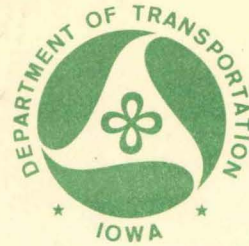
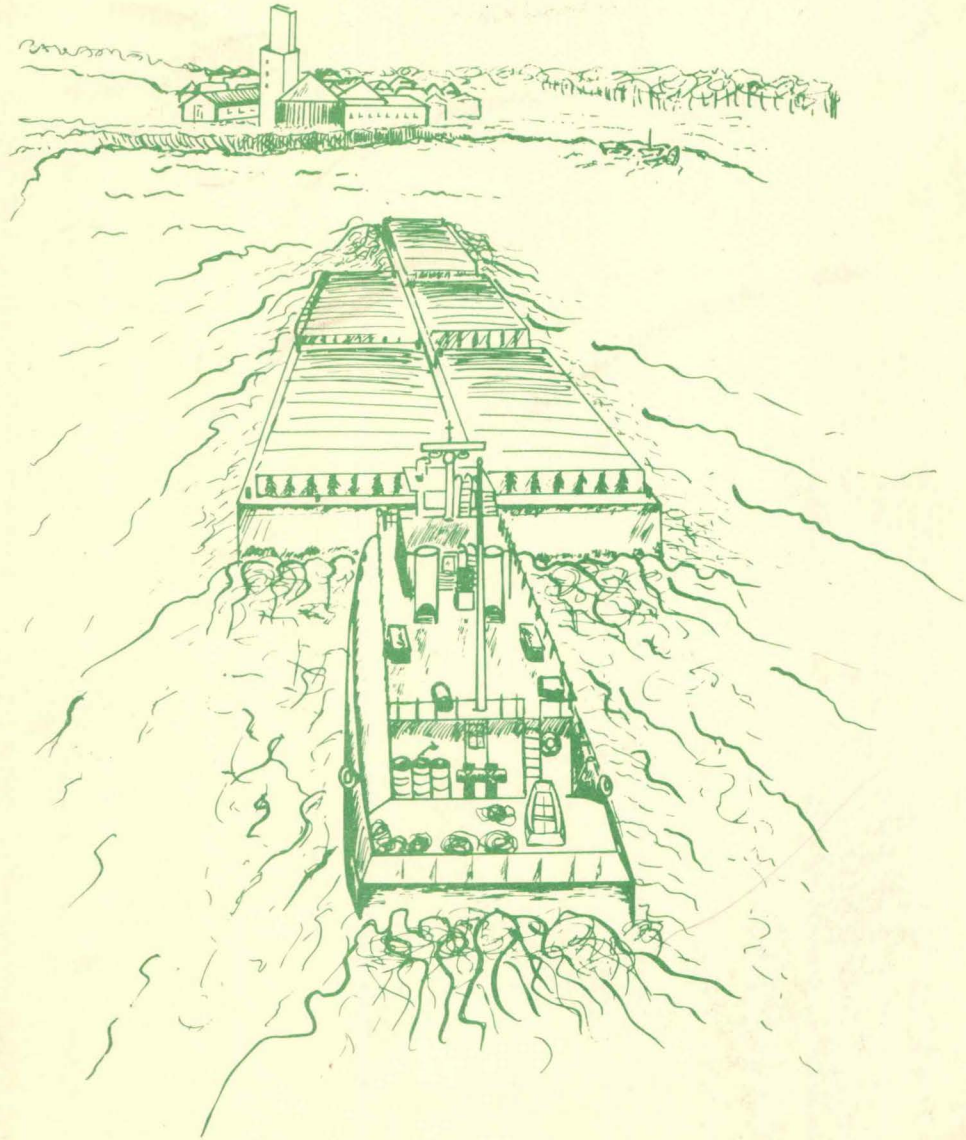


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# 1978 Iowa Barge Terminal Study



## FREQUENTLY CALLED NUMBERS

### State Government

#### Iowa Department of Transportation

River Transportation Division (515) 281-4292  
Railroad Division (515) 296-1367  
Transportation Regulation Board (515) 281-3631

Natural Resources Council (515) 281-5913

Conservation Commission (515) 281-5145

Department of Environmental Quality (515) 281-8690

### Federal Government

Federal Spill Report (U.S.C.G.) (800) 424-8802

#### U.S. Army Corps of Engineers - Operations Division

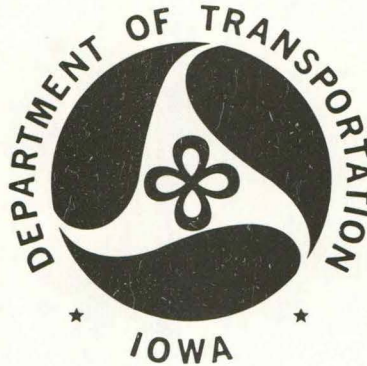
Kansas City District (816) 374-3644  
Omaha District (402) 221-4135  
Rock Island District (309) 788-6361 (Ext. 275)  
Rock Island District -  
River Condition Report (309) 788-4750  
St. Louis District (314) 263-5517  
St. Louis District -  
River Condition Report (314) 263-5852  
St. Paul District (612) 725-7561  
St. Paul District -  
River Condition Report (612) 222-3623

#### U.S. Coast Guard

Dubuque (Depot) (319) 582-1965  
Keokuk (319) 524-7511  
St. Louis (Marine Safety) (314) 425-4657  
St. Paul (Marine Safety) (612) 725-7452

# IOWA BARGE TERMINAL STUDY GENERAL SUMMARY

REVISED OCTOBER, 1978



Prepared by

River Transportation Division  
Iowa Department of Transportation  
5268 N.W. Second Ave.  
Des Moines, Iowa 50313

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## Introduction

Iowa is bordered by two navigable waterways--the Mississippi River on the east and the Missouri River on the west. The U.S. Army Corps of Engineers operates and maintains the locks, dams, levees and wing dams to control the navigation channels. In 1977 there were 76 commercial terminals and seven fleetling and harbor services along both shores of Iowa's rivers. They handle about 11 million tons of barge freight each year.

Although they vary from terminal to terminal, barge-related operations include at least one of the following: loading, unloading, cleaning, repairing and mooring for storage. In conjunction with these operations, barge freight is stored, manufactured, consumed or transferred to and from other transportation systems.

Although barge service takes more shipping time than other transportation modes, its rates are economical and that factor increases the purchasing and marketing powers of Midwestern commercial concerns. Due to the economical rates: farmers purchase less expensive fertilizer and compete in a larger grain export market; utility companies charge less for coal-produced electricity; petroleum companies provide gasoline and fuel oil at lower prices; and other companies which require transportation of bulk quantities can pass savings on to the consumers. The Iowa Department of Transportation River Division has estimated that if Iowa's Mississippi River waterborne commerce was handled by other modes, Iowa's freight bill would increase \$72 million per year.

Trucks, railroads or pipelines transport freight to and from these barge terminals. Some terminals dispatch 150 to 200 trucks per day and others ship out as many as 750 rail cars per month.

To better understand freight movement through barge terminals, the Iowa DOT conducted a survey at each commercial dock location in Iowa during 1974, 1975 and 1977 and summarized this information into a report, "Iowa Barge Terminal Study." This report summarizes Iowa's 1977 barge terminal activities.

## The Survey

The Iowa DOT surveyed Iowa's barge terminals in January 1978 and collected limited data concerning freight movements for the 1977 calendar year. The most important data collected were volume of each commodity shipped, volume produced or consumed by the terminal, origin and destination of freight handled by the terminal, and the mode used to transport freight to and from the waterfront.

## Sample Barge Shipping Rates

The Waterway Freight Bureau Tariff determines rate guidelines for barge shipping costs, but rates fluctuate with the discounts or premiums applied by the barge lines. The following table gives sample 1978 barge shipping costs per ton for various commodities. The rates were provided to the Iowa DOT by barge terminal operators willing to participate in the survey.

### Mississippi River Rates (1978)

Commodity	Origin & Destination	Barge Size	Rate/Ton	
Alcohol	Muscatine, Iowa to Owensburgh, Ky.	1,400 Tons	\$ 4.29	
Caustic Soda	New Orleans, La. to Clinton, Iowa	900 & 1,200 Tons	10.00	
Cement	Hannibal, Mo., to Bettendorf, Iowa	2,000 Tons	2.60	
Coal	St. Louis, Mo., to Muscatine, Iowa	1,400 to 1,500 Tons	2.50	
	S.W. Illinois to Clinton or Muscatine, Iowa	1,400 to 1,500 Tons	2.65	
	Minneapolis, Minn., to Clinton, Iowa	1,400 to 1,500 Tons	2.43	
Fertilizer	New Orleans, La., to Burlington, Iowa	1,500 Tons	(Low) 2.90	(High) 4.50
Grain	Davenport, Iowa to New Orleans, La.	1,400 to 1,500 Tons	7.71	
	New Orleans, La. to Keokuk, Iowa	1,400 to 1,500 Tons	4.25	
Molasses	New Orleans, La., to Buffalo, Iowa	1,400 Tons	7.00	
Petroleum	St. Louis, Mo., to Davenport, Iowa	3,300 Tons	4.00	
Phosphate Rock	Florida to Ft. Madison, Iowa	1,500 Tons	7.50	
Salt	New Orleans, La., to Buffalo, Iowa	1,450 Tons	4.75	
Twine	New Orleans, La., to Dubuque, Iowa	700 to 800 Tons	\$ 9.22	(700 ton Minimum)

### Missouri River Rates (1978)

Commodity	Origin & Destination	Barge Size	Rate/Ton	
Grain	Sioux City, Iowa to Gulf of Mexico	1,200 Tons	(Low) \$10.70	(High) 15.00
Petroleum	Kansas City, Mo., to Sioux City, Iowa	1,000 Tons	13.00	

## Iowa Barge Terminals

Commercial barge terminals have been established along Iowa's two navigable border rivers to take advantage of the lower costs per ton-mile (One "ton-mile" is one ton moved one mile) of transporting large quantities of bulky, heavy cargo over long distances by barge as compared with other modes. The following sections review various aspects affecting the activity of Iowa's barge terminals.

### U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers is responsible for construction, operations and maintenance of waterway facilities for navigation, flood control and related purposes. Applications to construct barge terminals in Iowa must be approved by officials of one of the three Corps of Engineers districts which have jurisdiction along Iowa's river borders. On the Mississippi River the Rock Island District extends from Lock and Dam 22 near Hannibal, Mo., to Lock and Dam 10 near Guttenberg, Iowa. The St. Paul District extends from Lock and Dam 10 north to the Minneapolis-St. Paul area in Minnesota. On the Missouri River the Omaha District extends from Rulo, Neb., north to Sioux City, Iowa.

### Terminal Locations

Seventy-six barge terminals operated during 1977 on Iowa's shorelines along the Mississippi (66 terminals) and the Missouri (10 terminals). Maps, terminal descriptions, and aerial photographs of Iowa's barge terminals and fleet and harbor services operating or nearing operation in 1977 are shown, beginning on page B-1.

Although the terminals are scattered along both rivers, there are concentrations near Burlington, Muscatine, Davenport, Bettendorf, Clinton, Dubuque and Keokuk on the Mississippi, and near Sioux City on the Missouri.

### Characteristics of Waterway Services

Waterway service depends on the navigation season, adequate water depth in the river channels and docking areas, the types of barge and tow service available, and shipping time.

The Missouri River navigation season along Iowa's border is limited by winter ice conditions and normally extends from late March to late November. Adequate water for navigation on the Missouri is maintained by water releases from six reservoirs in Montana, North and South Dakota, and Nebraska.

Ice limits the Mississippi River navigation season to March through December, near Iowa's northeast corner, while warmer winter temperatures further south usually permit year-round shipping for terminals located as far north as Keokuk. Between St. Louis, Mo., and St. Paul, Minn., 29 dams with locks maintain the nine-foot Mississippi navigation channel. Eleven of these dams operate along the 312-mile eastern border of Iowa.

Because of occasional low water periods and silt deposits, the weight of a barge shipment is sometimes reduced to as little as 75% of capacity so the barges float higher in the water and clear underwater obstructions. To provide a minimum 9-foot draft, sections of the river channel and some docking harbors must be dredged.

At normal water levels, three or four barges can be tied to most docks for handling shipments while others may be moored within a short distance of the main docks. Some terminals are able to dock and moor 30 or more barges at one time.

The majority of the barges are 195 feet long and 35 feet wide, have an average load capacity of 1,450 tons, a draft of 9 feet when loaded, and cost approximately \$140,000. Barge loads range from 250 to 3,300 tons depending upon barge size and cargo type. A single towboat can push up to 15 barges (195 feet by 35 feet each) carrying a total cargo weight of 22,500 tons on the Upper Mississippi (north of the Ohio River). On the Lower Mississippi a towboat can handle 30 or more barges. On the Missouri River an average tow is two barges from Sioux City to Council Bluffs, four barges from Council Bluffs to Kansas City, and six barges from Kansas City to the mouth of the Missouri River.

Barges may be washed and cleaned on the inside so a barge is not restricted to one commodity. For example, barges which transport grain downstream may carry coal, phosphate rock, or cement upstream. Also, some barges are separated into a number of compartments and can carry more than one commodity.

Most of the terminals in Iowa do not own barges or towboats therefore, they lease them from large companies which are usually located south of Iowa. A few large Midwest companies own terminals all along the rivers and have purchased barges and tows for use by their own terminals.

Barge commodities originating or terminating in Iowa travel to and from points all along the inland waterways system. Normally shipments from Florida and overseas arrive at New Orleans on ocean ships and must be transferred to smaller barges for shipment on inland rivers. LASH barges (400-ton capacity) and SEABEE barges (800-ton capacity) can be transferred directly to and from ocean ships. This avoids the time for transferring shipments between ships and barges because the LASH and SEABEE barges serve as containers on the ocean ships and barges on the river. Because large numbers of these small barges must be moved to offset the cost of using special ocean ships and handling facilities, very few are received in Iowa.

Page B-51 ("Mississippi River and Tributaries, Inland Waterways System") shows Iowa's position relative to the entire inland waterways system. The distances of key points on the rivers, from south to north, from the junction of the Mississippi and Ohio Rivers are:

<b>Mississippi River</b>	<b>Miles</b>
New Orleans, La. ....	859
Junction of Mississippi and Ohio rivers .....	0
St. Louis, Mo. ....	180
Mouth of Missouri River .....	223
Keokuk, Iowa (near southern border of Iowa) .....	362
Davenport, Iowa .....	483
Dubuque, Iowa .....	579
Northern border of Iowa on Mississippi River .....	674
St. Paul, Minn. ....	839
<b>Missouri River</b>	<b>Miles</b>
Southern border of Iowa on Missouri River .....	748
Council Bluffs, Iowa .....	811
Sioux City, Iowa .....	927

The following examples indicate typical times for one-way barge trips:

Davenport to New Orleans .....	1,342 miles, two weeks.
Sioux City to New Orleans .....	1,786 miles, two to three weeks.
Dubuque to St. Paul .....	260 miles, two to three days.

The travel rate is roughly 150 miles per day, less time for going through locks and arranging tows, and is subject to river and weather conditions.

### **Access to Supporting Transportation Services**

Other transportation modes often support barge transportation service in Iowa barge terminals to meet normal daily needs, to offset recurring service and cost limitations inherent in the use of each mode, and to take advantage of special service and reduced rate offerings. There are trade-offs among such factors as commodity market price, seasonal variations in shipping rates, quantity discounts, speed and distance of delivery, loss and damage of shipments, availability of transportation vehicles, and availability and cost of storage which must be considered in selecting the optimum balance of modes necessary to provide maximum service and at the minimum cost.



Commodities transported by barge are distributed to and from the barge terminals by various combinations of truck and rail. Forty-two of Iowa's 76 terminals have rail sidings, but some of those rail sidings are not used. Most of the terminals rely heavily on trucks for the transportation of barge commodities. The majority of trucks are dispersed to locations within a 150-mile radius of the barge terminals, while the shipment of commodities by rail may extend to many areas in the Midwest.

One barge terminal uses 20-car mini-trains to transport products to the terminal for shipment by barge. Twenty empty hopper cars are distributed to locations along a rail line up to 250 miles from the terminal. The hopper cars are loaded and returned to the barge terminal. This two-day operation is completed three times weekly, and moves 60 hopper cars of commodities per week.

The railroad cars commonly used are: 25 and 80-ton tank cars for liquids; hopper cars ranging from 50 tons to 100 tons for grain and other dry commodities; and 70-ton gondolas, 50-ton boxcars and 50-ton flatcars for miscellaneous commodities.

Because a considerable number of trucks transport commodities to and from Iowa barge terminals daily, highway access to the terminals is very important. Many Iowa barge terminals are located within the large metropolitan areas and have reasonably good access via local city streets. Rail lines parallel the Mississippi and Missouri Rivers in many of these metropolitan areas, so one problem common to many of the metropolitan barge terminals is the existence of a rough rail crossing on the access drive to the terminal.

Eighteen of Iowa's barge terminals are located along the Mississippi River in rather isolated rural areas. Access to these rural terminals is via gravel roads. Storage and handling facilities at the terminals are usually located on the river bank. Consequently, quite severe hills and curves exist on the gravel roads leading to the terminals. For example, access to one terminal is described as "A steep winding gravel road which is cut into a hill and bears a sign warning of falling rocks." Similar descriptions apply to several other rural terminals.

A few of the barge terminals receive petroleum products by pipeline in addition to barge shipments. One terminal now depends exclusively on pipelines for petroleum, but still retains the capability of receiving barge shipments of petroleum.

### **Storage Facilities**

Storage facilities for about 5.5 million tons of commodities at Iowa barge terminals include open storage, warehouses, elevators, silos, tanks, and bins. Open storage accounts for 61% of the total space available and the majority of open storage is for coal at electric power plants. Iowa terminals also have 293½ acres of open storage.

Storage space is used not only for barge commodities, but also for commodities produced or used at the terminal and for temporary storage of commodities moved through the terminal by rail, truck and pipeline.

### **Handling Facilities**

Commodities carried by barge are transferred by a variety of handling facilities to and from trucks, railroad cars and storage facilities.

Handling systems vary according to the type of commodity. Liquids and cement are pumped through pipes; grain is moved by augers, conveyor belts and overhead chutes; and bulk commodities are handled by cranes and conveyor belts.

A 1,400-ton grain barge can be loaded by a conveyor system in four to 12 hours. Using the pumps provided on barges, petroleum products can be drained from a 1,400-ton barge in about eight hours. Molasses must be steam-heated sometimes for eight hours and then pumped from the barge in 12 hours. Cranes remove commodities such as coal and salt from barges at an average rate of 150 to 200 tons per hour.

Truck hoists can unload a 24-ton truckload of grain in three minutes into a receiving pit. Twenty-four tons of petroleum can be moved by pipes from a storage tank to a truck in 15 minutes. Sand from an overhead bin can be poured into a 15-ton truck in 45 seconds. Weighing time for a truck is usually about 10 seconds unless there is some distance between loading and weighing areas. At the peak of the grain-moving season, long lines of trucks often wait for weighing and unloading.

### **Ownership and Operation**

Iowa barge terminals are owned by small transportation companies, riverfront industries, Midwest co-ops, grain companies and petroleum companies. Some storage and dock facilities are even owned by cities (e.g., Clinton and Dubuque) on the Mississippi River. Terminal owners may handle only their own commodities; contract to manage shipping and receiving for other companies, lease the facilities and the management of operations to other companies; or combine any of these methods.

Barge commodities are transported to and from inland locations, produced at the terminal, or consumed in the production of electricity, fertilizer, cement and other products.

Because of on-site manufacturing and the flexibility of the facilities to coordinate the commodity transfer among transportation systems, not all transfers involve barge transportation.

### **Expansion Plans**

Land for expanding barge terminals is available in most areas. Many terminals plan to expand along the river bank, add new rail sidings, increase the capacity of existing rail sidings, increase storage space, and add new handling facilities. The Iowa DOT expects significant increases in both volume and variety of commodities handled through Iowa river terminals. Also, several new terminals are planned in Iowa.

## **Barge Commodities**

During 1977 Iowa barge terminals handled 11,079,873 tons--95% at the Mississippi River terminals and 5% at the Missouri River terminals. Commodities handled were: grain and grain products, 46%; coal, 20%; petroleum, 9%; and other commodities, 25%. Table 1 summarizes the commodity, volume of barge freight, and the mode--truck or rail, used for freight dispersion and consolidation. Table 2 compares 1974, 1975, and 1977 barge commodity tonnages originating or terminating in Iowa.

### **Grain and Grain Products**

About 79% of the grain is usually trucked to the terminals from areas within a 100-mile radius of the terminal, loaded on barges, and transported down river to harbors on the Gulf of Mexico.

The 5,147,815 tons of grain and grain products include corn, soybeans, soybean meal, wheat and miscellaneous (feed gluten pellets and corn screenings).

