

Approved February 8, 1989  
Date

MINUTES OF THE Senate COMMITTEE ON Energy and Natural Resources

The meeting was called to order by Senator Ross Doyen at  
Chairperson

8:06 a.m./pm on February 7, 1989 in room 423-S of the Capitol.

All members were present except: Quorum was present.

Committee staff present:

Don Hayward, Revisor  
Raney Gilliland, Research  
Lila McClaflin, Committee Secretary

Conferees appearing before the committee:

Ronald F. Hammerschmidt, Director, Bureau of Environmental Remediation  
Dennis Murphey, Department of Health and Environment  
Jeanne Hankerson, Federated Mutual Insurance Co., Owatonna, MN.  
Robert Alderson, representing the Kansas Oil Marketers Association  
Pete McGill and Associates, representing Waste Management

List of others present is on file.

Chairman Doyen opened the hearing on S.B. 122 - an act establishing the petroleum storage tank release trust fund; providing authorities and duties for the secretary and department of health and environment relating thereto; establishing an environmental assurance fee and providing duties and authorities for the department of revenue relating thereto. He called on Ron Hammerschmidt to present testimony.

Ron Hammerschmidt presented written testimony in support of S.B. 122 (Attachment I).

Dennis Murphey responded to questions concerning the regulation aspect of S.B. 122. He distributed a handout (Attachment II).

Jeanne Hankerson presented written testimony supporting S.B. 122 (Attachment III). She responded to questions.

Robert Alderson presented written testimony (Attachment IV). He responded to questions.

A handout was distributed from Waste Management (Attachment V).

The meeting adjourned at 8:59 a.m. Next meeting will be February 8, 1989.

1989 SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Date February 7, 1989

PLEASE PRINT

GUEST LIST

NAME

REPRESENTING

<u>NAME</u>	<u>REPRESENTING</u>	<u>REPRESENTING</u>
Joe Lieber	Topeka	Hts. Co-op Council
Kathy Duncan	Topeka	League of Women Voters Ks.
John Earhart	Topeka	State Fire Marshal
Sally Wilk	Topeka	Ks. State Board of Agriculture
Carla Fromm	Topeka	KS Dept Health & Environment
Julie Greene	Topeka	Ks. Dept. of Health & Env.
James Power	Topeka	" " " "
Ron Hamerschmidt	Topeka	" " "
Dennis Murphy	Topeka	KDHE
Terry Leatherman	Topeka	Ks Chamber of Commerce & Industry
Margaret Ahrens	Topeka	Ks Chapter Sierra Club
Pat Baker	Topeka	Kans. Assoc of School Boards
John Strickler	Topeka	Governor's Office
Ken Bahr	Topeka	KCMB
Rebecca Rice	Topeka	Amoco
Bob Anderson	"	KOMA
Jeanne Hambermann	Owatonna mn	Federated Ins. Co.
Kathy Taylor	Topeka	Kans Bankers Assn.
Chuck Stones	"	"

1989 SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Date February 7, 1989

PLEASE PRINT

GUEST LIST

<u>NAME</u>		<u>REPRESENTING</u>
Anne Smith	Topeka	Hein & Ebert - Mesa
Bob Hedger	Topeka	Ks Telecom Assn / KCC
John Lutzka	Topeka	Revenue

STATE OF KANSAS



DEPARTMENT OF HEALTH AND ENVIRONMENT

*Forbes Field*

Topeka, Kansas 66620-0001

Phone (913) 296-1500

Mike Hayden, *Governor*

Stanley C. Grant, Ph.D., *Secretary*

Gary K. Hulett, Ph.D., *Under Secretary*

Testimony Presented to the  
Senate Energy and Natural Resources Committee

by

The Kansas Department of Health and Environment

Senate Bill No. 122

Introduction

Kansans rely upon groundwater resources for private and public drinking water, and industrial and irrigation water supplies. Approximately 85 per cent of the water used in Kansas is groundwater. Protection of our groundwater resources from pollution is vital to protect public health and our economy.

The 1989 Summary of Bureau of Environmental Remediation Sites in Kansas lists 489 sites in Kansas at which environmental contamination is confirmed or thought to have occurred. Contamination of soil or groundwater by underground storage tanks accounts for 162 of these sites. An additional 88 sites have been discovered in the last five months since the end of the reporting period for the 1989 Summary Report. This represents a 54% increase in five months. A copy of that report is attached for your reference.

Statewide we have approximately 19,000 underground storage tanks. Estimates are that as many 10 to 15% of these may leak in the next ten years. There is a significant potential for widespread groundwater contamination due to leaking underground storage tanks in the state.

AL

SEANR  
2/7/89  
Attachment I

Senate Bill No. 94

The Federal Underground Storage Tank regulatory program (UST) was enacted by Congress in 1984 as an amendment to the Resource Conservation and Recovery Act (RCRA). On January 24, 1989, federal requirements went into effect which specify that tank owners and operators must provide assurance of funds to pay for corrective action when leaks occur. The assurance may be provided by insurance, letters of credit, state-sponsored trust funds, or other means. Senate Bill No. 94 which is currently under consideration by the legislature requires the owner or operator of storage tanks to provide evidence of financial responsibility.

Although the UST program is federally mandated, it was intended for state and local implementation. The Environmental Protection Agency has indicated that financial support from the federal \$500 million Leaking Underground Storage Tank (LUST) Trust Fund may be available only to states with an authorized UST program in place. Senate Bill No. 94 would authorize such a program.

Senate Bill No.

The bill under consideration today, Senate Bill No. 122, provides a mechanism for owners or operators of petroleum storage tanks to satisfy the financial assurances required by the Federal UST program and regulation under Senate Bill No. 94 if adopted. The Department of Health and Environment has worked with interested groups and representatives of the industry on the concepts included in this financial responsibility bill. We support the concept of assisting the tank owner or operator in meeting the financial assurance requirements so that environmental contamination from petroleum storage tanks can be addressed in an effective and efficient manner. Nine other states including Delaware, Florida, Maine, Minnesota, and Wisconsin have used this type of fund to meet these requirements.

Financial assurance required under the Federal mandate of petroleum marketers is at least \$1 million per occurrence and \$2 million aggregate to cover the cost of a leak or spill. Underground tank owners must provide assurance of at least \$500,000 per occurrence or \$1-2 million aggregate depending on the number of tanks they own. Affordable insurance may not be available to most small and intermediate size companies and public tank owners.

Many of the past contamination problems caused by leaking tanks have been cleaned up by the tank owners. However the cost of remediation can be prohibitive for a small firm or one with a large number of tanks. The cost of soil removal can be as high as \$20,000 and if groundwater is contaminated as well, costs can exceed \$50,000. Long-term monitoring, if needed, would increase the costs associated with cleanup considerably. Such costs can force companies into bankruptcy, leaving the remediation project and funding to the state or the Federal Leaking Underground Storage Tank Trust Fund. When the Federal LUST fund is used, cost recovery is required. Thus it is not a vehicle to assist operators in meeting the financial responsibility requirements.

Important Provisions of Senate Bill 122 are:

- 1) The Fund would be used to provide for corrective action approved by the Secretary of Health and Environment.
- 2) The Fund would not be used for removal, replacement or retrofitting of petroleum storage tanks in order to improve a business.
- 3) The Fund would not provide third party liability coverage.
- 4) Moneys could be expended by the secretary to take corrective action if the owner or operator is unable or unwilling to perform the necessary remediation. The fund would be used only if the Federal LUST fund was unable to provide for necessary action.
- 5) A deductible is established according to the number of tanks owned. This deductible involves the responsible owner/operator in the financial burden.
- 6) There is a sunset provision which eliminates the fund and its obligations after July 1, 1994. This time period should cover the critical period until existing tanks are brought up to new tank standards, as Federal law requires within ten years, and environmental liability insurance is available and affordable.
- 7) Only owner/operators in compliance with regulatory requirements can obtain assistance from the fund.
- 8) The balance in the fund will vary from a maximum of approximately \$5 million to a minimum of \$2 million.

The Kansas petroleum storage tank release trust fund will provide financial assurance for petroleum tank owners. These owners include large and small businesses, local governments, school districts, state agencies, and all others who store petroleum in tanks covered by the program. These owners or operators are responsible for providing proof of their financial resources to clean up contamination from their tanks. This bill establishes a mechanism for providing such financial assurance for these parties.

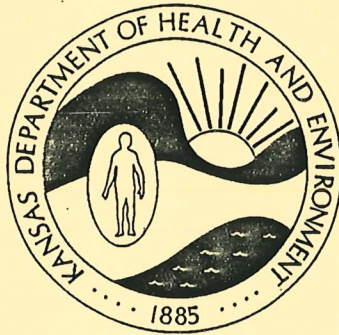
This act places a great responsibility on the KDHE to provide prompt and efficient technical and professional resources and capabilities. It is imperative that the department receive sufficient resources to meet these responsibilities. The bill provides that the necessary costs for the program are withdrawn from the Trust Fund. This is a critical provision if the Trust Fund is to be managed in an effective manner.

The Petroleum Storage Tank Release Trust Fund will provide the regulated community with a mechanism to meet the financial responsibility requirements of the Federal statute and Senate Bill 94. This mechanism is vital if the businesses, schools and localities are to meet these requirements. Therefore, we fully support the concept of the bill and request favorable action on Senate Bill 122.

Testimony presented by: Ronald F. Hammerschmidt, Ph.D., Director  
Bureau of Environmental Remediation  
Department of Health and Environment  
February 7, 1989

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2/7/89

# 1988 Summary of Bureau of Environmental Remediation Sites in Kansas



January 1989

Kansas Department of Health and Environment  
Building 740, Forbes Field, Topeka, Kansas 66620

*SE+NR*  
*2/7/89*  
*attachment II*

*(A II)*



Mike Hayden, Governor  
Stanley C. Grant, Ph.D., Secretary  
Gary Hulett, Ph.D., Under Secretary  
James Power, Director, Division of Environment  
Ron Hammerschmidt, Ph.D., Manager,  
Bureau of Environmental Remediation  
Julia M. Greene and Carla H. Fromm, editors

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We would like to acknowledge the assistance of the following KDHE staff members:

Steve Brown -- for his dedicated effort in writing the computer program for the Identified Sites List,

Paula Schumacher -- for producing the graphs, and

Shelly Hawks and Ida Mae Hulsupple -- for contributing to the production of the final report.

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# OVERVIEW OF BUREAU OF ENVIRONMENTAL REMEDIATION ACTIVITIES

## SUMMARY

This report provides a basic overview of the activities conducted by the Bureau of Environmental Remediation (BER), Kansas Department of Health and Environment (KDHE). A brief description of the work conducted by BER is provided and followed by a summary of sites, presented as graphs and tables, which BER has identified as potentially contaminated or at which contamination is confirmed. The purpose of this report is to generate a fundamental understanding of the nature of contamination where it occurs in Kansas, and the role of BER in assuring that known contamination which poses a human health or environmental threat is addressed.

## INTRODUCTION

The Bureau of Environmental Remediation was established in 1986. BER coordinates the Division of Environment's investigatory and remedial activities at sites in Kansas where contamination is suspected or has been detected, and provides a single point of contact to respond to questions relating to these sites.

BER also organizes and conducts state activities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (P.L. 96-510), as amended by the Superfund Reauthorization Act of 1986 (SARA) (P.L. 99-499). The federal program established by these laws, referred to as Superfund, is administered by the United States Environmental Protection Agency (EPA) and provides money for the investigation and clean-up of sites meeting the program's requirements.

Within the bureau there are two sections, Technical Services and Remedial, which are responsible for performing different functions. A brief description of their respective functions follows.

## TECHNICAL SERVICES SECTION

The Technical Services Section conducts pre-remedial investigations of sites potentially contaminated by hazardous substances. The purpose of these investigations, known as pre-NPL investigations, is to determine if a site qualifies for placement on the National Priorities List (NPL). The NPL consists of sites at which contamination poses an immediate threat to public health and the environment. Remedial activity (cleanup or containment of contaminants) at sites on the NPL may be funded by federal money under Superfund.

KDHE nominates sites in Kansas to be investigated under the pre-NPL program based on the following criteria: (1) The suspected contaminant at the site must be a hazardous substance as defined in CERCLA. Salt contamination, for instance, would not qualify for a pre-NPL investigation; (2) Sites which are regulated under other federal programs do not qualify. For example, sites associated with the oil and gas industry, hazardous waste facilities, and pesticide contamination resulting from agricultural practices all are regulated under other programs; and (3) Priority is given to sites at which contamination threatens a public drinking water supply, or which are near a population center.

The EPA provides funding for pre-NPL investigations conducted by states. The EPA and KDHE enter into annual cooperative agreements describing the work to be completed and the amount of money allocated for each site selected for pre-NPL investigation. Cooperative agreements are modified each year and reflect progress at sites investigated under previous agreements, and the selection of new sites to be investigated.

The main objective of a pre-NPL investigation is to determine the severity of the human health and/or environmental threat at a site. Technical Services staff conduct document research and field investigations in order to generate a score which reflects factors which are specific to each site. The EPA reviews the score and an accompanying report, then either recommends the site for placement on the NPL or refers the site to the State to conduct appropriate action. Both Superfund and State funded cleanups are directed by BER's Remedial Section.

The pre-NPL investigation consists of distinct phases. A preliminary assessment (PA) is completed first. Based on the results of the PA, a site inspection (SI) may be required. The following table summarizes the number of investigations which have been completed under three cooperative agreements between the EPA and BER. The completion date is the date on which all investigations under a single agreement must be complete.

Completion Date	No. of SIs	No. of PAs
March 31, 1987	11	0
September 30 1988	14	27
September 30. 1989	20	14

In the first series of investigations, industrial sites and refineries were emphasized and three were eventually placed on the NPL. During 1988 public water supplies were given priority, and this emphasis will continue in 1989. EPA's recommendations for sites investigated in 1988 are not yet available.

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## REMEDIAL SECTION

### Investigation of Suspected Contamination

The Remedial Section conducts investigations to identify contaminated sites using State funds, and oversees and approves remedial activities conducted by responsible parties at contaminated sites throughout Kansas. Sites where contamination is suspected may be brought to the attention of the Bureau through several common routes, including: private party complaints; information obtained from land use records; referral by other Federal or State agencies or bureaus; preliminary field investigations conducted by the Remedial Section; or self reporting when a person or business knows that a release has occurred. The Remedial Section investigates 200 to 250 cases of suspected contamination annually.

There is not a "typical" site description which characterizes the problems addressed by the Remedial Section. However, suspected or documented contamination frequently involves releases from the inappropriate storage or disposal of hazardous substances which results in environmental contamination. An investigation is conducted at sites where contamination is suspected. The investigation can consist of up to four phases which vary in extent from site to site.

A site investigation is conducted first to determine the degree and extent of contamination. Contamination which poses a threat to human health or the environment undergoes a more thorough remedial investigation, during which remedial alternatives are evaluated. The evaluation process may include additional field investigations, and possibly pilot removal or disposal projects. This information is used to select an appropriate program of remedial activity for the site.

Once the selected remedial program has been designed, it must be approved by BER and finally implemented by the responsible party. Remediation may involve clean-up (e.g. removal or on-site detoxification) or containment (e.g. capping) of the contaminant. Remediation at sites is frequently followed up by long term monitoring to measure the effectiveness of the remedial activity.

The Bureau encourages the party responsible for contamination to work on a cooperative basis with the Bureau towards remediation. A Consent Order may be negotiated to formalize the joint agreement regarding remedial action and monitoring. However, when a responsible party can not be identified or can not bear the financial burden of clean-up, the Bureau can administer the remediation and seek federal funding through Superfund, or state funding from the State Hazardous Waste Cleanup Fund or Environmental Response Fund.

## Spill Response and Leaking Underground Storage Tank Programs

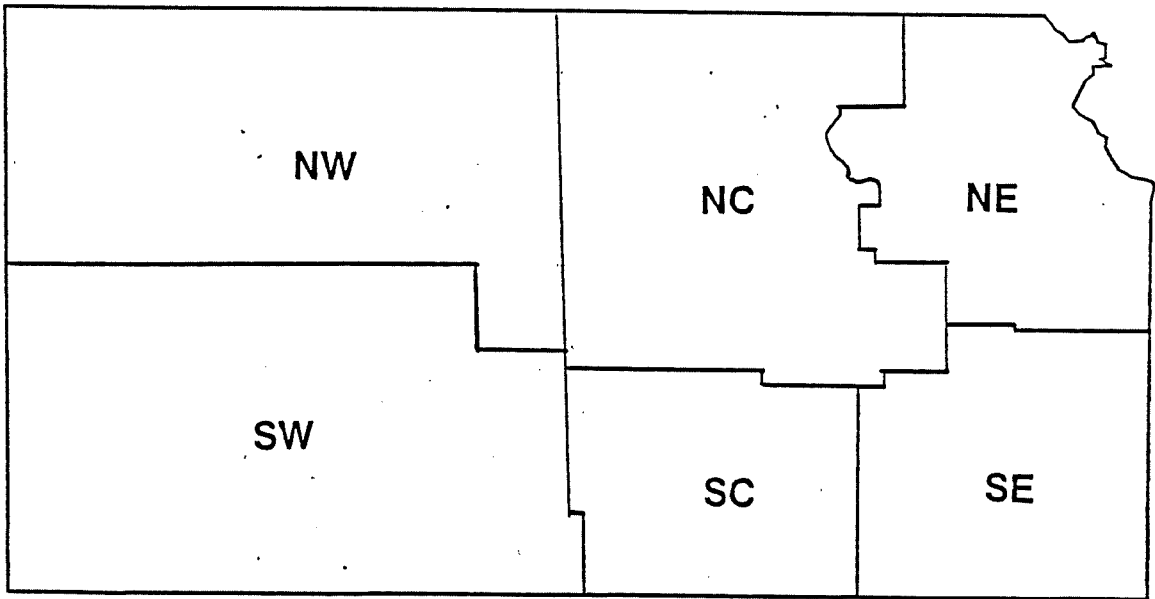
In addition to confirming suspected contamination and directing subsequent remedial activities, the Remedial Section provides immediate response to reports of substances being released into the environment through its Spill Response and Leaking Underground Storage Tank (LUST) programs.

According to Kansas law, the unpermitted discharge or accidental spill of any substance which may be detrimental to soil or water quality must be reported to KDHE by the responsible party. The state funded Spill Response program was developed to respond to these reports, which vary considerably in the quantity and type of substance which has been discharged or spilled. Between 800 and 1,000 "spills" are handled annually under the Spill Response Program. The specific release of refined petroleum products from underground storage tanks is administered by BER through the Leaking Underground Storage Tank (LUST) Program. Remediation of LUST sites is eligible for federal funding.

The primary objective of both of these programs is to insure that immediate remediation measures are implemented when spills or petroleum related leaks or odors are reported. BER field staff evaluate the situation on-site and determine what action is necessary to alleviate immediate health or safety threats, such as identifying and correcting the source of the release or preventing fire hazards. Field staff then advise the responsible party what further remedial action needs to be taken to prevent the recurrence of a spill or leak. The LUST program receives federal money for remediation from the LUST Trust Fund in the case that the responsible party can not be identified or is insolvent. After an immediate remedy to the situation is provided, a more thorough investigation may be conducted by the responsible party or the Remedial Section if there is reason to suspect that the release may have caused contamination which was not addressed by the immediate response to the problem.

Professional and technical staff assigned to six district offices across Kansas respond to all reports of spills or leaking underground storage tanks in their district. In addition, these BER staff members assist in planning and conducting investigations, and in the oversight of remedial activities.

1988 Summary of  
Bureau of Environmental Remediation  
Sites in Kansas





SUMMARY OF BUREAU OF ENVIRONMENTAL REMEDIATION SITES

Explanation of Data Presentation

Potential sites are identified through the activities of BER, as well as by other KDHE bureaus or agencies, or individuals. Upon completion of an initial investigation, a fact sheet is written on each site describing the origin of the problem, the stage of investigation or cleanup, and the nature of the suspected contamination. Periodically the fact sheets are updated to reflect changes in site status and new information gathered during investigations.

The bureau recently updated fact sheets for existing sites. These fact sheets were used to generate a list of sites for which the bureau has some responsibility. This list is referred to as the Identified Sites List, or ISL. (A similar list generated in the past was referred to as the Contaminated Sites List.) There currently are 489 sites on the ISL. The following table includes the number of non-LUST and LUST sites, as well as the total number of sites, identified in each district and the state as a whole.

	SW	SC	SE	NE	NC	NW	STATE
Non-LUST	31	75	33	63	44	81	327
LUST	9	32	29	56	18	18	162
Total	40	107	62	119	62	99	489

Several sites at which the BER has conducted activities have been transferred to the authority of the Kansas Corporation Commission (KCC). These sites have been included on the Identified Sites List; however, the available fact sheets were incomplete due to a lack of information regarding KCC activities at the sites. A tentative list of names of KCC sites and the district in which they are located is provided at the back of this report. The following table indicates the number of KCC sites in each district.

SW	SC	SE	NE	NC	NW	STATE
6	6	4	0	5	45	66

The site list was sorted by KDHE district office boundaries, then by Non-LUST and LUST sites. Leaking underground storage tank sites are listed separately since they are covered under a specific program within the bureau, and represent a distinct subset of sites. Non-LUST sites then were sorted by contaminant,

contaminated medium, source of the contaminant, and both non-LUST and LUST sites were sorted by status.

This information is presented in graphs for each district and the state as a whole. There may be more than one contaminant, contaminated medium, and source for a site. Therefore, this data is presented as the per cent of the total number of sites for which a contaminant, medium, or source was indicated.

Status refers to the stage of activity which has been completed, is underway, or is needed at a site. If any stage had been completed at a site, that is the stage which is recorded on the graph. If no stage had been completed, the stage currently underway was recorded. If no stage is underway, the activity which is needed is indicated. Data for status is presented as number of sites per stage of activity rather than as per cents.

It is not correct to conclude that each site on this list is "contaminated." Each site is considered on an individual basis before any conclusion is made regarding the relative significance of that site. Some sites have been identified as potentially contaminated and are currently under investigation. Other sites have been cleaned up and the problem is either being monitored to insure that the remediation was effective, or the problem is considered resolved. In other cases the problem presented no human health or environmental hazard, and no action was necessary.

Furthermore, the bureau is in the process of developing an efficient system for maintaining information on each site. The recent compilation of data for this report revealed that important information is lacking for many sites. Therefore, the information available in this report is incomplete. The development of a tracking system will allow us to provide the public with accurate and complete information on a more timely basis.

An explanation of the abbreviations used in the graphs and the list is provided on the following pages, and precedes the data summaries for the state and each district. In addition to the graphs, the list of sites which have been identified by the bureau within each district is provided. The graphs are organized by district. The ISL for each district follows the graphs.

