unspecified	134	Liquors	5
Hazardous Chemical - Specified in report	107	Regular Gasoline	4
Unspecified Oil	65	#4 Fuel Oil	3
Lube Oil	58	Ammonia	3
Oil - Other - Specified in Report	58	Demolition Debris	3
Anti-freeze	45	Hazardous Chemical - Unspecified	3
Non-Chemical Non-Oil Specified in report	33	Hydrochloric Acid	3
Jet Fuel	32	Premium Unleaded	3
Mercury	30	Medical Waste	2
Transmission Oil	24	Non-Hazardous Chemical - Unspecified	2
#6 Fuel Oil	23	PCB Oil	2
Unspecified Fuel Oil	17	Non-Chemical Non-Oil Unspecified	1
Asphalt	13	Unleaded Plus	1
Sulfuric Acid	13	Vegetable Oil/Animal Fats	1
Marsh Sheen	12	Water Storage	1
Pesticide General	12		
Unknown Substance	9		

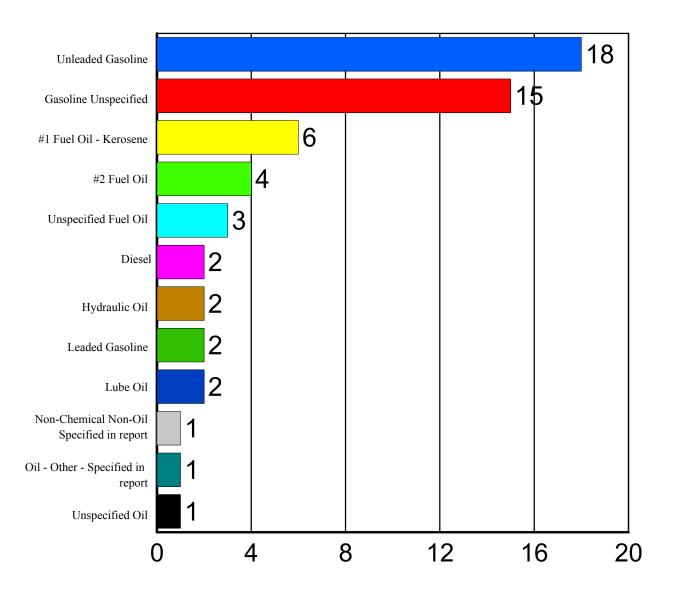
The number of spill reports reflected does not show the actual number of spills because one spill may have multiple products spilled.

Top Twelve Products Involved in Reports for 2004



The number of spill reports reflected does not show the actual number of spills because one spill may have multiple products spilled.

Top Twelve Products Contaminating Wells in 2004



Number of Wells Impacted

Product Categories vs. Wells Impacted for 2004

Product Category	<u>Number of Spills</u>	<u>Number of Wells</u> <u>Impacted</u>
Motor Fuels	776	37
Home Heating Oils	854	13
Other Oils	921	7
Non Oil,Non Hazardous	208	1
Hazardous & NonHazardous Chemicals	248	0
Heavy Fuel Oils	26	0
Unknown	9	0
Total	3,042	58

The Product Categories above contain the following product types:

Home Heating Oils:	<u>Heavy Fuel</u> Oils:	Motor Fuels:	<u>Other Oils:</u>	<u>Hazardous &</u> Non-Hazardous
	<u></u>			Chemicals:
#1 Fuel Oil	#4 Fuel	Gasoline Unspecified	Lube Oil	Demolition Debris
# 2 Fuel Oil	#5 Fuel	Leaded Gasoline	Asphalt	Pesticide (General)
Heating Oils Unspecified	#6 Fuel	Unleaded Gasoline	Crude Oil	PCB Oil (over 50 ppm)
		Aviation Gasoline	Unspecified Oil	Sulfuric Acid
		Jet Fuel	Waste Oil	Corrosives
		Diesel	Transmission Oil	Chlorine
		Unspecified Motor Fuel	S	Hazardous Chemicals
		Premium Unleaded		Ammonia
				Hydrochloric Acid
				Medical Waste
				Antifreeze
				Liquors
				Non-Hazardous
				Chemicals
				Mercury