**Table 1**  
**1977 SUMMARY OF BARGE COMMODITY**  
**VOLUME AND DISTRIBUTION**

Commodity	Volume		Distribution % To & From The River		
	Tons	% Of River Movement	Transported By Truck	Transported By Rail	Produced Or Consumed At Terminal

**MISSISSIPPI RIVER**

Grain	4,837,933	46	80.8	19.1	.1
Coal	2,169,063	21	11.2	.1	88.7
Petroleum	1,017,835	10	92.2	2.3	5.5
Other	2,447,966	23	64.2	7.9	27.9
<b>Total</b>	<b>10,472,797</b>	<b>100</b>	<b>63.6</b>	<b>10.9</b>	<b>25.5</b>

**MISSOURI RIVER**

Grain	309,882	51	63.9	6.9	29.2
Coal	0	0	0	0	0
Petroleum	0	0	0	0	0
Other	297,194	49	80.3	3.9	15.8
<b>Total</b>	<b>607,076</b>	<b>100</b>	<b>71.9</b>	<b>5.5</b>	<b>22.6</b>

**TOTALS**

Grain	5,147,815	46	79.8	18.4	1.8
Coal	2,169,063	20	11.2	.1	88.7
Petroleum	1,017,835	9	92.2	2.3	5.5
Other	2,745,160	25	65.8	7.5	26.7
<b>Total</b>	<b>11,079,873</b>	<b>100</b>	<b>64.1</b>	<b>10.6</b>	<b>25.3</b>

**Table 2**  
**SUMMARY OF BARGE TONNAGE TOTALS - 1974, 1975, & 1977**  
(Data for 1976 was not collected)

Year	Commodities (Tons)				Shipped Out (Tons)	Received (Tons)	Total (Tons)
	Grain	Coal	Petroleum	Other			

**MISSISSIPPI RIVER**

1974	4,214,900	1,113,900	1,146,000	2,550,800	4,446,200	4,579,400	9,025,600
1975	4,135,500	1,225,000	1,076,400	2,116,500	4,287,100	4,266,300	8,553,400
1977	4,837,933	2,169,063	1,017,835	2,447,966	5,266,695	5,206,102	10,472,797
± % Change*	16.9	77.1	- 5.8	15.7	22.8	22.0	22.4

**MISSOURI RIVER**

1974	207,800	0	8,000	172,300	226,100	162,000	388,100
1975	78,400	0	0	228,200	104,400	202,200	306,600
1977	309,882	0	0	297,194	389,695	217,381	607,076
± % Change*	295.3	0	0	30.2	273.3	7.5	98.0

**TOTALS**

1974	4,422,700	1,113,900	1,154,000	2,723,100	4,672,300	4,741,400	9,413,700
1975	4,213,900	1,225,000	1,076,400	2,344,700	4,391,500	4,468,500	8,860,000
1977	5,147,815	2,169,063	1,017,835	2,745,160	5,656,390	5,423,483	11,079,873
± % Change*	22.2	77.1	- 5.8	17.1	28.8	21.4	25.1

\* Change from 1975 to 1977.

## **Coal**

In 1975 about 80% of the coal came up the river from southern Illinois and Kentucky. Most of the other 20% was Wyoming and Montana coal, which was transported by rail to Minneapolis, Minn., transferred to barges, and shipped down river. Some Wyoming and Montana coal was also shipped by rail to St. Louis and then up the river by barge to Iowa.

Eighty-three percent of the coal is received by five power plants near the river and consumed in the production of electrical energy; 5% is consumed during a manufacturing process at another terminal; and 12% is trucked inland to Iowa industries.

All 2,169,063 tons of coal are transported by barge to 12 terminals along the Mississippi River.

## **Petroleum**

Fourteen barge terminals have facilities for handling and storing petroleum products. Two of these terminals consumed all their petroleum in manufacturing and one terminal in 1977 received petroleum by pipeline only. Of the 14 terminals, 10 received petroleum as their only barge commodity.

Most of the petroleum terminals are in the metropolitan areas of Bettendorf and Dubuque, Iowa. Barges transport petroleum up the river from refineries in St. Louis, Mo.; Wood River, Ill.; Joliet, Ill.; and Mt. Vernon, Ind. Also, some petroleum comes down the river from Pine Bend, Minn.

All of the 1,017,835 tons of petroleum shipped to the 14 terminals on the Mississippi River was transported by barge. Table 2 shows 8,000 tons of petroleum were shipped by barge to terminals on the Missouri River in 1974. However, those terminals involved received the petroleum by rail in 1975.

## **Other Commodities**

Included in the 2,745,160 tons of "other" commodities moved by barge are: phosphate rock (processed into fertilizer) and other fertilizer products, 43%; industrial salt and road salt, 7%; sand, gravel, and rock, 27%; and more than 30 other commodities, 23%.

Table 1 (1977) shows that on the Mississippi River these commodities were distributed by: truck, 64%; and rail, 8%. The remaining 28% was produced or consumed at the terminal. On the Missouri River all "other" commodities were shipped out by: truck, 80%; and rail, 4%. The remaining 16% was produced or consumed at the terminal.

## Freight Distribution in Iowa

Barge freight tonnage originates from (51%) and terminates at (49%) Iowa commercial terminals.

Iowa barge terminals handled 11,079,873 tons of barge freight in 1977. A total of 8,275,813 tons were shipped to and from the terminals by truck and rail, while the remaining 2,804,060 tons were produced or consumed at the terminals.

Figure 1 shows the estimated number of one-way truck trips for all commodities between Iowa counties and barge terminals during a normal weekday's operation in 1974. Truck flow in the eastern two-thirds of Iowa is associated with Mississippi River terminals; in the western quarter of Iowa the truck flow is associated with Missouri River terminals.

The 1975 estimated distribution of freight transported between Iowa counties and barge terminals is shown (in thousands of tons) for trucks in Figure 2 and for rail in Figure 3. The truck distribution for 1975 is based on estimated 1974 truck trip dispersions for each commodity group during a normal weekday's operation. Of the 5.9 million tons of barge freight moved by trucks, 4.3 million tons were moved within Iowa. Rail distribution for 1975 is based on sample periods of normal operation during the 1975 navigation season. Figure 3 shows the overlap in western Iowa of rail service attributable to terminals on both rivers. Of the 1.1 million tons moved by rail, over 900,000 tons were shipped within Iowa.

Figure 4 shows the 1975 estimated distribution of Iowa barge tonnage (in thousands of tons) transported by the combination of trucks (Figure 2) and rail (Figure 3) between Iowa counties and barge terminals.

**FIGURE 1**  
**ONE -WAY TRUCK TRIPS BETWEEN IOWA COUNTIES**  
**AND BARGE TERMINALS ON THE MISSOURI AND MISSISSIPPI RIVERS**  
**DURING A NORMAL WEEKDAY'S OPERATION IN 1974**

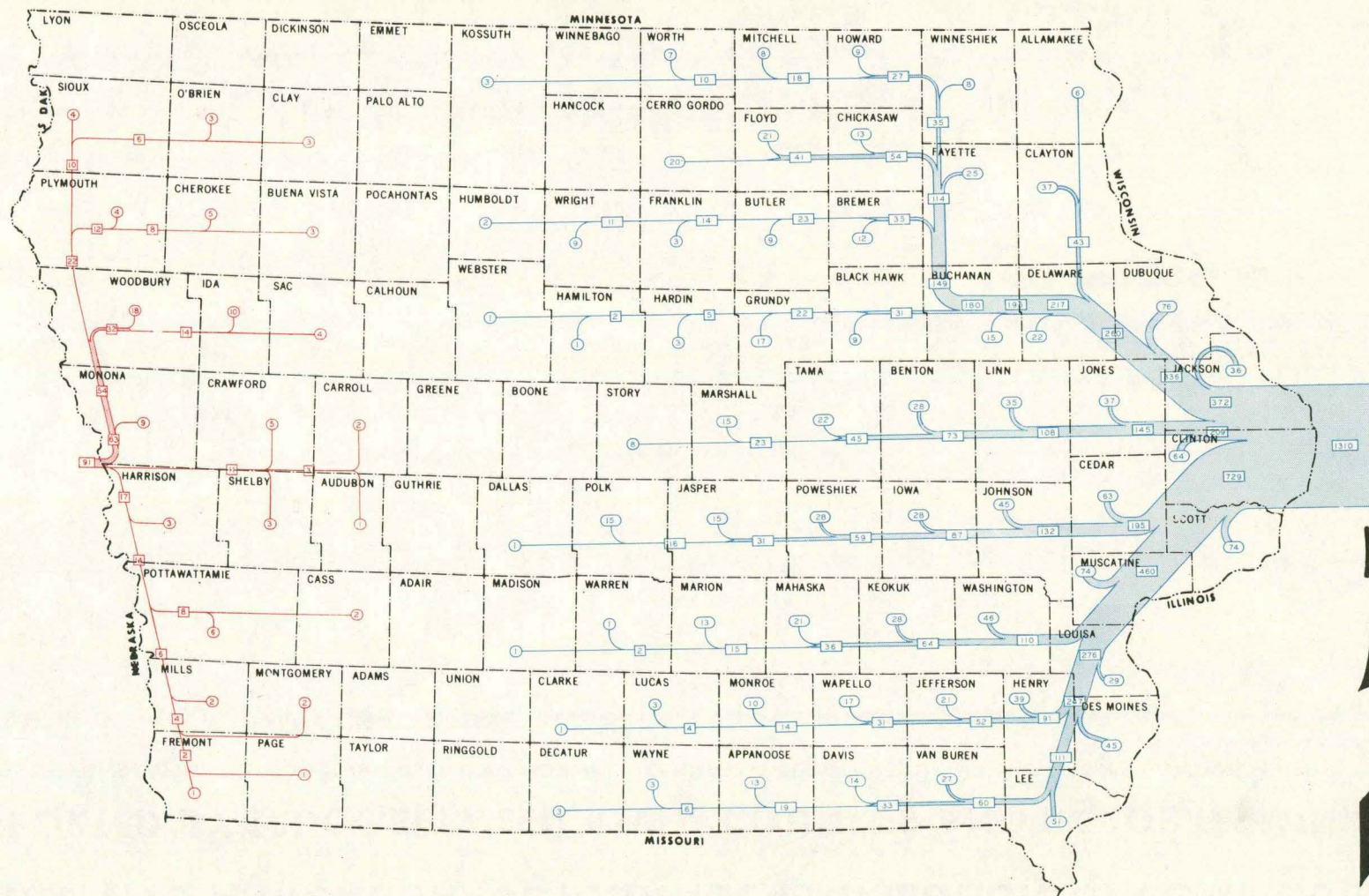
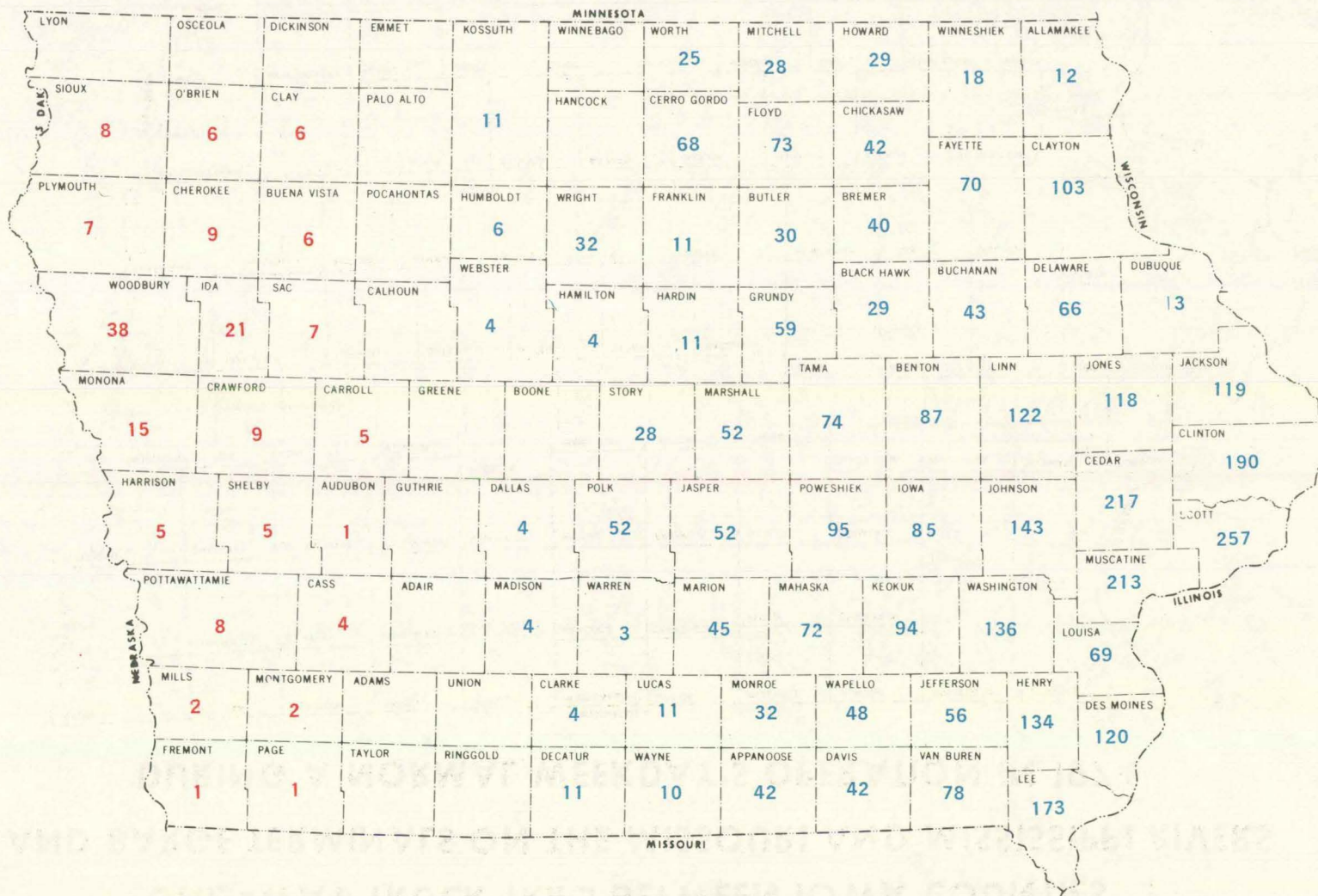


FIGURE 2

ESTIMATED 1975 ANNUAL BARGE TONNAGE DISTRIBUTION OF COMMODITIES  
 TRANSPORTED BY TRUCK BETWEEN IOWA COUNTIES AND BARGE TERMINALS

(THOUSANDS OF TONS ESTIMATED FOR 1975, BASED ON A NORMAL WEEKDAY'S OPERATION DURING THE 1974 NAVIGATION SEASON)



TO AND FROM MISSOURI RIVER BARGE TERMINALS

TO AND FROM MISSISSIPPI RIVER BARGE TERMINALS

IOWA-TRUCK 166  
 OUTSIDE IOWA-TRUCK 105  
 TOTAL TRUCK 271

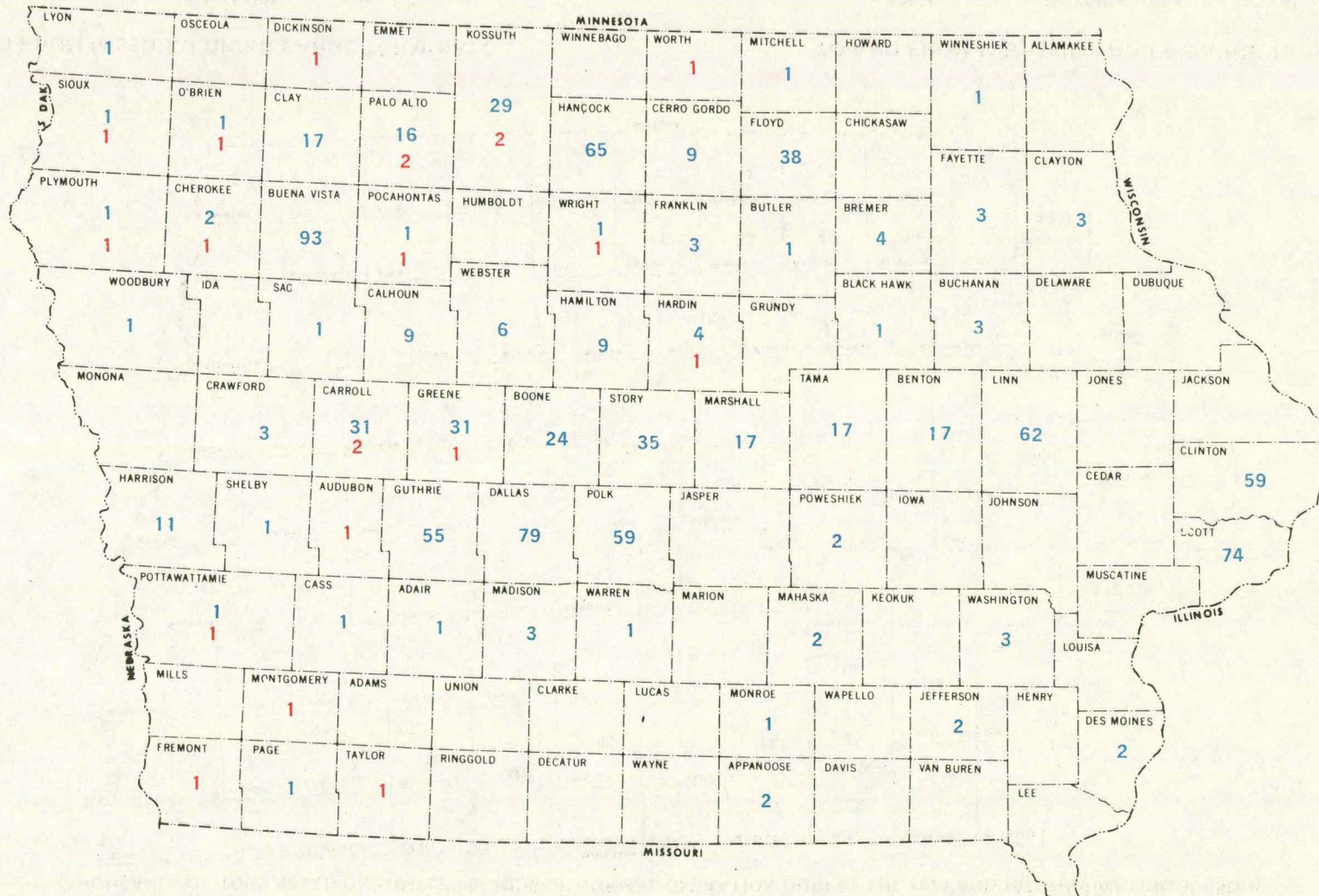
IOWA-TRUCK 4,119  
 OUTSIDE IOWA-TRUCK 1,487  
 TOTAL TRUCK 5,606



FIGURE 3

# ESTIMATED 1975 ANNUAL BARGE TONNAGE DISTRIBUTION OF COMMODITIES TRANSPORTED BY RAIL BETWEEN IOWA COUNTIES AND BARGE TERMINALS

(THOUSANDS OF TONS BASED ON SAMPLE PERIODS OF NORMAL OPERATION DURING THE 1975 NAVIGATION SEASON)



TO AND FROM MISSOURI RIVER BARGE TERMINALS

TO AND FROM MISSISSIPPI RIVER BARGE TERMINALS

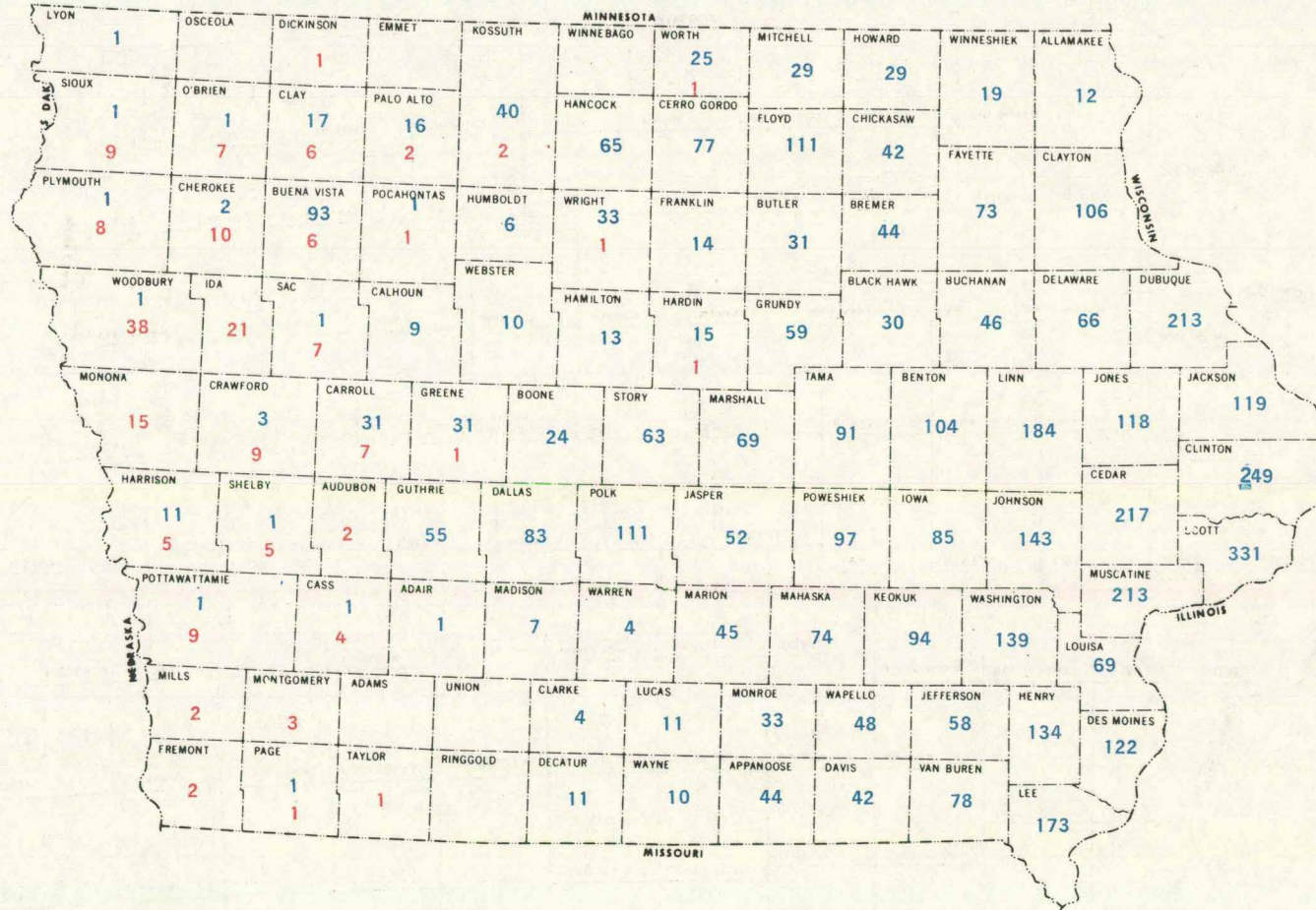
IOWA-RAIL	21
OUTSIDE IOWA-RAIL	15
TOTAL RAIL	36