# LIST OF ABBREVIATIONS USED FOR GRAPHS AND TABLES

## STATUS OF SITES AND STATUS OF LUST SITES:

INVESTIG	-- investigation
REM DESN	-- remedial design
CLEANUP	-- cleanup
MONITORING	-- monitoring (post cleanup)
NO ACT NEC	-- no action deemed necessary
RESOLVED	-- resolved
MISSING	-- status of site is unknown at this time
C	-- completed
U	-- underway
N	-- needed

## CONTAMINANT:

ACID	-- acids, acid extractable compounds
BASE NTRL or BN	-- base neutral compounds
PEST	-- pesticides
VOC	-- volatile organic compounds
HM	-- heavy metals
INOR	-- inorganic compounds
OIL	-- crude oil
OTH	-- other
MISSING	-- contaminant unknown at this time

## CONTAMINATED MEDIA SUMMARY:

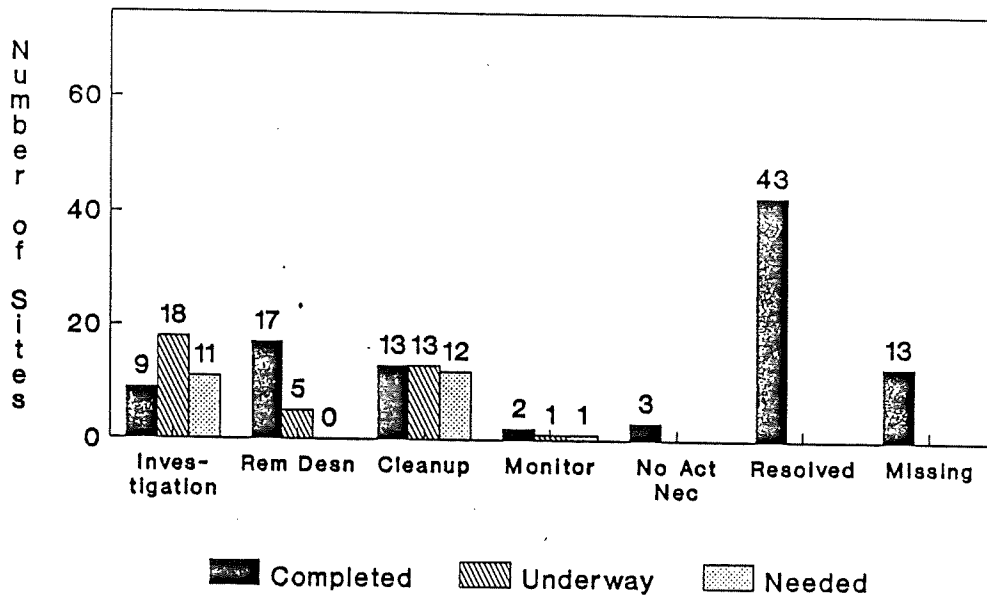
GW	-- groundwater
SW	-- surface water
PWS	-- public water supply
SOIL	-- soil
INVESTIGATING	-- investigation underway; contaminated media unknown at this time
MISSING	-- data on contaminated media missing

## SOURCE:

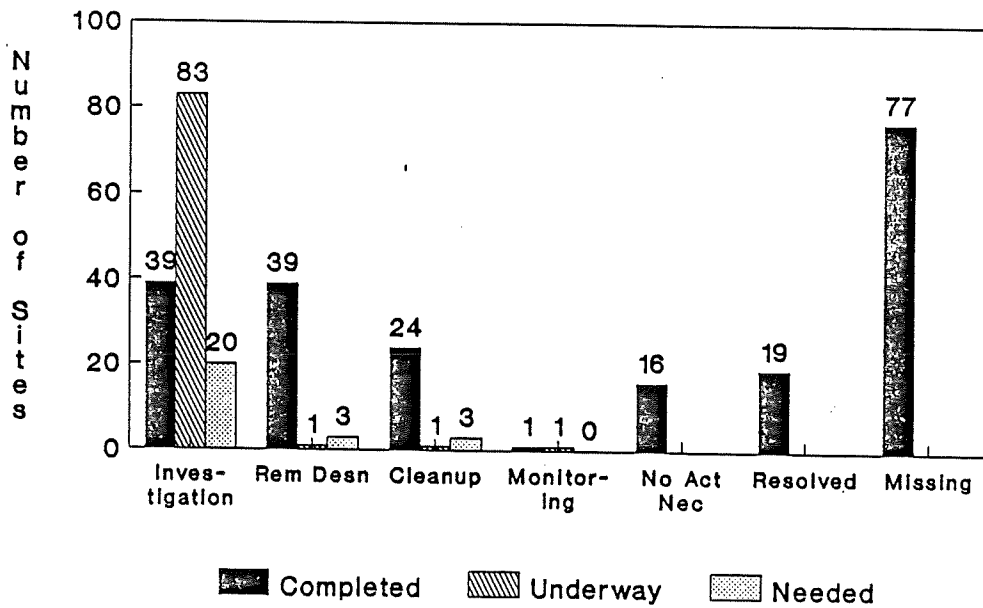
SPILL	-- spill
PIPELN	-- pipeline
LAGOON	-- lagoon or impoundment
SEPTIC	-- septic tank
DMPING	-- dumping or abandoned drums
ABAND	-- abandoned facility
BRINE	-- brine from oil production or salt mining
LANDFL/LNDFL	-- landfill
OTHER	-- other
INVESTIGATING	-- investigation underway; source unknown
MISSING	-- data on source missing

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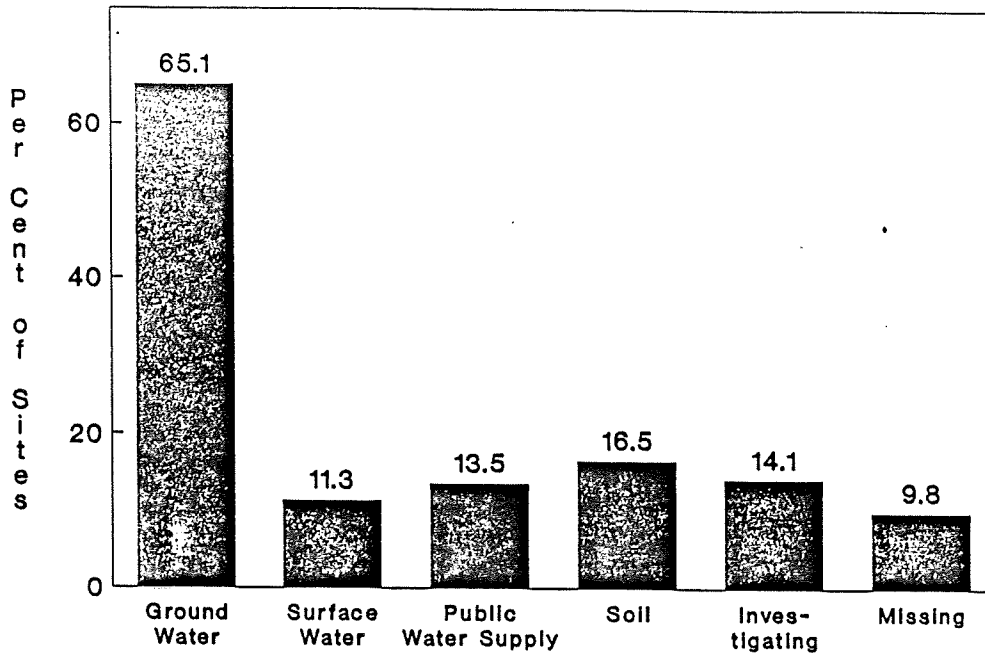
## Statewide Status Summary LUST



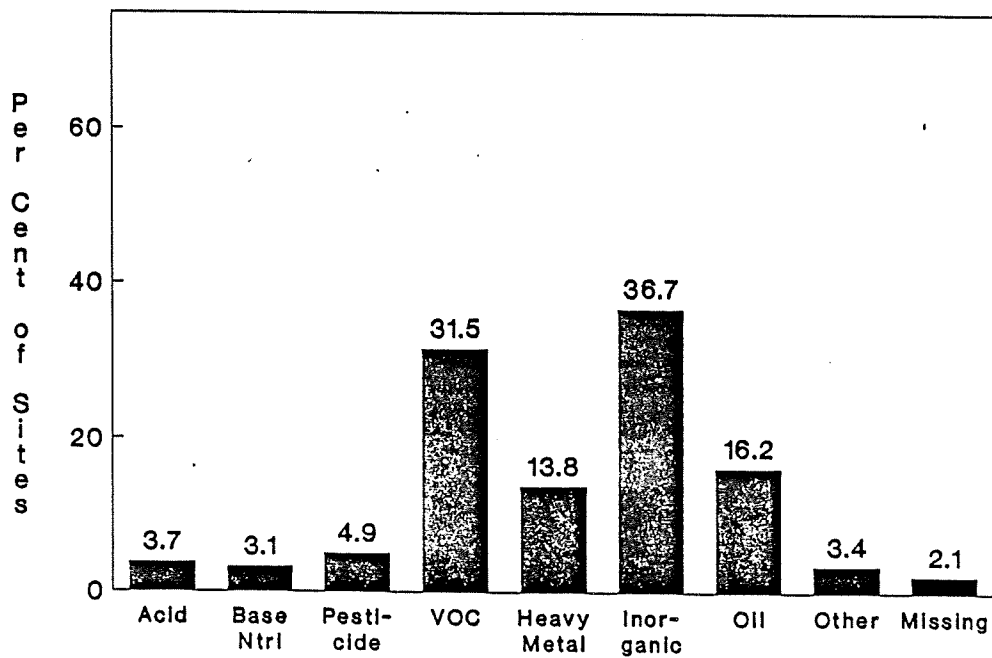
## Statewide Status Summary Non-LUST



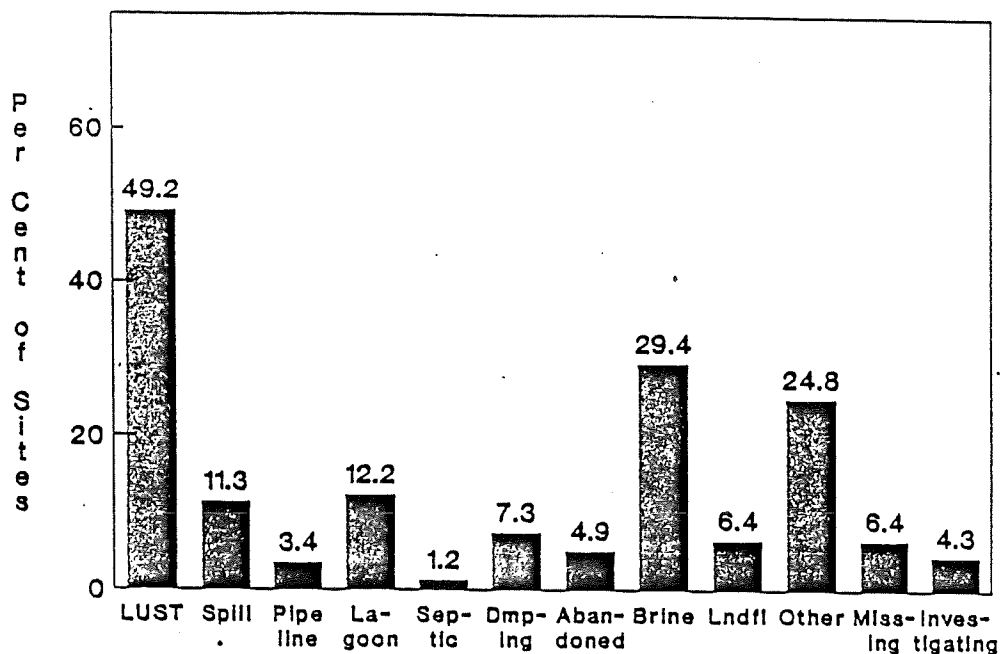
## Statewide Contaminated Media Summary



## Statewide Contaminant Summary



## Statewide Source Summary

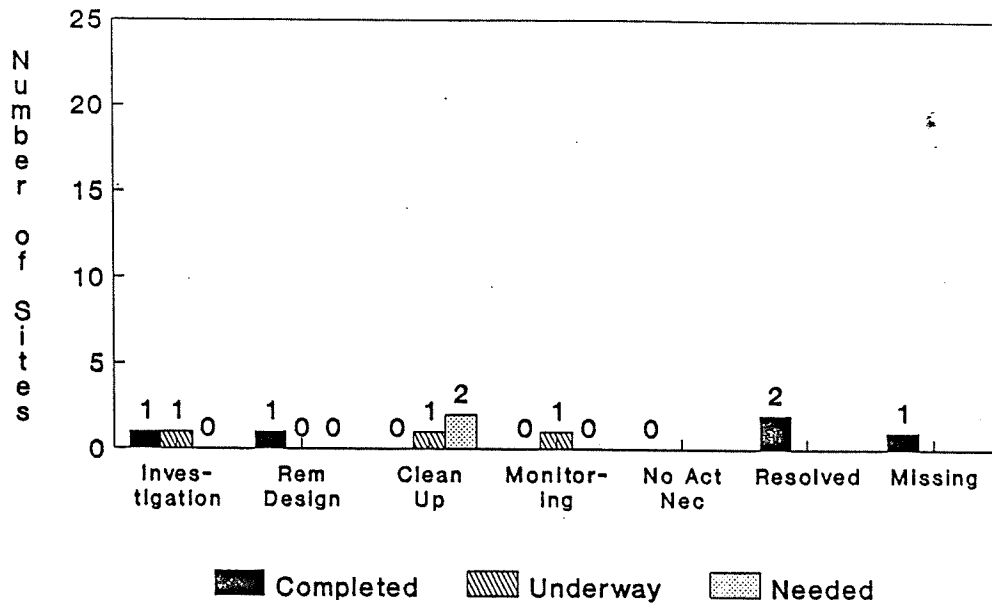


There are 327 non-LUST sites and 162 LUST sites on the Identified Sites List. Forty-three LUST sites have been resolved and the remainder are in various stages of investigation or remediation. In contrast, 142 non-LUST sites are in some stage of investigation. The remedial design has been completed at 39 sites; however, the cleanup has not been initiated. Cleanup has been completed at another 24 sites. A final site inspection will be performed on these sites before they are considered resolved. Information on status was missing for 77 sites; the majority (66) are KCC sites.

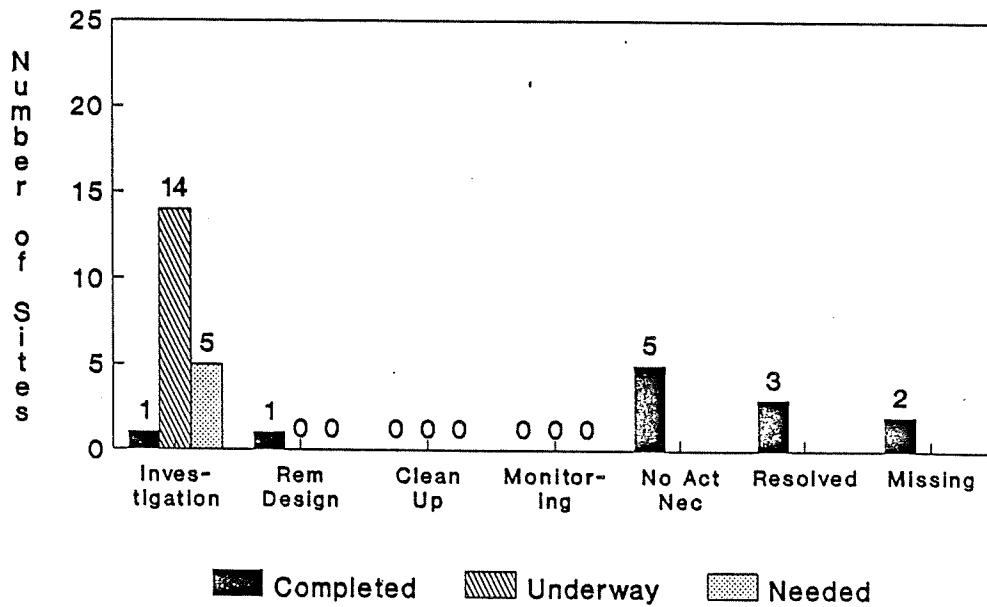
More than one contaminated medium may have been reported for a single site. Groundwater contamination has been reported at 65% of listed sites. Thirteen per cent of contaminated sites involve a public water supply. Surface water and/or soil are contaminated in 11 and 17% of sites, respectively.

VOCs and inorganic compounds are the principle contaminants, each detected at approximately one-third of listed sites. The inorganic constituent most frequently found was chloride contamination associated with brine from oil production. Brine is reported as the contaminant source at 39% of listed sites. Nearly one-half of listed sites are LUST sites at which the contaminant is almost always a refined petroleum product; however, this contaminant is not presented in the contaminant summary graph. The other contaminants found and sources identified may occur at sites in various combinations.

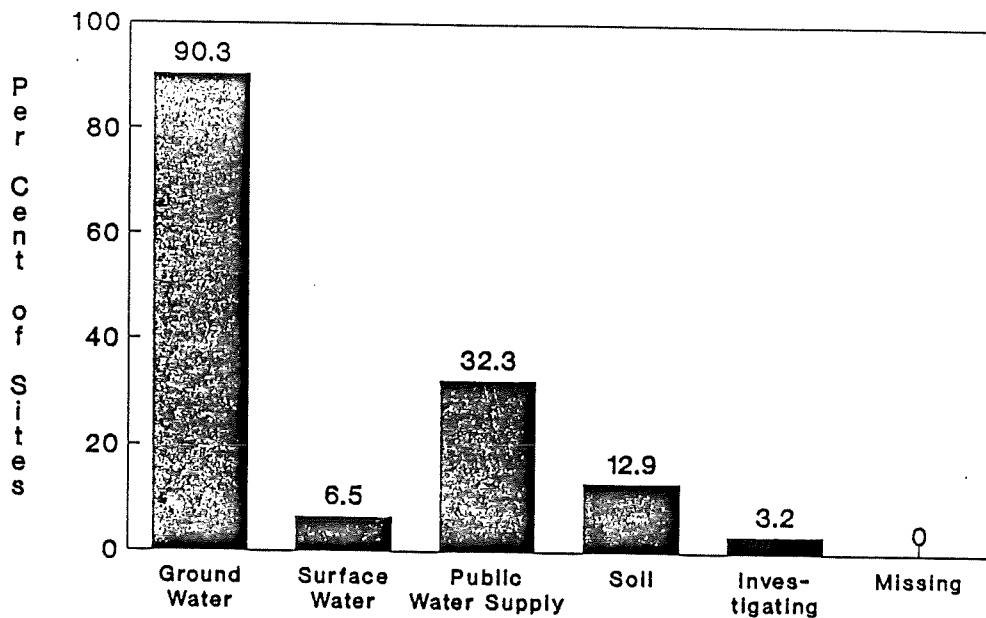
## Status of LUST Sites Southwest



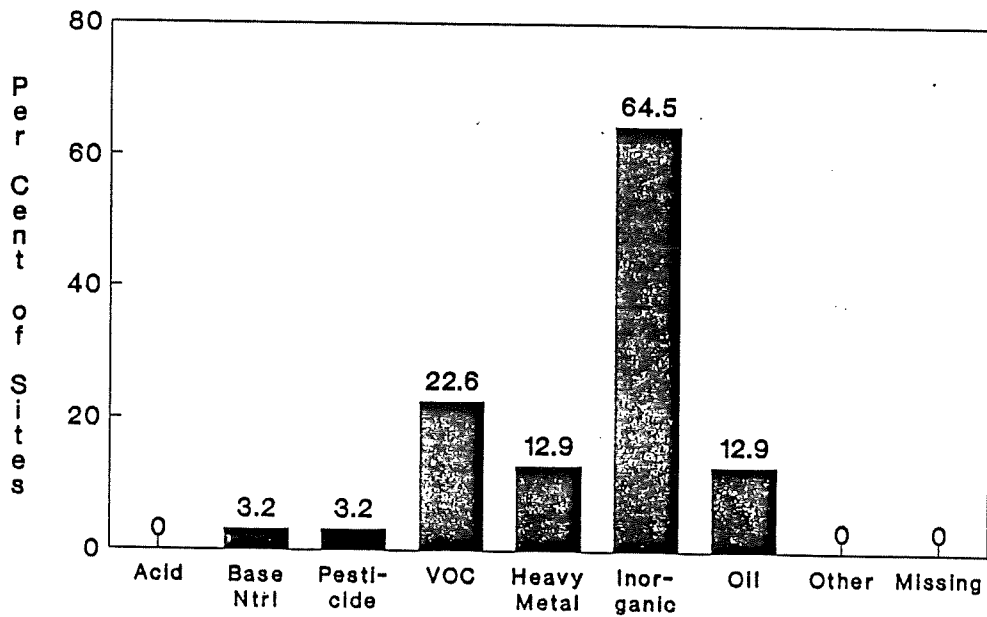
## Status of Non-LUST Sites Southwest



## Contaminated Media Summary Southwest

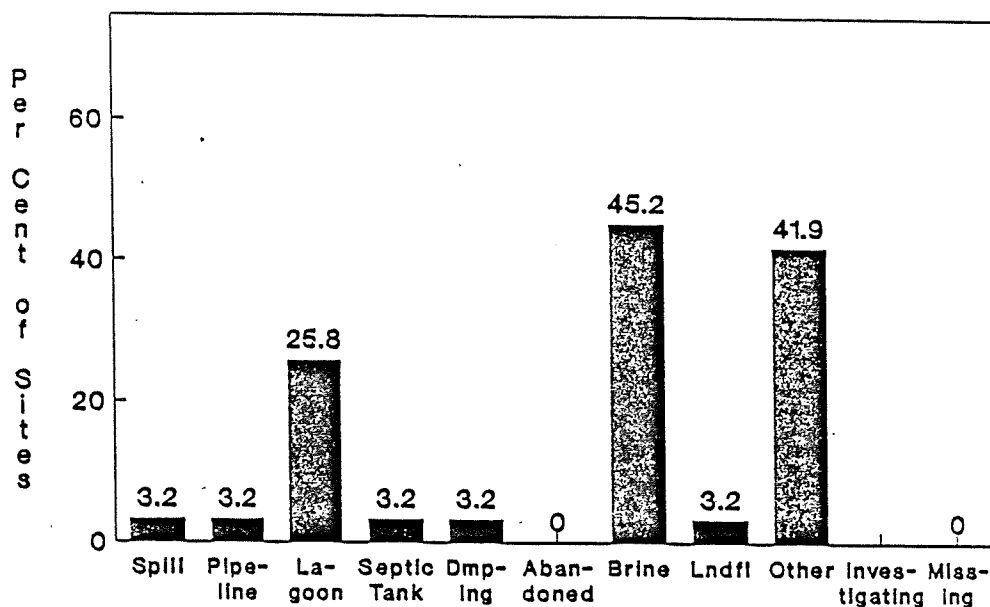


## Contaminant Summary Southwest





## Source Southwest



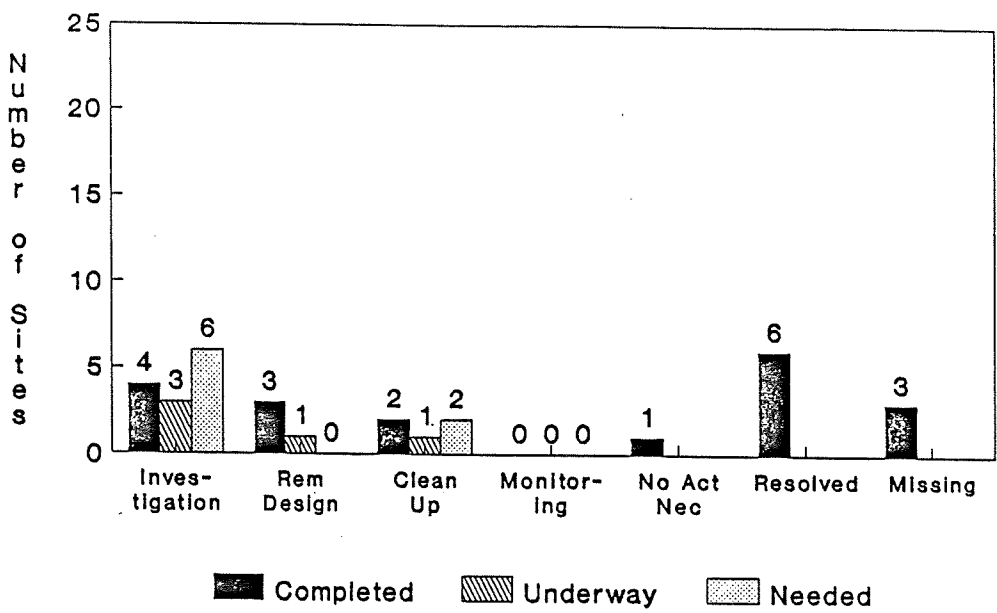
There are 31 non-LUST and nine LUST sites in the southwest district on the Identified Sites List. All LUST sites are in various stages of investigation or remediation, whereas most non-LUST sites are being investigated or are in need of investigation.

Groundwater contamination is reported at over 90% of non-LUST sites. Nearly one-third of listed sites involve public water supplies. The principle contaminants detected are inorganic compounds and VOCs. The inorganic constituent of concern is chloride as brine associated with oil field activities. Brine is reported as the source of contamination at 45% of sites in the southwest district. Lagoons are also a common source of contamination.