This table's primary purpose is to show that Home Heating Oils and Motor Fuels are the most frequent contaminants found by response services in wells (for groundwater). By this analysis, they are the greatest threat to Maine's groundwater. Close examination of the data shows that the ratio of home heating oils and motor fuel spills to well water contaminations is about 28:1. That is to say, on average, every twenty-eighth spill of home heating oil or motor fuel results in one contaminated well case.

The number of "wells impacted" may change as the data represents a "snapshot in time" when Response Services personnel complete the report. If a site is referred to Technical Services for additional investigation and remediation, the possibility exists for the number of "wells impacted" to change which isn't reflected above.

The number of spill reports reflected does not show the actual number of spills because one spill may have multiple products spilled.

Number of Wells Impacted or Threatened for 2004 Sorted by Spill Type Reported and Product Found

<u>Spill Type</u>	Product Found	<u>Number</u> <u>of</u> <u>Incidents</u>	<u>Wells</u> <u>at Risk</u>	<u>Wells *</u> Impacted
Hazardous M	Iaterial Incident			
	Hazardous Chemical - Specified in report	7	10	0
	Mercury	3	3	0
	Sulfuric Acid	3	6	0
	Waste Oil (as Haz Chem)	3	6	0
	Gasoline Unspecified	1	4	0
	Hazardous Chemical - Unspecified	1	1	0
	None	1	1	0
	Oil - Other - Specified in Report	1	1	0
	Transmission Oil	1	1	0
	Waste Oil/Used Motor Oil	1	1	0
Non-Oil, Nor	-Hazardous Incident			
	None	7	11	0
	Non-Chemical Non-Oil Specified in report	2	1	1
	Marsh Sheen	1	1	0
	Non-Hazardous Chemical - Specified in report	1	1	0
	Unspecified Fuel Oil	1	1	1
Oil Incident	·			
	#2 Fuel Oil	70	77	4
	#1 Fuel Oil - Kerosene	64	90	6
	Gasoline Unspecified	35	69	15
	Diesel	28	34	2
	Unleaded Gasoline	22	50	18
	Hydraulic Oil	11	15	2
	Waste Oil/Used Motor Oil	8	8	1
	Unspecified Fuel Oil	6	7	2
	Lube Oil	4	2	2
	None	4	6	0
	Oil - Other - Specified in Report	4	6	1
	Transformer Oil	4	4	0
	Unspecified Oil	4	4	1
	Anti-freeze	3	4	0
	Leaded Gasoline	3	8	2
	Asphalt	1	1	0
	Aviation Gasoline	1	1	0
	Hazardous Chemical - Specified in report	1	2	0
	Non-Chemical Non-Oil Specified in report	1		0
	Regular Gasoline	1	3	0
		309	441	58

* The number of "wells impacted" may change as the data represents a "snapshot in time" when Response Services personnel complete the report. If a site is referred to Technical Services for additional investigation and remediation, the possibility exists for the number of "wells impacted" to change which isn't reflected above.

Amount of Material Spilled in 2004 by Response Office and Spill Type

Response Office	Spill Type	G	Р	Т
Augusta	Hazardous Material Incident	248,741	2,979	0
	Non-Oil, Non-Hazardous Incident	8	10	0
	Oil Incident	16,634	0	26
	Office Total	265,383	2,989	26
Bangor	Hazardous Material Incident	22,501	36	0
	Non-Oil, Non-Hazardous Incident	257	0	0
	Oil Incident	35,203	0	8
	Office Total	57,961	36	8
Portland	Hazardous Material Incident	5,080	14	8,000
	Non-Oil, Non-Hazardous Incident	124	2	8,000
	Oil Incident	25,594	200	0
	Office Total	30,798	216	16,000
Presque Isle	Hazardous Material Incident	1,108	0	0
	Non-Oil, Non-Hazardous Incident	351	0	0
	Oil Incident	4,655	0	0
	Office Total	6,114	0	0
Grand Total of A	ll Offices Combined	360,256	3,240	16,034