IOWA-RAIL	922
OUTSIDE IOWA-RAIL	138
TOTAL RAIL	1,060

FIGURE 4

# ESTIMATED 1975 ANNUAL BARGE TONNAGE DISTRIBUTION OF COMMODITIES TRANSPORTED BY TRUCK AND RAIL BETWEEN IOWA COUNTIES AND BARGE TERMINALS

(THOUSANDS OF TONS BASED ON SAMPLE PERIODS OF NORMAL OPERATION DURING THE 1974 AND 1975 NAVIGATION SEASON)



TO AND FROM MISSOURI RIVER BARGE TERMINALS

IOWA	OUTSIDE IOWA	TOTAL
166	105	271
21	15	36
187	120	307
0	0	0
187	120	307

TO AND FROM MISSISSIPPI RIVER BARGE TERMINALS

IOWA	OUTSIDE IOWA	TOTAL
4,119	1,487	5,606
922	138	1,060
5,041	1,625	6,666
1,887	0	1,887
6,928	1,625	8,553

TRUCK  
RAIL  
TRUCK AND RAIL TOTALS  
CONSUMED OR PRODUCED ON SITE  
TOTALS

\*DISTRIBUTION SHOWN IN RED ON MAP ABOVE

\*DISTRIBUTION SHOWN IN BLUE ON MAP ABOVE

APPENDIX A

LOCKS AND DAMS ALONG IOWA'S BORDER

MISSISSIPPI RIVER

LOCK AND DAM NO. 9  
NEAR HARPERS FERRY, IOWA

MILE 647.9

BUILT - Construction Began 1931  
Completed and Open 1938

ORIGINAL COST - \$6,539,000

LOCK - One 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 9.0 feet

Sill Depth  
Upper 16.0 feet  
Lower 13.0 feet

DAM - The complex has a total length of 10,165 feet - 1350 feet of fixed spillway, 8004 feet of earthen dike and 811 feet of movable gate section consisting of 5 roller gates and 8 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the 5 gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 31 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	1,606	1,351	2,101	2,505	2,722
Recreational	2,677	1,984	2,259	2,053	2,599

TONNAGE -		<u>1975</u>	<u>1977</u>
		11,511,000	12,915,000

Note: Tonnage data is not available prior to 1975

LOCK AND DAM NO. 9



LOCK AND DAM NO. 10

GUTTENBERG, IOWA

MILE 615.5

BUILT - Construction Began 1934  
Completed and Open 1937

ORIGINAL COST - \$4,750,000

LOCK - One 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 8.0 feet

Sill Depth

Upper 15.0 feet

Lower 12.0 feet

DAM - The complex has a total length of 6,510 feet - 1,200 feet of fixed spillway, 4,547 feet of earthen dike and 763 feet of moveable gate section consisting of 4 roller gates and 8 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the 4 gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 33 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	1,621	1,641	2,349	2,395	2,423
Recreational	2,729	2,485	3,086	2,959	4,397

TONNAGE	<u>1975</u>	<u>1977</u>
	12,092,000	13,702,000

Note: Tonnage data is not available prior to 1975

LOCK AND DAM NO. 10



LOCK AND DAM NO. 11

DUBUQUE, IOWA

MILE 583.0

BUILT - Construction Began December 11, 1933  
Completed and Open September 10, 1937

ORIGINAL COST - \$7,428,000

LOCK - One 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 11.0 feet

Sill Depth

Upper 18.5 feet

Lower 12.5 feet

DAM - 1278 feet long, 16 gates (3 roller and 13 tainter)

The roller gates are operated from 3 control towers, one housing operating machinery for each of the three gates which are raised and lowered by means of a huge chain. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 32 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	2,818	2,595	2,478
Recreational	2,379	1,961	2,047	2,371	2,801
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	6,990,402	8,276,831	13,612,730	13,326,747	14,656,379

\*Data not available



LOCK AND DAM NO. 11



LOCK AND DAM NO. 12

BELLEVUE, IOWA

MILE 556.7

BUILT - Construction Began December 11, 1933  
Completed and Open October 10, 1938

ORIGINAL COST - \$5,580,000

LOCK - One 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 9.0 feet

Sill Depth

Upper 17.0 feet

Lower 13.0 feet

DAM - The dam is 849 feet long and consists of three roller gates and seven tainter gates. The roller gates are operated from three control towers at the dam, one housing operating machinery for each of the three gates. The tainter gates are raised and lowered by chains operated by motors located at each end of the gates.

POOL LENGTH - 26 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	2,364	2,446	2,926
Recreational	2,297	1,717	1,992	1,845	2,464
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	7,416,676	8,920,134	14,075,865	14,680,280	15,149,142

\*Data not available

LOCK AND DAM NO. 12



LOCK AND DAM NO. 13

NEAR CLINTON, IOWA

MILE 522.5

BUILT - Construction Began July 25, 1935  
 Completed and Open April 22, 1939

ORIGINAL COST - \$7,502,000

LOCK - One 600 feet long by 110 feet wide  
 Upper gate provided for future lock

Lift - 11.0 feet

Sill Depth

Upper 19.0 feet

Lower 13.0 feet

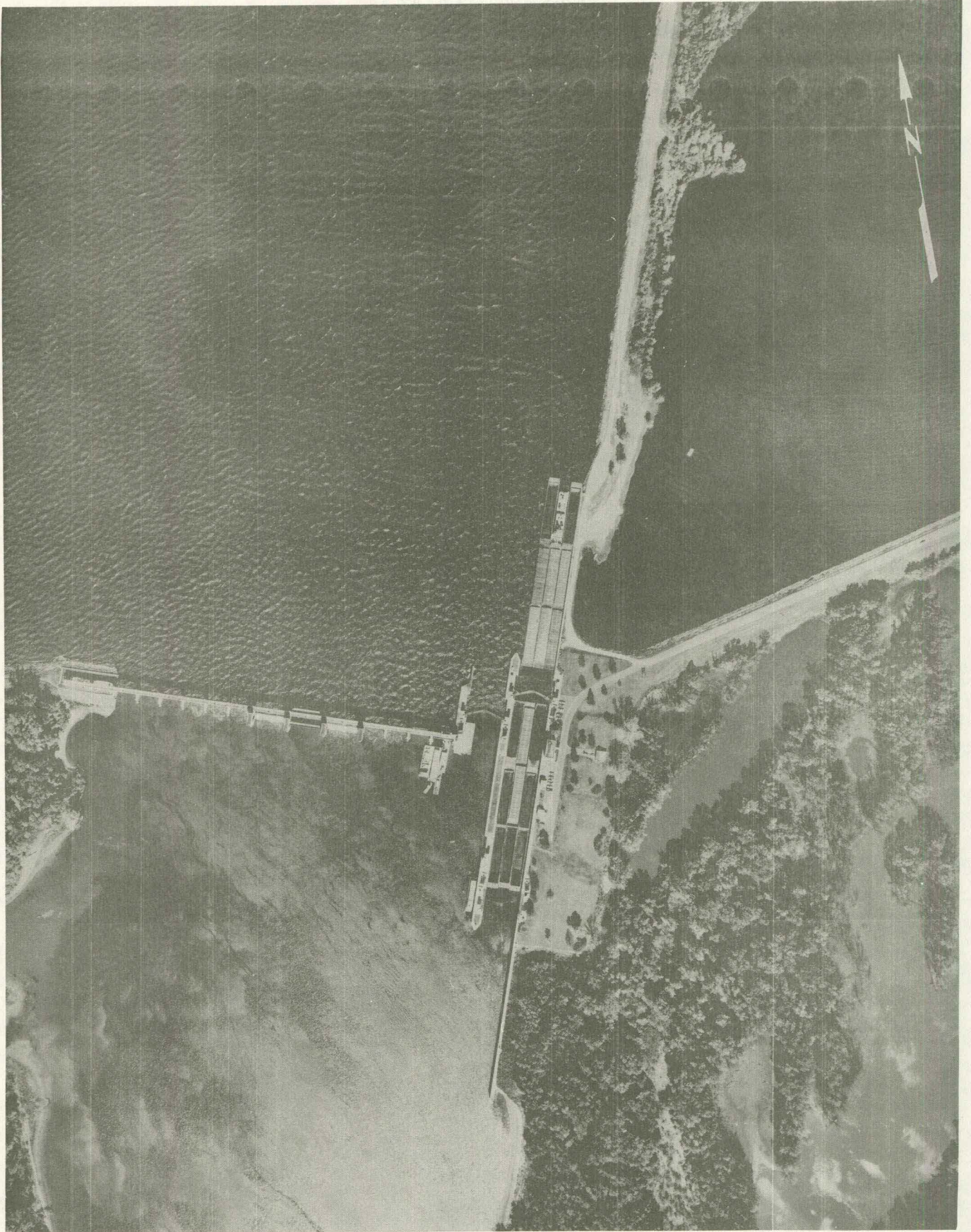
DAM - The dam is 1,066 feet long and consists of 3 roller and 10 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the three gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 34 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	2,279	2,411	2,511
Recreational	2,123	1,540	1,861	1,899	2,495
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	7,417,076	8,954,029	14,086,660	14,735,481	15,216,550

\*Data not available

LOCK AND DAM NO. 13



LOCKS AND DAM NO. 14

NEAR LE CLAIRE, IOWA

MILE 493.3

BUILT - Completed and Open July 14, 1939

ORIGINAL COST - \$6,284,000

LOCKS - One lock 600 feet long by 110 feet wide  
 One auxiliary lock 320 feet long by 80 feet wide  
 The auxiliary lock (used on a standby basis) was built in the early 1900's as a part of the 6-foot channel project.

Lift - 11.0 feet

Sill Depth - Main Lock  
 Upper 20.5 feet  
 Lower 13.5 feet

Sill Depth - Auxiliary Lock  
 Upper 17.6 feet  
 Lower 10.9 feet

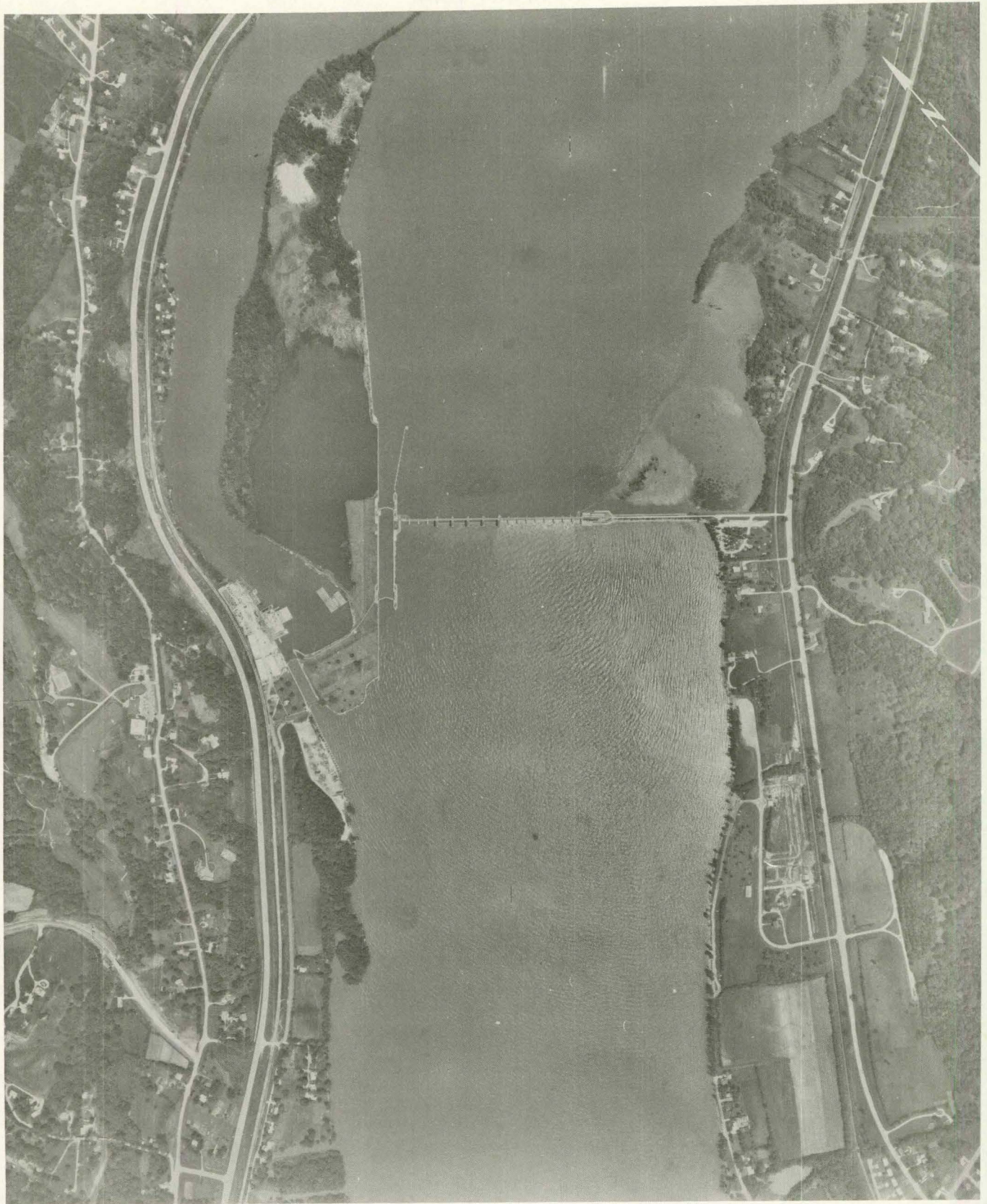
DAM - The dam is 1343 feet long and is composed of 4 roller gates and 13 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the four gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 30 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	3,330	3,378	3,693
Recreational	3,895	2,205	3,114	2,774	3,263
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	7,894,623	9,745,580	15,784,005	15,875,503	17,418,242

\*Data not available

LOCK AND DAM NO. 14



LOCKS AND DAM NO. 15

DAVENPORT, IOWA

MILE 482.9

BUILT - Construction Began April, 1931  
 Completed and Open May, 1934

ORIGINAL COST - \$10,525,000

LOCKS - One lock 600 feet long by 110 feet wide  
 One auxiliary lock, 360 feet long by 110 feet wide.

Lift - 16.0 feet

Sill Depth - Main Lock  
 Upper 24.0 feet  
 Lower 11.0 feet

Sill Depth - Auxiliary Lock  
 Upper 17.0 feet  
 Lower 11.0 feet

DAM - The dam is 1203 feet long and consists of 11 roller gates, 100 feet long each. Gate No. 1 and 11 are called skimmer gates, smaller in diameter (21.75 feet) in order to permit an overflow to keep the upper pool clear of debris. The remaining 9 gates are each 26 feet in diameter. There are 11 control houses at the dam, each one housing operating machinery for the roller gates. This dam was built on an angle to gain additional gates as the river is quite narrow at this point. The dam houses a small hydro electric generator which generates electricity for the Corps Clock Tower Building and the Rock Island Arsenal.

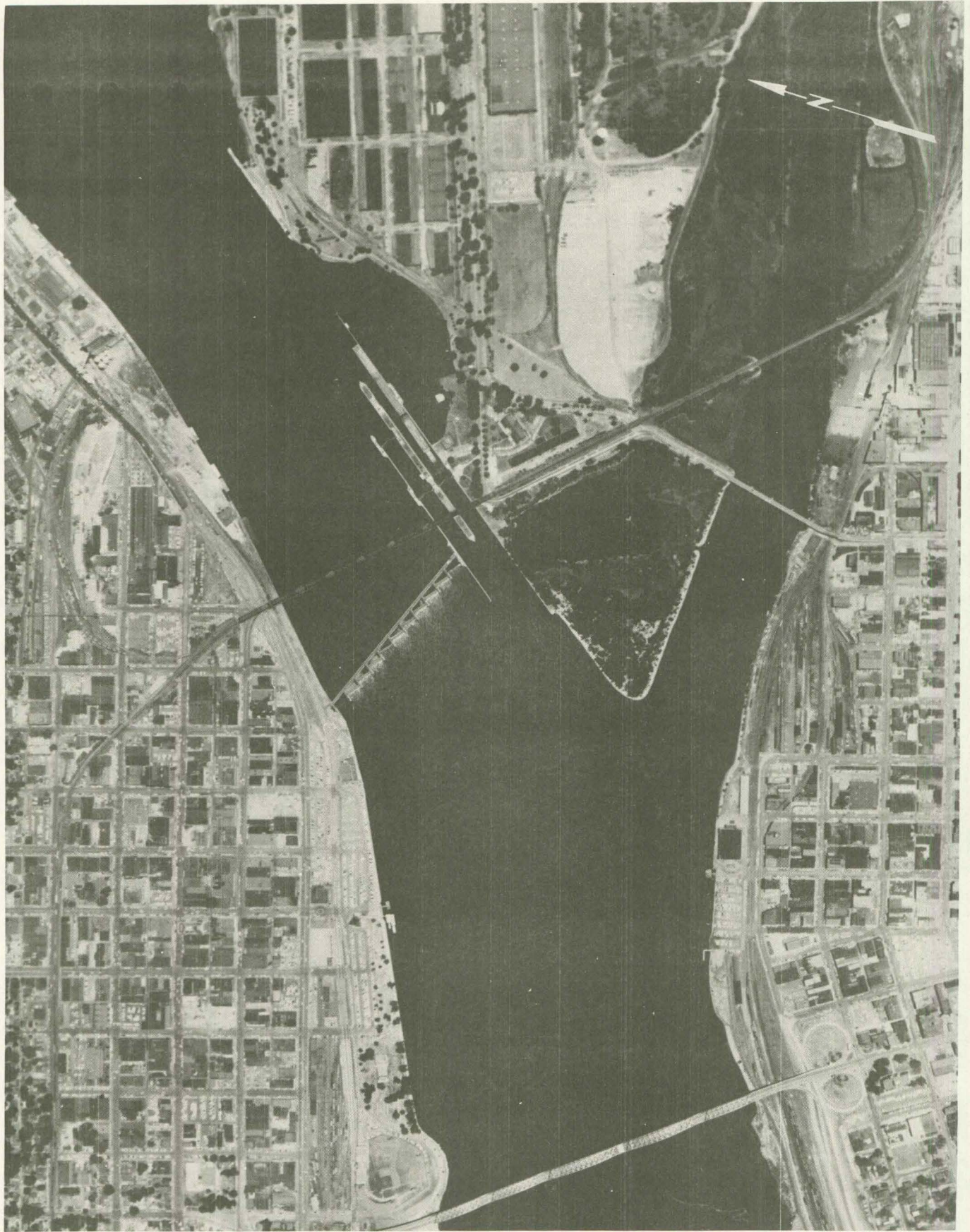
POOL LENGTH - 10 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	4,099	3,601	4,032
Recreational	3,512	2,257	2,674	2,873	2,908
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	8,405,358	10,336,084	16,652,366	16,563,187	18,045,194

\*Data not available



LOCK AND DAM NO. 15



**LOCK AND DAM NO. 16  
NEAR MUSCATINE, IOWA**

**MILE 457.2**

BUILT - Construction Began December 11, 1933  
Completed and Open July 11, 1937

ORIGINAL COST - \$9,788,000

LOCK - One lock 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 9.0 feet

Sill Depth  
Upper 17.0 feet  
Lower 12.0 feet

DAM - The dam is 1099 feet long and consists of 4 roller gates and 15 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the four gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 26 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	3,391	3,553	3,787
Recreational	1,560	1,192	1,324	1,182	1,346
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	8,669,087	10,695,214	17,553,860	18,341,243	19,802,196

\*Data not available

LOCK AND DAM NO. 16



LOCK AND DAM NO. 17  
NEAR TOOLESBORO, IOWA

MILE 437.1

BUILT - Construction Began July, 1935  
Completed and Open April, 1939

ORIGINAL COST - \$5,843,000

LOCK - One lock 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 8.0 feet

Sill Depth

Upper 16.0 feet

Lower 13.0 feet

DAM - The dam is 921 feet long and contains 3 roller gates and 8 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the three gates. The tainter gates are operated by motor driven chains located at each end of the gates.

POOL LENGTH - 20 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	3,358	3,485	3,505
Recreational	1,599	859	1,156	799	1,296
 TONNAGE	 <u>1960</u>	 <u>1965</u>	 <u>1970</u>	 <u>1975</u>	 <u>1977</u>
	8,692,694	11,146,484	18,397,510	19,107,453	20,249,573

\*Data not available

LOCK AND DAM NO. 17



**LOCK AND DAM NO. 18  
NEAR BURLINGTON, IOWA**

**MILE 410.5**

BUILT - Construction Began November, 1933  
Completed and Open September, 1937

ORIGINAL COST - \$10,308,000

LOCK - One lock 600 feet long by 110 feet wide  
Upper gate provided for future lock

Lift - 9.8 feet

Sill Depth  
Upper 16.5 feet  
Lower 13.7 feet

DAM - The dam is 1350 feet long and contains 3 roller gates and 14 tainter gates. The roller gates are operated from control towers, one housing operating machinery for each of the three gates. The tainter gates are operated by motor driven chains, located at each end of the gates.

POOL LENGTH - 26 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	3,472	3,610	3,781
Recreational	2,976	2,002	1,812	1,490	1,422
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	8,790,394	11,560,909	18,701,125	19,472,413	20,796,353

\*Data not available

LOCK AND DAM NO. 18



LOCKS AND DAM NO. 19

KEOKUK, IOWA

MILE 364.2

BUILT - In 1905, the Mississippi River Power Company (now the Union Electric Power Company) was authorized to construct a hydroelectric plant with a dam, powerhouse, 358 foot by 110 foot lock, and drydock with several appurtenant buildings at Keokuk. These structures, with exception of the dam and powerhouse, were turned over to the United States upon their completion in 1913. In 1957, the Corps completed work on a new 1200 foot by 110 foot lock which was intergrated into the existing dam.