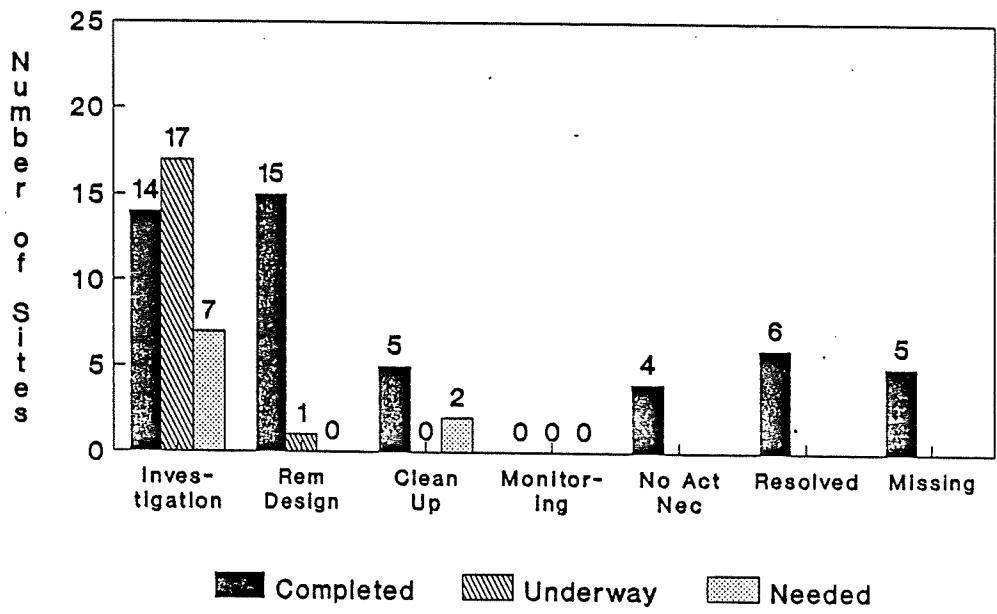
IDENTIFIED SITES LIST -- SOUTHWEST DISTRICT

SITE NAME				CONTAMINATED		SOURCE	STATUS
	CO	RB	CONTAMINANT	MEDIA			
DIEL FARM	BA	LA	OIL	SOIL	DMPING/OTHER	INVESTIG-U	
HARDTNER PWS WELL #1	BA	LA	HM	GW/PWS		RESOLVED-C	
WILDBOY'S LAND & CATTLE CO.	BA	LA	INOR	GW/SW	BRINE	INVESTIG-U	
CITY OF ALBERT	BT	UA	INOR	GW/PWS	BRINE	INVESTIG-U	
FINNEY COUNTY LANDFILL	FI	UA	INOR	GW	LANDFL	INVESTIG-U	
IOWA BEEF PROCESSORS	FI	UA	INOR	GW	LAGOON/OTHER	INVESTIG-U	
KALVESTA RESTAURANT	FI	UA	VOC	GW	LUST/SPILL	INVESTIG-C	
FARMLAND INDUSTRIES NITROGEN PLANT	FO		HM	GW	PIPELN/OTHER	INVESTIG-C	
HENRY STRECKER	FO	UA	INOR	GW/PWS	BRINE	NO ACT NEC-C	
KENWORTH	FO		OTH	SOIL	LUST	RESOLVED-C	
MBPXL (EXCEL)	FO	UA	INOR/OIL	GW	LAGOON/OTHER	INVESTIG-U	
STAKE SITE	FO	UA	PEST	SOIL	SPILL/OTHER	RESOLVED-C	
ULYSSES GAS PROCESSING CO. (AMOCO PRODUCTION)	GT	CI	BN/VOC	GW	LAGOON/OTHER	INVESTIG-U	
ABANDONED SERVICE STATION, JETMORE	HG		OTH	SOIL	LUST	RESOLVED-C	
RAYMOND SMITH	HG	UA	INOR	GW	BRINE	INVESTIG-U	
SCHRADER STOCK WELL	HG	UA	INOR	GW	BRINE	INVESTIG-U	
BILL BURCH	HM	CI	INOR	GW/PWS	OTHER	NO ACT NEC-C	
KIRBY CLAWSON	HS	UA	INOR	GW/PWS	BRINE		
MESA PETROLEUM COMPANY	HS		INOR	GW	OTHER		
COLORADO INTERSTATE GAS CO.	KE	UA	VOC	GW	LAGOON	INVESTIG-U	
MEADE PWS WELLS #1 & #2	ME	UA	VOC	GW/PWS	OTHER	RESOLVED-C	
HELIUM SALES, INC. (PHILLIPS PETROLEUM GREENW)	MT	CI	VOC/HM/OIL	GW/SOIL	LAGOON	INVESTIG-U	
BAZINE CO-OP	NS	UA	VOC	GW	LUST	CLEANUP-U	
HOME OIL CO. - STA. #1	NS	UA	VOC	GW	LUST	CLEANUP-N	
JAY HERRON & OTHERS	NS	UA	VOC	GW	LUST	CLEANUP-N	
RANSOM CO-OP	NS	UA	VOC	GW	LUST	CLEANUP-C	
ENOCH THOMPSON	PN	UA	INOR	GW	BRINE	INVESTIG-U	
L.E. MARLETT	PN	UA	INOR	GW	BRINE	NO ACT NEC-C	
STANLEY MOFFET	PN	UA	INOR	GW	BRINE/OTHER	INVESTIG-N	
CITY OF BISON	RH	UA	INOR	GW/PWS	OTHER	NO ACT NEC-C	
CITY OF LACROSSE	RH	UA	INOR	GW	BRINE	NO ACT NEC-C	
DALE ATER	RH	UA	INOR	GW/PWS	BRINE	INVESTIG-N	
GENE AVEY	RH	UA	INOR	GW/PWS	BRINE	INVESTIG-N	
SCOTT CITY SHOP (WESTERN OIL TRANSPORTATION	SC	UA	VOC		LAGOON	INVESTIG-U	
SHALLOW WATER REFINERY (EZ SERVE REFINING)	SC	UA	VOC/HM/OIL	GW/SW/SOIL	LAGOON	INVESTIG-U	
KENT RIXON	SF	LA	INOR	GW	BRINE	INVESTIG-N	
KENT RIXON	SF	LA	INOR	GW	LAGOON/BRINE	INVESTIG-N	
ZENITH COOP	SF		OTH	GW/SOIL	LUST	INVESTIG-U	
HUGOTON PWS	SV	CI	VOC	GW/PWS	LUST	REM DESIGN-C	
PANHANDLE EASTERN PIPELINE	SW	CI	VOC	GW/PWS	SEPTIC/OTHER	REM DESIGN-C	

## Status of LUST Sites South Central

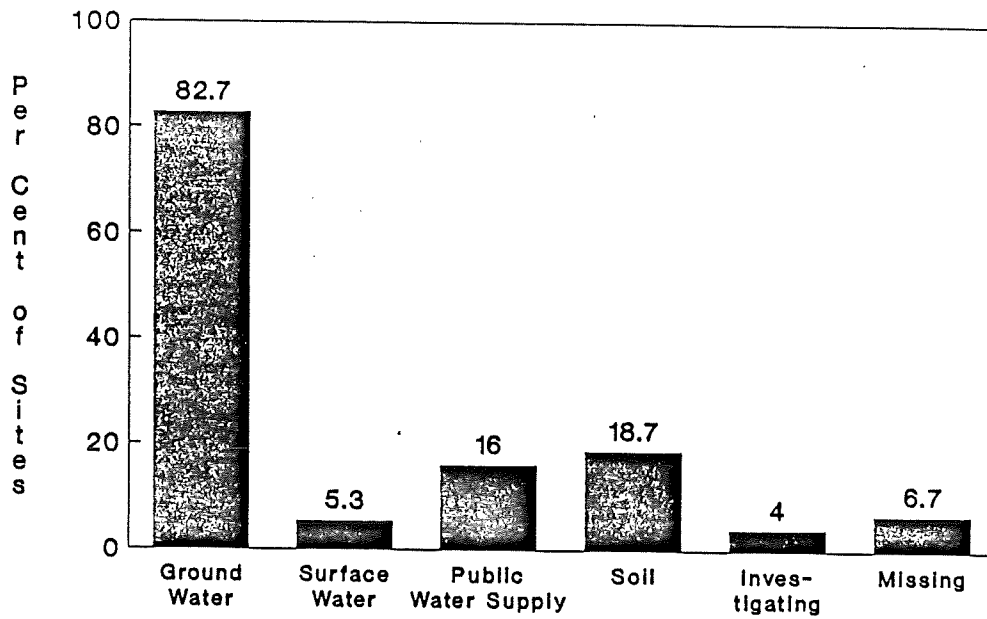


## Status of Non-LUST Sites South Central

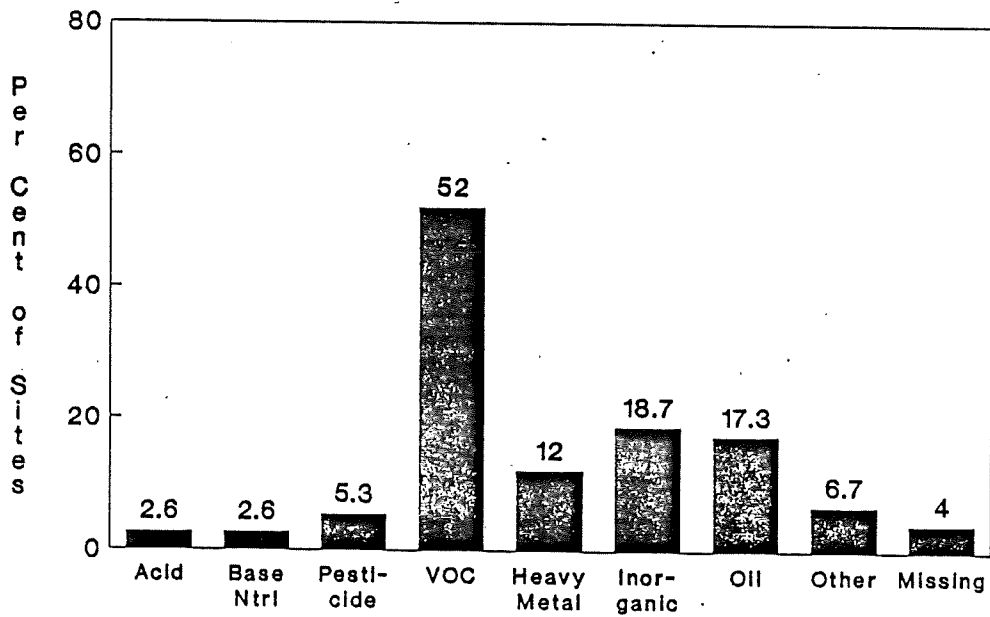


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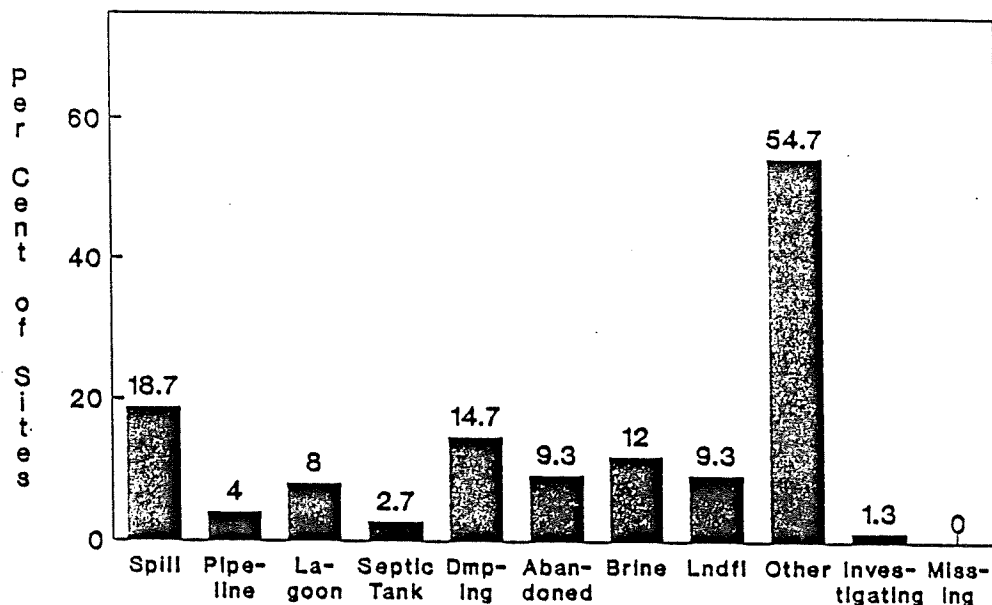
## Contaminated Media Summary South Central



## Contaminant Summary South Central



## Source South Central



There are 75 non-LUST and 32 LUST sites in the south central district on the Identified Sites List. The majority of all sites are under some stage of investigation. The remedial design has been completed for a number of non-LUST sites, but the clean-up has not yet been initiated.

Groundwater contamination is reported at over 80% of non-LUST sites. Sixteen per cent of listed sites involve public water supplies. VOCs are the principle contaminant detected. Oil, heavy metals and inorganic compounds are other common contaminants at sites in the south central district. Spills, dumping and drums, and brine are the three most frequently identified sources.

IDENTIFIED SITES LIST -- SOUTHCENTRAL DISTRICT

SITE NAME			CONTAMINATED			STATUS
	CO	RB	CONTAMINANT	MEDIA	SOURCE	
ANDOVER DRUM SITE	BU	WA	HM		DMPING/OTHER	RESOLVED-C
DALE'S SERVICE, EL DORADO	BU		VOC/OIL	GW	OTHER	CLEANUP-N
FORREST REAVIS	BU		VOC	GW	LUST/SPILL	INVESTIG-N
GETTY REFINING & MARKETING COMPANY (REFINERY)	BU	LA	VOC/HM	GW/SOIL	LUST/PIPELN	REM DESIGN-C
MOBIL OI REFINERY	BU		ACID/BN/OIL	SOIL	OTHER	REM DESIGN-C
OLD VICKERS REFINERY AND POTWIN TANK FARM	BU	WA	VOC/OIL	GW/PWS	SPILL/OTHER	REM DESIGN-C
PESTER REFINING COMPANY	BU	WA	VOC/HM	GW/SW/SOIL	SPILL/LAGOON	INVESTIG-C
POTWIN, PWS WELL #1 (HEFLIN WELL)	BU	WA	VOC	GW/PWS	OTHER	INVESTIG-U
SDS INCORPORATED	BU	LA	HM	SOIL	SPILL/OTHER	INVESTIG-C
ARKANSAS CITY DUMP SITE/OLD MILLIKEN REFINERY	CL		HM/INOR	GW	DMPING/ABAND	INVESTIG-C
COUNTY MAINTENANCE	CL		HM/INOR	GW	DMPING/ABAND	INVESTIG-U
HACKNEY GROUNDWATER CONTAMINATION PROBLEM	CL	WA	VOC	GW/PWS	OTHER	INVESTIG-C
NELSON'S MACHINE AND WELDING	CL	WA	OIL		OTHER	INVESTIG-N
STROTHER FIELD INDUSTRIAL PARK	CL	WA	VOC	GW/PWS	SPILL/DMPING	INVESTIG-C
TOTAL PETROLEUM INC. (ROXANNA PETROLEUM REFIN)	CL	LA	OIL	GW	SPILL/PIPELN	REM DESIGN-C
ALTA MILLS AREA	HV	LA	INOR	GW	BRINE/OTHER	INVESTIG-N
ATCHISON, TOPEKA & SANTA FE RAIL ROAD	HV	LA	RPET	GW	SPILL/OTHER	REM DESIGN-C
BURRTON OIL FIELD	HV	LA	INOR	GW	LAGOON/BRINE	INVESTIG-C
BURRTON OIL FIELD #2	HV			GW/SOIL	OTHER	INVESTIG-U
CITIES SERVICE NGL PLANT	HV		VOC	GW	ABAND/OTHER	INVESTIG-C
FULL VISION, INC.	HV		ACID/INOR		LAGOON/OTHER	RESOLVED-C
HALSTEAD PUBLIC WATER SUPPLY	HV	LA	VOC	GW/PWS	OTHER	INVESTIG-U
HESSTON CORP.	HV		RPET	GW	LUST	CLEANUP-U
HOLLOW NIKKEL AREA	HV		INOR	GW	LAGOON/BRINE	INVESTIG-U
HORNER'S CORNER, NEWTON	HV		OTH	SOIL	LUST	CLEANUP-C
KSU AGRONOMY FARM	HV		PEST	GW/PVW	SPILL/SEPTIC	REM DESIGN-C
TUX'S STANDARD SERVICE	KM		VOC	SOIL	LUST	RESOLVED-C
4TH AND CAREY STREET	RN		VOC	GW/PWS	OTHER	INVESTIG-U
DELUXE SPECIALITIES MFG. CO.	RN		VOC	GW/SOIL	DMPING	INVESTIG-C
D.P. WAGGENER WELL	RN		OTH		OTHER	INVESTIG-N
HAYES SITE AND SOUND	RN	LA	VOC	GW	LUST	INVESTIG-N
HIGHWAY OIL	RN		RPET	GW	LUST	REM DESIGN-C
HUTCHINSON AREA (SOUTH)	RN	LA	INOR	GW	OTHER	INVESTIG-C
KRAUSE PLOW CORP (FOUNDRY DUMP)	RN		HM	GW	DMPING/LANDFL	INVESTIG-N
NICKERSON PWS WELL #6	RN	LA	VOC	GW/PWS	OTHER	RESOLVED-C
OBEE ROAD	RN		VOC	GW	LAGOON/LANDFL	INVESTIG-U
SODA-ASH-WASTE DISPOSAL	RN		INOR	GW	LANDFL/OTHER	NO ACT NEC-C
STRIKER OIL CORPORATION	RN	LA	INOR	GW	BRINE/OTHER	REM DESIGN-C
TURON PWS WELL #3	RN		VOC	GW/PWS	OTHER	INVESTIG-C
VICKERS, HUTCHINSON	RN		OTH	GW/SOIL	LUST	INVESTIG-C
VILLAGE OF YODER	RN	LA	VOC	GW/PWS	OTHER	INVESTIG-U
YODER GASOLINE CONTAMINATION	RN		OTH	GW	LUST	INVESTIG-N
AERO SHEET METAL, INCORPORATED	SG	LA	BN/VOC/OIL	GW/SOIL	OTHER	REM DESIGN-C
AIRCRAFT INSTRUMENT AND DEVELOPMENT, INC.	SG	LA	VOC	GW	SPILL	INVESTIG-C
AL'S PHILLIPS 66	SG		OTH	GW/SOIL	LUST	REM DESIGN-U
AMOCO	SG	LA	VOC	GW	LUST	RESOLVED-C

IDENTIFIED SITES LIST -- SOUTHCENTRAL DISTRICT

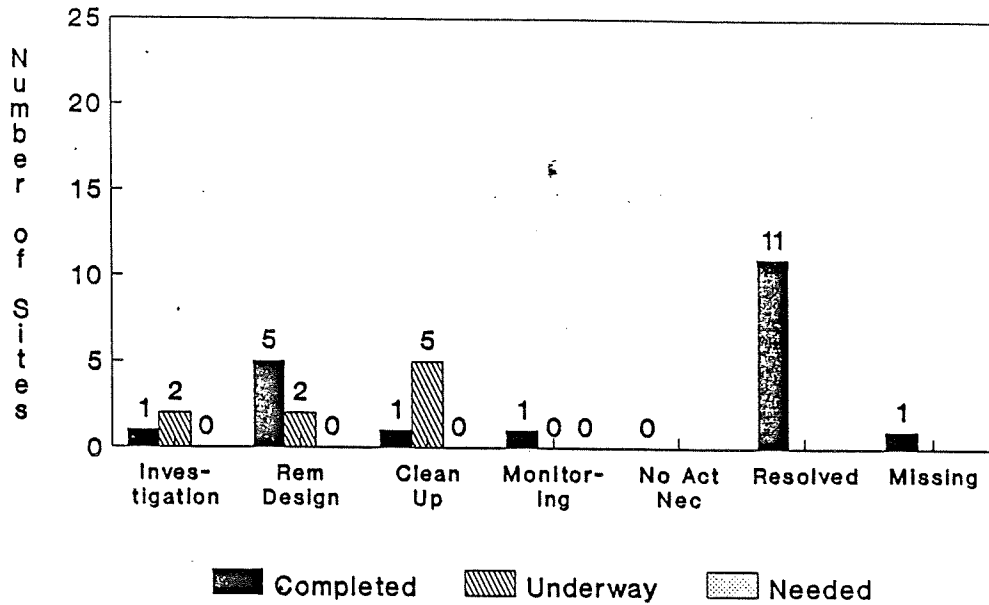
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ARCHITECTURAL METAL PRODUCTS INC. ALSO KNOWN	SG	LA	ACID	GW/SW	DMPING	RESOLVED-C
BARACHMAN COMPLAINT	SG	LA	RPET	GW/SOIL	LUST	REM DESIGN-C
BARNSDALL (OLD REFINERY) 29TH AND MEADE	SG		VOC	GW	ABAND	INVESTIG-U
BIG RIVER SAND/EISENRING SITE (TWO SITES ADJA)	SG		OIL	GW/SOIL	DMPING	NO ACT NEC-C
BMAC LANDFILL (1953)	SG		VOC	SOIL	DMPING/LANDFL	INVESTIG-C
BOEING MILITARY AIRPLANE CO.	SG	LA	VOC	GW	OTHER	CLEANUP-C
BROOKS LANDFILL	SG	LA	OIL		LANDFL	INVESTIG-C
CERTAINTIED, MAIZE	SG	LA	VOC	GW	OTHER	
CESSNA AIRCRAFT - PLANT #1	SG		HM	GW/SW	DMPING/LANDFL	REM DESIGN-C
CESSNA AIRCRAFT - WALLACE DIVISION	SG	LA	VOC	GW	SPILL/OTHER	REM DESIGN-C
CHAPIN LANDFILL	SG	LA	VOC/HM	GW/SOIL	LANDFL	INVESTIG-N
CHASE TRANSPORTATION	SG	WA	VOC	GW	OTHER	
CHENEY, PWS WELL #6	SG	LA	VOC	GW/PWS	OTHER	INVESTIG-N
CHENEY PRIVATE WELL	SG	LA	VOC	GW	LUST/ABAND	INVESTIG-N
CITIES SERVIC NGL PLANT	SG		VOC	GW	PIPELINE/OTHER	REM DESIGN-C
CITY OF DERBY	SG		OTH	GW	OTHER	INVESTIG-N
CLEARWATER PWS WELL #2	SG	LA	VOC	GW/PWS	OTHER	INVESTIG-U
COAST MART #9112, WICHITA	SG		OTH	SOIL	LUST	RESOLVED-C
C&J FINA	SG		VOC	GW	LUST	INVESTIG-N
DAN'S FINA	SG		VOC	GW	LUST	INVESTIG-N
DERBY REFINERY	SG	LA	VOC/HM	GW/SOIL	LUST/SPILL	REM DESIGN-C
DON FRANZ	SG	LA	VOC	GW	LUST	REM DESIGN-C
EXCEL	SG		VOC	GW	OTHER	INVESTIG-U
FINA, WICHITA	SG		OTH	GW	LUST	INVESTIG-C
FINA, WICHITA	SG		OTH	SOIL	LUST	RESOLVED-C
FINA, WICHITA	SG		OTH	SOIL	LUST	INVESTIG-C
FRANK MARCH 66	SG	LA	VOC/OIL	GW	LUST/OTHER	INVESTIG-C
FREUND COMPLAINT	SG	LA	VOC	GW/PWS	LUST	
GERALD BLOOD ORCHARD	SG	LA	INOR	GW	BRINE	REM DESIGN-C
GOLDEN RULE REFINERY (FORMER)	SG		VOC		ABAND/OTHER	INVESTIG-U
HILLS 66 SERVICE	SG		VOC	GW	LUST	CLEANUP-N
HOLMES FREIGHT LINE	SG		OTH	SOIL	SPILL	RESOLVED-C
IRVING'S SERVICE, WICHITA	SG		OTH	GW/SOIL/PVW	LUST	INVESTIG-U
JAMES CATRON	SG	LA	INOR	GW	BRINE	INVESTIG-U
JOHN'S REFINERY	SG	LA	VOC/OIL	GW/SOIL	DMPING/ABAND	CLEANUP-C
JOHN'S SLUDGE POND	SG	LA	HM/OIL/OTH	GW	LAGOON/ABAND	CLEANUP-C
KDOT MAINTENANCE, WICHITA	SG		OTH	SOIL	LUST	RESOLVED-C
K-LINE PLASTICS AREA	SG	LA	VOC	GW	OTHER	INVESTIG-U
LEGION COMPLAINT (ALS PHILLIPS 66)	SG	LA	VOC	GW	LUST	
LEVEE ROAD II	SG	LA	HM/OIL	SOIL		
NATIONAL INDUSTRIAL ENVIRONMENTAL SERVICES (N	SG	WA	VOC	GW/SW	OTHER	REM DESIGN-C
PARK CITY PWS WELLS	SG	LA	VOC	GW	PIPELINE	REM DESIGN-C
PHILLIPS 66 WICHITA	SG				OTHER	
PROSPECT PARK	SG		VOC	GW	OTHER	NO ACT NEC-C
PURINA MILLS	SG	LA	VOC/OIL	SOIL	LUST	RESOLVED-C
QUALITY MART, WICHITA	SG		OTH	GW		CLEANUP-N

IDENTIFIED SITES LIST -- SOUTHCENTRAL DISTRICT

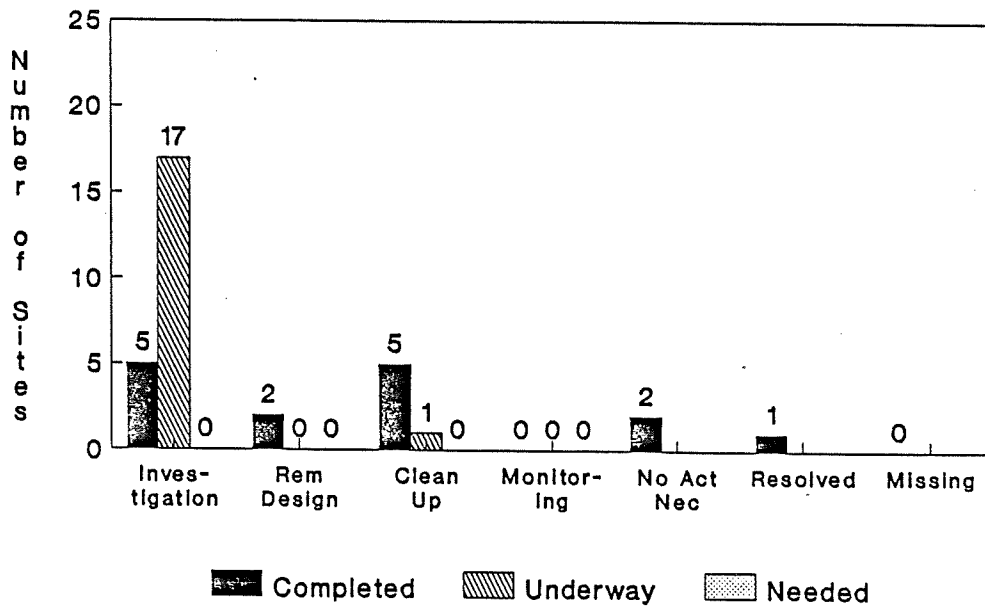
SITE NAME	CONTAMINATED						STATUS
	CO	RB	CONTAMINANT	MEDIA	SOURCE		
RADIUM PETROLEUM	SG	LA	VOC	GW	OTHER		
RAMODA PARKING GARAGE SITE	SG		VOC/OIL	SOIL	OTHER		
RAYMOND OIL	SG	UA	INOR	GW	BRINE		RESOLVED-C
REID SUPPLY COMPANY	SG	LA	VOC/OIL	GW/SOIL	DUMPING		INVESTIG-U
SCHULTE FIELD	SG	LA	INOR	GW	BRINE		INVESTIG-U
SEDGWEICK COUNTY COURTHOUSE	SG			PVW	SPILL		CLEANUP-C
SEDGWICK PWS #6	SG		PEST	GW	SPILL		NO ACT NEC-C
VALLEY CENTER GASOLINE CONT.	SG		VOC		LUST		CLEANUP-N
VIM TRAILER MGF. INC.	SG		VOC	GW	LUST/OTHER		INVESTIG-U
VULCAN MATERIALS COMPANY	SG	LA	PEST/VOC/IN	GW	SPILL/LAGOON		REM DESIGN-C
WICHITA BRASS AND ALUMINUM	SG		VOC	GW	ABAND		INVESTIG-U
WICHITA HEIGHTS (NORTH BROADWAY)	SG	LA	VOC/HM	GW/SOIL/PWS	SPILL/SEPTIC		INVESTIG-U
IVAN BRUCE	SU	LA	INOR	GW	BRINE		INVESTIG-C
KANSAS TURNPIKE AUTHORITY, SUMNER	SU		OTH	SOIL	LUST		CLEANUP-C
TERRY BETHEL	SU		PEST		OTHER		CLEANUP-C
WELLINGTON GASOLINE CONTAMINATION	SU		OTH		LUST		NO ACT NEC-C