NOTE: All numeric fields are BEST ESTIMATES by the OHMS involved based on the years of experience with spill events. In 2004 zero (0) Unknown and zero (0) Barrels were discharged. Units of measure are abbreviated as follows:

G = Gallons P = Pounds T = Tons

Recovery Method

The following two pages detail the amount of material that was recovered using various recovery methods. Although it would seem logical to compare the amounts of material spilled in each region to the amounts recovered, the reader should avoid this comparison. The data is incomparable because the physical form of the recovered product may be different than the spilled form. A thousand gallons of gasoline could spill onto the ground, but cleanup may involve cubic yards of soil, gallons of pure gasoline, or pounds of saturated sorbent material.

The following list shows some of the recovery methods used by the responders when they enter report data into the HOSS (Hazardous Oil Spill System) database at the Maine Department of Environmental Protection.

Category

Burning Excavation Filter (Treated by) Licensed Treatment Facility None Other Pumps Remove Skimmers Sorbents Treatment in Place Vacuum Trucks

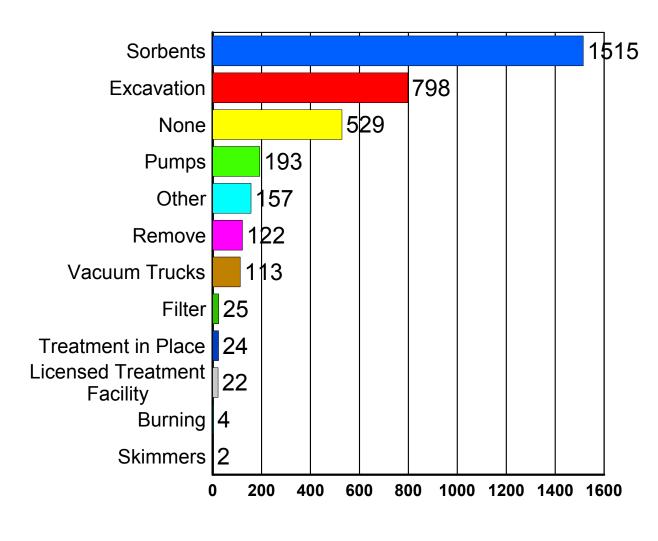
The following list details the abbreviations used on the next two pages for the amounts of material recovered.

Units of Measure

B = Barrels G = Gallons P = Pounds T = Tons Y = Cubic Yards

		Amounts of a pill Type and	-			
R	ecovery Method	В	G	Р	Т	Y
Hazardous	Excavation	0	20	8,532	0	18
Material Incident	Licensed Treatment Facility	0	3,919	51	0	0
	None	0	2,000	0	8,000	0
	Other	0	251	561	0	1
	Pumps	0	181,919	1	1	340
	Remove	187	66,398	38,084	8,718	339
	Sorbents	0	9,045	230	0	100
	Treatment in Place	0	66,475	50	8,001	339
	Vacuum Trucks	0	68,250	0	1	339
Non-Oil,	Excavation	0	4,000	0	8,000	30
Non-Hazardous Incident	Filter	0	0	0	0	0
	None	0	0	0	0	0
	Other	0	25	2	0	0
	Pumps	0	5,649	0	0	8
	Remove	0	388	13	8,000	0
	Sorbents	0	20	10	0	0
	Vacuum Trucks	0	920	0	0	0
Oil Incident	Burning	0	5	0	0	15
	Excavation	7	87,024	9,796	16,996	6,769
	Filter	0	13,032	100	497	3,000
	Licensed Treatment Facility	0	0	0	0	1
	None	0	6	0	0	0
	Other	0	13,860	2,600	193	34
	Pumps	683,003	56,660	3,495	2,316	3,279
	Remove	0	19,851	515	5	15
	Skimmers	0	16,689	0	9	0
	Sorbents	11	98,086	14,946	2,594	981
	Treatment in Place	0	4,503	100	496	0
	Vacuum Trucks	5	126,609	2,205	2,519	299

Recovery Methods Used in 2004



Number of Reports

The total number of recovery methods used in 2004 is greater than the total number of spill reports due to multiple recovery methods used during some spills.