COST - \$14,813,000 - includes cost of new 1200 foot by 110 foot lock and appurtenant work. Does not include the cost of the original 358 foot by 110 foot lock or the dam.

LOCKS - One lock 1200 feet long by 110 feet wide  
One auxiliary lock 358 feet long by 110 feet wide

Lift - 38.2 feet

Sill Depth - Main Lock  
Upper 15.0 feet  
Lower 13.0 feet

Sill Depth - Auxiliary Lock  
Upper 14.0 feet  
Lower 9.2 feet

DAM - The dam is 4620 feet long and contains 119 spillways, each containing a vertical lift crest gate 32 feet long by 11 feet high. The powerhouse houses 15 main turbines (10,000 horsepower each). Maximum output is 136,000 magawatt hours annually.

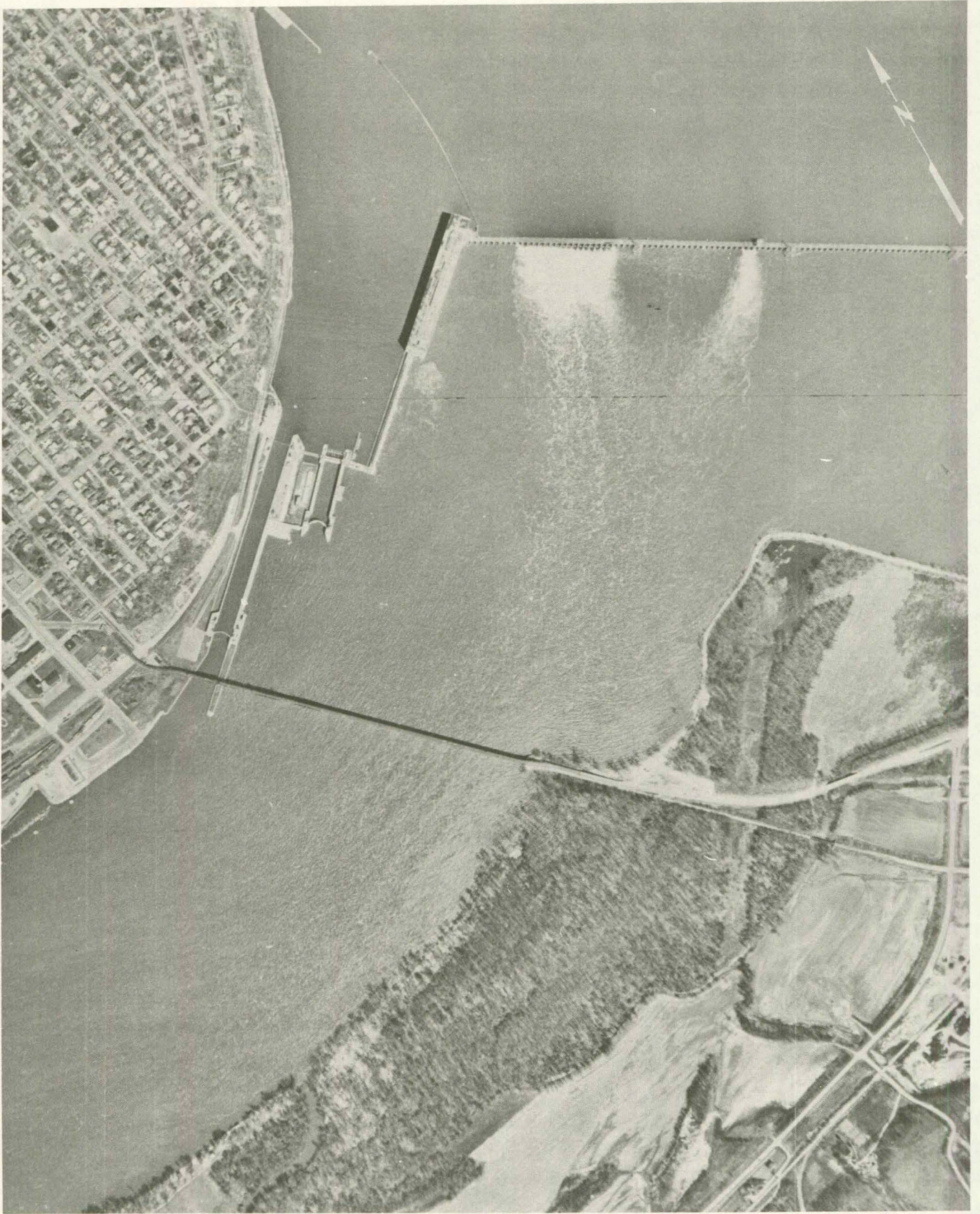
POOL LENGTH - 47 miles

LOCKAGES	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
Commercial	*	*	2,572	2,485	2,659
Recreational	903	570	671	724	675
TONNAGE	<u>1960</u>	<u>1965</u>	<u>1970</u>	<u>1975</u>	<u>1977</u>
	8,877,604	12,299,235	20,029,663	21,153,249	20,958,987

\*Data not available



LOCK AND DAM NO. 19



APPENDIX B

IOWA BARGE TERMINALS

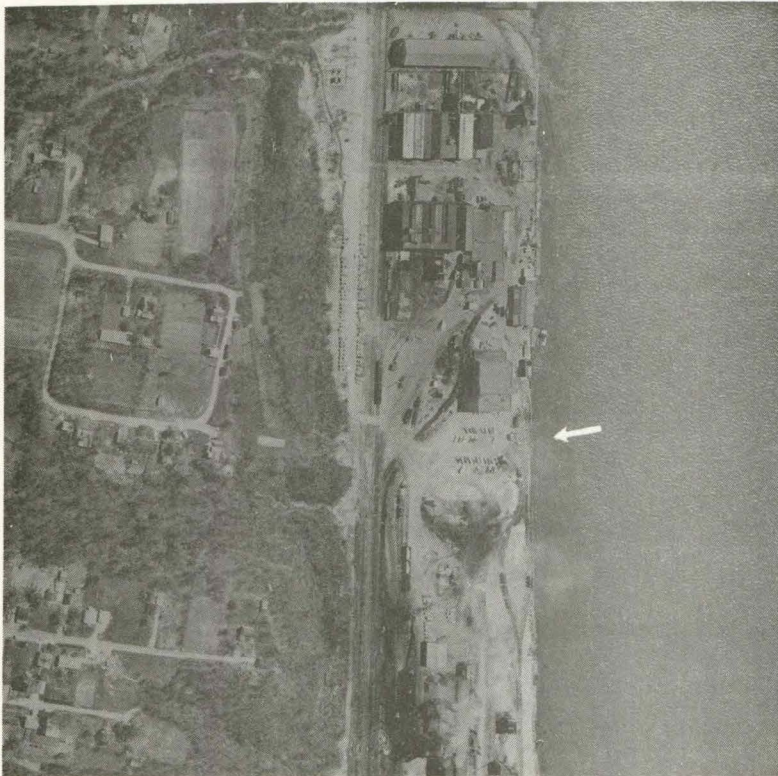
## IOWA BARGE TERMINALS: PHOTOGRAPHS AND FACTS

White arrows on the photographs locate handling facilities used for commodity transfer between barges and land-based facilities.

The "Map Reference No." corresponds to numbers used in "Locations of Iowa Barge Terminals", pages B-42 through B-46. The terminals are numbered from south to north along the Mississippi and Missouri Rivers.

Photograph scale: 1 inch equals 500 feet.

## MISSISSIPPI RIVER TERMINALS



**MAP REFERENCE NO.:** 1  
**POOL NO.:** 20  
**MILES ABOVE OHIO RIVER:** 362.0  
**NAME:** Foote Mineral Co.

**ADDRESS:** Ferro-Alloys Division  
P.O. Box 527  
Keokuk, IA 52632

**PHONE:** (319)524-5130

**COMMODITIES HANDLED:**  
Manganese ore, pig iron, &  
construction equipment.

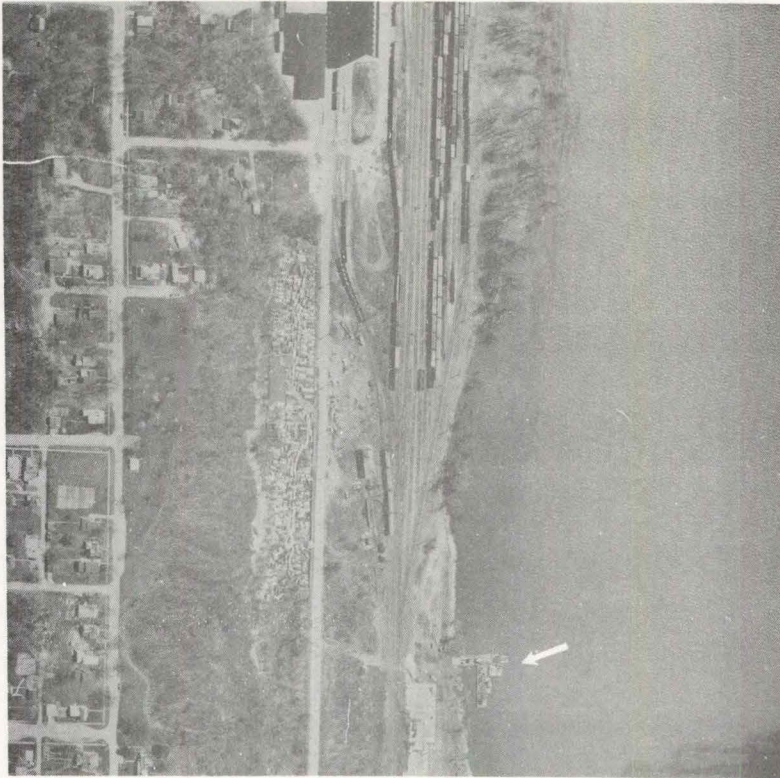
**ACCESS:**

Truck - 3½ blocks south of  
U.S. 136 on B St. & about  
1 mile west on Commercial  
Street.

Rail - Burlington Northern

**NOTES:** Ships & receives  
commodities for pig iron  
refinery.

## MISSISSIPPI RIVER TERMINALS



**MAP REFERENCE NO.:** 2  
**POOL NO.:** 20  
**MILES ABOVE OHIO RIVER:** 362.3  
**NAME:** The Hubinger Co.

**ADDRESS: (Office)**  
State Center Building  
610 Main St., Keokuk, IA 52632

**PHONE:** (319)524-4151

**COMMODITIES HANDLED:**

Corn & corn gluten pellets,  
and soybeans.

**ACCESS:**

Truck - 3½ blocks south of U.S. 136  
on B St. & about 0.5 mi. west on  
Commercial St. to barge facility  
Rail - Chicago, Rock Island & Pacific  
Burlington Northern

**NOTES:** Ships grain products  
from corn processing plant.



**MAP REFERENCE NO.:** 3  
**SERVICE AREA:** Pools 19 and 20  
**MILES ABOVE OHIO RIVER:** About 363.3  
**NAME:** Iowa Marine Repair  
Corporation

**ADDRESS:**  
P.O. Box 1145  
Keokuk, IA 52632

**PHONE:** (319)524-2122

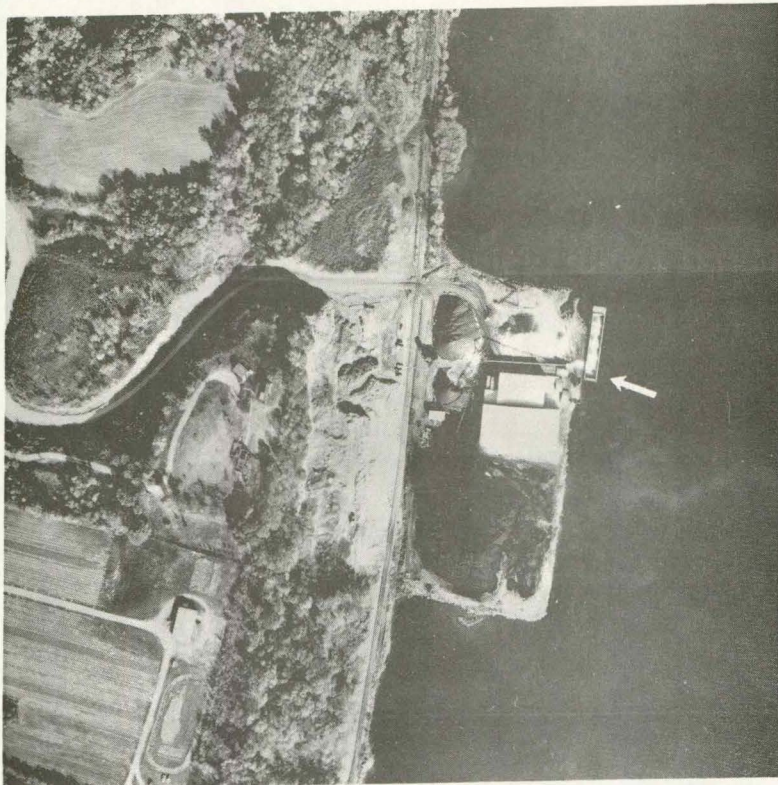
**COMMODITIES HANDLED:**

Barge handling services.

**ACCESS:** On Mississippi Drive,  
several blocks west of Main Street.

**NOTES:** Fleets, cleans, and repairs  
barges.

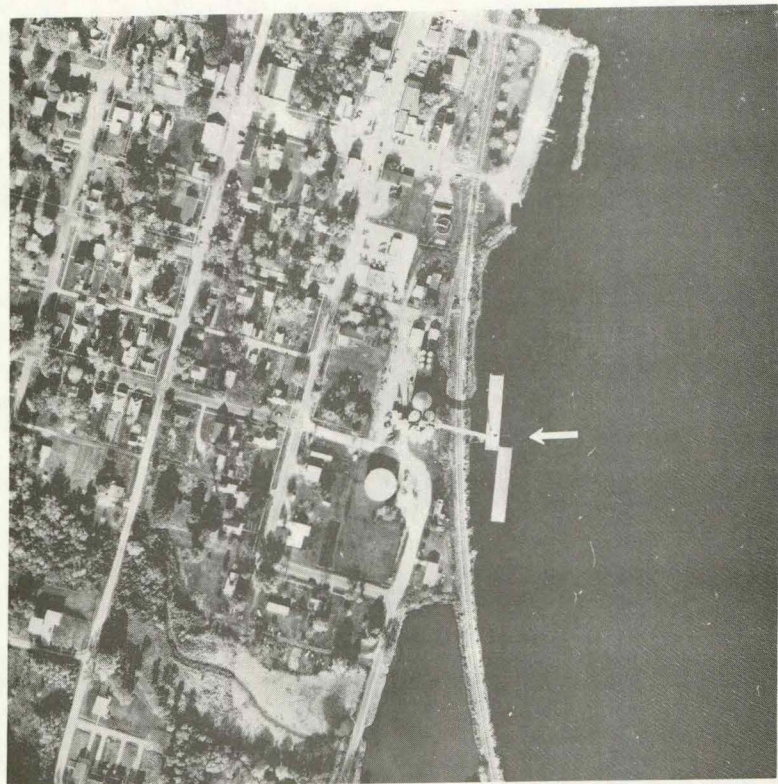
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 4  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 371.1  
NAME: Iowa Gateway Terminal

ADDRESS: ATTN: W. E. Caldwell  
River Road  
Keokuk, IA 52632  
PHONE: (319)463-5426  
COMMODITIES HANDLED:  
Coal, salt, newsprint, &  
steel products.

ACCESS:  
Truck - About 3½ miles east of  
U.S. 218 and U.S. 61 on county  
rock road. No bridges and no  
weight restrictions.  
Rail - Burlington Northern  
NOTES: Shipping & receiving  
agent.



MAP REFERENCE NO.: 5  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 374.9  
NAME: Hunold Elevator, Inc.

ADDRESS:  
Montrose, IA 52639  
PHONE: (319)463-5421  
COMMODITIES HANDLED:  
Corn, soybeans, wheat, and  
liquid fertilizer.

ACCESS:  
Truck - On street in Montrose.  
A narrow paved road (IA 404)  
connects Montrose with U.S. 61.  
Rail - Burlington Northern  
NOTES: Ships grain.

## MISSISSIPPI RIVER TERMINALS



**MAP REFERENCE NO.:** 6  
**SERVICE AREA:** Pools 18 and 19  
**MILES ABOVE OHIO RIVER:** 382.0  
(also 390, 418)  
**NAME:** Hall Towing, Inc.

**ADDRESS:**

Foot of 20th Street, P.O. 1465  
Fort Madison, IA 52627

**PHONE:** (319)372-3078

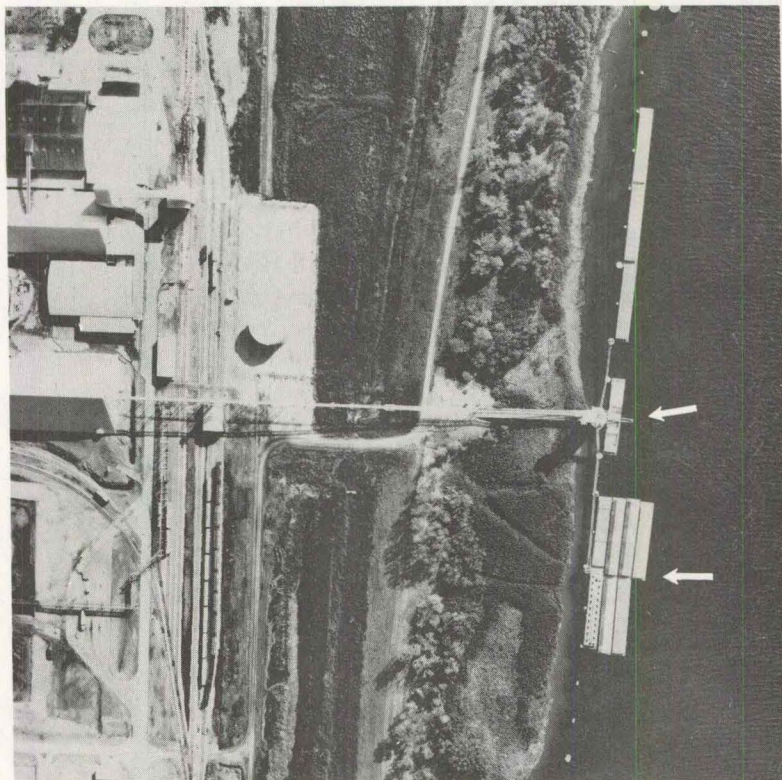
**COMMODITIES HANDLED:**

Fertilizer and bulk commodities,  
but mainly barge handling service  
at present.

**ACCESS:**

Truck - 4½ blocks south of U.S. 61 via  
paved street.

**NOTES:** Bulk commodity unloading  
at 382.0 in Ft. Madison started in  
1977. Operations also include  
fleeting, tug service, cleaning, and  
repair.



**MAP REFERENCE NO.:** 7  
**POOL NO.:** 19  
**MILES ABOVE OHIO RIVER:** 389.0  
**NAME:** FirstMiss, Inc.

**ADDRESS:**

P.O. Box 328  
Ft. Madison, IA 52627

**PHONE:** (319)376-2279

**COMMODITIES HANDLED:**

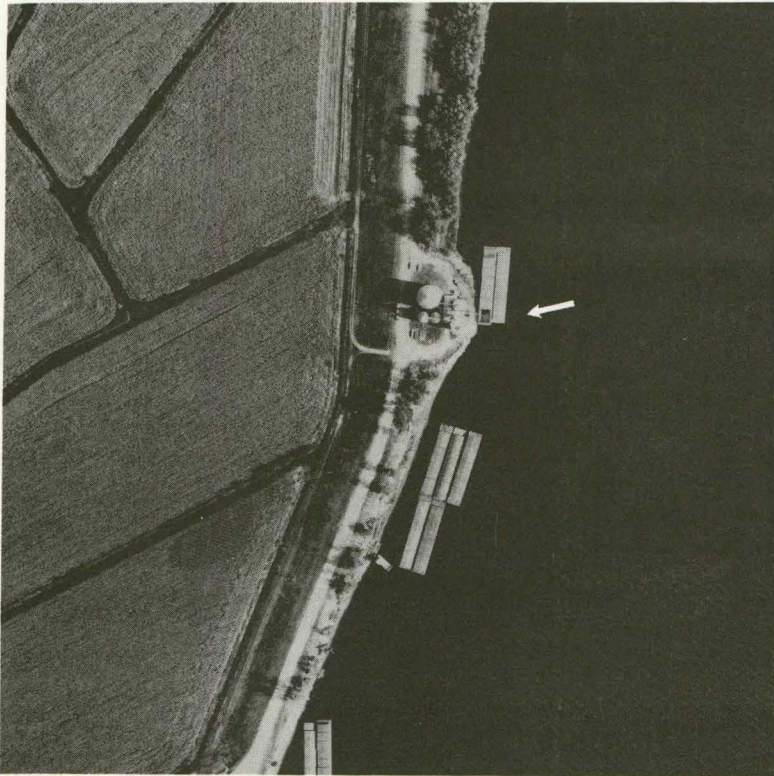
Diammonium phosphate,  
phosphate rock, NH<sub>3</sub>, &  
fuel oil.

**ACCESS:**

Truck - SE of U.S. 61 along 4.5  
miles of paved and gravel roads.  
Rail - Burlington Northern

**NOTES:** Ships fertilizer  
produced at the facility.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 8  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 390.0  
NAME: Green Bay Grain Co.

ADDRESS: (Office)  
Green Bay Landing  
Wever, IA 52658  
PHONE: (319)372-2352  
COMMODITIES HANDLED:  
Corn, soybeans, & wheat.

ACCESS:  
Truck - SE of U.S. 61 via 6 miles  
of good, gravel roads.

NOTES: Ships grain.