## Status of LUST Sites Southeast

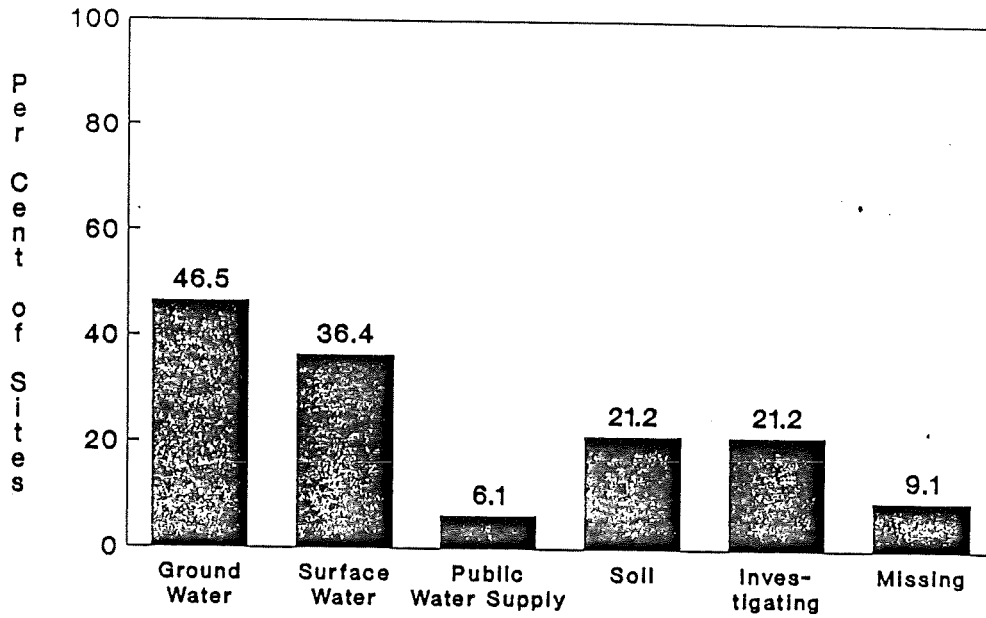


## Status of Non-LUST Sites Southeast

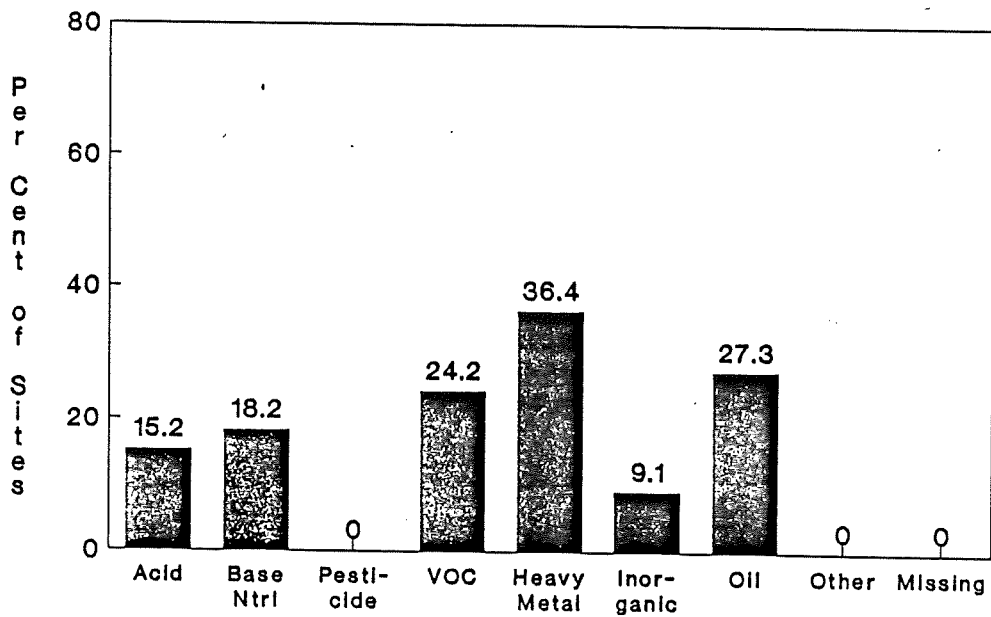


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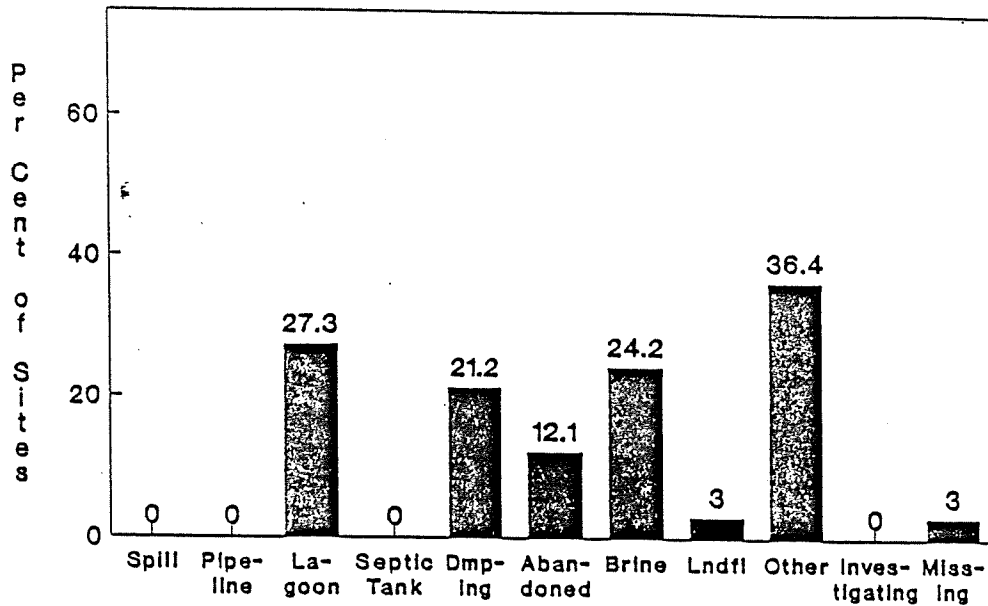
## Contaminated Media Summary Southeast



## Contaminant Summary Southeast



## Source Southeast



There are 33 non-LUST and 29 LUST sites in the southeast district on the Identified Sites List. Clean-up is complete at five LUST sites, and the remedial design is complete but has not yet been initiated at five other sites. Eleven LUST sites have been resolved. The majority of non-LUST sites are under investigation.

Groundwater contamination is reported at over 45% of non-LUST sites. Six per cent of the sites involve public water supplies. Surface water contamination also is frequently reported. Heavy metals, oil and VOCs are the predominant contaminants found at sites in the southeast district. Lagoons, dumping and drums, and brine are the three most frequently reported sources.

IDENTIFIED SITES LIST -- SOUTHEAST DISTRICT

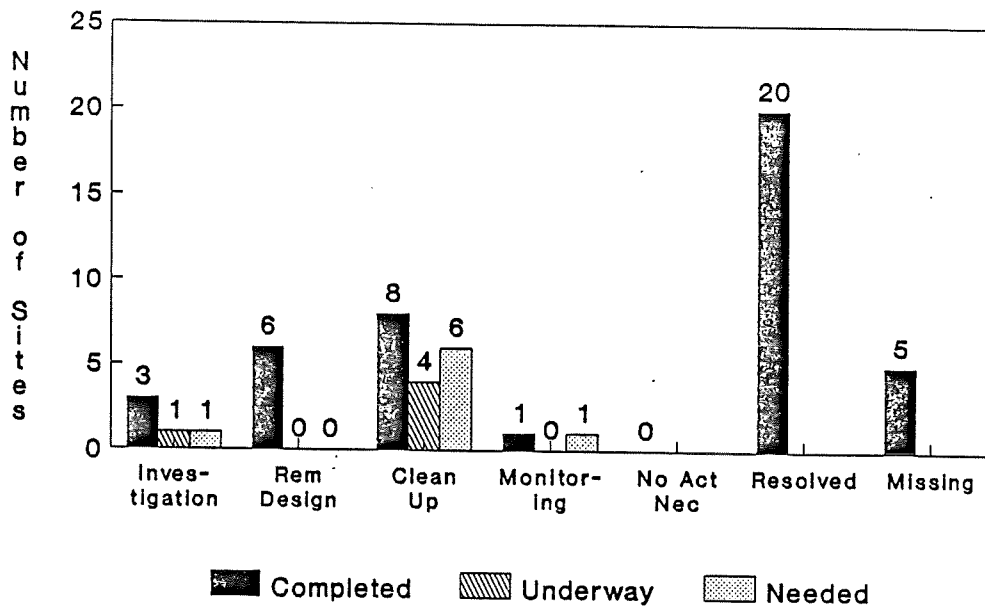
SITE NAME	CO	RB	CONTAMINANT	CONTAMINATED MEDIA	SOURCE	STATUS
BERG MANUFACTURING COMPANY	AL	NE	BN		DMPING/OTHER	INVESTIG-U
BERG MANUFACTURING COMPANY	AL	NE	BN		DMPING/OTHER	INVESTIG-U
BERG MANUFACTURING COMPANY	AL	NE	BN		DMPING/OTHER	INVESTIG-U
BERG MANUFACTURING COMPANY	AL	NE	BN		DMPING/OTHER	INVESTIG-U
PRIME WESTERN SMELTER (OLD); GAS CITY, KS	AL	NE	HM	SOIL	DMPING	NO ACT NEC-C
WOOD OIL CORP.	AN	MC	VOC	SOIL	LUST	MONITORING-C
EXTRUSIONS, INC.	BB	MC	BN/VOC/OIL		LAGOON	INVESTIG-U
CASEY'S GENERAL STORE, LEBO	CF		OTH	SOIL	LUST	RESOLVED-C
ALLCO CHEMICAL CORPORATION, WELL #1	CK	NE	VOC	GW/PWS	OTHER	INVESTIG-U
BAXTER LEAD-ZINC SMELTER	CK		HM	GW/SOIL	ABAND	INVESTIG-U
BRUTUS	CK	NE	VOC		OTHER	RESOLVED-C
CHEROKEE COUNTY SITE	CK	NE	ACID/HM			CLEANUP-C
GULF OIL CHEM. CO., HALLOWELL FACILITY; COLUM	CK	NE	HM/INOR		LAGOON	INVESTIG-U
TAR CREEK SITE	CK	NE	HM	GW/SW	OTHER	NO ACT NEC-C
66 FOOD MART, GIRARD	CR		OTH	SOIL	LUST	REM DESIGN-C
AMOCO, PITTSBURG	CR		OTH		LUST	RESOLVED-C
ARCADIA PWS WELL #1	CR	NE	OIL	GW/PWS	LUST	INVESTIG-U
BURK OIL COMPANY	CR	NE	VOC	GW	LUST	RESOLVED-C
BURNS SERVICE	CR		VOC	GW	LUST	CLEANUP-U
THE YARD CART	CR	NE	VOC	SOIL	LUST	INVESTIG-U
TYRELL'S SERVICE	CR	NE	VOC	SOIL	LUST/OTHER	REM DESIGN-C
BROWNING LEASE	GW	VE	OIL	GW	BRINE	CLEANUP-C
CASEY'S GENERAL STORE	GW	NE	VOC	GW	LUST	REM DESIGN-U
DOUGLASS LEASE	GW	VE	OIL	GW/SW	BRINE	INVESTIG-U
EVRETT LEASE	GW	VE	OIL	SW	BRINE	CLEANUP-C
GREENWOOD LEASE	GW	VE	OIL	SOIL	BRINE	INVESTIG-U
HAMILTON PWS WELL 3	GW	VE	VOC	GW/PWS	OTHER	INVESTIG-U
MCCARTHY OIL CO.	GW	VE	OIL	GW	BRINE	INVESTIG-U
RAY'S TEXACO	GW	VE	VOC	GW	LUST	CLEANUP-U
TATE CREEK	GW	VE	VOC	SW	BRINE/OTHER	CLEANUP-U
BROWN'S CONOCO	LB	NE	VOC	GW/SW	LUST	RESOLVED-C
B&G SERVIE	LB	NE	VOC	SW	LUST/OTHER	CLEANUP-C
E.V. HARRIS, PARSONS	LB		OTH	SOIL	LUST	RESOLVED-C
FROLICH 66 SERVICE	LB	NE	VOC	GW	LUST	REM DESIGN-C
KANSAS ARMY AMMUNITION PLANT	LB	NE	INOR	GW	LAGOON	INVESTIG-C
QUICK SHOP, PARSONS	LB		OTH		LUST	RESOLVED-C
TAYLOR PETROLEUM, PARSONS	LB		OTH		LUST	RESOLVED-C
INDIAN CR. PROJECT	LN	MC	ACID	SW	LAGOON/OTHER	INVESTIG-U
KANSAS CITY POWER & LIGHT	LN	MC	VOC	SOIL	LUST/PIPELN	REM DESIGN-C
NORTON OIL COMPANY	LY	NE	VOC	GW	LUST/OTHER	INVESTIG-C
CRESCENT OL CO., COFFEYVILLE	MG		OTH	SOIL	LUST	REM DESIGN-C
GUNNY SACK (606 NORTH MCGEE)	MG	VE	VOC	GW	LUST	CLEANUP-U
HARRIMAN	MG	VE	INOR		OTHER	INVESTIG-U
NATIONAL ZINC COMPANY (CHERRYVALE ZINC DIVISI	MG	VE	HM	GW/SW	LAGOON	REM DESIGN-C
SHERWIN-WILLIAMS CHEMICALS DIVISION	MG	VE	HM	GW/SOIL	ABAND/OTHER	CLEANUP-C

IDENTIFIED SITES LIST -- SOUTHEAST DISTRICT

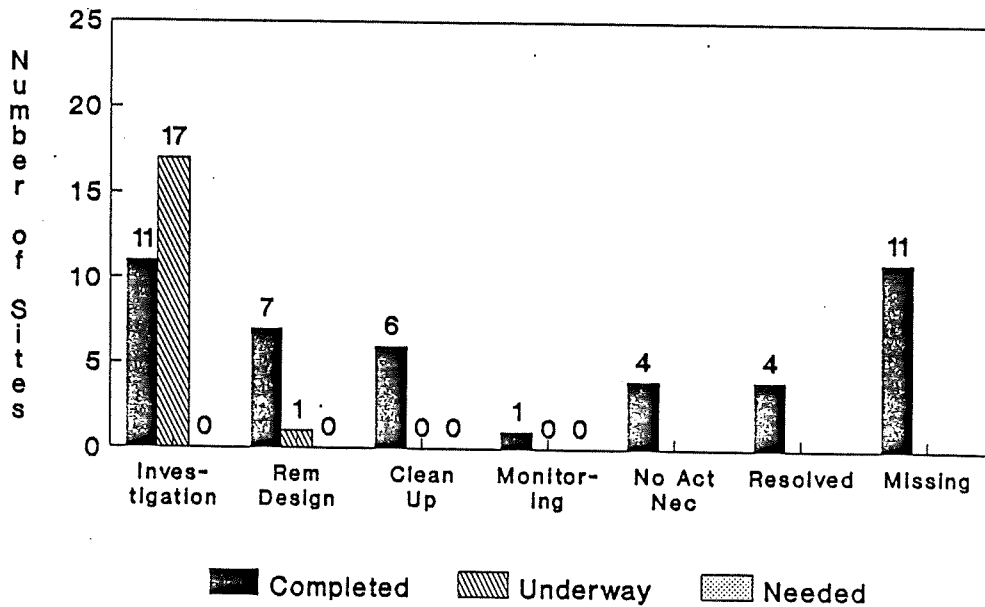
SITE NAME			CONTAMINATED				STATUS
	CO	RB	CONTAMINANT	MEDIA	SOURCE		
SINCLAIR OIL REFINERY	MG	VE	VOC	GW/SW	BRINE	INVESTIG-U	
TEMPLE OIL CO.	MG	VE	OIL	SW	BRINE	INVESTIG-U	
TOWN AND COUNTRY	MG	VE	VOC	GW	LUST		
WAYSIDE PROD. CO.	MG	NE	OIL		BRINE	CLEANUP-C	
59 TRUCK STOP	NO	NE	VOC	SW/SOIL	LUST/SPILL	CLEANUP-U	
ASH GROVE	NO	NE	ACID/HM	GW/SW	DMPING	INVESTIG-U	
CARL GRIMM, CHANUTE	NO		RPET	GW/SOIL	LUST	RESOLVED-C	
CHANDLER'S AMOCO	NO	NE	VOC	GW	LUST/SPILL	CLEANUP-U	
CHANUTE LANDFILL	NO	NE	VOC/HM	GW	LANDFL	INVESTIG-C	
JOHNSON'S GENERAL STORE, CHANUTE	NO		OTH	SOIL	LUST	RESOLVED-C	
MID AMERICA REFINERY	NO	NE	VOC	GW/SOIL	ABAND	INVESTIG-C	
NEOSHO #2	NO	NE	ACID/HM	GW/SW	LAGOON	INVESTIG-C	
WASHBURN'S SERVICE	NO	NE	VOC	GW	LUST	RESOLVED-C	
WESTERN PETROCHEMICAL CO.	NO	NE	VOC/HM/OIL	SW/SOIL	LAGOON/DMPING	INVESTIG-C	
FORMER AMOCO REFINERY (SLUDGE POND)	WL	VE	ACID/BN/VOC/HM	GW/SW/SOIL	LAGOON/ABAND	REM DESIGN-C	
SOUTHEAST MANUFACTURING INC.	WL	NE	VOC	SW	LUST/OTHER	RESOLVED-C	
CARDEN PHILMART	WO	NE	VOC	SW	LUST/OTHER	RESOLVED-C	

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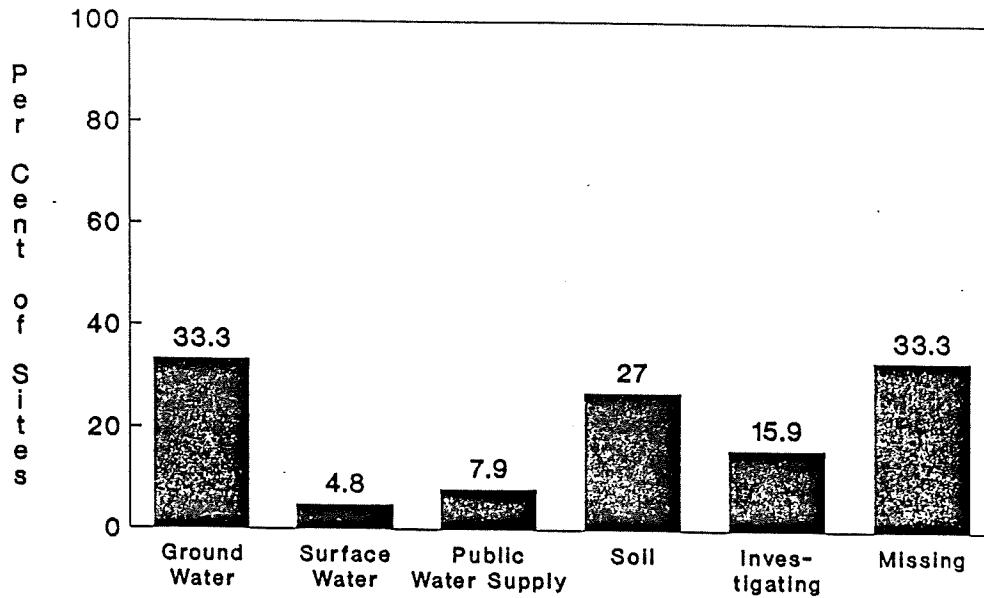
## Status of LUST Sites Northeast



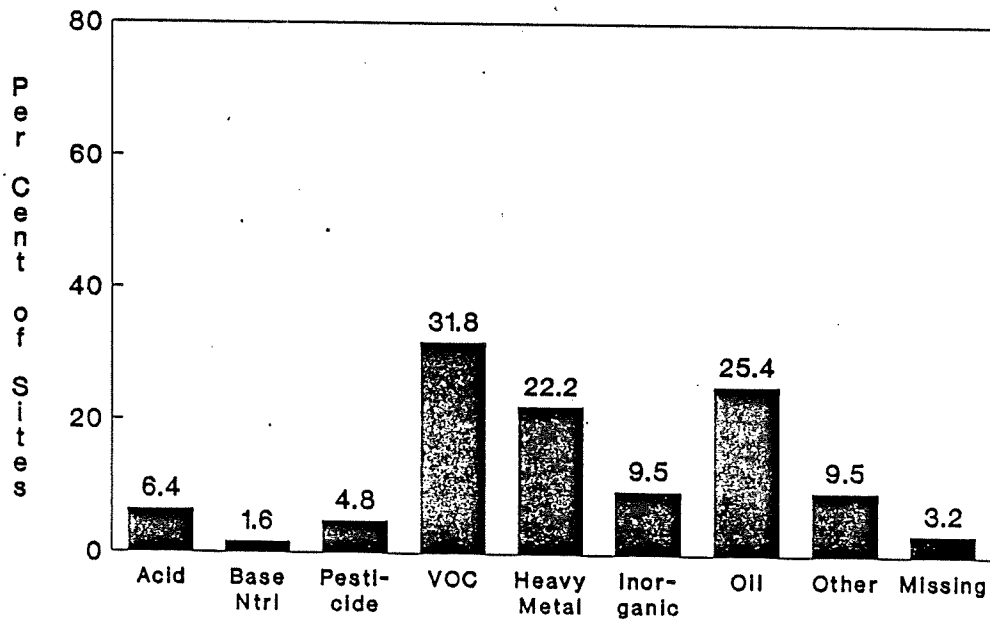
## Status of Non-LUST Sites Northeast



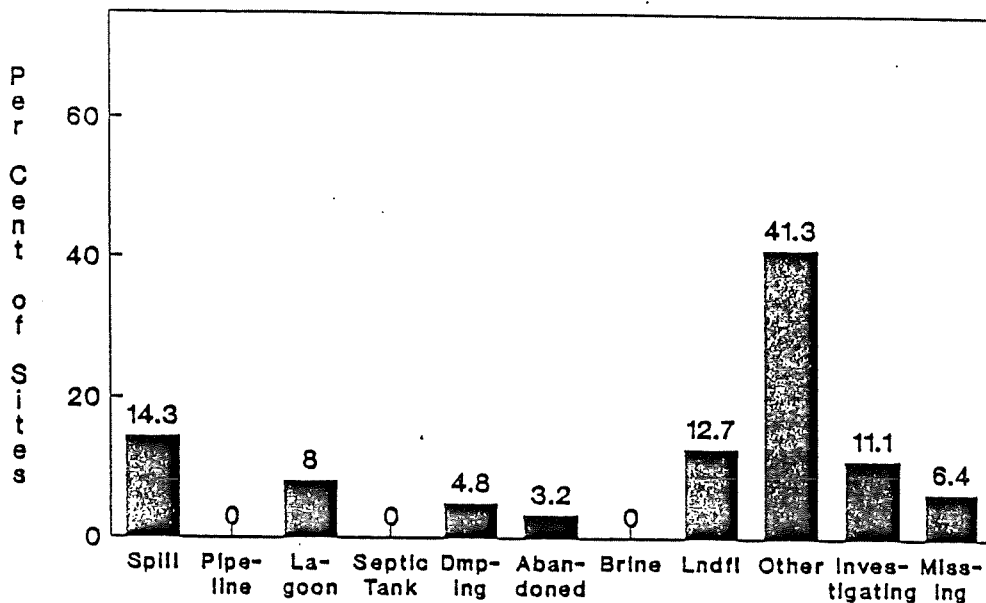
## Contaminated Media Summary Northeast



## Contaminant Summary Northeast



## Source Northeast



There are 63 non-LUST and 56 LUST sites in the northeast district on the Identified Sites List. Eighteen LUST sites are in some phase of clean-up and 20 are resolved. The investigation is complete or underway at the majority of non-LUST sites.

Groundwater contamination is reported at one-third of non-LUST sites. Eight per cent of the sites involve public water supplies. Soil contamination also is frequently reported. VOCs, oil, and heavy metals are the predominant contaminants. Spills and landfills are the most frequently reported sources.