Types of Hazardous Material Spilled

The following table, "Hazardous Materials Spilled in 2004", contains a summary of the best information available to Response Services as to the types of chemicals and other hazardous materials spilled during 2004. It is not always possible to identify an unknown substance in any but the broadest of terms. General characteristics such as flash point or pH are often the only factors that can be determined about an unknown without costly laboratory analysis. Given these factors, a substance may qualify as a hazardous material, yet remain an unknown.

The problem of estimating amounts spilled can also be difficult. Uncontrolled sites may have had any number of products dumped there for months or years, before anyone noticed or decided to report the event(s). Catastrophic events, like floods, result in barrels and other containers being released into the environment full or partially filled with product. These containers are often found empty or with their contents diluted. When a tank truck rolls over, a best estimate is made of the amount spilled, but the exact amount is seldom measured. If a responder is called to inspect leaking barrels at a site, it is often difficult to know how much product has already been lost into the ground. As a result of this, estimates of amounts spilled are often based on past experience with other similar spills and information that is available to extrapolate at that time. Each substance listed was discharged in at least the amount listed; usually it is reasonable to assume more than that amount was lost to the environment.

There are cases where this assumption should not be made. Most spills are industrial in nature; such as when a company either public or private has had an accident and product was lost. In general, industries know what chemicals are in what processes and in what volumes. Central Maine Power (CMP), for instance, knows how much oil is in a transformer and on those occasions when one is ruptured they make a fairly accurate assessment as to how much oil is lost. Keeping in mind the health and safety of the public as well as its employees, CMP then handles the material as though it were PCB contaminated until enough evidence is collected to indicate otherwise. Also, paper companies are quite precise in their figures of the amount of chlorine released into the atmosphere and the amount of chlorine dioxide spilled. Pure product fields, as a result of this industry scrutiny, should contain accurate data. Cases where a general family of hazardous materials is listed may well contain spill amounts that are much more than the amounts listed.

The following symbols have been utilized:

G	-	Gallons
Р	-	Pounds
Y	-	Cubic Yards
В	-	Barrels
U	-	Unknown

Hazardous Materials Spilled in 2004

Material Spilled	Number Of Spills	Amount Spilled*	Unit of Measure
25% NaOH	1	2,000.00	G
Ammonia	2	4.00	Р
Anhydrous Ammonia	1	5.00	Р
Antifreeze	25	221.35	G
Aqua Works "M" Parts Washer	1	5.00	G
Asbestos	1	1.00	Р
Battery	1	1.00	G
Butane	1	0.00	G
Butyl Acetate	1	15.00	G
Calcium Chloride	1	500.00	G
Cement Clinker w/ Calcium Oxide	1	Un	known
Cesium 137	1	Un	known
Chlorinated Solvent	1	0.00	G
Chlorine Dioxide	1	15.65	Р
Concrete Sealer	1	0.10	G
Corrosive	5	9,563.10	G
Creosole	1	Un	known
Cuprinol	1	0.25	G
Drain Cleaner	2	1.06	G
Drain Cleaner – Pequa	1	0.10	G
Ether	2	0.00	G
Floor Polish	1	0.25	G
Freon	1	10.00	Р
Hazardous Chemical – Specified in F	Report 26	8,933.97	В
Hazardous Chemical – Unspecified	2	40.00	G
Herbicide	1	1.00	G
Hydrocloric Acid	2	1.20	G
Hydrogen	1	Un	known
Iridium 192	1	Un	known
Kymene	1	900.00	G
Lead	2	30.25	Р
Lighter Fluid	1	0.50	G
Liquors	5	256,395.00	G
Medical Waste	2	0.50	G
Mercury	31	3.84	G
Methanol	1	0.50	G
Methyl Ethyl Ketone	1		known
Methylene Chloride	2	0.75	G
Oil – Other – Specified in report	2	8,000.00	Т
Oil-based Primer	1	5.00	G
wana , 'ii i i , , , ,		(Continued or	n next page)