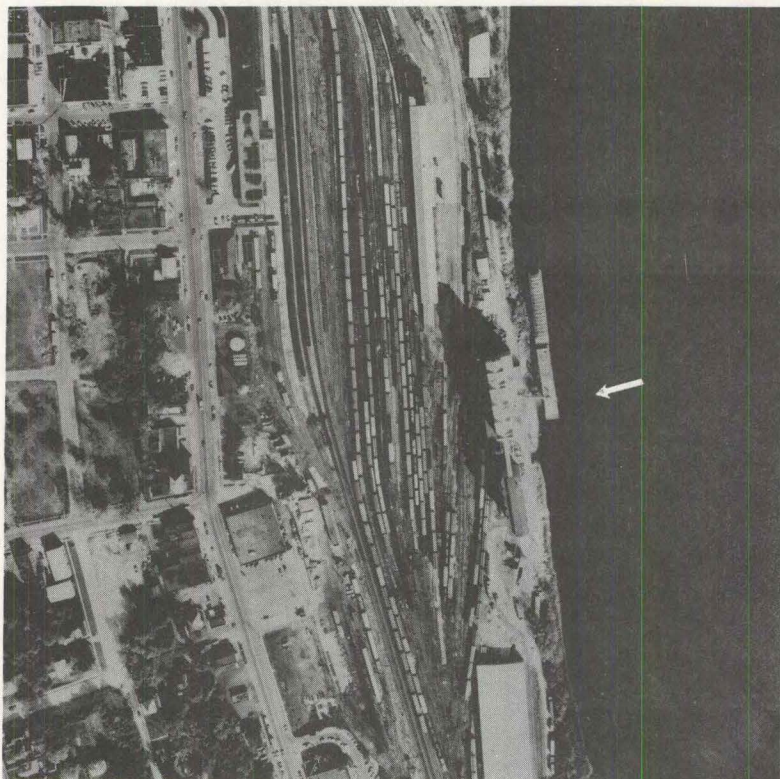
MAP REFERENCE NO.: 9  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 399.4  
NAME: AMOCO Oil Co.

ADDRESS: Anhydrous Ammonia Term.  
Old Highway 61 South  
Burlington, IA 52601  
PHONE: (319)752-3761  
COMMODITIES HANDLED:  
Anhydrous ammonia

ACCESS:  
Truck - SE of paved county road  
via 1 mi. of good, gravel roads  
(1 steep incline).  
Rail - Burlington Northern

NOTES: Receives anhydrous  
ammonia.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 10  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 403.6  
NAME: Tabor & Co., Division of  
Archer-Daniels-Midland Co.  
ADDRESS:  
Box 309  
Burlington, IA 52601  
PHONE: (319)752-4586  
COMMODITIES HANDLED:  
Grain, soybean meal, &  
gluten pellets.

ACCESS:  
Truck - 1 mi. east of  
Burlington business district via  
gravel roads with railroad  
crossing and steep incline.  
Rail - Burlington Northern

NOTES: Ships grain.



MAP REFERENCE NO.: 11  
SERVICE AREA: Burlington area of Pool 19  
MILES ABOVE OHIO RIVER: About 404  
NAME: P-D Harbor Service Company

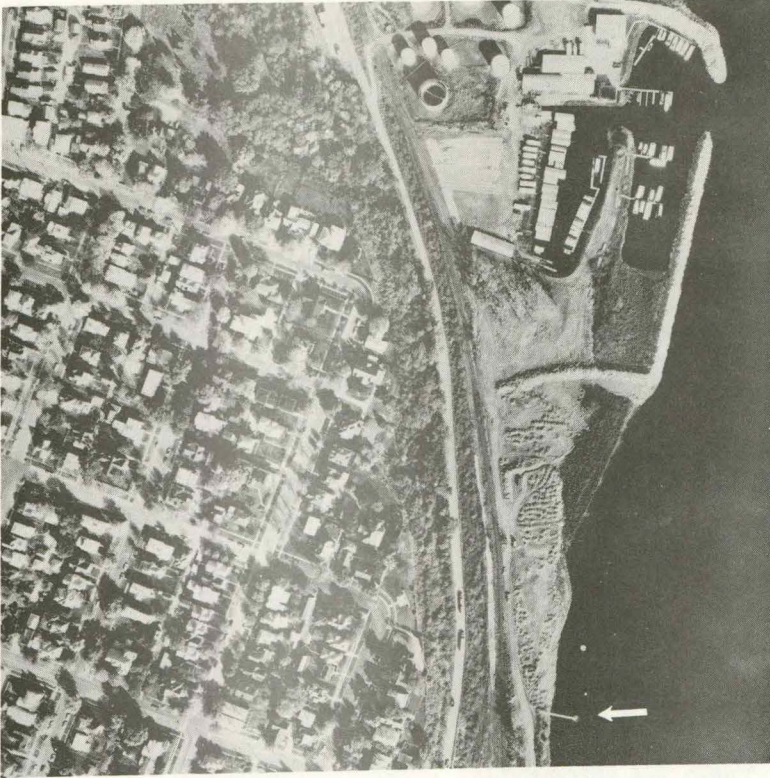
ADDRESS:  
P.O. Box O  
Argyle, IA 52619  
PHONE: (319)838-2245  
COMMODITIES HANDLED:  
Barge handling services.

ACCESS: ½ block east of Front Street  
(south of U.S. 34 bridge).

NOTES: Fleets, cleans, and  
repairs barges.



## MISSISSIPPI RIVER TERMINALS

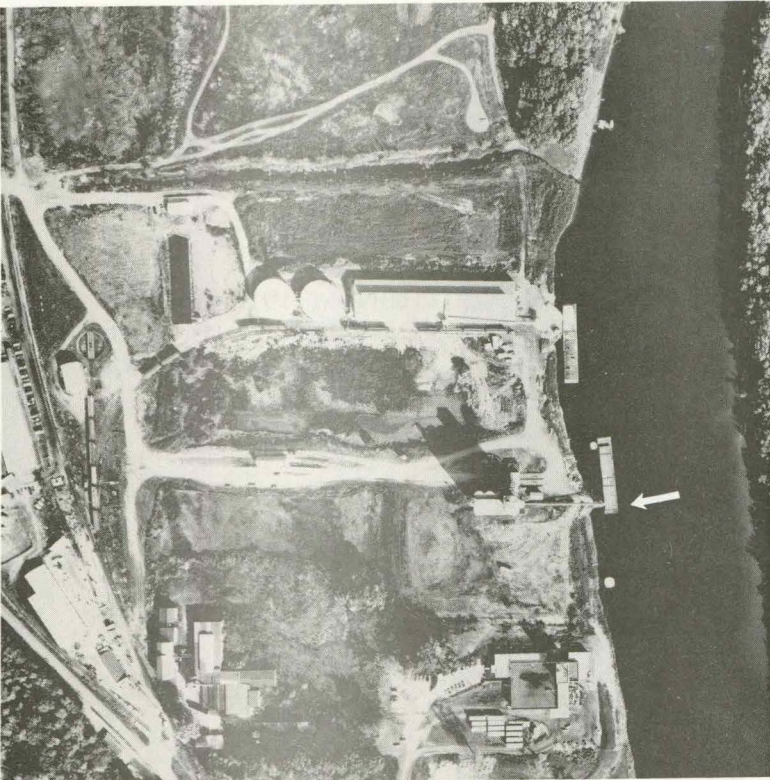


MAP REFERENCE NO.: 12  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 404.5  
NAME: Yetter Oil Company

ADDRESS:  
911 Osborne Street  
Burlington, IA 52601  
PHONE: (319)752-6331  
COMMODITIES HANDLED:  
Gasoline & fuel oil.

ACCESS:  
Truck - East of IA 99 via steep,  
gravel road. Easy access to  
truck loading area west of  
IA 99.

NOTES: Receives petroleum.



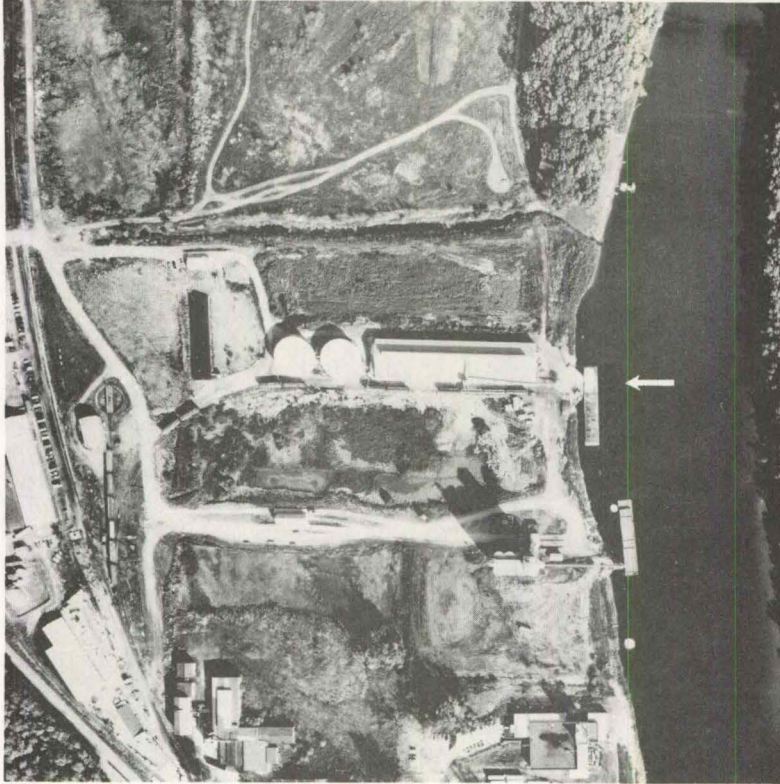
MAP REFERENCE NO.: 13  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 405.2  
NAME: Wayne Brothers Grain Co.

ADDRESS:  
P.O. Box 804  
Burlington, IA 52601  
PHONE: (319)753-2857  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - About 0.3 mile east of  
IA 99 on good, gravel road.

NOTES: Ships grain.

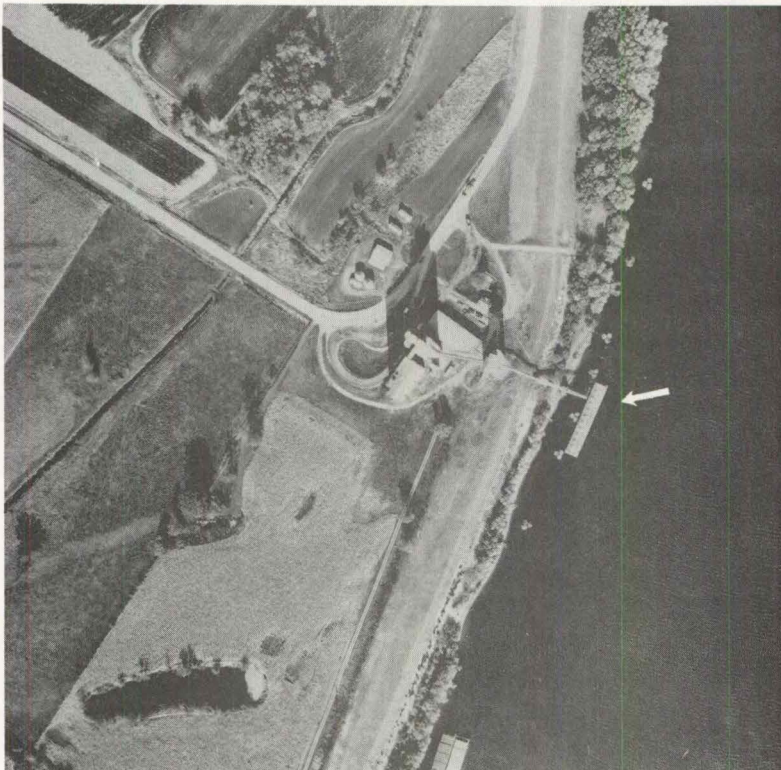
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 14  
POOL NO.: 19  
MILES ABOVE OHIO RIVER: 405.3  
NAME: Burlington River  
Terminal, Inc.  
ADDRESS: ATTN: A. G. Stevenson  
P.O. Box 884  
Burlington, IA 52601  
PHONE: (319)752-3611; 752-2802  
COMMODITIES HANDLED:  
Liquid & dry fertilizers, &  
steel.

ACCESS:  
Truck - East of IA 99 via 0.3 mi.  
of good, gravel road; crosses 4  
sets of RR tracks.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Receives fertilizer &  
general commodities.

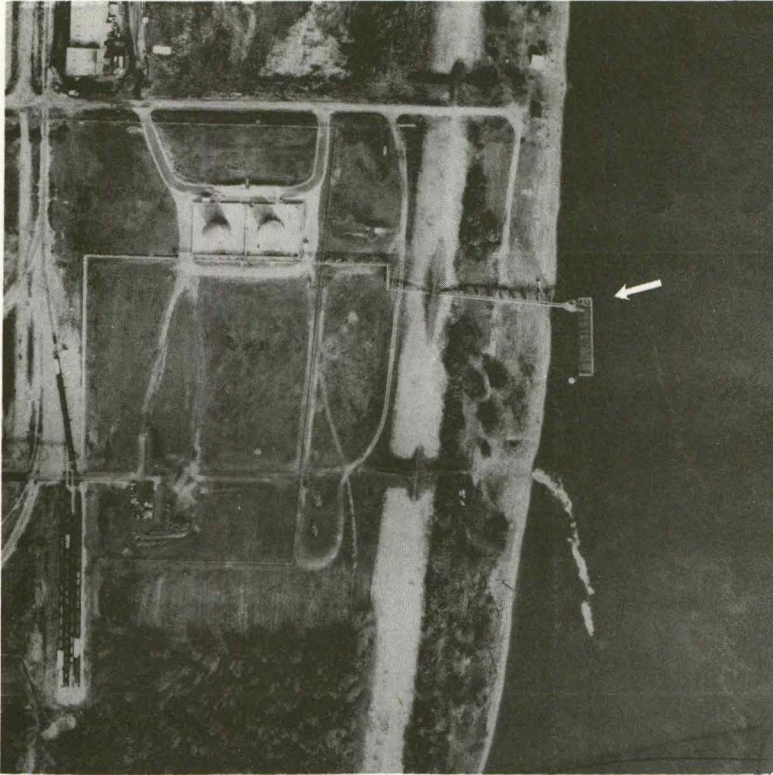


MAP REFERENCE NO.: 15  
POOL NO.: 18  
MILES ABOVE OHIO RIVER: 418.2  
NAME: Farmers Grain Dealers,  
Association  
ADDRESS:  
Rural Route 2  
Burlington, IA 52601  
PHONE: (319)937-6155  
COMMODITIES HANDLED:  
Corn, soybeans, & wheat.

ACCESS:  
Truck - East of IA 99 about 6 miles  
via level, good, gravel roads.

NOTES: Ships grain.

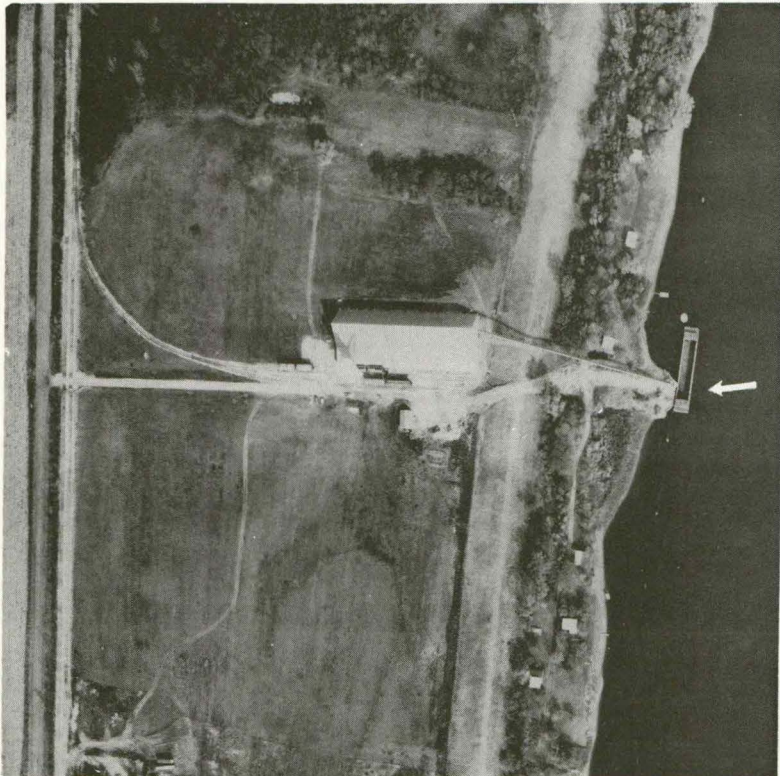
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 16  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 449.9  
NAME: Monsanto Agricultural  
Products Co.  
ADDRESS:  
Rural Route 5  
Muscatine, IA 52761  
PHONE: (319)263-0093  
COMMODITIES HANDLED:  
Styrene & acrylonitrile.

ACCESS:  
Truck - SE of IA 92 about 4  
miles via good, paved & gravel  
roads.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Receives chemicals for  
producing plastics. Barge  
operations started in 1976.



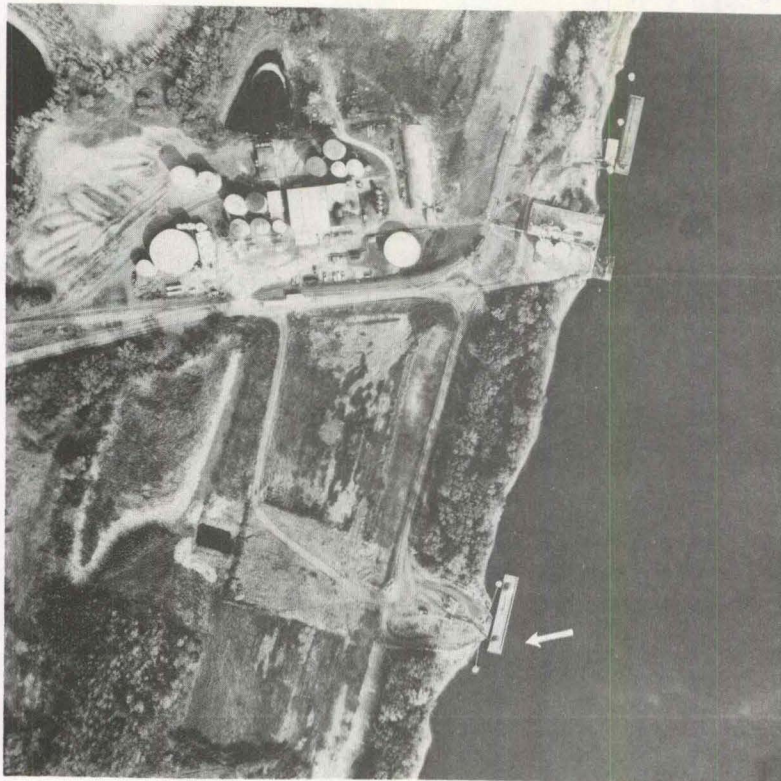
MAP REFERENCE NO.: 17  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 450.3  
NAME: Farmland Industries

ADDRESS: Fertilizer Warehouse  
Rural Route 5  
Muscatine, IA 52761  
PHONE: (319)264-1721  
COMMODITIES HANDLED:  
Dry fertilizer

ACCESS:  
Truck - South of U.S. 61 about  
3.5 mi. via good roads - paved &  
gravel.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Receives fertilizer.

## MISSISSIPPI RIVER TERMINALS

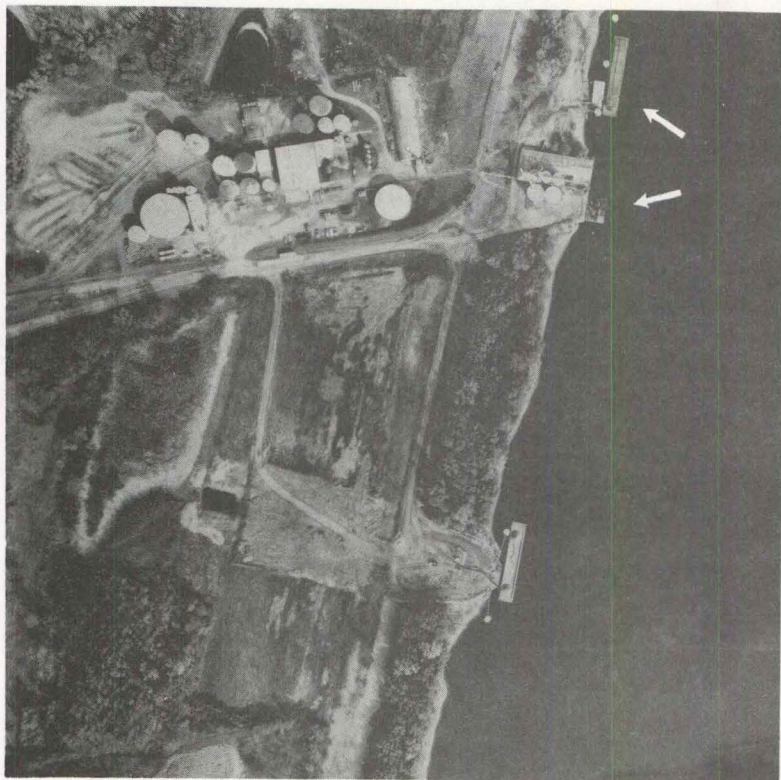


MAP REFERENCE NO.: 18  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 451.2  
NAME: W. G. Block Co.

ADDRESS: (Office)  
317 E. 4th  
Davenport, IA 52808  
PHONE: (319)326-1654  
COMMODITIES HANDLED:  
Sand, gravel, rock & stone.

ACCESS:  
Truck - SE of U.S. 61 via 3.5 mi.  
of good roads - paved & gravel.

NOTES: Ships commodities  
owned by W. G. Block Co.  
New terminal operating in  
1976.