IDENTIFIED SITES LIST -- NORTHEAST DISTRICT

SITE NAME	CONTAMINATED		CONTAMINANT	MEDIA		SOURCE	STATUS
	CO	RB					
LINCOLN GRAIN, INC.	AT	MO	VOC	GW	OTHER		
BROWN COUNTY RWD #1	BR	MO	VOC/HM	BW/PWS	OTHER		
BROWN COUNTY SHOP	BR	KR	OTH	SOIL	LUST	CLEANUP-C	
FAIRVIEW GASOLINE	BR	MO	VOC	GW	LUST/OTHER	CLEANUP-N	
FAIRVIEW RWD #1, PWS #3	BR				LUST	INVESTIG-C	
MORRILL PWS WELL #5	BR	MO	VOC	GW/PWS	OTHER	INVESTIG-U	
POWHATTAN PUBLIC WATER SUPPLY	BR	KR	VOC	GW	ABAND	INVESTIG-U	
19TH AND MASSACHUSETTS, LAWRENCE	DG	KR	VOC/OTH	SOIL	LUST/OTHER	MONITORING-C	
CALLERY CHEMICALS	DG	KR	ACID	GW/SOIL	SPILL/OTHER	NO ACT NEC-C	
EUDORA	DG	KR			LUST	RESOLVED-C	
FARMLAND INDUSTRIES NITROGEN FERTILIZER PLANT	DG	KR	HM	GW	OTHER	INVESTIG-C	
FMC CORPORATION	DG	KR	INOR	GW	OTHER	REM DESIGN-C	
KANSAS UNIVERSITY DIESEL	DG	KR	OTH	SOIL	LUST	CLEANUP-N	
KU POWER PLANT	DG	KR	OTH	SW	SPILL/OTHER	RESOLVED-C	
QUIK SHOP	DG		VOC		LUST		
QUIK SHOP	DG	KR	VOC		OTHER		
SUNFLOWER ARMY AMMUNITION PLANT (SAAP)	DG	KR	INOR	GW/SOIL	OTHER	REM DESIGN-C	
BENDENA RWD #2, PWS WELL #1	DP	MO	VOC	GW/PWS	OTHER	INVESTIG-C	
FRANKLIN CO. RWD #6	FR	MC	INOR			INVESTIG-U	
LOWERN'S GARAGE	JA	KR	OTH		LUST	INVESTIG-N	
PERRY PWS WELLS	JF	KR	VOC	GW/PWS		INVESTIG-U	
60TH AND MISSION ROAD	JO		VOC		LUST/SPILL	RESOLVED-C	
82ND AND METCALF	JO		OTH		OTHER	RESOLVED-C	
AQUINAS HIGH SCHOOL	JO	KR	ACID	SOIL	OTHER		
ATCHISON, TOPEKA & SANTA FE RAILROAD	JO	KR	OIL		SPILL	INVESTIG-C	
BROOKRIDGE POST OFFICE	JO		OTH		LUST		
CHEMICAL COMMODITIES, INC.	JO	KR	PEST/VOC	GW	LUST	INVESTIG-U	
COASTAL MART, SHAWNEE	JO		OTH	SOIL	LUST	CLEANUP-U	
COLONIAL BREAD	JO		VOC	GW	LUST	CLEANUP-C	
CY FRAZIER	JO	KR	VOC		OTHER	CLEANUP-C	
C&C TANK WAGON, OLATHE	JO		OTH	SOIL	OTHER	REDOLVED-C	
DOEPKE DISPOSAL, HOLLIDAY LANDFILL	JO	KR	OIL	GW	LANDFL	INVESTIG-C	
GARDNER SHORT STOP	JO	MC	OTH	SOIL	LUST		
GENERAL MOTORS CORPORATION, DELCO REMY PLANT	JO	KR	HM		LAGOON	CLEANUP-C	
HUDSON OIL	JO	KR	VOC	GW/SOIL	LUST/ABAND	CLEANUP-C	
KANSAS UNIVERSITY-SUNFLOWER RESEARCH LANDFILL	JO	KR	VOC	GW/SOIL	LANDFL/OTHER	INVESTIG-C	
KUHLMAN DIECASTING	JO	KR	HM		LAGOON/OTHER	REM DESIGN-C	
MARK IV FIBERGLASS INCORPORATED	JO		OIL		DMPING/OTHER	CLEANUP-C	
NATIONAL DISTILLERS AND CHEMICAL CORP.	JO	KR	ACID		LAGOON	INVESTIG-U	
OLATHE CITY LANDFILL	JO	KR	HM/OIL		LANDFL	INVESTIG-U	
OLATHE SERVICE CENTER	JO		OTH	SOIL	LUST	CLEANUP-C	
PRAIRIE VILLAGE AMOCO	JO		VOC		LUST	INVESTIG-C	
SUBURBAN TIRE AND AUTO CENTER	JO	MO	VOC	GW	LUST/SPILL	CLEANUP-C	
TEXACO	JO		OTH	SOIL	SPILL	NO ACT NEC-C	
TOTAL PETROLEUM, MERRIAM	JO		VOC/OTH	GW/SOIL	LUST	REM DESIGN-C	

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IDENTIFIED SITES LIST -- NORTHEAST DISTRICT

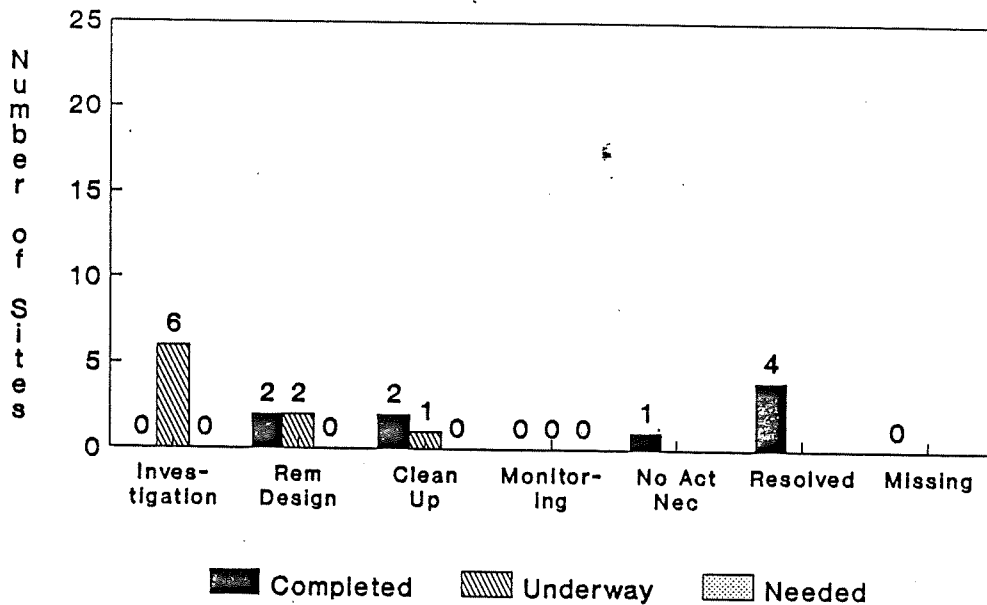
SITE NAME			CONTAMINATED		SOURCE	STATUS
	CO	RB	CONTAMINANT	MEDIA		
USED CAR LOT	JO				OTHER	RESOLVED-C
VICKERS, SHAWNEE	JO		OTH	SOIL	LUST	RESOLVED-C
VICTORIAN MARBLE	JO	KR	OIL		DMPING/OTHER	INVESTIG-U
ZARDA DAIRY, SHAWNEE	JO		OTH	SOIL	LUST	RESOLVED-C
BOB ADAMS STANDARD	LV	KR	VOC	SW/SOIL	LUST	CLEANUP-U
BRUMMETT OIL	LV	KR	VOC	GW	LUST/OTHER	REM DESIGN-C
CARRIE DOEGE	LV		PEST/INOR		OTHER	
DORIS' MARKET & GAS	LV	MO	VOC	GW	LUST/OTHER	CLEANUP-C
GNB BATTERIES, INC.	LV	MO	HM		DMPING/OTHER	INVESTIG-U
KANSAS STATE PRISON	LV		VOC/HM		LAGOON/OTHER	INVESTIG-U
LEAVENWORTH SANITARY LANDFILL	LV	MO	OIL		LANDFL	INVESTIG-U
QUALITY OIL	LV	MO	VOC		LUST	REM DESIGN-C
SELECT PRODUCTS	LV	MO	VOC	GW	LUST/OTHER	CLEANUP-C
SINCLAIR GAS STATION	LV		VOC		LUST	RESOLVED-C
ARCO PIPELINE COMPANY	MI		OIL	SOIL	SPILL	
CITY OF PAOLA	MI	MO	VOC		LUST	REM DESIGN-C
BALDERSON'S MANUFACTURING	PT	KR	OTH	SOIL	LUST	
ST. MARY'S PWS WELL #5	PT	KR	VOC	GW/PWS		INVESTIG-U
AMOCO, TOPEKA	SN	KR	VOC	SOIL	LUST	REM DESIGN-C
AMSOURCE AUTO PARTS, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
APCO, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
ATCHISON, TOPEKA & SANTA FE RAILROAD	SN	KR	HM		OTHER	MONITORING-C
AVONDALE WEST SCHOOL	SN	KR	OTH	SOIL	LUST	RESOLVED-C
COLMERY-O'NEIL V.A. HOSPITAL	SN	KR	OIL	GW/SW	SPILL	CLEANUP-C
EAST TOPEKA K-MART	SN	KR	OTH	SOIL	LUST	RESOLVED-C
EZ SHOP, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
FINA, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
FIRE STATION, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
FORBES FIELD, AIR NATIONAL GUARD	SN		OTH	SOIL	SPILL/OTHER	INVESTIG-C
HYDRO FLEX CORP., INC.	SN	KR	HM	GW/SOIL	DMPING	INVESTIG-U
INDUSTRIAL CHROME, INC.	SN	KR	HM/INOR	GW/INOR	SPILL	REM DESIGN-C
JIM'S CONOCO	SN	KR	OTH	GW/SOIL	LUST	MONITORING-N
KERR MCGEE, TOPEKA	SN	KR	OTH	SOIL	LUST	CLEANUP-U
METHODIST CHURCH	SN	KR	OTH	SOIL	LUST	RESOLVED-C
MIDWEST MACHINE WORKS	SN	KR	VOC	GW/SOIL	DMPING	REM DESIGN-U
NE TOPEKA	SN		VOC	GW	OTHER	INVESTIG-C
QUALITY MART	SN		VOC		LUST	CLEANUP-N
QUALITY MART, TOPEKA	SN	KR	OTH	OTH	GW/SOIL	CLEANUP-N
SHAWNEE COUNTY LANDFILL	SN		VOC		LANDFL	INVESTIG-U
STUEVES PHILLIPS 66, TOPEKA	SN	KR	OTH	SOIL	LUST	RESOLVED-C
TEXACO, TOPEKA	SN	KR	VOC	SOIL	LUST	RESOLVED-C
USD	SN	KR	OTH		LUST	RESOLVED-C
VAN VLECK APCO	SN	KR	VOC	SOIL	LUST	CLEANUP-N

IDENTIFIED SITES LIST -- NORTHEAST DISTRICT

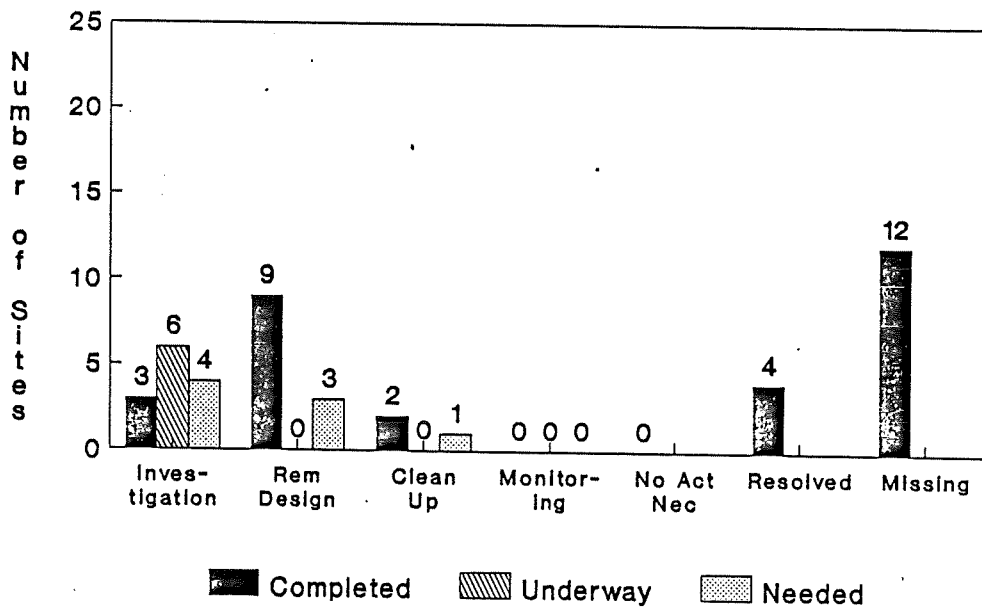
SITE NAME				CONTAMINATED		SOURCE	STATUS
	CO	RB	CONTAMINANT	MEDIA			
WILLIAM DUNN, TOPEKA	SN	KR	OTH		LUST	RESOLVED-C	
ALTA VISTA COOP	WB	NE	OTH	SOIL	LUST	CLEANUP-U	
COOP STATION	WB		VOC		LUST/OTHER	INVESTIG-C	
CO-OP STATION	WB		VOC	GW	LUST		
ARCO/SINCLAIR/DYMON, KC	WY				ABAND	INVESTIG-C	
ARGENTINE - SANTA FE	WY	KR	HM	GW	OTHER		
ASSOCIATED WHOLESALE GROCERIES, INC.	WY	KR	VOC	GW	LUST	REM DESIGN-C	
ASSOCIATED WHOLESALE GROCERS #2	WY	MO	OTH	SOIL	LUST	RESOLVED-C	
BELL TEL. CO. REPAIR SHOP	WY		VOC		LUST	REM DESIGN-C	
BPU-QUINDARD	WY	KR	VOC/OIL	SOIL	SPILL/OTHER	INVESTIG-C	
CORAL REFINERY	WY		HN		OTHER	INVESTIG-C	
ENVELOPE MACHINERY	WY		OTH	SOIL	LUST	RESOLVED-C	
FAIRFAX LEVEE	WY	MO	OIL	SOIL	OTHER	NO ACT NEC-C	
GENERAL MOTORS	WY	MO	VOC	GW	OTHER	INVESTIG-U	
GROENDYCK	WY		VOC	SOIL	OTHER		
G&R CONSTRUCTION COMPANY	WY		OIL		DMPING	INVESTIG-U	
HOMER STREET DUMP	WY	KR	OIL	SOIL	DMPING/OTHER	CLEANUP-C	
INLAND QUARRIES	WY		VOC		LUST/OTHER	CLEANUP-N	
KING'S DISPOSAL	WY	KR	OIL		DMPING/OTHER	INVESTIG-U	
MACK'S	WY	KR	OIL		DMPING/OTHER	CLEANUP-U	
MODEL LANDFILL	WY	MO	VOC/HM	GW/SW/SOIL	LANDFL	INVESTIG-U	
NATIONAL GUARD ARMORY & PARKING LOT	WY	KR	ACID	GW	LANDFL	MONITORING-U	
NOVA PRODUCTS	WY	KR	PEST		DMPING	CLEANUP-C	
PBI-GORDAN	WY	KR	PEST/OIL		LAGOON	INVESTIG-C	
PHILLIPS PETROLEUM	WY	MO	VOC	GW	SPILL/ABAND	REM DESIGN-C	
REICHOLD CHEMICALS	WY		OTH	SOIL	OTHER	CLEANUP-C	
SOUTHWEST STEEL FABRICATORS	WY		BN	GW	LANDFL		
S-G METALS INDUSTRIES, INC.	WY	KR	HM/INOR	GW/SOIL	DMPING	NO ACT NEC-C	
TEXTILANA LEASE (HENKEL, INC.)	WY	KR	VOC	GW	OTHER	REM DESIGN-C	
THOMPSON-HAYWOOD CHEMICAL COMPANY	WY		OIL			REM DESIGN-C	
USD 500	WY		OTH	SOIL	LUST	RESOLVED-C	

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## Status of LUST Sites North Central



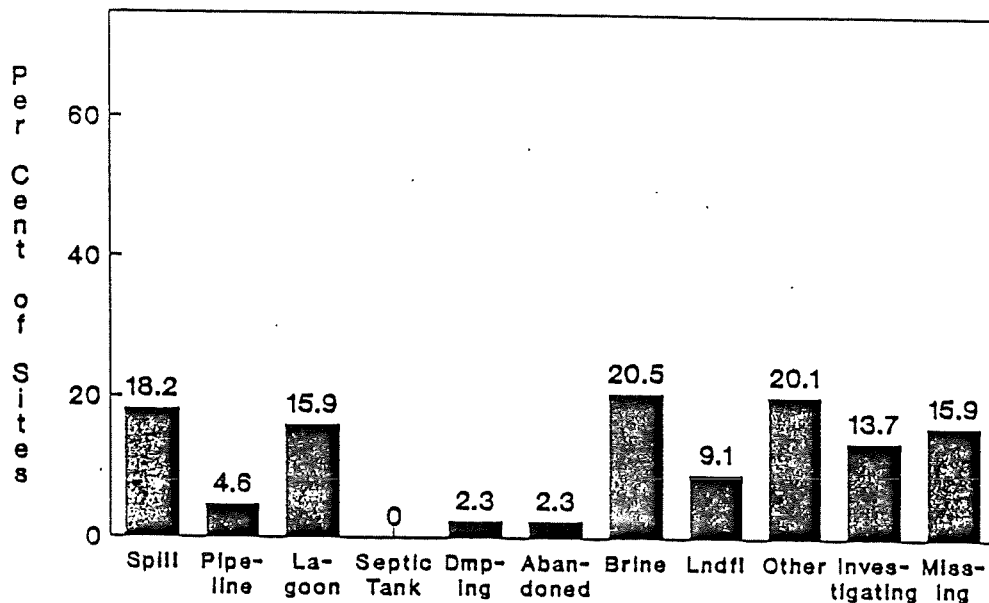
## Status of Non-LUST Sites North Central



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2/7/89

## Source North Central



There are 44 non-LUST and 18 LUST sites in the north central district on the Identified Sites List. Six LUST sites are under investigation and four are resolved. Thirteen non-LUST sites are in some phase of investigation, and the remedial design is complete for nine sites.

Groundwater contamination is reported at more than one-half of non-LUST sites. Thirty per cent of the sites involve public water supplies. Soil contamination also is frequently reported. VOCs, inorganic compounds and oil are the predominant contaminants. Brine, spills and lagoons are the most frequently reported sources.

IDENTIFIED SITES LIST -- NORTH CENTRAL DISTRICT

SITE NAME	CONTAMINATED		CONTAMINANT	MEDIA	SOURCE	STATUS
	CO	RB				
CONCORDIA PUBLIC WATER SUPPLY (WELL # 17)	CD	KR	PEST/VOC	GW/PWS		REM DESIGN-N
CONCORDIA PUBLIC WATER SUPPLY (WELL #8)	CD	KR	PEST/VOC	GW/SOIL/PWS		
FARMERS UNION COOP ASSOC., CONCORDIA	CD		OTH	SOIL	LUST	RESOLVED-C
GLASCO PWS WELL #2	CD	SO	VOC	GW/PWS		
JAVCO INC	CD	KR	VOC	SOIL	SPILL/OTHER	
MILTONVALE LANDFILL	CD	KR	PEST/OIL		LANDFL	INVESTIG-U
MILTONVALE PWS WELL #5	CD	SO	VOC	GW/PWS	OTHER	INVESTIG-N
BURTON BUCKMAN	CS	NE	INOR	GW/PWS	BRINE	
H.L. ROBERTS FISH POND	CS	NE	VOC	SW/SOIL	SPILL/OTHER	RESOLVED-C
ABILENE PUBLIC WATER SUPPLY	DK	SS	VOC	GW/SOIL/PWS	DMPING/ABAND	INVESTIG-C
FINA (PUMP AND PANTRY)	DK		VOC	PWS	LUST	REM DESIGN-C
HOPE PUBLIC WATER SUPPLY	DK		VOC	GW/PWS		REM DESIGN-N
JACK HAMME, ABILENE	DK		OTH	SOIL	LUST	INVESTIG-U
ROOF FARM (SOLOMON ELECTRIC DUMP SITE)	DK	SS	OIL	SOIL		INVESTIG-N
STUCKEY'S	DK	SS	VOC	GW	LUST/SPILL	CLEANUP-C
ELLSWORTH PWS WELL #4	EW	SS	VOC	GW/PWS		INVESTIG-U
ENRON (HTI)	EW	LA	INOR	GW	LAGOON/BRINE	REM DESIGN-C
FINA, JUNCTION CITY	GE		OTH	GW/SOIL	LUST	REM DESIGN-C
GRANDVIEW PLAZA PWS WELLS #3 AND #4	GE	SS	VOC	GW/PWS		REM DESIGN-C
RANDALL PWS WELL #2 (STANDBY)	JW	KR	VOC	GW/PWS	OTHER	INVESTIG-N
ATS&F	LY	NE	VOC	GW	SPILL	
BURNS WELL	MN	LA	INOR	GW	LAGOON/BRINE	INVESTIG-U
FAYNE BEATTIE WELL	MN	LA	INOR	GW	LAGOON/BRINE	REM DESIGN-C
HILLSBORO INDUSTRIES, INC.	MN	NE	ACID/HM		OTHER	
MOWAT WELL	MN	NE	OIL	GW	OTHER	CLEANUP-C
CITY OF CONWAY	MP	LA	INOR/OIL	GW/PWS	OTHER	INVESTIG-U
COLUMBIA INDUSTRIES, INC., LINDSBORG	MP	SS	HM	SOIL	OTHER	REM DESIGN-C
FINA SERVICE STATION	MP	LA	VOC/OTH	GW/SOIL	LUST	REM DESIGN-U
GALVA PWS WELLS #3 AND #4	MP	LA	VOC	GW		REM DESIGN-C
HERB TILLOCK	MP	LA	INOR			
KOCH INDUSTRIES INC.	MP		INOR		LAGOON/OTHER	
K-MART, MCPHERSON	MP		OTH		LUST	NO ACT NEC-C
MCPHERSON PWS WELLS #2, #5	MP		VOC			INVESTIG-U
MID AMERICA PIPELINE COMPANY	MP	LA	INOR	GW	LAGOON/BRINE	REM DESIGN-C
NCRA REFINERY	MP	LA	VOC	GW	SPILL/PIPELN	CLEANUP-C
ADAM'S 66	MR	NE	VOC	GW	LUST	CLEANUP-C
BOLTON CHRYSLER DEALERSHIP, COUNCIL GROVE	MR		OTH	SOIL	LUST	RESOLVED-C
AXTELL PWS WELL #2	MS	KR	VOC	GW/PWS		INVESTIG-C
FIRST NATIONAL BANK, SUMMERFIELD	MS		OTH	GW/SOIL	LUST	INVESTIG-U
HERKIMER CO-OP	MS	KR	VOC	GW/SOIL/PWS	LUST	REM DESIGN-U
KANE PIPELINE COMPANY	OT	MC	OIL	SW/SOIL	SPILL/PIPELN	RESOLVED-C
BROTHERS LEASE	RC	LA	INOR	GW/SW	SPILL/BRINE	
BUSHTON GRAIN & ELEVATOR	RC	LA	INOR	SW/SOIL	SPILL	RESOLVED-C
KP&L	RC	LA	VOC	SOIL		
RICHANO/NUCLEAR WASTE TECHNOLOGIES MINE	RC	LA	INOR	GW	LAGOON/BRINE	CLEANUP-N

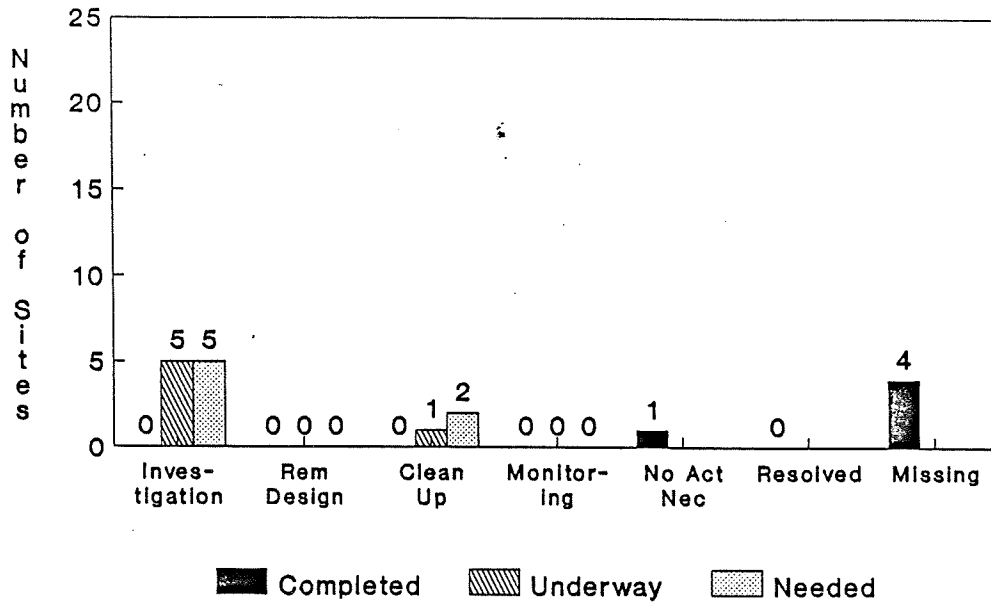
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IDENTIFIED SITES LIST -- NORTH CENTRAL DISTRICT