*The amount spilled shown is the least amount spilled.

Hazardous Materials Spilled in 2004

Material Spilled	Number Of Spills	Amount Spilled*	Unit of Measure
(Continued from previous page)			
Paint – Enamel	1	4.00	G
Paint – Oil based	1	0.25	G
Paint - Primer	1	1.00	G
Paint - Thinner	2	0.10	G
Paint - Waste	3	0.25	G
PCB Oil	2	Unl	known
Pesticide General	12	2,933.10	G
Phenol Formaldehyde Resin	1	1,100.00	G
Phenolic Resin	1	4.00	G
Polyurethane	1	1.00	G
Propane	3	0.50	G
Propane – UN-1075	1	Unl	known
Roofing Cement	1	5.00	G
Sodium Cyanide	1	0.00	G
Sodium Hydrosulfite	1	200.00	G
Sodium Hydroxide Solution	2	400.00	G
Sodium Hypochlorite	9	2,302.25	G
Sodium Silicate	1	0.00	G
Stain	1	1.00	G
Stain – Minwax	1	0.25	G
Sulfur Dioxide	1	0.00	G
Sulfuric Acid	13	295.77	G
Tetrachloroethylene	1	300.00	G
Tile Cleaner	1	0.10	G
Waste Oil (as Hazardous Chemical)	5		known
Urethane / Acrylic Water Top	1	20.00	G
Xylene	1	1.00	G

*The amount spilled shown is the least amount spilled.

Number of Spills	Material Spilled	Amount Spilled*	Unit of Measure
5	Algae Blooms/Plant Pollen Sheens	0.00	G
1	Animal Fats	0.00	В
1	Blowdown	30.00	G
1	Demolition Debris	0.00	U
1	ESP Wash	300.00	G
1	Insulating Foam	1.00	Р
1	Latex Aerosol	0.25	G
10	Latex Paint	42.25	G
2	Latex Paint	0.00	U
1	Latex Stain	5.00	G
12	Marsh Sheen	0.00	G
12	Non-Chemical Non-Oil Specified in report	8,389.01	G
1	Non-Chemical Non-Oil Unspecified	0.00	G
155	None	0.00	G
1	Polyshade Stain	.25	G
1	Rock Salt	0.00	U
8	Unknown Substance	62.00	G
1	Water Storage	20.00	G

Non-Hazardous & Non-Oil Materials Spilled in 2004

• The amount spilled shown is the least amount spilled.

Types of Facilities with Corresponding Subcategories

The graphs on the next five pages utilize the following categories and subcategories:

Business

Business - Commercial Business - Farm Business - Industrial Business - Other

Government

Government - Federal Government - Local Government - Military Government - Other Government - State of Maine

Other

Other - Mystery Other - Religious Other - Specified in Report

Residential

Residential - Multi Family Residential - Other Residential - Single Family

School

School - Private School - Public

Terminal

Terminal - Air Terminal - Bulk Plant Terminal - Licensed Terminal - Marina Terminal - Other Terminal - Service Station

Transportation System

Transportation - Air Transportation - Marine Transportation - Other Off-Road Transportation - Rail Transportation - Road