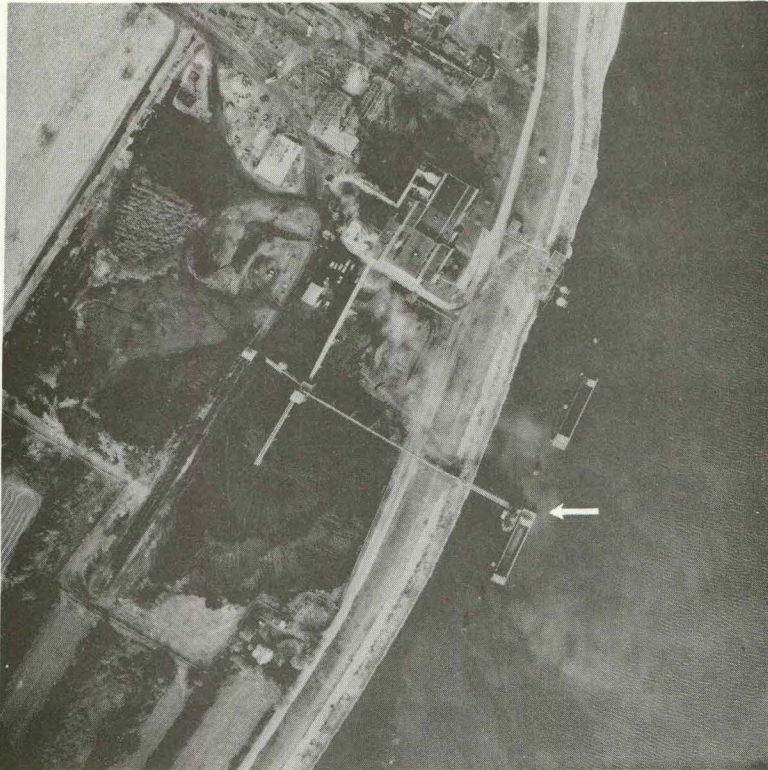
MAP REFERENCE NO.: 19  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 451.3  
NAME: River Terminal Corp.

ADDRESS:  
P.O. Box 1036  
Muscatine, IA 52761  
PHONE: (319)263-3155  
COMMODITIES HANDLED:  
Liquid fertilizer, molasses,  
condensed fish solubles,  
soybean oil.

ACCESS:  
Truck - East of U.S. 61 about 3.5  
miles via good roads - paved &  
gravel.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Ships & receives  
general merchandise.  
Adjacent land & storage  
leased to other companies.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 20  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 452.9  
NAME: Muscatine Power & Water  
Co.  
ADDRESS: (Office)  
3205 Cedar  
Muscatine, IA 52761  
PHONE: (319)263-2631  
COMMODITIES HANDLED:  
Coal

ACCESS:  
East of U.S. 61 about 1.5 miles  
via good, paved streets.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Receives coal.  
All coal used for producing  
electricity.

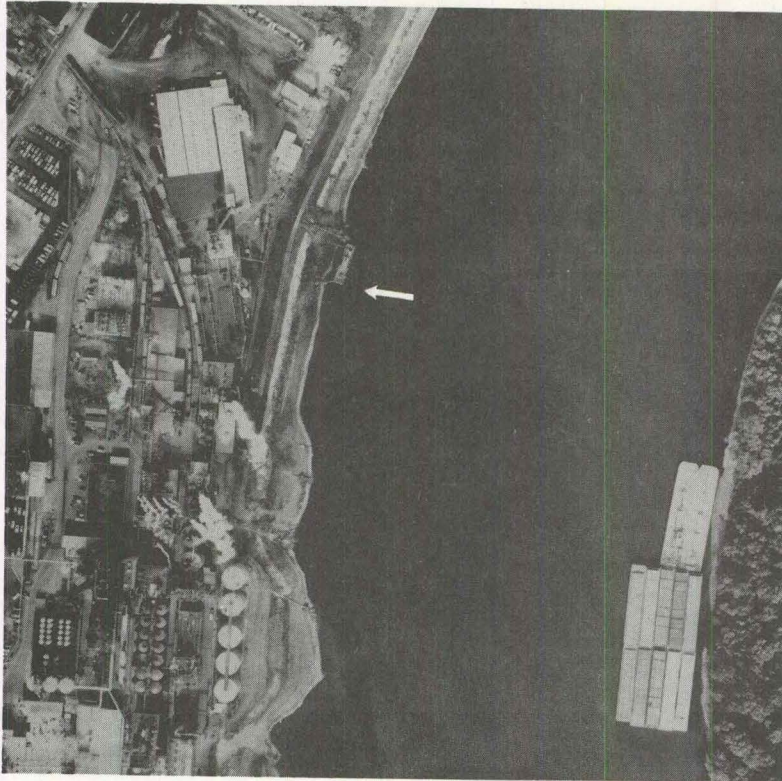


MAP REFERENCE NO.: 21  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 453.2  
NAME: Farmers Grain Dealers  
Association  
ADDRESS:  
Rural Route 5  
Muscatine, IA 52761  
PHONE: (319)263-9414  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - East of U.S. 61 about  
1 mile via good, paved streets.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Ships grain.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 22  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 453.8  
NAME: Grain Processing Corp.

ADDRESS:  
1600 Oregon Avenue  
Muscatine, IA 52761  
PHONE: (319)264-4379  
COMMODITIES HANDLED:  
Alcohol

ACCESS:  
Truck - SE of U.S. 61 about 6  
blocks via good, paved streets.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Ships alcohol from  
corn processing plant.



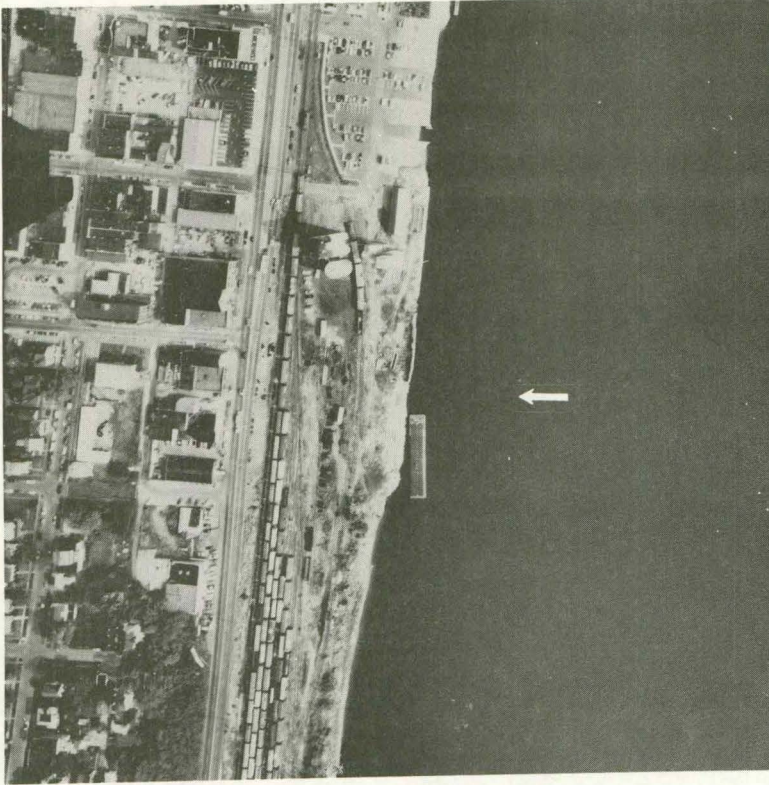
MAP REFERENCE NO.: 23  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 454.2  
NAME: Central Soya Co.

ADDRESS:  
P.O. Box 806  
Muscatine, IA 52761  
PHONE: (319)263-4343  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - East of U.S. 61 about 3  
blocks via paved street across  
rough RR tracks & short gravel  
road.  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Ships grain.  
Operates together with  
Central Soya terminal 1 mile  
north.

## MISSISSIPPI RIVER TERMINALS

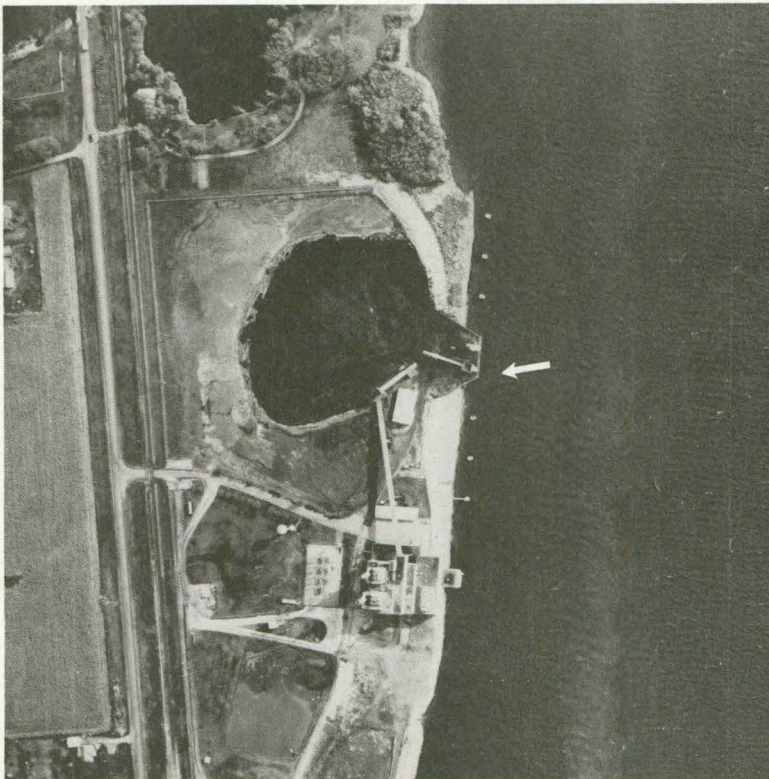


MAP REFERENCE NO.: 24  
POOL NO.: 17  
MILES ABOVE OHIO RIVER: 455.3  
NAME: Central Soya Co.

ADDRESS:  
P.O. Box 806  
Muscatine, IA 52761  
PHONE: (319)263-4343  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - East of U.S. 61 via short  
driveway across RR tracks.  
Rail - Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Ships grain.  
Operates together with  
Central Soya terminal 1 mile  
south.



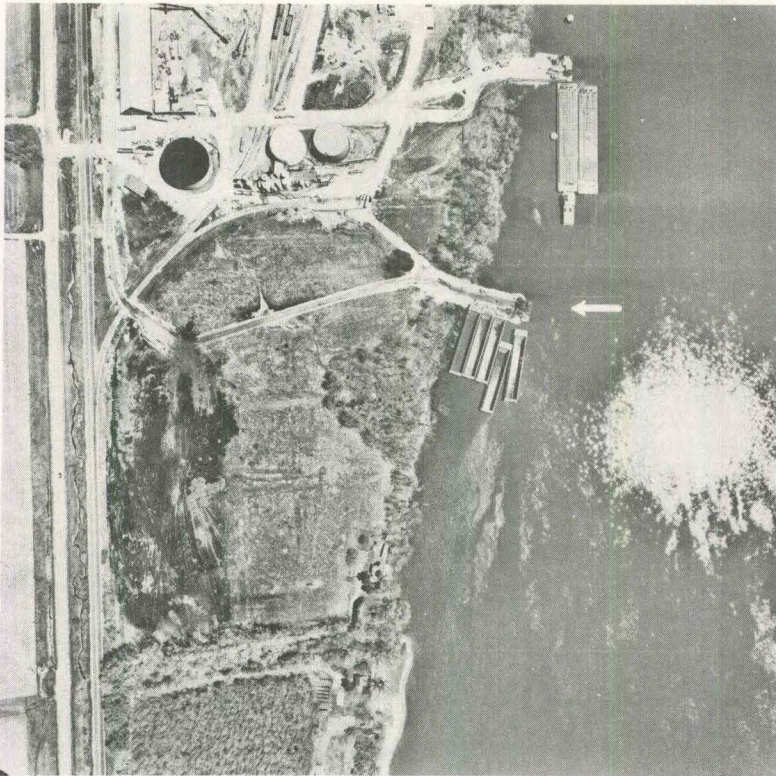
MAP REFERENCE NO.: 25  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 468.0  
NAME: Eastern Iowa Light &  
Power Cooperative

ADDRESS:  
P.O. Box 110  
Montpelier, IA 52759  
PHONE: (319)263-6898  
COMMODITIES HANDLED:  
Coal

ACCESS:  
Truck - South of IA 22 via short,  
paved driveway across rough  
RR tracks.

NOTES: Receives coal.  
All coal used for producing  
electricity.

## MISSISSIPPI RIVER TERMINALS

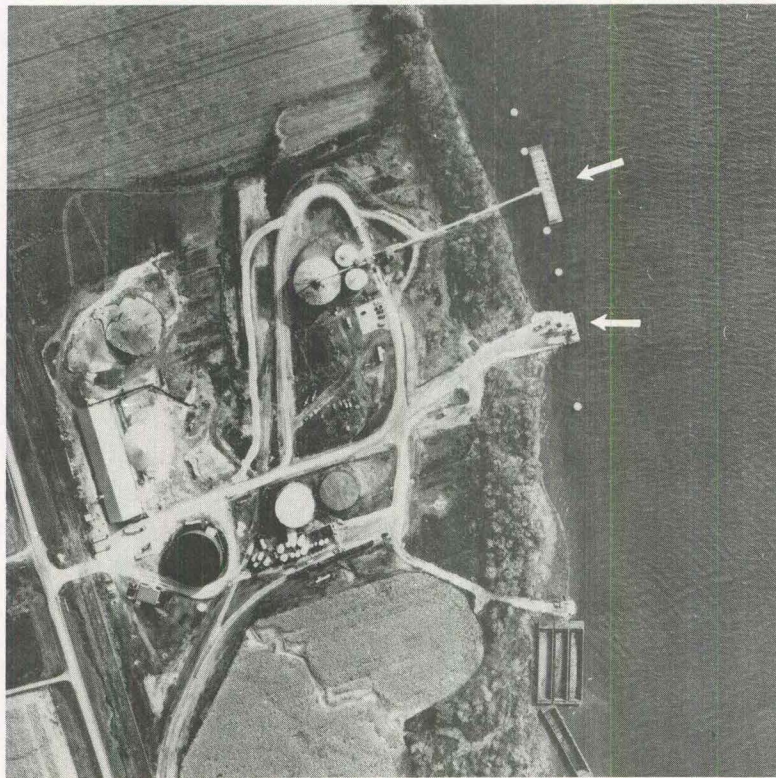


MAP REFERENCE NO.: 26  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 469.6  
NAME: Alter Company

ADDRESS: Buffalo, Iowa  
PHONE: (319)326-2561  
COMMODITIES HANDLED:  
Coal and steel.

ACCESS:  
Truck - Just off Iowa 22 (¾ mile  
from I-280)  
Rail - Chicago, Rock Island &  
Pacific

NOTES: Mailing address:  
Alter Company  
2333 Rockingham Road  
Davenport, IA 52808



MAP REFERENCE NO.: 27  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 469.8  
NAME: Cargill, Inc.

ADDRESS: Buffalo, IA 52728  
PHONE: (319)381-2210 (salt)  
PHONE: (319)381-2535 ( molasses)  
PHONE: (319)381-2323 (grain)  
COMMODITIES HANDLED:

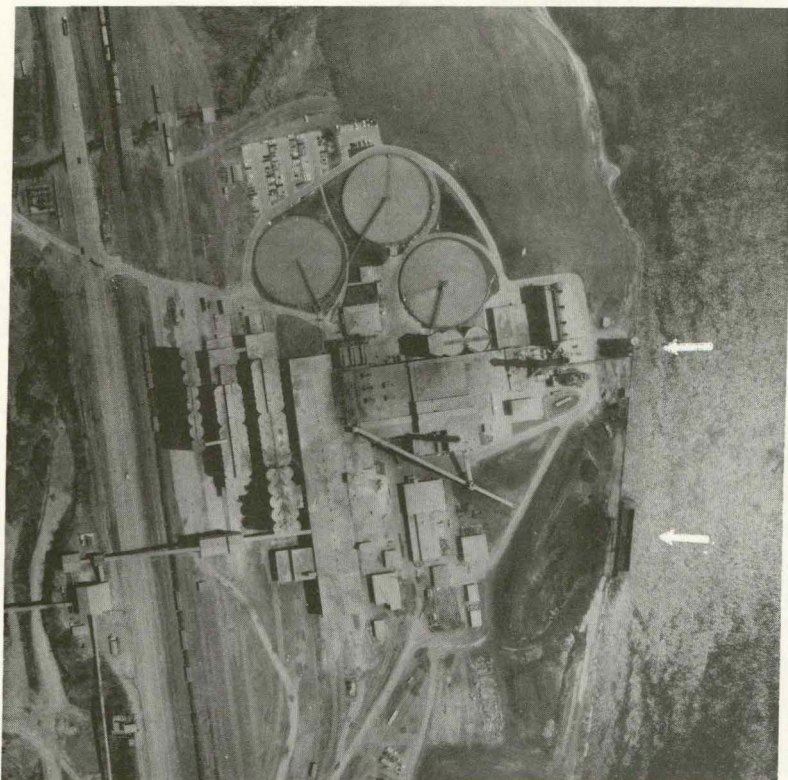
Corn, soybeans, soybean meal,  
industrial & road salt, molasses,  
vegetable oils, and caustic soda

ACCESS:  
Truck - South of IA 22 via  
short gravel driveway across  
RR tracks.  
Rail - Chicago, Rock Island &  
Pacific  
- Chicago, Milwaukee,  
St. Paul & Pacific.

NOTES: Ships & receives a  
variety of commodities.



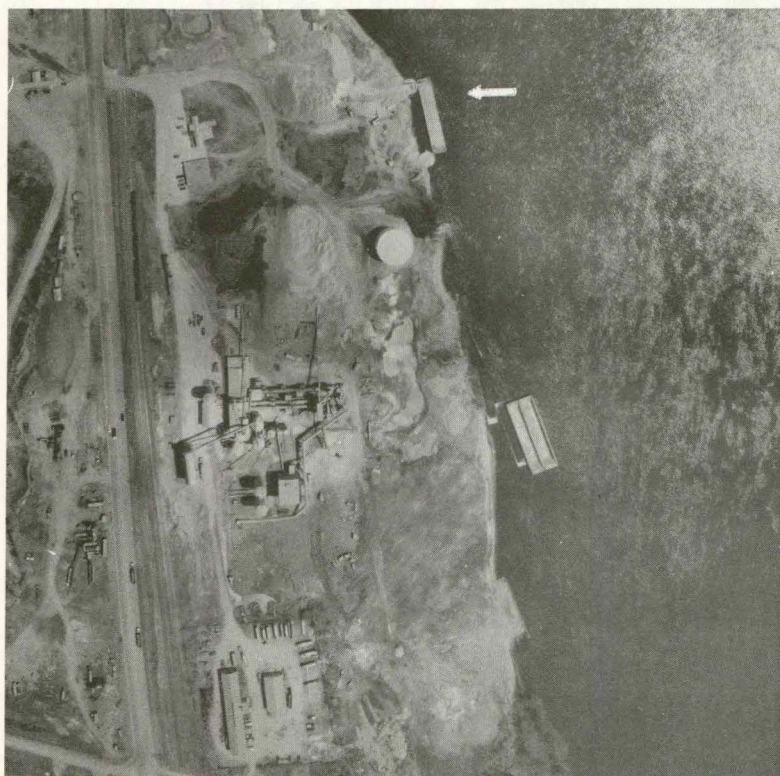
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 28  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 474.7  
NAME: Martin Marietta Cement  
(Dewey Portland Cement)  
ADDRESS:  
606A Davenport Bank Bldg.  
Davenport, IA 52808  
PHONE: (319)323-2751  
COMMODITIES HANDLED:  
Coal, cement, coke, gypsum

ACCESS:  
Truck - South of IA 22 via good,  
flat, paved driveway across RR  
tracks.  
Rail - Chicago, Rock Island &  
Pacific  
- Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Receives coal.  
All coal is used in producing  
cement.

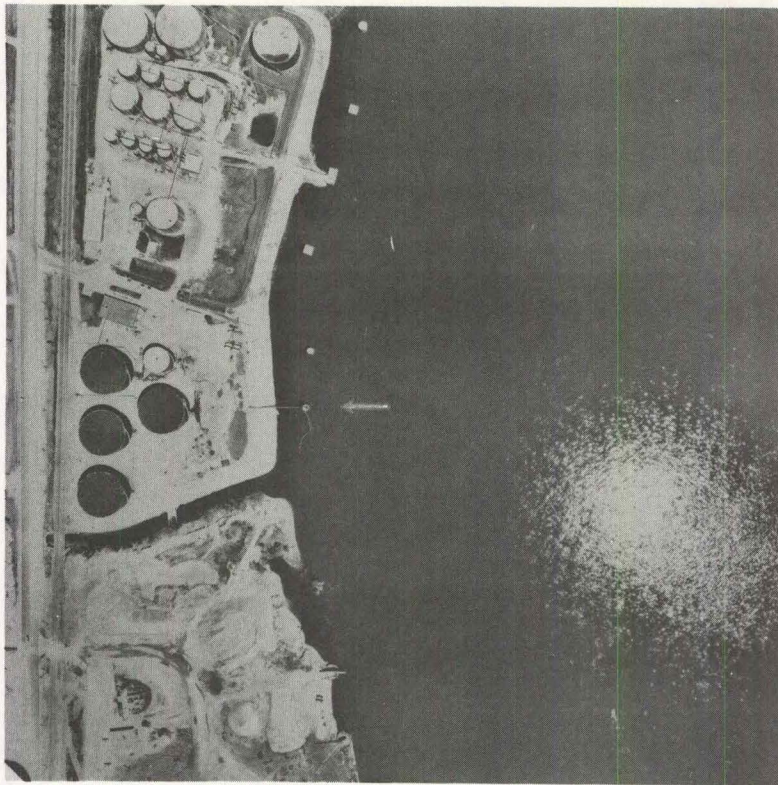


MAP REFERENCE NO.: 29  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 475.3  
NAME: Linwood Stone Products Co.,  
Inc.

ADDRESS:  
Rural Route 2  
Davenport, IA 52804  
PHONE: (319)324-1931  
COMMODITIES HANDLED:  
Crushed stone, coal, and  
liquid fertilizer.