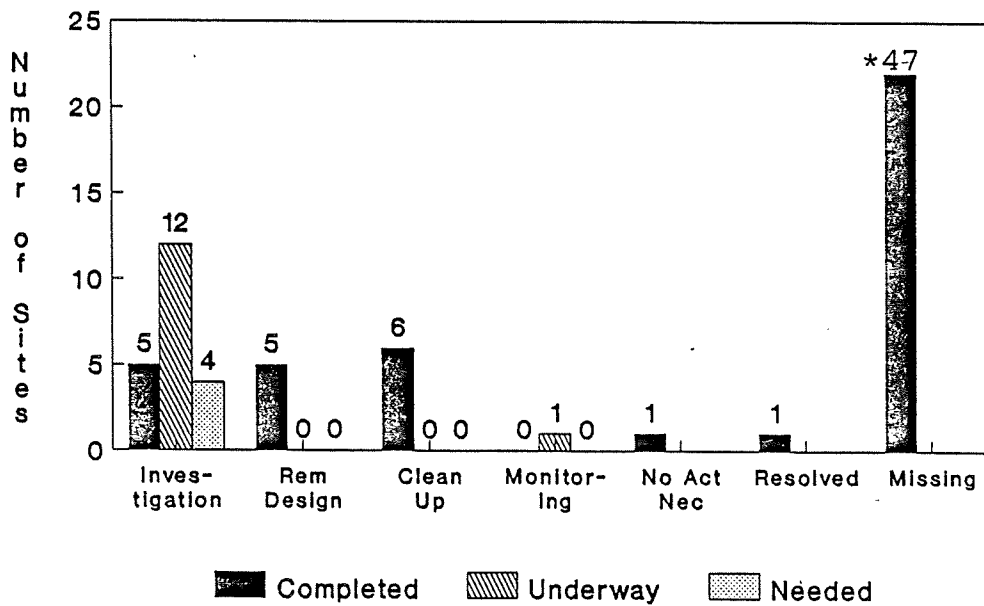
SITE NAME			CONTAMINATED				STATUS
	CO	RB	CONTAMINANT	MEDIA	SOURCE		
ALVIN DEINES WATER WELL	RL	KR	VOC	GW	LUST	INVESTIG-U	
BOB OBERHELMAN COMPLAINT	RL	KR	VOC	GW	LUST	INVESTIG-U	
FT. RILEY UST LEAK	RL	KR	VOC		LUST/OTHER	RESOLVED-C	
KSU BURIAL PLOT	RL	KR	OIL		LANDFL	INVESTIG-U	
RILEY COUNTY ASPHALT PLANT	RL	KR	VOC	SW	SPILL/OTHER	RESOLVED-C	
RILEY COUNTY LANDFILL	RL	KR	VOD	GW	LANDFL	REM DESIGN-C	
UNIVERSITY AMOCO, MANHATTAN	RL		OTH	GW/SOIL	LUST	CLEANUP-C	
FINA TRUCK STOP (NAT'L MKTG.)	RP		VOC		LUST/OTHER	INVESTIG-U	
J-R GRAIN CO.	RP		PEST		OTHER	INVESTIG-N	
EXLINE	SA		HM		LAGOON/OTHER	REM DESIGN-C	
SALINA PWS WELLS	SA	SS	VOC	GW/PWS		INVESTIG-U	
SALINE COUNTY LANDFILL	SA	SS	HM		LANDFL	INVESTIG-C	
SMOKY HILL WEAPONS RANGE	SA	SS	INOR		OTHER		
SOLOMON ELECTRIC SUPPLY, INC.	SA	SS	OIL		OTHER	REM DESIGN-C	
SWISHER WELL	SA	SS	INOR		BRINE		
WEST WOODLAND SITE, SALINA	SA		OTH		LUST	RESOLVED-C	
WILGUS WELL	SA	SS	INOR		BRINE	REM DESIGN-N	



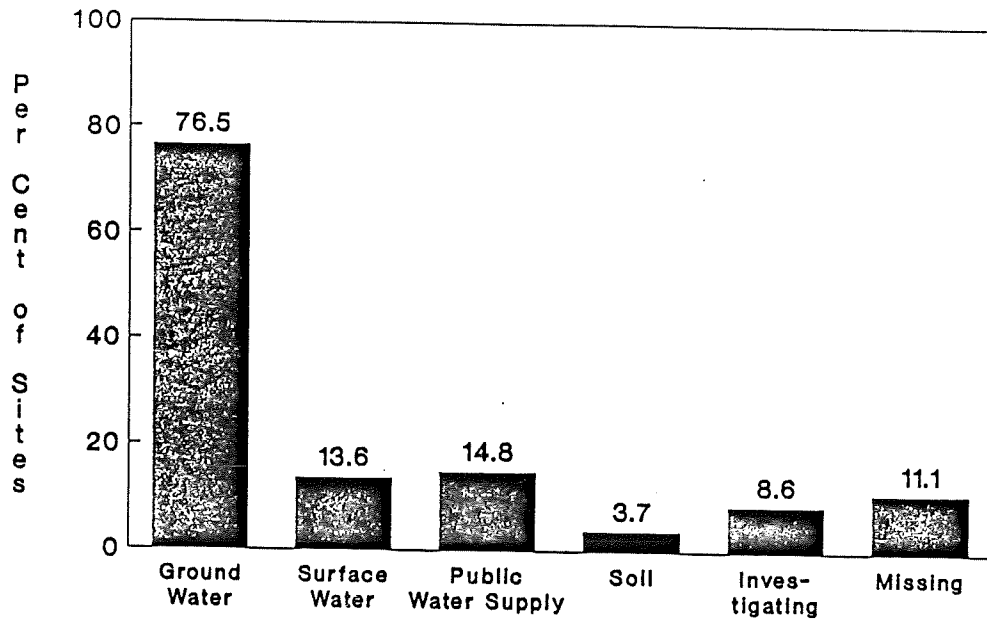
## Status of LUST Sites Northwest



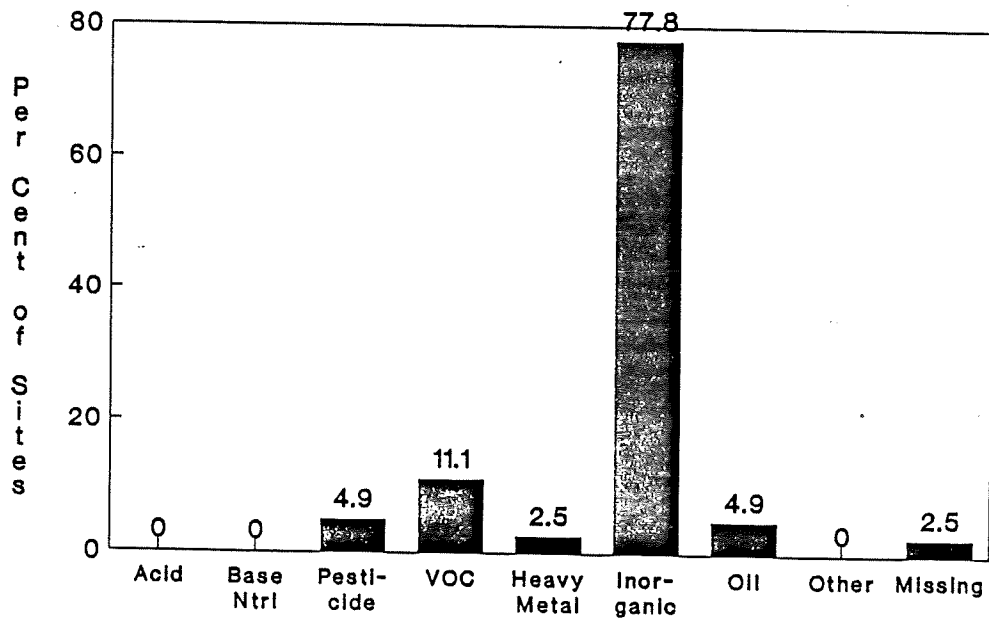
## Status of Non-LUST Sites Northwest



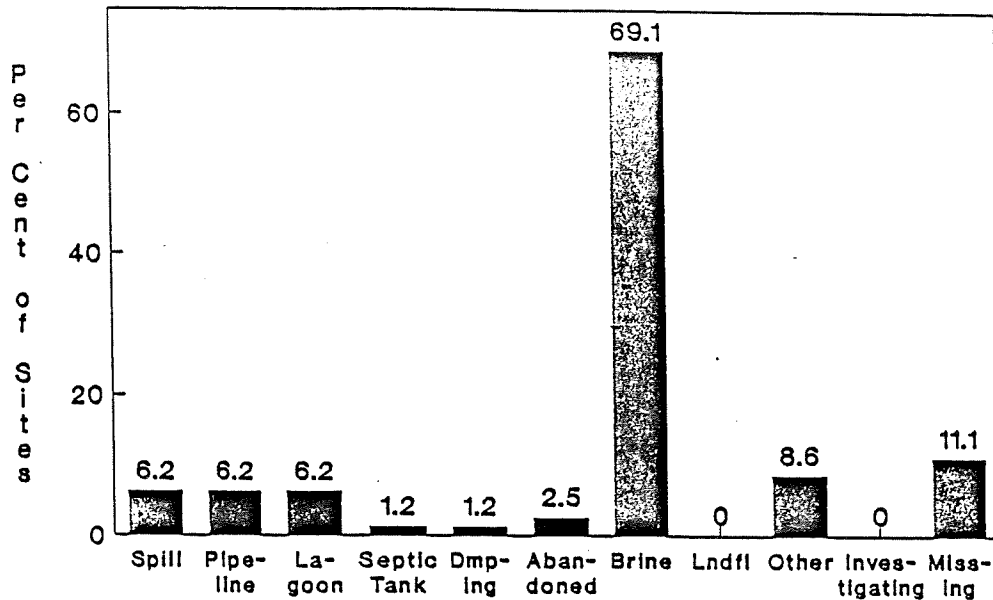
## Contaminated Media Summary Northwest



## Contaminant Summary Northwest



## Source Northwest



There are 81 non-LUST and 18 LUST sites in the northwest district on the Identified Sites List. Investigation is underway or needed at ten LUST sites. Twenty-one non-LUST sites are under some phase of investigation. Of the 47 sites for which information on status is missing, 45 are KCC sites.

Groundwater contamination is reported at over 75% of non-LUST sites. Fifteen per cent of the sites involve public water supplies. Inorganic compounds are the predominant contaminants. The inorganic constituent of concern is chloride as brine associated with oil field activities. Brine is reported as the source of contamination at 69% of sites in the northwest district.

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IDENTIFIED SITES LIST -- NORTHWEST DISTRICT

SITE NAME				CONTAMINATED		SOURCE	STATUS
	CO	RB	CONTAMINANT	MEDIA			
DRESSER INDUSTRIES, INC., (TITAN SERVICES)	BT	LA	VOC/OIL				REM DESIGN-C
GREAT BEND UNNAMED	BT	SS	INOR	GW	BRINE		
HARRY BUMEISTER	BT	LA	INOR	GW	BRINE		INVESTIG-U
HENRY STAUDINGER	BT		INOR		BRINE		INVESTIG-N
LARRY PANNING	BT	UA	INOR		BRINE		INVESTIG-U
LARRY WEATHERS	BT		INOR				
PHILLIPS 66 AND OTHERS	BT	UA	VOC	GW	LUST		INVESTIG-U
CITY OF JENNINGS	DC	UR	INOR	GW/PWS	LAGOON/ABAND		INVESTIG-U
MARION MOCKRY	DC	UR	PEST	GW/PWS	OTHER		
PAUL BREMER	DC	UR	INOR		BRINE		
ANDREW WASINGER	EL	SS	INOR	GW	BRINE		
CATHERINE HASCHENBERGER TOWNSITE	EL		INOR		BRINE/OTHER		INVESTIG-N
CECILIA DREILING	EL	SS	PEST	GW	OTHER		
CLARENCE SCHAEFER	EL	SS	INOR	GW	OTHER		
CROSS MANUFACTURING CO., INC.	EL	SS	HM	GW/PWS	BRINE		CLEANUP-C
DORIS LANG	EL		INOR	GW	BRINE		
DORTLAND	EL		INOR				
DOUG PHILLIP	EL	SS	INOR	GW	BRINE		
ELLIS COUNTY FEEDERS	EL	SS	INOR	GW			
FRANK WERTH	EL	SS	INOR	GW	BRINE		
HAYS FIRE DEPARTMENT	EL	SS	VOC	SOIL	LUST		INVESTIG-U
HAYS GASOLINE CONTAM.	EL	SS	OTH	GW/SOIL	LUST		CLEANUP-N
HAYS WELLS 20, 27, 28	EL		VOC		OTHER		INVESTIG-U
JIM DINKEL	EL	SS	INOR	GW/PWS	BRINE		INVESTIG-U
JIM MAXWELL	EL	SS	INOR	GW/SW	BRINE		
JOHN KRAUSE	EL	SS	INOR	GW	BRINE		
LED STRAMEL	EL	SS	INOR	GW	BRINE/OTHER		
LEON DINKEL & TONY SANDERS	EL	SS	INOR	GW	BRINE		
MARCELLUS GROSS	EL	SS	INOR		SPILL/BRINE		INVESTIG-N
MATADOR PIPELINE	EL	SS	VOC/OIL	GW/SW	PIPELN		CLEANUP-C
NIELSON SINKHOLE	EL	SS		GW	BRINE		REM DESIGN-C
PEPSI COLA BOTTLING	EL		VOC	GW	LUST		CLEANUP-U
PERMIAN OIL	EL		VOC	GW	LUST/LAGOON		INVESTIG-U
PWS WELL #1	EL		VOC	GW/PWS	SPILL		INVESTIG-U
RAMADA INN/TEXACO	EL	SS	VOC	GW	LUST		
R.J. ZIMMERMAN	EL	SS	INOR	GW	BRINE		
SHORT STOP	EL		VOC	GW/SOIL	LUST		
WATER SUPPLY WELLS	EL	SS	INOR	GW/PWS			
WILLIAM BURR COMPLAINT	EL	SS	VOC	GW/PWS	LUST		INVESTIG-N
FELL OIL AND GAS	EL	SS	INOR	GW	BRINE		
BOGUE AREA	GH	SO	INOR	GW	BRINE		
BOGUE PWS #2	GH	SO	VOC	GW	LUST		NO ACT NEC-C
EUGENE JOHNSON	GH	SO	VOC	GW	SPILL/BRINE		INVESTIG-C
E.L. RICHMEIER	GH	SO		GW/SW	BRINE/OTHER		INVESTIG-C
FRED KEITH	GH	SO	INOR	GW	BRINE		

IDENTIFIED SITES LIST -- NORTHWEST DISTRICT

SITE NAME				CONTAMINATED		STATUS
	CO	RB	CONTAMINANT	MEDIA	SOURCE	
GIL BALTHAZOR, RAY BRAULT	GH	SO	INOR	GW/SW	BRINE	INVESTIG-U
GRAHAM COUNTY UNKNOWN	GH	SO	INOR	GW	BRINE	
HARRY CLINT MINIUM	GH		INOR	GW	ABAND/BRINE	INVESTIG-C
LEON FINK	GH	SO	INOR	GW/SW	LAGOON/BRINE	REM DESIGN-C
MULBERRY ST. AREA	GH	SO	VOC	GW	LUST	INVESTIG-N
WILBUR STITES	GH	SO	VOC	GW	SEPTIC/OTHER	NO ACT NEC-C
COOPER OIL	GO	SS	OTH		LUST	INVESTIG-N
PLUM CREEK AREA	GO	SS	INOR	GW	BRINE/OTHER	INVESTIG-N
QUINTER COOP FIRE	GO	SS	PEST/OIL	SW/SOIL	SPILL	
HARRY UNRUH	LG	SS	INOR	GW	BRINE/OTHER	INVESTIG-U
OAKLEY PWS WELL #11	LG	SS	VOC	GW/PWS	LUST	INVESTIG-N
PRAIRIE DOG TOWN	LG		VOC	GW/PWS	LUST	INVESTIG-U
CLAVERT MILL	NT		OTH	GW	LUST	INVESTIG-U
CITY OF ALTON	OB	SO	VOC		LUST	INVESTIG-N
CRA, INC. (AKA: FARMLAND INDUSTRIES)	PL	SO	VOC	GW/SW/SOIL	LAGOON	REM DESIGN-C
PWS WELL #3, #4	PL	SO	VOC	GW/PWS		
CITY OF MCDONALD	RA	UR	INOR	GW/PWS		
APCO SERVICE STATION	RO		VOC	GW	LUST	
CARL HILGENS	RO	SO	INOR	GW	BRINE	
CODELL, KS AREA	RO	SS	INOR	GW	OTHER	
FOSTER SHEPARD	RO	SS	INOR	GW	PIPELN	REM DESIGN-C
GRIEBEL, FOSTER, ROY	RO	SO	INOR	GW	BRINE	
HAROLD SIMONS	RO	SO	INOR		BRINE	
LATON AREA - SEVERAL LANDOWNERS	RO	SO	INOR	SW	BRINE	
MARY MARCOTTE	RO	SO	INOR	GW	BRINE	
MELVIN KELLER	RO	SS	INOR	SW	BRINE	
ORVILLE GARVER	RO	SO	INOR	GW/PWS	BRINE	
PAT IREY - HRABE AREA	RO	SO	INOR	GW/SW	PIPELN/LAGOON	CLEANUP-C
PEAVEY-MOWRY-VINE-BATES	RO	SO	INOR	GW	PIPELN/BRINE	INVESTIG-U
PLAINSVILLE	RO	SO	VOC	GW/PWS	LUST	
PLAINVILLE PWS #1	RO		VOC	GW	OTHER	INVESTIG-U
SCATTERED ROOKS COUNTY	RO	SO	INOR	GW	BRINE	
SCHRUBEN	RO	SO	INOR	GW	LAGOON/BRINE	CLEANUP-C
STOCKTON	RO	SO	INOR		BRINE	INVESTIG-C
TOM HOUSER	RO	SS	INOR	GW	BRINE	
DENNIS DUMLER	RS	SS	INOR	GW	BRINE	
EVERETT DORTLAND	RS		INOR		BRINE	INVESTIG-U
FAIRPORT STATION	RS	SS	OIL		SPILL/PIPELN	CLEANUP-C
KEIR	RS	SS	INOR	GW	BRINE	
LELAND NUSS	RS		INOR	GW	BRINE	
LES WITTMAN	RS	SS	INOR	GW	BRINE	
LOUIS SANDER	RS		INOR	GW	BRINE	
OKMAR OIL COMPANY	RS	SS	INOR		BRINE	
RUSSELL RWD #1	RS	SS	INOR	GW/PWS	BRINE/OTHER	INVESTIG-C
TITLE LEASE	RS	SS	INOR	GW	BRINE	

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IDENTIFIED SITES LIST -- NORTHWEST DISTRICT

SITE NAME	CO	RB	CONTAMINANT	MEDIA	SOURCE	STATUS
TRAPP OIL COMPANY	RS	SS	INOR		BRINE	
VERNON SHAFFER	RS	SS	INOR	GW	BRINE	
PWS WELL #1	SM	SO	VOC	GW/PWS		
KANSAS DEPT. OF TRANSPORTATION	SN	SS	INOR		BRINE	INVESTIG-U
ACE SERVICES, INC.	TH	UR	HM	GW/PWS		
BREWSTER VOC PROBLEM	TH	UR	VOC	GW/PWS	LUST	CLEANUP-N
HIGH PLAINS CHEMICAL COMPANY (SCHMITT BROTHER	TH	SO	PEST	GW/SOIL	OTHER	
DEGGS, BRAUN-CAROLL WYNN	TR	SS	INOR	GW/SW	BRINE/OTHER	RESOLVED-C
FRANK SCHNELLER	TR	SS	INOR	GW	DMPING/BRINE	CLEANUP-C

## Federal Superfund Sites

Kansas has seven sites on the Federal National Priorities List. Three additional sites are proposed for the seventh update of the NPL. Status of remediation for the NPL sites is provided below.

Doepke-Holliday Disposal	Holliday	Remedial Design-U
Arkansas City Dump	Arkansas City	Record of Decision-C*
(Milliken Refinery)		(on Operable Unit 1)
Cherokee County Site	Galena	Remedial Design-U
		(Galena Subsite)
John's Sludge Pond	Wichita	Post-Cleanup Monitor-U
Big River Sand	Wichita	Cleanup-C
Strother Field	Cowley County	Cleanup-U
Obee Road	Hutchinson	Investigation-U

### Proposed Sites:

Hydro-Flex	Topeka	Remedial Design-N
29th and Mead	Wichita	Investigation-U
Pester Burn Pond	El Dorado	Remedial Design-N

\*The remedial design has been chosen by EPA; however, remediation has not begun.

SITES WITH KCC AS LEAD AGENCY

DISTRICT	SITE NAME
NC	Brothers Lease
NC	Burton Buckman
NC	Mowat Well
NC	Swisher Well.
NC	Wilgus Well
NW	Andrew Wasinger
NW	Carl Hilgens
NW	Codell, KS Area
NW	Dennis Dumler
NW	Doris Lang
NW	Doug Phillip
NW	E.L. Richmeier
NW	Everett Dortland
NW	Fell Oil and Gas
NW	Frank Werth
NW	Fred Keith
NW	Gil Balthazor, Ray Brault
NW	Graham County Unknown
NW	Great Bend Unnamed
NW	Griebel, Foster, Roy
NW	Harry Bumeister
NW	Harry Clint Minium
NW	Jim Maxwell
NW	John Krause
NW	Kansas Dept. of Transportation
NW	Keir
NW	Larry Weathers
NW	Laton Area - Several landowners
NW	Leland Nuss
NW	Leo Stramel
NW	Leon Dinkel & Tony Sanders
NW	Les Wittman
NW	Louis Sander
NW	Marcellus Gross
NW	Mary Marcotte
NW	Melvin Keller
NW	Nielson Sinkhole
NW	Okmar Oil Company
NW	Orville Garver
NW	Pat Ireys - Hrabe Area
NW	Paul Bremer
NW	Peavey-Mowry-Vine-Bates
NW	R. J. Zimmerman
NW	Scattered Rooks County
NW	Stockton
NW	Title Lease
NW	Tom Houser
NW	Trapp Oil Company



NW	Vernon Shaffer
NW	Water Supply Wells
SC	Burrton Oil Field
SC	Hollow-Nikkel Area
SC	Ivan Bruce
SC	James Catron
SC	Raymond Oil
SC	Striker Oil Corporation
SE	Browning Lease
SE	Evrett Lease
SE	Tate Creek
SE	Wayside Prod. Co.
SW	Diel Farm
SW	Enoch Thompson
SW	Henry Strecker
SW	Kent Rixon
SW	Kent Rixon
SW	Stanley Moffet

RESPONSIBLE PARTY CLEANUPS

Non-LUST Sites:

29th and Mead	Wichita
Air Products (Abbott Labs)	Wichita
American Salt	Lyons
Arco/Sinclair/Dyman	Kansas City
AT&SF	Emporia
AT&SF RR	Newton
AT&SF	Topeka
Barton Solvents (Drumco Inc.)	Valley Center
BMAC Landfill	Wichita
Boeing M.A.C.	Wichita
Boeing Military Airplane Co.	Wichita
BPU	Quindaro
Brother's Lease	Rice County
Browning Lease	Greenwood County
Brutus	West Mineral
Burn's Well	Conway
C & C Tank Wagon	Olathe
Cessna Aircraft Pawnee	Wichita
Cessna Aircraft Wallace	Wichita
CFCA (Farmland)	Lawrence
Cities Service	Burrton
City of Conway	Conway
Columbia Industries	Lindsborg
CRA, Inc.	Phillipsburg
Cross Manufacturing Company	Hays
Cross Manufacturing Co., Inc.	Hays
Cy Frazier	Gardner
Dresser Industries	Great Bend
Exline	Salina
Farmland Industries	Dodge City
Farmland Industries	Coffeyville
Fayne Beattie Well	Conway
FMC	Lawrence
Forbes Field	Topeka
Full Vision, Inc.	Newton
General Motors Corp.	Olathe
General Motors	Kansas City
Industrial Chrome	Topeka
K.U. Landfill (Sunflower)	Johnson County
Kansas Army Ammunition Plant	Parsons
Kirby Clawson	Satanta
Koch Industries	Conway
KSU Agronomy Farm	Hesston
KU Power Plant	Lawrence
Kuhlman Diecasting	Stanley
Manhattan Mall Site	Manhattan
Mark IV	Stanley
Mesa Petroleum/Kirby Clawson	Amarillo, TX
Midwest Machine Works	Topeka
National Zinc Company	Cherryvale

NCRA Refinery  
 NCRA Refinery  
 Neodesha Refinery  
 NIES  
 Olathe City Landfill  
 Oxy Cities Service  
 Panhandle Eastern  
 Park City PWS Wells  
 PBI-Gordon  
 Phillips Petroleum (KC Refinery)  
 Quinter Coop Fire  
 Raymond Oil  
 Reichold Chemicals  
 Riley County Landfill  
 Riley County Asphalt Plant  
 S&G Metals  
 Salt Companies/Cargill Morton  
 Sedgwick County Courthouse  
 Sherwin-Williams  
 Solomon Electric Supply  
 Stake Site  
 Strother Field  
 Terry Bethel  
 Terry Bethel  
 Thompson Hayward  
 Vicker's Refinery  
 Vulcan Materials  
 Wayside Prod. Co.