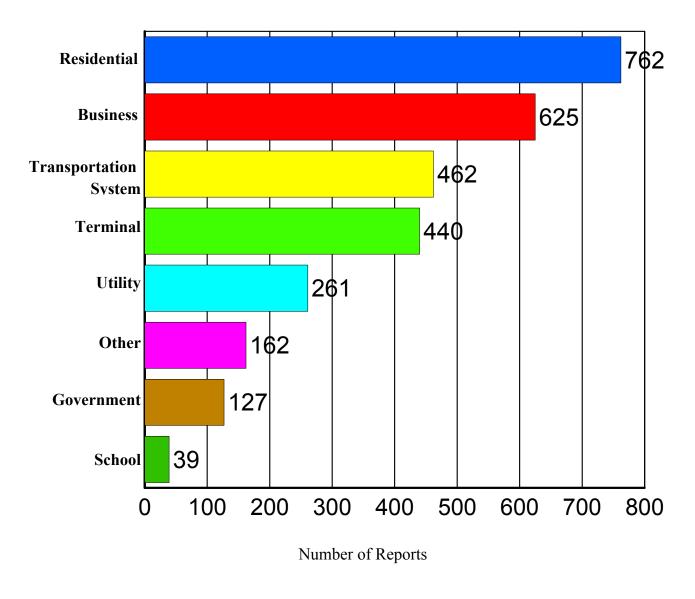
Utility

Utility - Other Utility - Power Utility - Telecommunications

Types of Facilities Involved in Reports during 2004 by Incident Location Category 700 600 500 Business Residential Transportation System Government 400 Other Utility School Terminal 300 200 100 0 Hazardous Material Incident Non-Oil, Non-Hazardous **Oil Incident** Incident

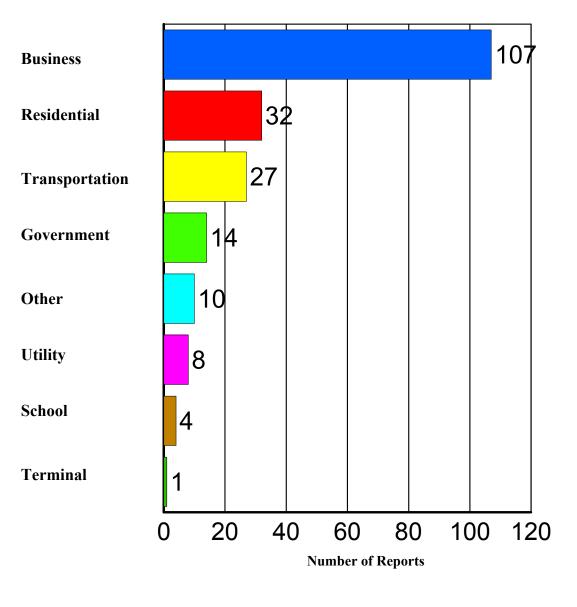
Hazardous Material Incident	203
Business	107
Residential	32
Transportation System	27
Government	14
Other	10
Utility	8
School	4
Terminal	1
Non-Oil, Non-Hazardous Incident	212
Business	76
Residential	50
Other	41
Terminal	17
Transportation System	15
Government	9
School	3
Utility	1
Oil Incident	2,463
Residential	680
Business	442
Terminal	422
Transportation System	420
Utility	252
Other	111
Government	104
School	32
Grand Total of Spills	2,878

Types of Facilities Involved in All Spill Reports for 2004



Total Number of Spills 2,878

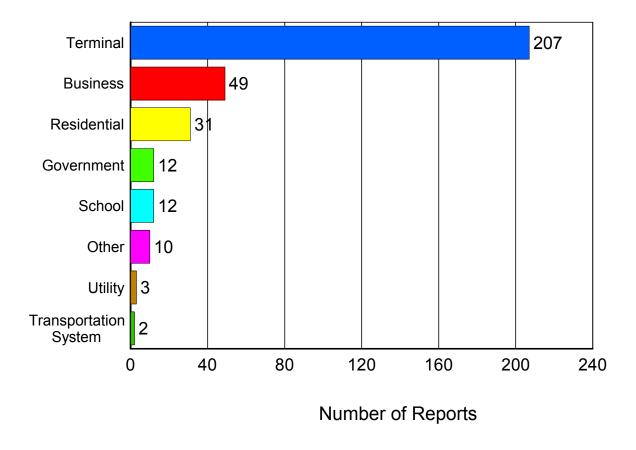
Types of Facilities Involved in Hazardous Material Incidents in 2004