ACCESS:  
Truck - South of IA 22.  
Rail - Chicago, Rock Island &  
Pacific  
- Chicago, Milwaukee,  
St. Paul & Pacific  
NOTES: Ships crushed stone and  
receives coal and liquid fertilizer.  
The crushed stone is mined  
nearby and the coal is used in  
producing lime.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 30  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 475.4  
NAME: MacMillan Oil Co.

**ADDRESS:**

Rt. 2, Box 265  
Davenport, IA 52804

**PHONE:** (319)383-0009

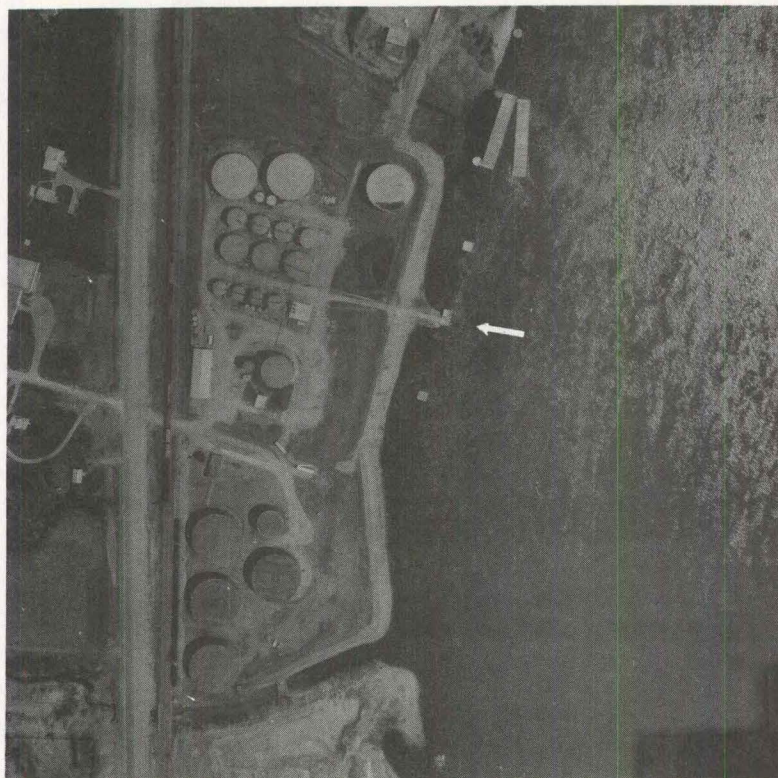
**COMMODITIES HANDLED:**

Fuel oil

**ACCESS:**

Truck - 2½ mi. south of I-280.  
South of IA 22 via short  
driveway across RR tracks

**NOTES:** Receives petroleum  
products. Barge facilities  
completed in 1977, including  
refueling equipment.



MAP REFERENCE NO.: 31  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 475.5  
NAME: AMOCO Oil Co.

**ADDRESS:**

P.O. Box 3397  
Davenport, IA 52808

**PHONE:** (319)324-5276

**COMMODITIES HANDLED:**

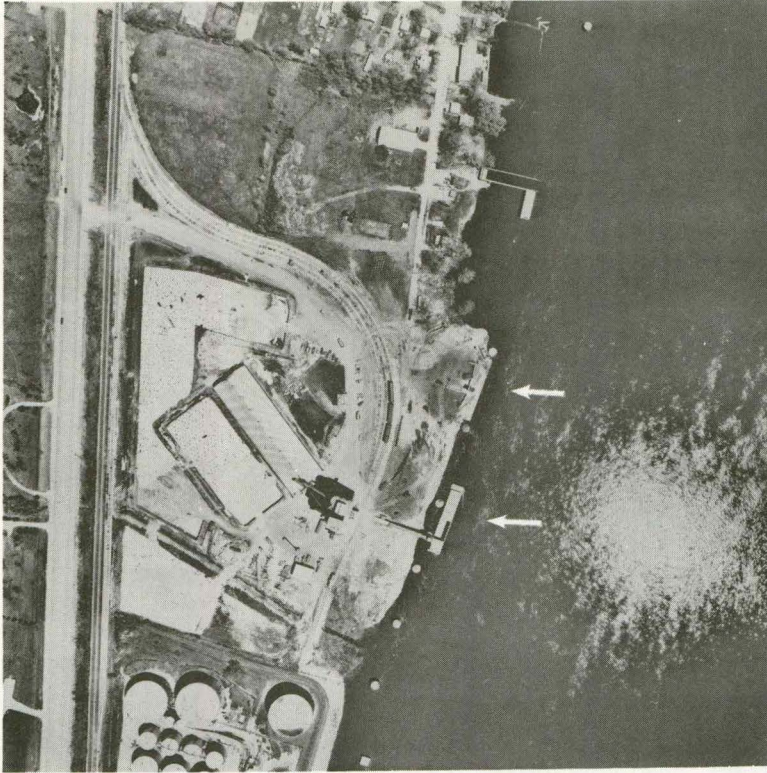
Fuel oil, asphalt road oil,  
and liquid fertilizer

**ACCESS:**

Truck - South of IA 22 via  
good asphalt driveway across  
RR tracks.

**NOTES:** Receives petroleum  
products and fertilizer.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 32  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 475.7  
NAME: Pillsbury Company

ADDRESS: (Office)  
1600 Brady Street  
Davenport, IA 52803

PHONE: (319)326-3581

**COMMODITIES HANDLED:**

Corn, corn screenings, corn gluten, soybeans, soybean meal, wheat, salt, oak logs, pipe, and coal

**ACCESS:**

Truck - Two miles from I-80, Hwys. 61, 67, and 150.

South of IA 22 via good, asphalt driveway across RR tracks.

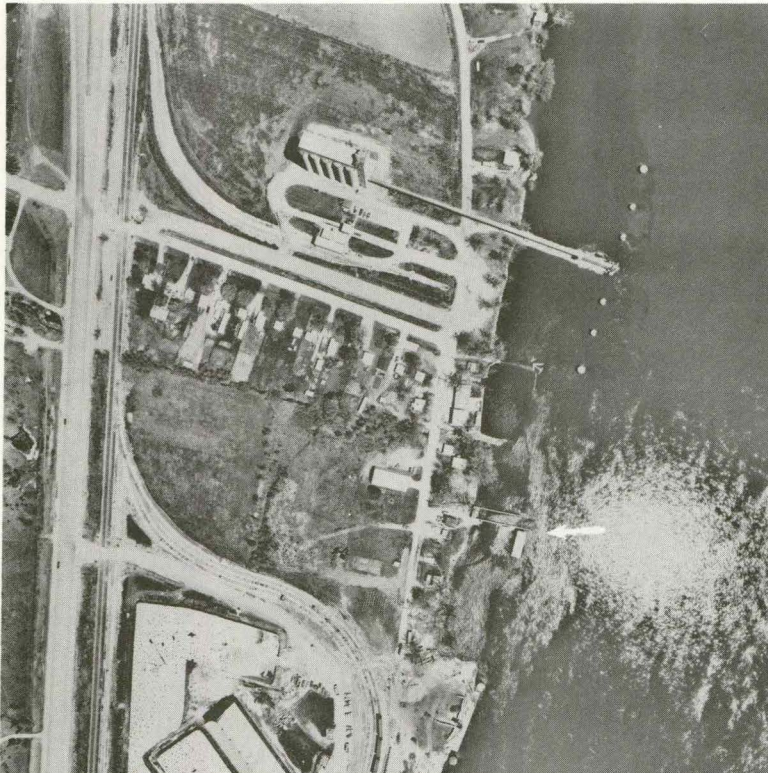
Rail - Chicago, Rock Island & Pacific.

Chicago, Milwaukee,

St. Paul & Pacific -- and

access to Burlington Northern.

NOTES: Ships & receives commodities.



MAP REFERENCE NO.: 33  
SERVICE AREA: Pools 15 and 16  
MILES ABOVE OHIO RIVER: 475.85  
NAME: Williams Marine Enterprise, Inc.

**ADDRESS:**

6725 South Concord Street  
Davenport, IA 52802

PHONE: (319)324-0214

**COMMODITIES HANDLED:**

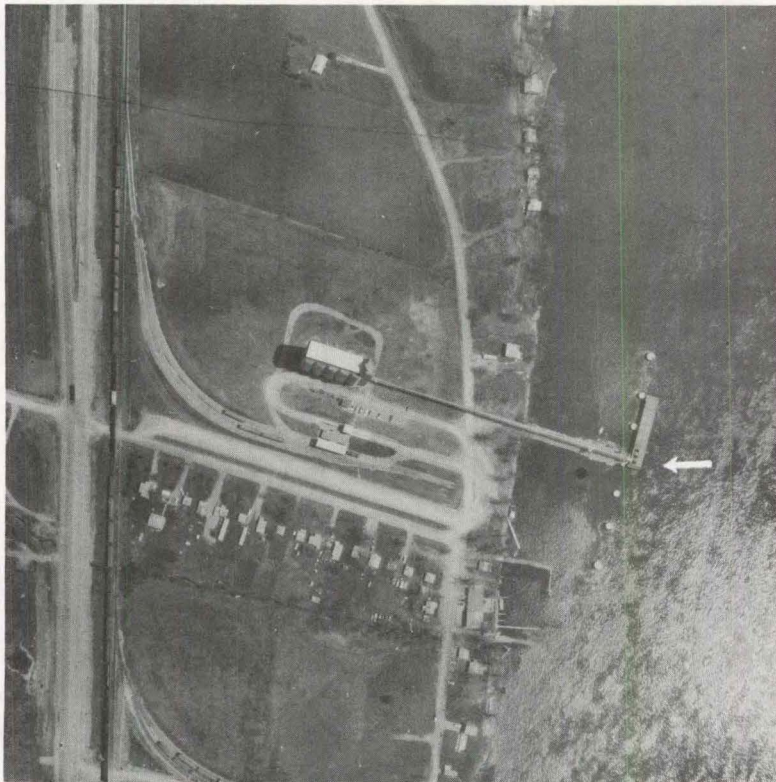
Barge handling services

**ACCESS:**

South of Iowa 22 via good streets.

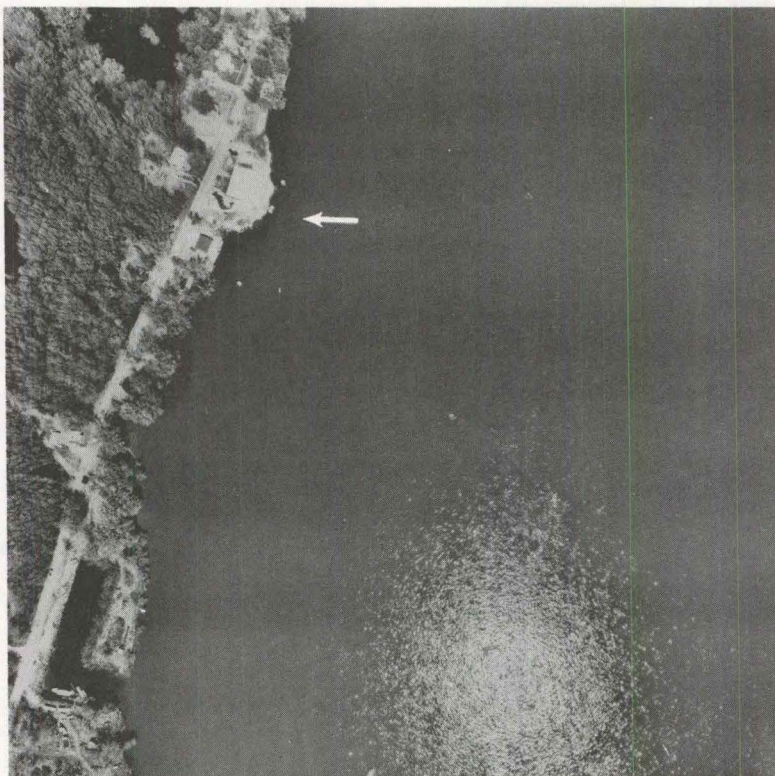
NOTES: Fleets, cleans, repairs, and salvages barges. Short- and medium-line towing.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 34  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 476.0  
NAME: Mississippi River  
Grain Elevator, Inc.  
ADDRESS:  
6603 S. Concord  
Davenport, IA 52802  
PHONE: (319)324-5214  
COMMODITIES HANDLED:  
Corn, corn products, &  
soybeans.

ACCESS:  
Truck - South of IA 22 via  
good, surfaced driveway across  
RR tracks.  
Rail - Chicago, Rock Island &  
Pacific  
- Chicago, Milwaukee,  
St. Paul & Pacific  
NOTES: Ships grain.

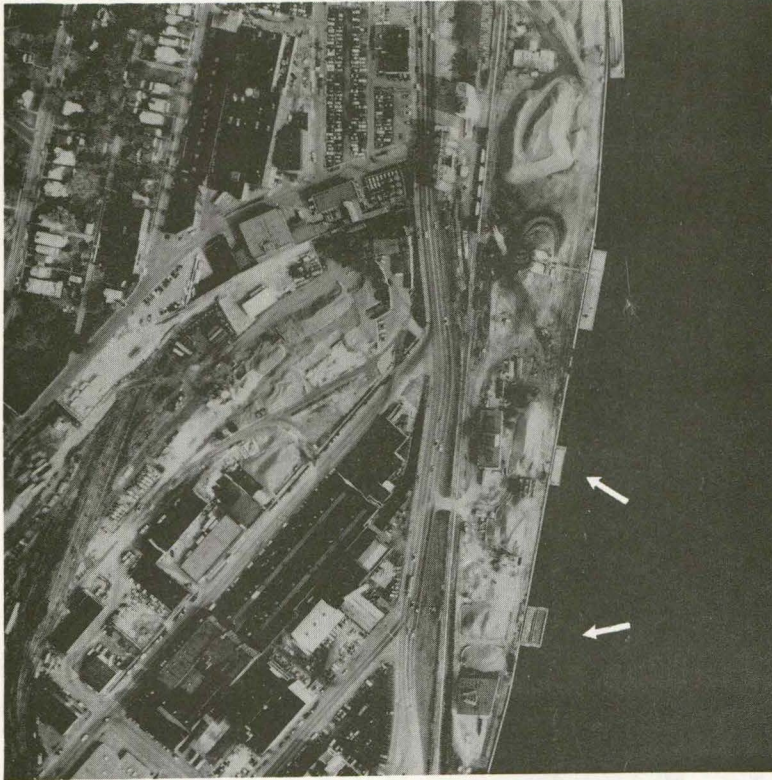


MAP REFERENCE NO.: 35  
POOL NO.: 16  
MILES ABOVE OHIO RIVER: 477.8  
NAME: W. G. Block Co.  
ADDRESS: (Terminal-S. Concord St.)  
Office: 317 E. 4th, P.O. Box 3010  
Davenport, IA 52808  
PHONE: (319)326-1654  
COMMODITIES HANDLED:  
Sand, gravel, crushed rock &  
stone.

ACCESS:  
Truck - East of IA 22 via 2 miles  
of hard-surfaced roads.

NOTES: New terminal operating  
in 1976.

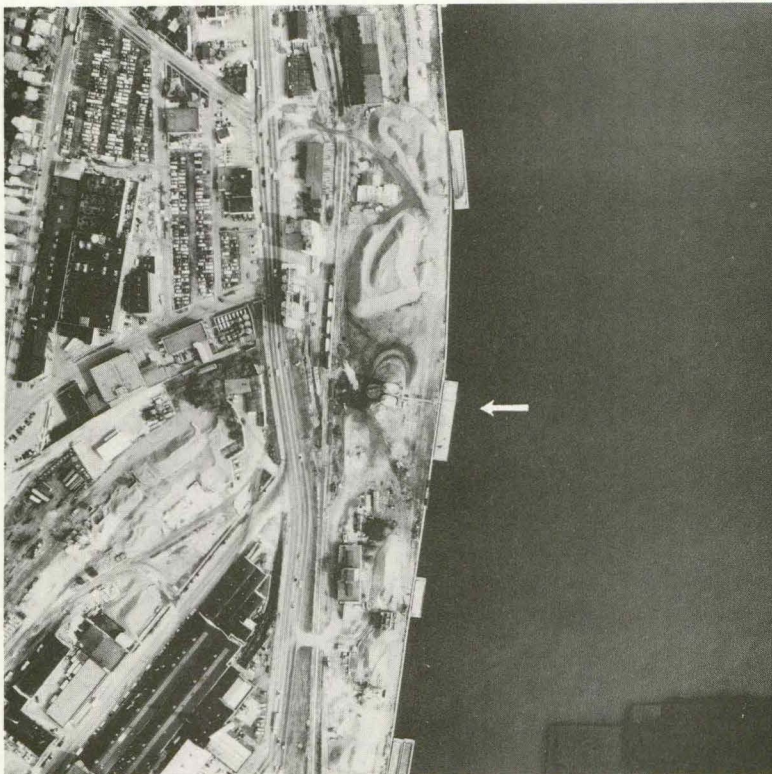
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 36  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 483.2  
NAME: Builders Sand & Gravel  
Company  
ADDRESS: (Main Office)  
104 Western Ave.  
Davenport, IA 52801  
PHONE: (319)322-1757  
COMMODITIES HANDLED:  
Sand & gravel.

ACCESS:  
Truck - South of U.S. 67 via  
good gravel driveway across  
rough RR tracks.

NOTES: Receives sand &  
gravel dredged from the  
Mississippi River.



MAP REFERENCE NO.: 37  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 483.3  
NAME: Alter Company

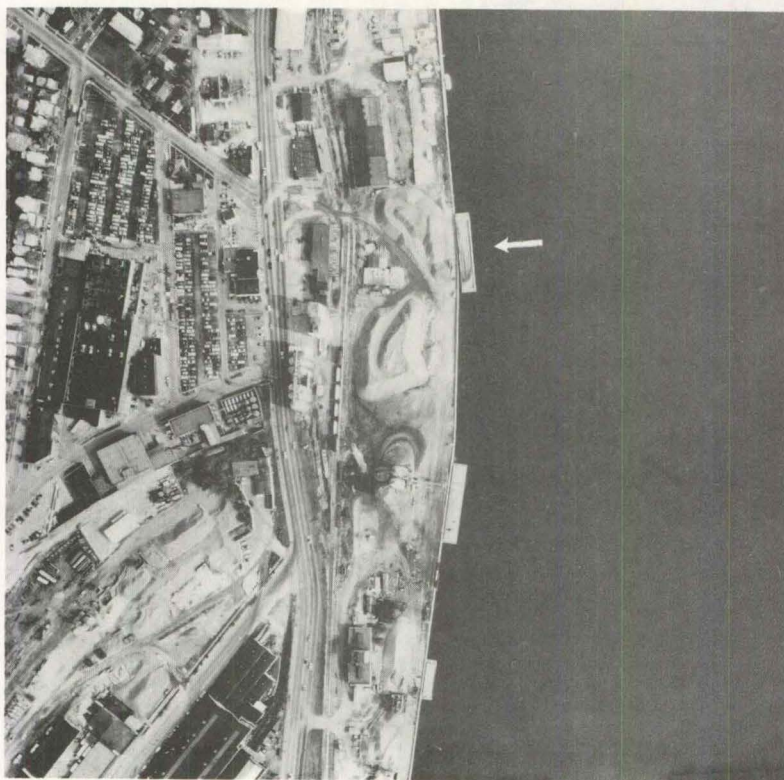
ADDRESS: (Office)  
2333 Rockingham Road  
Davenport, IA 52808  
PHONE: (319)326-2561  
COMMODITIES HANDLED:  
Corn, soybeans, scrap iron,  
car bodies, miscellaneous  
steel, & ingots.

ACCESS:  
Truck - South of U.S. 67 via  
good, gravel driveway across  
rough RR tracks.

Rail - Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Ships & receives general  
commodities for its own  
operations & under contract  
with other companies.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 38  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 483.3  
NAME: W. G. Block Co.

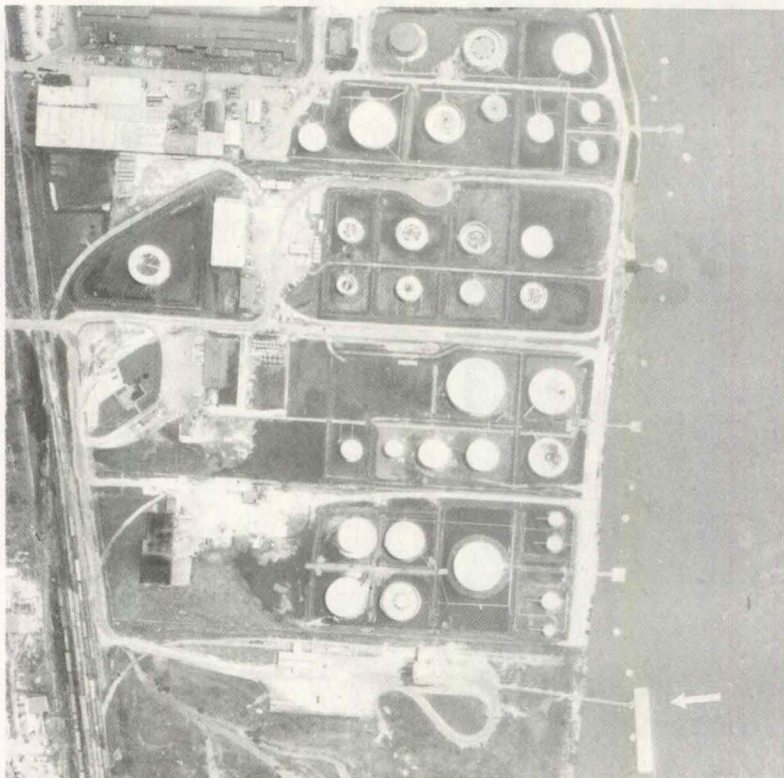
ADDRESS: (Office)  
317 E. 4th, P.O. Box 3010  
Davenport, IA 52808  
PHONE: (319)326-1654  
COMMODITIES HANDLED:  
Sand, gravel, & stone.

### ACCESS:

Truck - South of U.S. 67 via  
good, gravel driveway across  
rough RR tracks.