McPherson  
 McPherson  
 Neodesha  
 Furley  
 Olathe  
 Wichita  
 Liberal  
 Park City  
 Kansas City  
 Kansas City  
 Quinter  
 Wichita  
 Kansas City  
 Manhattan  
 Manhattan  
 Kansas City  
 Hutchinson  
 Wichita  
 Coffeyville  
 Solomon  
 Bloom  
 Hackney  
 Belle Plaine  
 Belle Plaine  
 Kansas City  
 Potwin  
 Wichita  
 Burden

LUST Sites:

19th & Massachusetts  
 59 Truck Stop  
 60th and Mission Road  
 Adam's 66  
 Amoco  
 APCO  
 Associated Wholesale Groceries, Inc.  
 Associated Wholesale Grocers #2  
 Avondale West School  
 B & G Service  
 Bolton Chrysler Dealership  
 Brown County Shop  
 Brown's Conoco  
 Burk Oil Company  
 Carl Grimm  
 Casey's General Store  
 Coast Mart #9112  
 Colonial Bread  
 Derby Refinery  
 E.V. Harris  
 East Topeka K-Mart  
 Envelope Machinery  
 Farmer's Union Coop Association

Lawrence  
 Erie  
 Fairway  
 Council Grove  
 Wichita  
 Topeka  
 Kansas City  
 Kansas City  
 Topeka  
 Parsons  
 Council Grove  
 Overland Park  
 Parsons  
 Pittsburg  
 Chanute  
 Lebo  
 Wichita  
 Kansas City  
 Wichita  
 Parsons  
 Topeka  
 Kansas City  
 Concordia

Fina  
Fina  
Fire Station  
Getty Refinery  
Herkimer Co-op  
Horner's Corner  
Inland Quarries (Americold)  
Jim's Conoco  
Johnson's General Store  
Kalvesta Restaurant  
Kansas City Power and Light Plant  
Kansas Turnpike Authority, Sumner  
KDOT Maintenance  
Kenworth  
Legion Complaint  
Methodist Church  
Olathe Service Center  
Pepsi Cola Bottling  
Purina Mills  
Purina Mills  
Quality Oil, 500 N. Main  
Ransom Co-op  
Select Products  
Stuckey's  
Stueve's Phillips 66  
Suburban Tire and Auto Center  
Texaco  
Tux's Standard Service  
U.S.D. 501  
U.S.D. 500  
Vickers  
Washburn's Service  
William Dunn  
Wood Oil Corp.  
Zarda Dairy  
Zenith Co-op

Wichita  
Topeka  
Topeka  
El Dorado  
Herkimer  
Newton  
Kansas City  
Topeka  
Chanute  
Kalvesta  
La Cygne  
Belle Plaine  
Wichita  
Dodge City  
Wichita  
Topeka  
Olathe  
Hays  
Wichita  
Wichita  
Wichita  
Lansing  
Ransom  
Leavenworth  
Abilene  
Topeka  
Stanley  
Topeka  
Kingman  
Topeka  
Kansas City  
Shawnee  
Chanute  
Topeka  
Garnett  
Shawnee  
Zenith

EPA estimates that 10 - 30% of the over two million underground storage tanks (UST) in the United States are currently leaking. This does not include the sites where there is contamination from spills and overfills which need to be cleaned up or contamination at aboveground tanks.

Many of the underground tanks are owned by small businesses. EPA estimates that 45% of small businesses in retail motor fuel marketing will go out of business in the next five years because of the technical and financial responsibility regulations. This assumes they can find insurance. Without insurance the number could be higher. EPA has not developed statistics for the impact of the regulations on owners of tanks who are not in the retail motor fuel business.

The EPA regulations affect more than just gas stations. Anyone who owns an underground tank, except state or federal government entities, must comply with the technical rules as well as the financial responsibility requirements. Cities, counties, school districts, park districts, trucking companies, auto dealers, golf courses, - any individual business or organization that may have its own fuel tanks is required to comply. Even farmers must comply if they have tanks over 1100 gallons.

Many tank owners are unable to secure the financial responsibility coverage required by the EPA regulations. Many do not qualify financially for self-insurance, surety bonds, guarantees or letters of credit. They do not have the money to establish a fully funded trust fund. They do not meet the underwriting guidelines of insurance company or risk retention groups. Some who do meet underwriting guidelines for insurance or risk retention group coverage cannot afford the premiums.

If a state program is not established to assist owners and operators of petro storage tanks in providing evidence of financial responsibility for corrective action, many tank owners will be forced to abandon use of their tanks. In the case of fuel retailers this means going out of business. In some cases the tank owner can't afford the cost of going out of business. In order to stop using a tank the owner/operator must "close" the tank which involves a site assessment and cleanup of contamination. A potentially costly job.

Senate Bill 122 will provide a method of establishing financial responsibility for tank owners and operators. It will allow them to put their assets to use where they will do the most good in protecting the environment - in tank upgrading and leak detection. Tank owners and operators will be able to concentrate their resources on finding and correcting current problems and preventing future problems. It may well keep many in business.

My company, Federated Mutual Insurance Company of Owatonna, Minnesota, currently provides pollution liability coverage for 179 policyholders in Kansas. Our primary market for our coverage is petroleum marketers. We also write this coverage for auto dealers, equipment dealers and contractors who have UST or other pollution

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exposures. Our policy covers underground and aboveground tanks at insured locations. As of 1-1-89 we have had 13 pollution claims in Kansas. We estimate our total expense for cleanup at approximately \$400,000. This amount does not include any deductibles our insureds may have to pay. The deductibles range from \$0 to \$25,000 depending on when the policy was issued. These claims are for cleanup only - we do not currently have any third party bodily injury claims in Kansas.

Nationwide we have an average cleanup cost of approximately \$80,000 not including our insureds' deductibles. Currently our reserves for third part bodily injury are less than 1% of total reserves.

My company is willing to work with a state fund program you establish. For persons who meet our underwriting guidelines we will continue to provide the third party bodily injury and property damage coverage which is required in addition to cleanup coverage under Federal EPA rules.

The establishment of a state fund should help to make insurance coverage more available and affordable to tank owners and operators.

Jeanne Hankerson  
Environmental Coordinator  
Federated Mutual Insurance Company  
Owatonna, MN. 55060

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MEMORANDUM

TO : Senate Committee on Energy and Natural Resources  
FROM : Kansas Oil Marketers Association  
DATE : February 7, 1989  
RE : 1989 Senate Bill No. 122

Chairman Doyen and Members of the Committee, I am Bob Alderson, an attorney in private practice in Topeka, appearing today on behalf of the Kansas Oil Marketers Association (KOMA) in support of Senate Bill No. 122. KOMA is a statewide association of petroleum distributors, and it also represents the interests of hundreds of other underground storage tank owners and operators who market petroleum products.

Before addressing the provisions of SB 122, I have two prefatory comments. First, even though an association of petroleum marketers has an obvious interest in legislation affecting underground storage tanks, it must be remembered that our interest is not exclusive. KDHE estimates that 40% of the underground tanks in Kansas are owned by non-marketers.

Second, I recognize at the outset that this statement will be somewhat lengthy, but I trust the Committee understands that such length is needed to address a most difficult, complex issue, with far-reaching consequences.

Prior testimony before the Committee has indicated the necessity of considering SB 122 in conjunction with SB 94, to be deliberated as companion measures. Both bills have been introduced in response to the EPA's regulations applicable to underground storage tanks. SB 94 restates as Kansas law the substantive provisions of these regulations, including the financial responsibility requirements. However, a mere restatement of the federal requirements for financial responsibility as the law in Kansas may not accomplish the intended result. It will not necessarily ensure that sufficient moneys are available to pay the clean up costs incurred in the event of an accidental spill, leak or other discharge from a petroleum storage tank.

Availability and Affordability of Liability Insurance

Even though the federal financial responsibility requirements (as restated in SB 94) contemplate a variety of ways in which an underground petroleum storage tank owner or operator may satisfy such requirements, the vast majority of such owners and operators in Kansas will not be able to provide the requisite financial assurances, unless a state fund is established and made available to them.

For example, we would respectfully suggest that there are few petroleum marketers or other owners or operators of underground storage

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Attachment IV A H

tanks having net worths in excess of \$10 million, so as to enable them to qualify as self-insurers under the federal regulations. Similarly, we doubt that there are many who will be able to qualify for or afford surety bonds or letters of credit as the means of satisfying the financial responsibility requirements. More disturbing, however, is the fact that the traditional means of satisfying these types of requirements (liability insurance) does not appear to be either readily available or affordable where it is available.

Before discussing the availability and affordability of pollution liability insurance, I want to suggest to the Committee that neither I nor any other representative of KOMA provides the Committee with the best witness regarding this issue. While we will provide you with information regarding the experiences of KOMA's members and other information derived from credible sources (which will be identified for the Committee), the information we will provide you is, nonetheless, secondhand.

Perhaps testimony of appropriate representatives from the insurance industry can identify for the Committee those insurance companies and risk retention groups which provide for Kansas risks policies of pollution liability insurance that satisfy the federal financial responsibility requirements. These conferees also might identify the amount of premium, the fluctuation of such premium based on the insured's compliance with underwriting standards, eligibility limitations on insureds, the amount of any initial capital contribution required to participate and other similar information.

However, having recognized that there are others who can provide this Committee with firsthand data regarding the availability and affordability of pollution liability insurance, I want to share with the Committee the information which leads KOMA to believe that such insurance is neither generally available nor affordable, where it is available. Assuming the accuracy of that information, we believe it dictates the necessity of a state fund to assist tank owners and operators in complying with financial responsibility requirements.

Several weeks ago, KDHE shared with us a memorandum it had been provided by the EPA. The memorandum was dated December 19, 1988, and although it was originally intended to be an interagency communication, it was subsequently shared with appropriate state agencies. The subject of the memorandum was "Update on the Availability of Commercial Pollution Liability Insurance for Underground Storage Tanks," and it was stamped "PRIORITY" and "IMPORTANT" at the top.

The EPA memorandum indicates that there were, at that time, three major providers of commercial pollution liability insurance: PETROMARK, Federated Mutual and the Pollution Liability Insurance Association (PLIA). In the past, those three providers have combined to cover approximately 25% of the underground storage tanks nationally, and the memorandum also notes that self-insurance covers another 25% of the underground storage tanks, leaving nearly one-half of these tanks either uninsured or covered by other sources. The purpose of the memorandum was to discuss two major changes in that situation.

First, it noted Federated Mutual's reduction in coverage limits and concurrent increases in premiums, which produced a conclusion in the

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memorandum that "it is likely that" Federated Mutual is pricing itself out of its current market. Second, the memorandum discusses the anticipated dissolution of PLIA, an expectation that eventually has been realized.

The EPA memorandum assessed the impact of these developments, as follows: "The potential effect of losing two insurance programs providing coverage for up to 200,000 USTs will be tremendous. We had based our phase-in compliance schedule on our best estimate of who can obtain the necessary coverage and when." The memorandum continues by expressing concern that these actions "may have very negative effects on the willingness of other insurance companies to enter this market."

KOMA also has obtained a copy of the December, 1988 monograph of the Technical Affairs Department of the Independent Insurance Agents Association regarding pollution liability insurance. One of the conclusions reached in that paper is that "standard markets can not, on a wholesale basis, include environmental liability coverages within its [sic] standard commercial policy packages. They cite adverse judicial interpretations and limited insurer capacity as reasons to exclude all pollution related coverages from their basic products."

This technical advisory identifies 11 insurance companies, risk retention groups or programs of one or the other which offered environmental impairment liability coverages as of December 1, 1988. Included in that list is PLIA, which subsequently dissolved, as I previously indicated. It also includes three risk retention groups which are styled as "non-accessible" by independent insurance agents, because of the restricted membership requirements. PETROMARK, for example, is limited to petroleum marketers. These three risk retention groups also require an initial capital contribution from their participants, normally equal in amount to one year's premium.

Of the remaining companies, this paper notes some very limited coverages and extremely high premiums. One such company has a minimum premium of \$10,000 and also requires \$25,000 self-insurance retention covering on-site clean up and third-party liability.

Finally, I want to share with the Committee the results of a recent survey conducted by the Petroleum Marketers Association of America (PMAA). I am aware that legislative committees can almost "drown" in statistics; however, I believe in this instance that statistics may promote an understanding of the issue. Specifically, some of the statistical results of the PMAA's survey may help the Committee define the problem, not only in terms of the availability and affordability of pollution liability insurance coverage, but also in terms of the potential consequences of the situation addressed by SB 122.

The PMAA is a federation of 43 state and regional trade associations, with more than 10,000 independent petroleum marketer members nationwide. Collectively, these marketers sell at wholesale or retail more than 1/2 of the gasoline, 60% of the diesel and 75% of the residential heating oil consumed nationally. Members of the state and regional associations affiliated with PMAA are the primary suppliers of fuel to persons in rural areas throughout the country, and PMAA estimates that the marketers it represents supply more than 60% of the fuel used by American farmers.

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In November, 1988, PMAA asked each of its member associations to mail a one-page survey to each of its petroleum marketer members, seeking information on a variety of subjects relating to the advent of federal regulations on underground storage tanks. More than 2,100 marketers (approximately 25% of the marketers represented by PMAA) located in 35 states responded to the survey. Members of KOMA responded in approximately the same proportion, with 76 of the 300 distributor members of KOMA completing and returning the survey.

Nationally, nearly 52% of the marketers reported having no pollution liability insurance coverage, with 60% of those indicating that such coverage was unaffordable and another 32% stating that insurance was unavailable. Of the KOMA members responding to the survey, nearly 78% stated that they did not have pollution liability insurance coverage, and of that total, 37% indicated that such insurance was not available to them and nearly 53% of them stated that such insurance was not affordable.

#### Necessity of State Fund

We trust that the Committee's study will confirm our conclusion that pollution liability insurance coverage is either unavailable for a substantial number of owners and operators of underground petroleum storage tanks in Kansas, or in those instances where such coverage is available, it is not affordable. Notwithstanding, the Committee needs to address the issue of the state's obligation to respond to this situation. Why is it important to the state that owners and operators of underground petroleum storage tanks be able to provide assurance of financial responsibility in compliance with federal requirements? What is the Legislature's responsibility beyond enacting legislation which restates the federal requirements as state law and enables the KDHE to administer and enforce these provisions in Kansas? What are the consequences of not enacting SB 122 or other similar legislation establishing a state fund which is available to owners and operators of underground petroleum storage tanks?

The provisions of SB 122 provide a partial response to these questions. Section 5 of the bill would establish the Petroleum Storage Tank Release Trust Fund in the state treasury. The fund is to be administered by the Secretary of Health and Environment not only to "assist owners and operators of petroleum storage tanks in providing evidence of financial responsibility for corrective action required by a release from any such tank," but also to permit the Secretary to take emergency action to assure the public health and safety when there is a release or substantial threat of a release from a petroleum storage tank, and to permit corrective action by the Secretary when an owner or operator of any such tank cannot be identified or is unable or unwilling to perform the corrective action. Thus, the state needs to have such fund available to adequately protect the citizens of this state in emergency situations and in situations where the owners and operators cannot or will not take the required corrective action.

The PMAA survey referenced earlier also provides additional information which supports the establishment of a state fund to assist owners and operators in providing evidence of financial responsibility. In addition to the availability of insurance coverage for petroleum marketers,

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that survey requested information on the number of service stations owned or operated by marketers which had closed in anticipation of the effective date of the technical standards established by federal regulations or were likely to close as a result of these technical standards or the financial responsibility requirements. The 2,128 marketers who responded to the survey anticipated the closing of 7,097 service stations as a result of either the EPA's technical standards or financial responsibility requirements.

Extrapolating those responses to the entire marketer population represented by PMAA indicates the likelihood that over 26,250 service stations owned by petroleum marketers either have or will soon close as a result of these new regulations. This estimate represents one-half of the total number of stations owned by these marketers.

However, as suggested by PMAA's report, a more critical issue than the number of stations anticipated to close is the location of those stations. The survey shows that more than 86% of the stations to be closed are in population centers of less than 50,000, and over 61% of the stations are in population centers of less than 10,000. Thus, the potential impact of the new federal regulations on rural America will be significant.

The impact in the rural areas of Kansas could be even greater. Based on the responses to the survey from KOMA members, it is likely that over 91% of the stations to be closed will be in population centers of less than 50,000, with nearly 80% located in population centers of less than 10,000.

In addition to the service stations directly owned or operated by the marketers responding to PMAA's survey, these marketers supply petroleum products to 53,395 commercial tanks. Of this number, the responding marketers anticipated the closing of 29,498 of these tanks as a result of the federal regulations. As noted in PMAA's report: "This requires the owners of these tanks to seek other means of refueling their trucks, vans, buses, cabs and other vehicles . . . ." In Kansas, the responses to the survey indicate that 359 of the 655 commercial tanks (approximately 55%) estimated to be supplied by Kansas distributors will close.

The results of PMAA's survey suggest a significant, adverse impact on the rural areas of Kansas. This impact will likely be evidenced by reduced consumer choice and convenience, as well as an increased price paid by consumers in rural areas for motor fuel. In those rural communities which presently have two, three or even four choices for purchasing motor fuels, there likely will be only one in the future, which will probably be located many miles away, and the prices charged at the pump for motor fuels will likely reflect its captive market.

The available service station likely is to be a new station built specifically to capitalize on the closing of the smaller stations. It probably will be operated in conjunction with a convenience store, but it no longer will provide the convenience of automotive repair services in many rural areas. Obtaining those services will require a trip to a larger population center.

These negative consequences in rural areas may produce correspondingly negative impacts on the entire state's economy. Thus, KOMA respectfully suggests that the Kansas Legislature has a responsibility to assist owners and operators of underground petroleum storage tanks to provide evidence of

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financial responsibility in compliance with federal requirements. Such assistance is not merely for these owners and operators, but for the entire state. The establishment of a state fund, as contemplated by SB 122, will potentially alleviate the negative impact of the federal financial responsibility requirements.

The potential service station and commercial tank closings identified by PMAA's survey were predicated, in part, on the petroleum marketers' inability to comply with federal financial responsibility requirements, due to the unavailability or unaffordability of pollution liability insurance. Thus, assisting owners and operators of underground petroleum storage tanks to comply with federal financial responsibility requirements will counteract, to some extent, the negative impact that will result from implementation of the federal underground storage tank regulations.

In commenting on PMAA's survey, in an article entitled "PMAA Survey: Tank Insurance Will Wipe Out Rural Stations," U.S. Oil Week notes that the result of service station and commercial tank closings, due to the inability of owners and operators to comply with federal requirements, will be less competition, higher consumer prices and poorer service.

#### Third-Party Liability

Although KOMA supports SB 122 to the extent that it will enable its members to provide assurance of financial responsibility for the payment of clean up costs incurred in connection with corrective action, we remain concerned that our members and other owners and operators will still be unable to provide complete assurance of financial responsibility.

As the Committee is perhaps aware, the federal regulations require assurance of financial responsibility not only for payment of clean up costs, but also for third-party liability. SB 122 does not address the latter requirement, and we have not as yet been able to determine either the availability or affordability of pollution liability insurance providing only third-party liability coverage. It is our understanding that third-party liability represents a relatively small portion of the costs paid by pollution liability insurance carriers in the past, but we are unable to tell the Committee whether such coverage will be available by itself and, if so, the amount of premium required for such coverage.

#### Method of Funding

Once the question of whether a state fund is needed has been answered affirmatively, the question arises as to the method of funding. Although the technical standards established by the federal regulations which went into effect in September of 1988 apply to underground storage tanks containing products other than petroleum products, the financial responsibility requirements that went into effect in October of 1988 apply only to underground petroleum storage tanks. Thus, there is some logic to funding the Petroleum Storage Tank Release Trust Fund established in SB 122 by a fee imposed on petroleum products manufactured in or imported into this state, particularly since the fee established by the bill can be collected and paid at the same time and in the same manner as the inspection fee established by K.S.A. 55-426, thereby negating any significant administrative costs.

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There are three points that need to be made regarding the funding mechanism provided in SB 122. First, the maximum amount of the fund (\$5 million) can be generated in a relatively short period of time by a one cent per gallon fee on all petroleum products. Under our current motor fuel tax structure, each penny of tax produces about \$15 million annually, and since the environmental assurance fee established by the bill would be imposed on a broader range of petroleum products, the initial fee should not be in place longer than four months, perhaps no longer than three months, in order to generate the maximum amount of the fund.

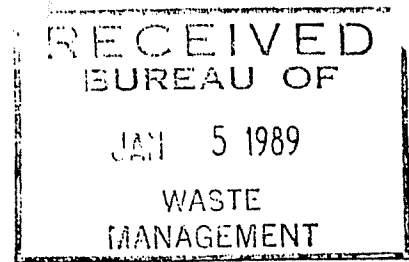
Second, KDHE and KOMA would not expect the fee to be reimposed for a considerable period of time thereafter (until the balance of the fund reaches \$2 million), and the amount to be raised at that time will be \$3 million, which should require the fee to be in place for no longer than two months. There is no way to accurately predict when it might be necessary to reimpose the fee. Once the technical standards authorized by SB 94 have been promulgated by the KDHE, it is likely that the number of leaking underground petroleum storage tanks discovered will increase, but it also is probable that leaking tanks will be discovered sooner than they might otherwise, which should minimize clean up costs. Thus, we think it reasonable to assume that it will not be necessary to replenish the fund on an annual basis.

Third, I believe KDHE shares our belief that the necessity of a state fund will be of relatively short duration. To that end, Section 15 of the bill provides a sunset provision on July 1, 1994. Even though the legislature may not find it appropriate to abolish the fund at that time, this sunset provision is not merely window dressing. As the Committee has previously been advised, the technical standards and regulations regarding the removal, replacement and retrofitting of underground tanks is phased in by federal regulations over a ten-year period. As old tanks are removed, replaced or retrofitted during this ten-year period, the likelihood of accidental spills, leaks or releases from the new or retrofitted tanks becomes much less likely. This, in turn, should make pollution liability insurance coverage much more available and affordable, thereby eliminating the necessity of the fund, or at least reducing the level of funding required to an amount sufficient only to enable KDHE to respond to emergency situations.

In the short term, though, the information available to us has compelled our conclusion that a state fund is necessary to assist not only petroleum marketers, but all owners and operators of underground petroleum storage tanks in complying with the federal financial responsibility requirements. Therefore, we commend to you the enactment of SB 122 as being a very prudent, far-sighted decision, one that will potentially have enduring benefits to the rural areas of the state and thereby benefitting the entire state, as well.

I appreciate very much your attention to this lengthy testimony, and I will be pleased to respond to any questions you might have.

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# **DOLLARS AND SENSE**

## **A Summary of the Financial Responsibility Regulations for Underground Storage Tank Systems**

**U.S. Environmental Protection Agency  
Office of Underground Storage Tanks**

**December 1988**

*SE & NR  
2/7/89  
Attachment II*

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# WHAT ARE THESE REGULATIONS ALL ABOUT?

The U.S. Environmental Protection Agency (EPA) has published final regulations concerning financial responsibilities if you own or operate underground storage tank systems containing petroleum. (EPA plans to develop similar regulations for tanks containing hazardous substances in the future.) Although the full regulations appear in the Federal Register (October 26, 1988), this brochure provides a brief summary and answers some important questions about your financial responsibilities.

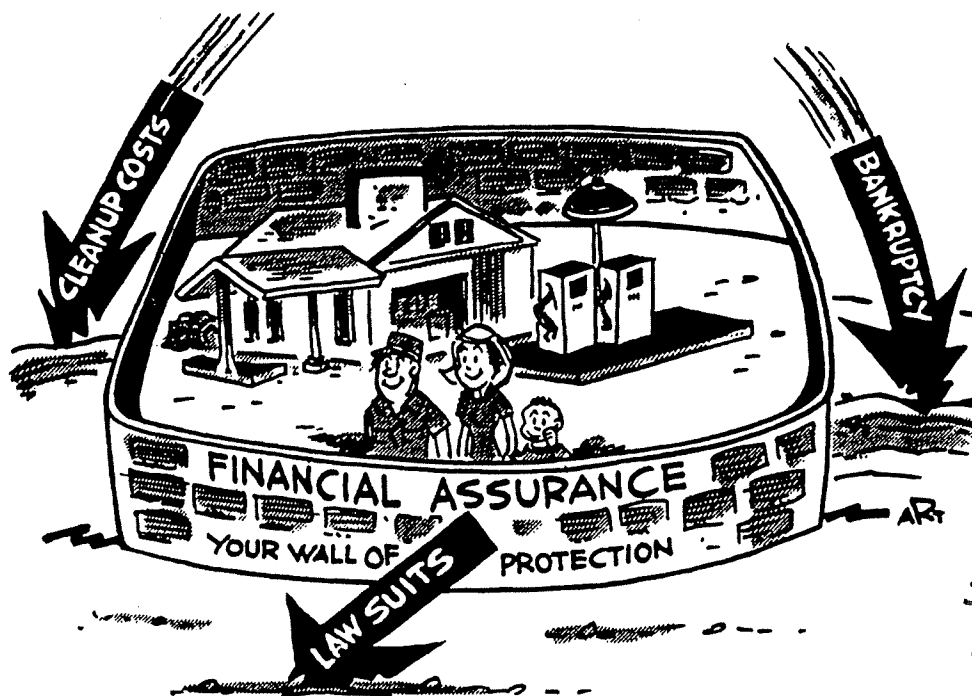
## Why Has EPA Written These New Regulations?

Several million underground storage tank systems (USTs) in the United States contain petroleum. Tens of thousands of these USTs, including their piping, are currently leaking. Many more are expected to leak in the future. Leaking USTs can cause fires or explosions that threaten human safety. In addition, leaking USTs can contaminate nearby ground water. Because many of us depend on ground water for the water we drink, Federal legislation seeks to safeguard our nation's ground-water resources.

Congress responded in 1984 to the problem of leaking USTs by adding Subtitle I to the Resource Conservation and Recovery Act. Subtitle I requires EPA to develop regulations to protect human health and the environment from leaking USTs and specifically mandates requirements for financial responsibility.

## What Is "Financial Responsibility" And Why Is It Necessary For You?

Financial responsibility means that if you own or operate an UST, you must ensure, either through insurance or other means explained below, that there will be money to help pay for the costs of third-party liability and corrective action caused by a leak from your tank. These costs could include cleaning up leaked petroleum, correcting environmental damage, supplying drinking water, and compensating people for personal injury or property damage. Financial responsibility also protects you. If your UST leaks, you may be faced with high cleanup costs or with lawsuits brought by third parties. Having financial responsibility means that money will be available to meet these costs.



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## What Kinds Of Tanks Are Covered By The Rule?

Financial responsibility must be shown for all USTs containing petroleum products. USTs are defined by law to be tank systems with at least 10 percent of their volume below the surface of the ground. The term "tank systems" also includes the piping connected to the tank.