Total Number of Reports

203

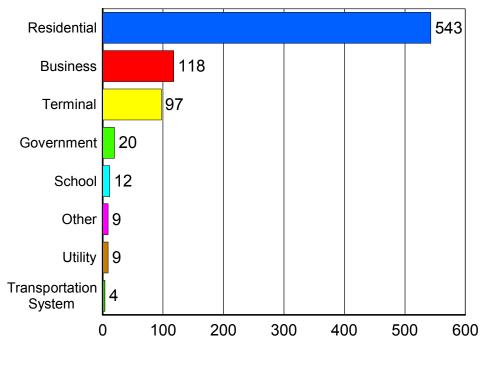
Types of Facilities Involving Underground Storage Tanks in 2004



Total Number of Reports

326

Types of Facilities Involving Aboveground Storage Tanks in 2004



Number of Reports

Total Number of Reports

812

Explanation of Discrepancies between 2004 Maine Coastal & Inland Surface Oil Clean-up Fund and Ground Water Oil Clean-up Fund Number of Barrels

The following two pages summarize the amount of specified products that have entered, or been transferred inside, Maine borders for 2004.

When product is first transferred into the state, the DEP applies the appropriate Maine Coastal & Inland Surface Oil Clean-up Fund and Ground Water Oil Clean-up Fund fees per barrel and these fees are deposited into the funds for the cleanup of future spills. The number of barrels of product is tracked by month and product type. Occasionally, product is transferred within the State from its initial repository to another storage site. The Maine Coastal & Inland Surface Oil Clean-up Fund transfer fees again apply and the number of barrels are tracked as a second transfer. As a result, the number of Maine Coastal & Inland Surface Oil Clean-up Fund barrels may be higher than the number of Ground Water Oil Clean-up Fund barrels in any given month.

The next two pages involve the following product types:

Kerosene #1 Fuel Oil #2 Fuel Oil #6 Unleaded Regular Aviation JP-4 (Jet Fuel) JP-1 & Jet-A (Jet Fuel) Unleaded Super Diesel Asphalt Crude Oil Other Petroleum Products: (Mineral Oil, Hydraulic Fluid, etc)

Ground Water Fund Barrels of Product Transported/Transferred into Maine for 2004

Product	<u># of Barrels</u>
Kerosene #1	1,793,126
Fuel Oil #2	12,058,721
Fuel Oil #6	5,993,843
Unleaded Regular	20,743,157
Aviation	49,062
JP-4 (Jet Fuel)	94,891
JP-1 & Jet-A (Jet Fuel)	1,540,889
Unleaded Super	882,044
Diesel	5,570,516
Asphalt	998,652
Crude Oil	159,720,283
Other Petroleum Products: (Mineral Oil, Hydraulic Fluid, etc)	24,831

<u>Total Barrels</u>

209,470,015

Surface Fund Barrels of Product Transported/Transferred in Maine for 2004

Product	<u># of Barrels</u>
Kerosene #1	1,793,133
Fuel Oil #2	12,147,110
Fuel Oil #6	6,761,530
Unleaded Regular	20,743,157
Aviation	49,062
JP-4 (Jet Fuel)	94,891
JP-1 & Jet-A (Jet Fuel)	1,540,889
Unleaded Super	882,044
Diesel	5,597,874
Asphalt	998,652
Crude Oil	159,720,283
Other Petroleum Products: (Mineral Oil, Hydraulic Fluid, etc)	24,831

<u>Total Barrels</u> <u>210,353,456</u>