## What Kinds Of Tanks Are Not Covered?

Some tank systems have been exempted or deferred from the financial responsibility rule:

- ◆ USTs containing hazardous wastes already regulated under RCRA.
- ◆ UST systems containing electrical equipment and hydraulic lifts.
- ◆ Wastewater treatment USTs that are regulated by the Clean Water Act.
- ◆ USTs with a capacity of less than 110 gallons, and tanks holding a minimal concentration of regulated substances.
- ◆ USTs that serve as emergency back up, hold regulated substances for only a short time, and are expeditiously emptied after use.
- ◆ Field-constructed tanks.
- ◆ USTs containing radioactive materials and USTs used as backup diesel tanks at nuclear facilities.
- ◆ Airport hydrant fueling systems.
- ◆ Farm or residential tanks with capacity of 1,100 gallons or less storing motor fuel which is not for resale.
- ◆ Tanks for storing heating oil which is used on-site.
- ◆ Septic tanks.
- ◆ Certain pipeline systems, such as those regulated under the Natural Gas Pipeline Safety Act of 1968.
- ◆ Surface impoundments, pits, ponds, or lagoons.
- ◆ Storm or waste water collection systems.
- ◆ Flow-through process tanks.
- ◆ Liquid trap and other lines used in oil or gas production.
- ◆ Storage tanks on or above the floor of an underground area, such as a basement or tunnel.

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# WHO IS AFFECTED BY THESE REGULATIONS?

## Do You Have To Show Financial Responsibility?

Either the owner or the operator of the tank must show financial responsibility, but not both if the owner and operator are different individuals or firms. It is the responsibility of the owner and operator to decide which of them will show financial responsibility.

Federal and State governments and their agencies that own USTs are not required to document financial responsibility. Local governments, however, must comply with the new rule.

If you owned or operated a tank that was properly closed before the date for compliance that applies to you, then the financial responsibility requirements will not apply to your closed tank.

## What Do You Have To Do?

The new financial responsibility regulations require you to show that you have one of the following:

- ◆ at least \$1 million to cover the costs of a leak or spill from your underground storage tank if you are a **PETROLEUM MARKETER** (page 43334 of the Federal Register of October 26, 1988); or
- ◆ at least \$500,000 if you are **NOT A MARKETER** (page 43330 of the Federal Register of October 26, 1988).

You may show that you have this coverage by using insurance or any of the other methods of coverage explained in this brochure. The amount of financial responsibility that you must show does not limit your total liability for damages caused by a leak from your tank system.

## When Must You Comply With The Financial Responsibility Requirements?

The rule takes effect 90 days after its publication in the Federal Register (i.e., January 24, 1989). The date when you will have to show financial responsibility, however, depends on the compliance category that you fall into, as shown below:

- ◆ If you fall into one of the following groups, you must show financial responsibility on the same day that the rule becomes effective on January 24, 1989: 1) petroleum marketing firms that own 1,000 or more USTs; and 2) any other UST owners that report a tangible net worth of \$20 million or more to the SEC, Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration.
- ◆ If you are a petroleum marketing firm that owns 100 to 999 USTs, you must show financial responsibility by October 26, 1989.
- ◆ If you are a petroleum marketing firm that owns 13 to 99 USTs at more than one site, you must show financial responsibility by April 26, 1990.
- ◆ If you fall into one of the following groups, you must show financial responsibility by October 26, 1990: 1) petroleum marketing firms owning 1 to 12 USTs or those having fewer than 100 USTs at one site; 2) all other UST owners with a tangible net worth of less than \$20 million; and 3) local governments.

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## What Happens If You Install A New UST Before Your Scheduled Compliance Date?

The regulations require that you show financial responsibility for a new UST when you notify EPA that you have installed the tank. If you install a new UST before the date when you must first show financial responsibility as described above, then you must only show financial responsibility for the new tank by that compliance date. You may ignore the line on the new tank notification form concerning financial responsibility.

## What Amount Of Money Are You Responsible For?

The amount of money for which you must show financial responsibility depends on the type of business you operate, the amount of throughput of your tank, and the number of tanks you have:

- ◆ If your tank is used in petroleum production, refining or marketing (for example, service stations and truck stops), then you must be able to show that you have \$1 million of "per occurrence" coverage. "Per occurrence" means the amount of money that must be available to pay the costs of one occurrence.
- ◆ You must also have coverage for an annual aggregate amount. The annual aggregate amount is the total amount of financial responsibility that you must have to cover all leaks that might occur in one year. The amount of aggregate coverage that you must have depends on the number of tanks that you own or operate. The annual aggregate limits are:
  - 1 to 100 tanks, \$1 million annual aggregate; or
  - 101 or more tanks, \$2 million annual aggregate.

For example, if you own or operate three service stations with a total of 18 tanks, then you must have financial responsibility in the amount of \$1 million per occurrence and \$1 million annual aggregate. If you own or operate 50 service stations with a total of 200 tanks, you must have financial responsibility in the amount of \$1 million per occurrence and \$2 million annual aggregate.

- ◆ If your tanks are located at a facility not engaged in petroleum production, refining or marketing, and your facility has a monthly throughput of more than 10,000 gallons, then you must show that you have \$1 million of "per occurrence" coverage. If the facility has a monthly throughput of 10,000 gallons or less, then you must show that you \$500,000 of "per occurrence" coverage and \$1 million or \$2 million of annual aggregate coverage depending on the number of tanks you own or operate, as discussed above.

For example, if you are an automobile dealer with four small tanks with a total monthly throughput of 10,000 gallons, then you would only need to have financial responsibility in the amount of \$500,000 per occurrence and \$1 million annual aggregate. If you have 30 dealerships with a total of 110 tanks, you would need to have financial responsibility in the amount of \$500,000 per occurrence, but you would need \$2 million annual aggregate.

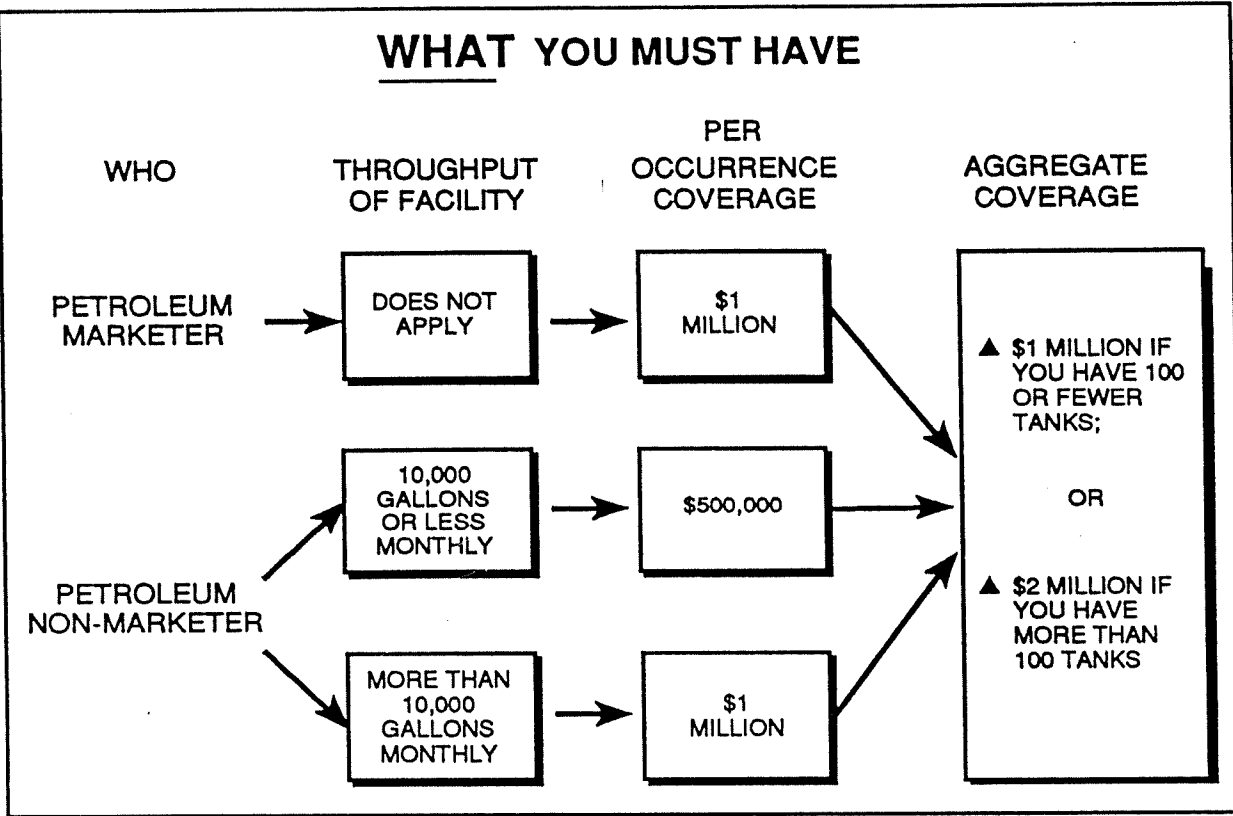
The chart on page 5 displays these financial responsibility requirements.



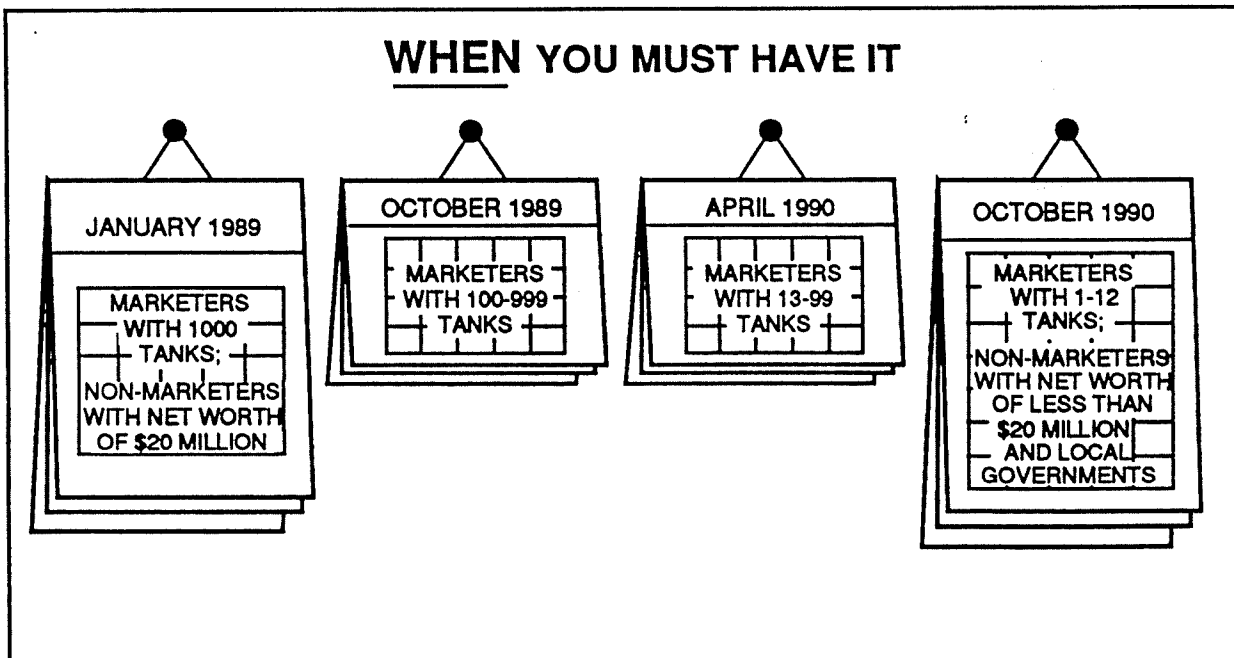
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# IMPORTANT REQUIREMENTS AND MINIMUM DEADLINES FOR YOUR FINANCIAL RESPONSIBILITY

## WHAT YOU MUST HAVE



## WHEN YOU MUST HAVE IT



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# HOW DO YOU COMPLY WITH THE FINANCIAL RESPONSIBILITY REQUIREMENTS?

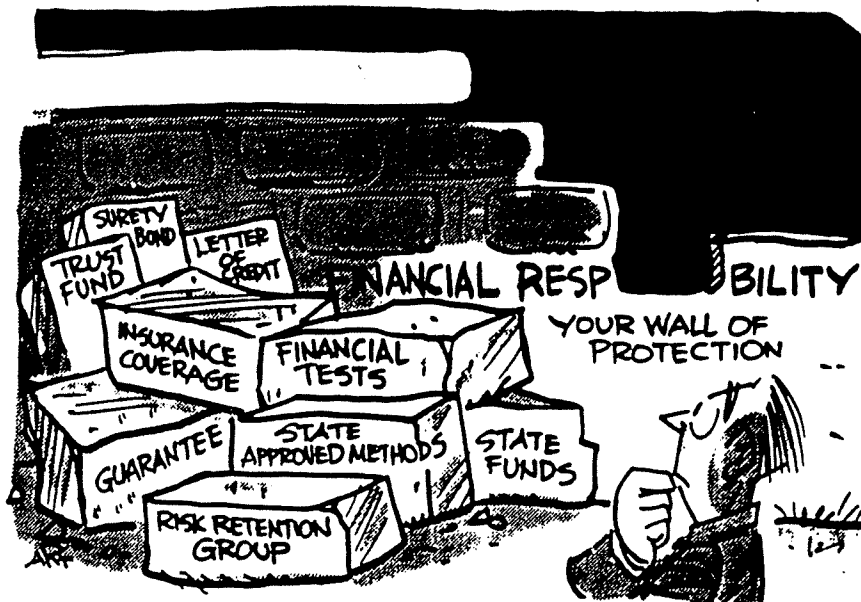
## How Can You Show Financial Responsibility For Your USTs?

You can demonstrate financial responsibility for your USTs in several ways:

- ◆ Show that your firm can meet the costs of potential releases. If your firm has a tangible net worth of at least \$10 million, you can prove your financial responsibility by passing one of these two financial tests described on page 15.
- ◆ Show that someone else is responsible for cleanup and damage costs. You may arrange to have someone else be responsible for paying the costs of leaks from your USTs. This may be done in a number of ways (all are described in detail in the rule):
  1. Obtain insurance coverage from an insurer or a risk retention group (page 8); or
  2. Obtain a guarantee for the amount you are responsible for from a corporate parent, grandparent, sibling, or from another firm with whom you have a substantial business relationship. The provider of the guarantee has to pass

one of the financial tests described on page 15; or

3. Obtain a surety bond for the amount you are responsible for; or
  4. Obtain a letter of credit for the amount you are responsible for.
- ◆ Use State funds. If your State has established a State fund that will pay for the cleanup costs of a leak from your tank systems, then you may not need additional coverage to show you can pay for the same costs (page 7). You need to check to see if the State fund covers your tanks. You may also still need to show financial responsibility for the costs of compensating those injured by leaks, unless the State fund would also pay for those costs.
  - ◆ Use State approved methods. You may also use any method of coverage approved by your State.
  - ◆ Set up a trust fund. You may set up a fully-funded trust fund to cover your financial responsibility requirement.



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## **Can You Use A Combination Of Methods To Show Financial Responsibility?**

You may also use a combination of methods to show financial responsibility. The methods you choose must cover all the costs that you are responsible for (both third-party liability and corrective action) and add up to the amount of coverage you are required to show. If the methods you choose cover different costs (for example, the insurance policy covers damages to other people and property and the guarantee covers cleanup costs), then each method must provide the total amount of responsibility that you must demonstrate.

## **What About State Funds?**

Some States have established programs to pay for cleanup costs from petroleum leaks. These State funds often may be used by owners and operators of USTs to demonstrate financial responsibility. In most States, however, funds will pay only part of cleanup costs. In addition, few States will pay for third-party damages caused by petroleum leaks.

You should contact your State environmental agency to determine if the State has a fund that you may use to show financial responsibility. Find out what the State will pay for and what amount of financial responsibility you must obtain. In several States, for example, you must demonstrate financial responsibility for the first \$100,000 of cleanup costs before the State will demonstrate financial responsibility for the remaining costs. Most State funds will not pay more than \$1 million per occurrence.

If you don't know how to reach your State Coordinator, call EPA's Hotline for the phone number of your State Coordinator (1-800-424-9346)

## **What Happens If Your Coverage Is Cancelled?**

If your method of financial responsibility is cancelled, you must find another mechanism to replace it within 60 days after you receive the notice of cancellation. If you cannot get another mechanism in that time, then you must notify the implementing Agency or the State.

Your coverage or insurance contract must specify that the provider of coverage or insurance may only cancel your coverage by sending you a notice by certified mail. For guarantees, surety bonds, or letters of credit, cancellation can only occur 120 days after you receive the notice. Insurance policy coverage can be cancelled 60 days after you receive the notice.

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## Can You Get Private Insurance Coverage For Your USTs?

Private insurance coverage for USTs is still limited, but there are several major insurers who offer policies. Insurers are often selective in the tanks they will cover. If you want to purchase insurance, you may be required to meet certain conditions for coverage. For example, your insurer may ask you to test your tank for tightness, or he may require certain improvements in your tank system, such as liners, cathodic corrosion protection, and leak detection. Some insurers simply will not provide coverage for certain types of tanks, like tanks that are more than 20 years old.

You may also be able to get insurance coverage through a risk retention group. A risk retention group is an insurance company formed by businesses or individuals with similar risks to provide insurance coverage for those risks. To join a risk retention group, you will probably be asked to make a one-time payment -- called a capital contribution -- and thereafter pay annual premiums as with any other insurance policy.

If you are interested in purchasing insurance through either a private insurer or a risk retention group to show financial responsibility for your USTs, you should contact your insurance agent. You may want to take with you the sample Endorsement or Certificate of Insurance that appear on pages 11 and 12. These documents are examples of policies that meet EPA financial responsibility requirements. If you belong to a trade association, it may also be able to provide you with information about insurers and risk retention groups that cover USTs.



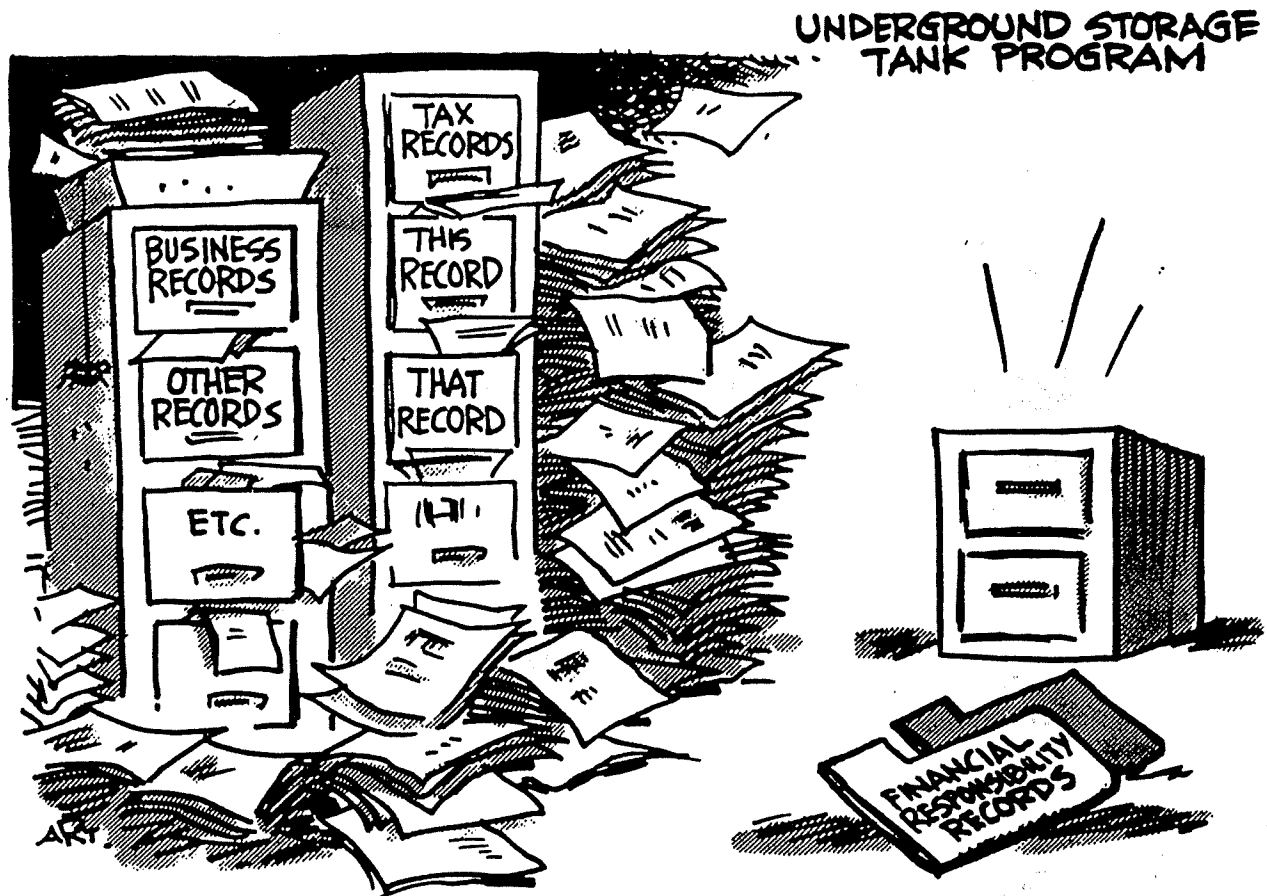
# WHAT RECORDS MUST YOU KEEP OR FILE WITH THE IMPLEMENTING AGENCY?

You must keep records of the type of coverage you have at your tank site or your place of business. In addition, you must maintain a certification of financial responsibility (see page 10). You must keep both of these records until your tanks are properly closed.

You only need to report and/or file copies of these records with EPA in the following cases:

- ◆ You install a new tank system.
- ◆ You have confirmed that a tank system is leaking.

- ◆ You receive notice that a method of coverage you have will be cancelled or will not provide sufficient coverage, and you are unable to get other coverage.
- ◆ EPA or a State agency requests your records.



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# SAMPLES OF FINANCIAL RESPONSIBILITY FORMS

## CERTIFICATION OF FINANCIAL RESPONSIBILITY

[Owner or operator] hereby certifies that it is in compliance with the requirements of Subpart H of 40 CFR Part 280.

The financial assurance mechanism[s] used to demonstrate financial responsibility under Subpart H of 40 CFR Part 280 is [are] as follows:

[For each mechanism, list the type of mechanism, name of issuer, mechanism number (if applicable), amount of coverage, effective period of coverage and whether the mechanism covers "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "non-sudden accidental releases" or "accidental releases."]

[Signature of owner or operator]

[Name of owner or operator]

[Title]

[Date]

[Signature of witness or notary]

[Name of witness or notary]

[Date]

The owner or operator must update this certification whenever the financial insurance mechanism(s) used to demonstrate financial responsibility change(s).

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ENDORSEMENT

Name: [name of each covered location]

Address: [address of each covered location]

Policy Number: \_\_\_\_\_

Period of Coverage: [current policy period]

Name of [Insurer or Risk Retention Group]: \_\_\_\_\_

Address of [Insurer or Risk Retention Group]: \_\_\_\_\_

Name of Insured: \_\_\_\_\_

Address of Insured: \_\_\_\_\_

Endorsement:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering the following underground storage tanks:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(les) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by either "sudden accidental releases" or "unsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this

endorsement is attached.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"] will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received.

[Insert for claims-made policies:

e. The insurance covers claims for any occurrence that commenced during the term of the policy that is discovered and reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or termination of the policy].

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(1) and that the ["Insurer" or "Group"] is ["licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states".]

[Signature of authorized representative of Insurer or Risk Retention Group]

[Name of person signing]

[Title of person signing], Authorized

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CERTIFICATE OF INSURANCE

Name: \_\_\_\_\_ [name of each covered location]

Address: \_\_\_\_\_ [address of each covered location]

Policy Number: \_\_\_\_\_

Endorsement (if applicable): \_\_\_\_\_

Period of Coverage: \_\_\_\_\_ [current policy period]

Name of [Insurer or Risk Retention Group]: \_\_\_\_\_

Address of [Insurer or Risk Retention Group]: \_\_\_\_\_

Name of Insured: \_\_\_\_\_

Address of Insured: \_\_\_\_\_

Certification:

1. [Name of Insurer or Risk Retention Group], [the "Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance covering the following underground storage tanks(s):

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

for [insert: "taking corrective action" and/or "compensating third parties for bodily injury and property damage caused by" either "sudden accidental releases" or "nonsudden accidental releases" or "accidental releases"; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tank(s) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability; if the amount of coverage is different for different types of coverage or for different underground storage tanks or locations, indicate the amount of coverage for each type of coverage and/or for each underground storage tank or location], exclusive of legal defense costs. This coverage is provided under [policy number]. The effective date of said policy is [date].

2. The ["Insurer" or "Group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the ["Insurer" or "Group"] of its obligations under the policy to which this certificate applies.

b. The ["Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of corrective action of a damaged third-party, with a right of reimbursement by the Insured for any such payment made by the ["Insurer" or "Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms as specified in 40 CFR 280.95-280.102.

c. Whenever requested by [a Director of an implementing agency], the ["Insurer" or "Group"] agrees to furnish to [the Director] a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the ["Insurer" or "Group"] will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the insured.

[Insert for claims-made policies:

e. The insurance covers claims for any occurrence that commenced during the term of the policy that is discovered and reported to the ["Insurer" or "Group"] within six months of the effective date of the cancellation or other termination of the policy].

I hereby certify that the wording of this instrument is identical to the wording in 40 CFR 280.97(b)(2) and that the ["Insurer" or "Group"] is [licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in one or more states".]

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

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