Rail - Chicago, Rock Island &  
Pacific  
- Chicago, Milwaukee  
St. Paul & Pacific

NOTES: Receives sand, gravel,  
& stone. Land area & dock  
purchased from International  
Multi-Foods Co. in 1975.  
New facilities used in 1976.



MAP REFERENCE NO.: 39  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 486.8  
NAME: Universal Atlas Cement

ADDRESS:  
2871 Depot  
Bettendorf, IA 52722  
PHONE: (319)359-8237  
COMMODITIES HANDLED:  
Cement

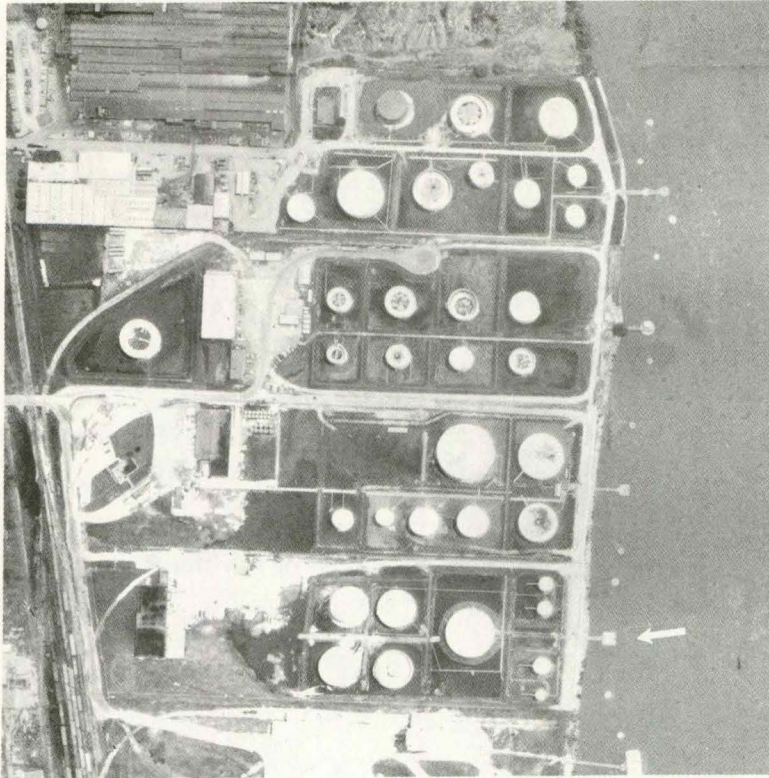
### ACCESS:

Truck - South of U.S. 67 via  
good, level, blacktop roads.

Rail - Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Receives cement.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 40  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.0  
NAME: Mobil Oil Company

ADDRESS:  
2925 Gilbert Street  
Bettendorf, IA 52722  
PHONE: (319)355-0255  
COMMODITIES HANDLED:  
Gasoline & fuel oil.

ACCESS:  
Truck - South of U.S. 67 via  
good, level, blacktop roads.

NOTES: Receives petroleum  
products for transfer &  
storage.



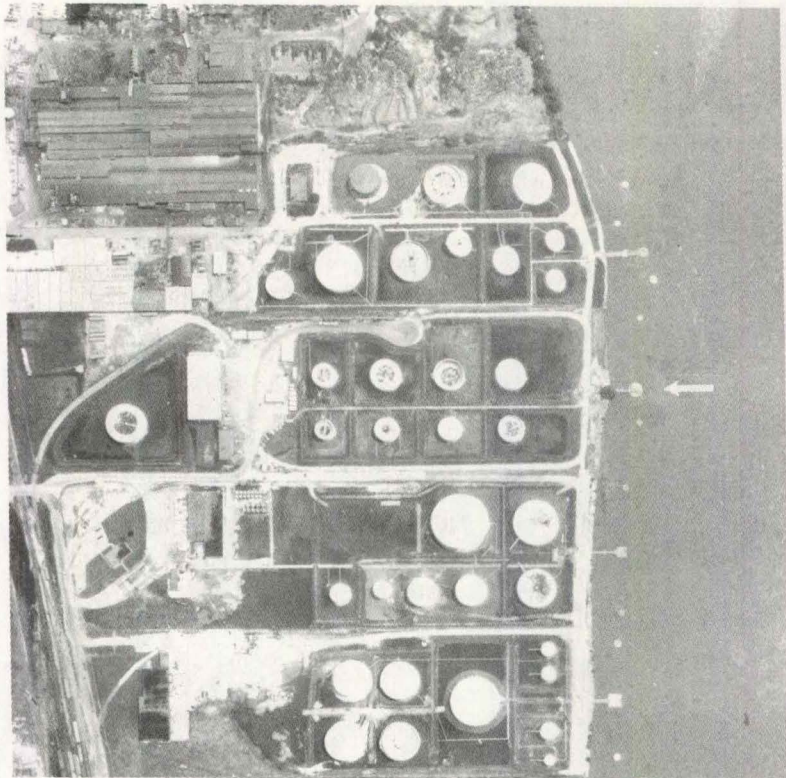
MAP REFERENCE NO.: 41  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.0  
NAME: Shell Oil Company

ADDRESS:  
Marine Terminal  
Bettendorf, IA 52722  
PHONE: (319)355-1835  
COMMODITIES HANDLED:  
Gasoline, furnace oil,  
jet fuel.

ACCESS:  
Truck - South of U.S. 67 via  
good, flat, blacktop roads.

NOTES: Receives petroleum  
products for transfer &  
storage

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 42  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.1  
NAME: AMOCO Oil Company

**ADDRESS:**

S. 31st Street  
Bettendorf, IA 52722

**PHONE:** (319)355-2686

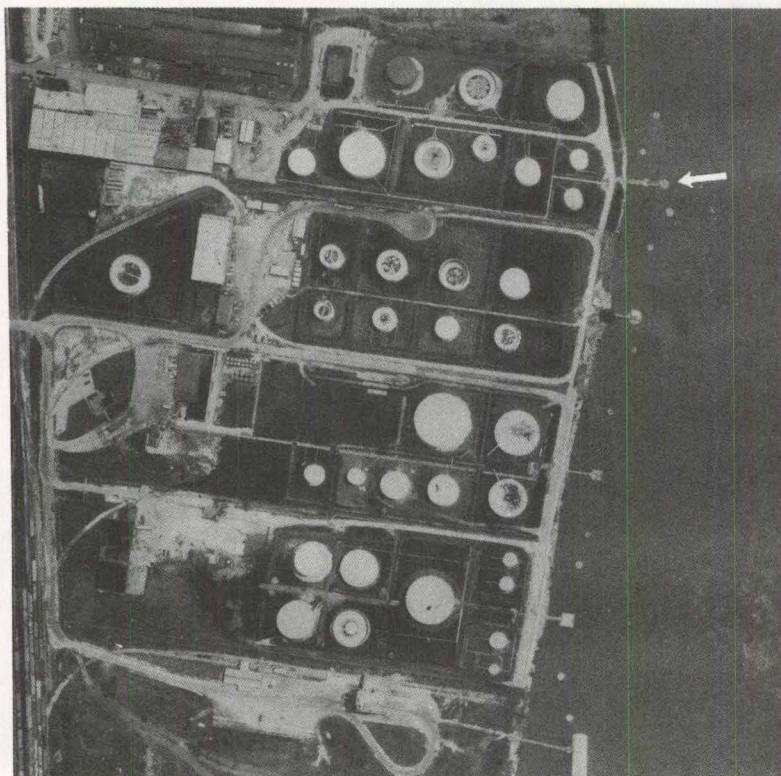
**COMMODITIES HANDLED:**

Petroleum products.

**ACCESS:**

Truck - South of U.S. 67 via  
good, flat, blacktop roads.

**NOTES:** Receives petroleum  
products for transfer &  
storage.



MAP REFERENCE NO.: 43  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.2  
NAME: Phillips Petroleum Co.  
(Phillips 66)

**ADDRESS:**

Box M  
Bettendorf, IA 52722

**PHONE:** (319)355-2654

**COMMODITIES HANDLED:**

Petroleum products.

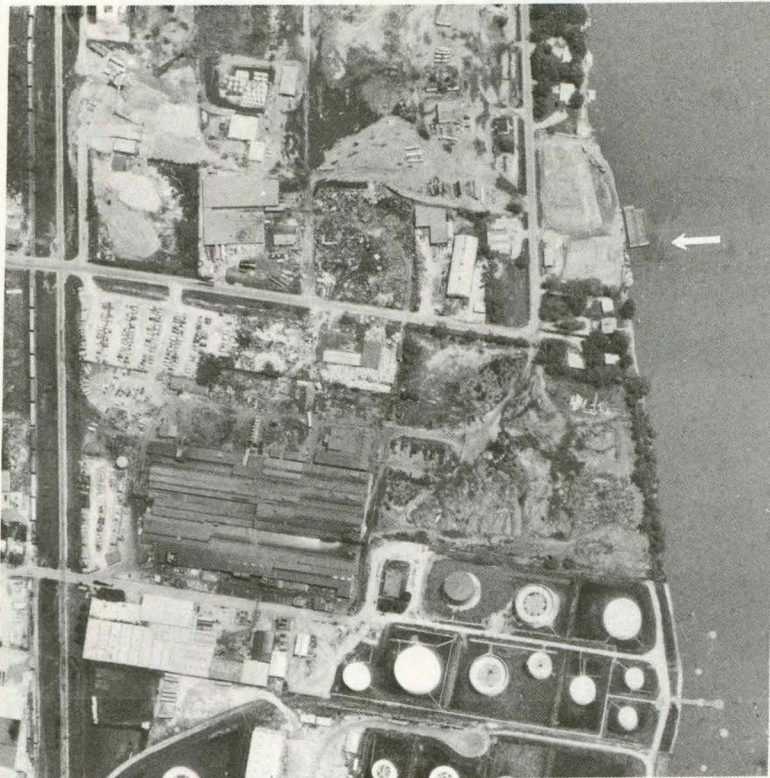
**ACCESS:**

Truck - South of U.S. 67 via  
good, blacktop street.

**NOTES:** Receives petroleum  
products for transfer &  
storage.



## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 44  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.5  
NAME: Bettendorf Terminal Co.

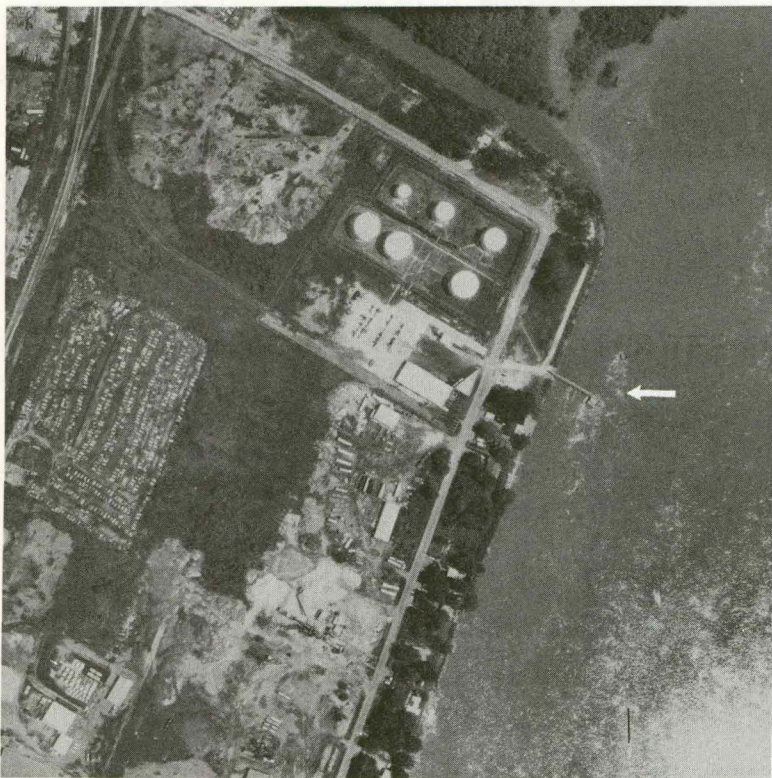
ADDRESS:  
3623 Elm Street  
Bettendorf, IA 52722

PHONE: (319)355-6223

COMMODITIES HANDLED:  
Sand

ACCESS:  
Truck - South of U.S. 67 via  
0.4 mi. of hard-surfaced streets.

NOTES: Receives sand.  
Owned & operated by LeClaire  
Quarries.



MAP REFERENCE NO.: 45  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 487.7  
NAME: The Texaco Company

ADDRESS:  
Mississippi Point  
Bettendorf, IA 52722

PHONE: (319)355-0271

COMMODITIES HANDLED:  
Gasoline

ACCESS:  
Truck - South of U.S. 67 via  
0.8 mile of good paved streets.

NOTES: Receives petroleum  
products.

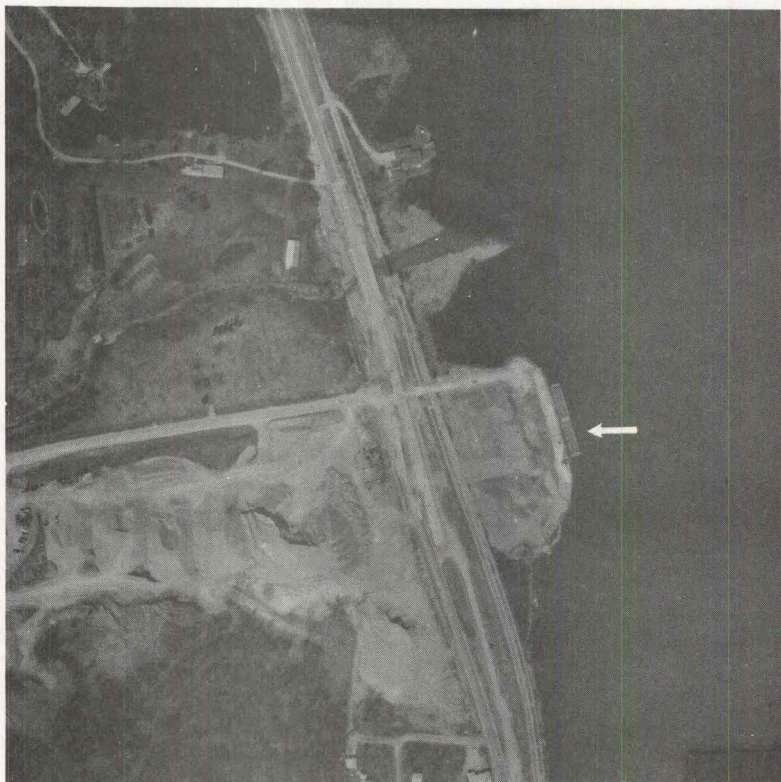
## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 46  
POOL NO.: 15  
MILES ABOVE OHIO RIVER: 488.5  
NAME: Union Oil Company  
(W. H. Barber Co.)  
ADDRESS:  
S. Bellingham Street  
Bettendorf, IA 52722  
PHONE: (319)355-2931  
COMMODITIES HANDLED:  
Petroleum products.

ACCESS:  
Truck - SE of U.S. 67 about  
0.5 mile via good city streets.

NOTES: Received all petroleum  
by pipeline in recent years  
& does not use barge facility.



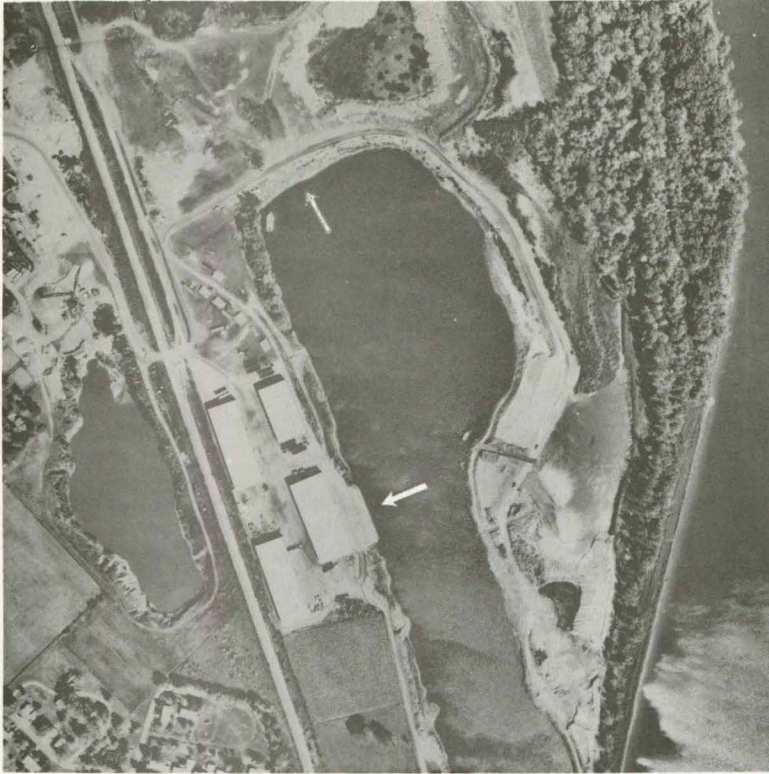
MAP REFERENCE NO.: 47  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 498.2  
NAME: LeClaire Quarries, Inc.

ADDRESS  
P.O. Box 206  
LeClaire, IA 52753  
PHONE: (319)289-4214  
COMMODITIES HANDLED:  
Sand & rock.

ACCESS:  
Truck - East of U.S. 67 on  
good driveway across rough  
RR tracks.

NOTES: Ships & receives  
sand & rock.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 48  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 512.2  
NAME: Determann Industries, Inc.  
ADDRESS:

1425 N. Washington  
Camanche, IA 52730  
PHONE: (319)259-8311  
COMMODITIES HANDLED:  
Aluminum, machinery, dry fertilizer, urea, coal, constr. equipment, gravel, logs, newsprint paper, pipe, salt, steel products

**ACCESS:**

Truck - East of U.S. 67 via good, paved driveway.

Rail - Burlington Northern

- Chicago, Milwaukee, St. Paul, & Pacific.

- Chicago & Northwestern Transportation.

- Chicago, Rock Island & Pacific

NOTES: Shipping & receiving agent. Receives coal.



MAP REFERENCE NO.: 49  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 513.5  
NAME: W. G. Block Co.

(Acme Aggregates)  
ADDRESS: (Terminal-Camanche, IA)  
Office-317 E. 4th  
Davenport, IA 52801  
PHONE: (319)326-1654

COMMODITIES HANDLED:  
Sand, gravel, & crushed rock & stone.

**ACCESS:**

Truck - East of U.S. 67 via 3/4 mile of gravel road.

NOTES: New facility being developed.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 50  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 513.9  
NAME: E.I. DuPont DeNemours, Inc.

**ADDRESS:**

P.O. Box 451  
Clinton, IA 52732

**PHONE:** (319)244-4321

**COMMODITIES HANDLED:**

Caustic soda

**ACCESS:**

East of U.S. 67 via good, paved driveway.

Rail - Davenport, Rock Island,  
and Northwestern  
- Chicago and Northwestern  
Transportation

**NOTES:** Receives caustic soda  
for use in manufacturing  
cellophane and film materials.



MAP REFERENCE NO.: 51  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 514.2  
NAME: Interstate Power Co.

**ADDRESS:** M. L. Kapp Station  
2001 Beaver Channel Pkwy.  
Clinton, IA 52732

**PHONE:** (319)243-2611

**COMMODITIES HANDLED:**

Coal

**ACCESS:**

South of U.S. 30 via very  
rough, gravel street.

Rail - Burlington Northern

**NOTES:** Receives coal.  
All coal used for producing  
electricity.

## MISSISSIPPI RIVER TERMINALS

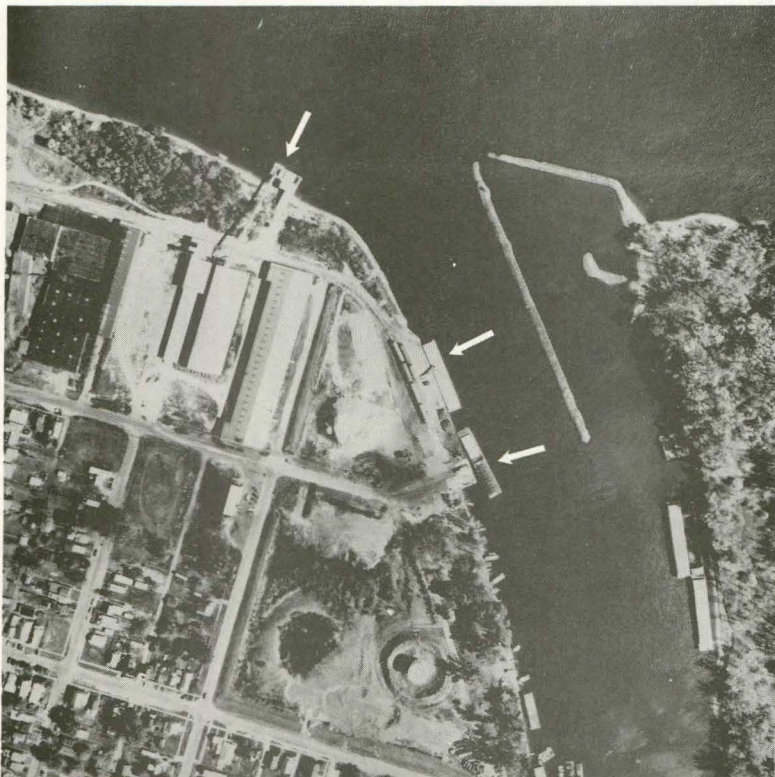


MAP REFERENCE NO.: 52  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 517.2  
NAME: Peavy Company

ADDRESS:  
1811 S. 4th Street  
Clinton, IA 52732  
PHONE: (319)242-5251  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - South of U.S. 30 via  
6 blocks of good, paved, streets.

NOTES: Ships grain.  
The facilities were purchased  
from Fronings, Inc. in 1975.



MAP REFERENCE NO.: 53  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 517.5  
NAME: CF Sales, Inc.

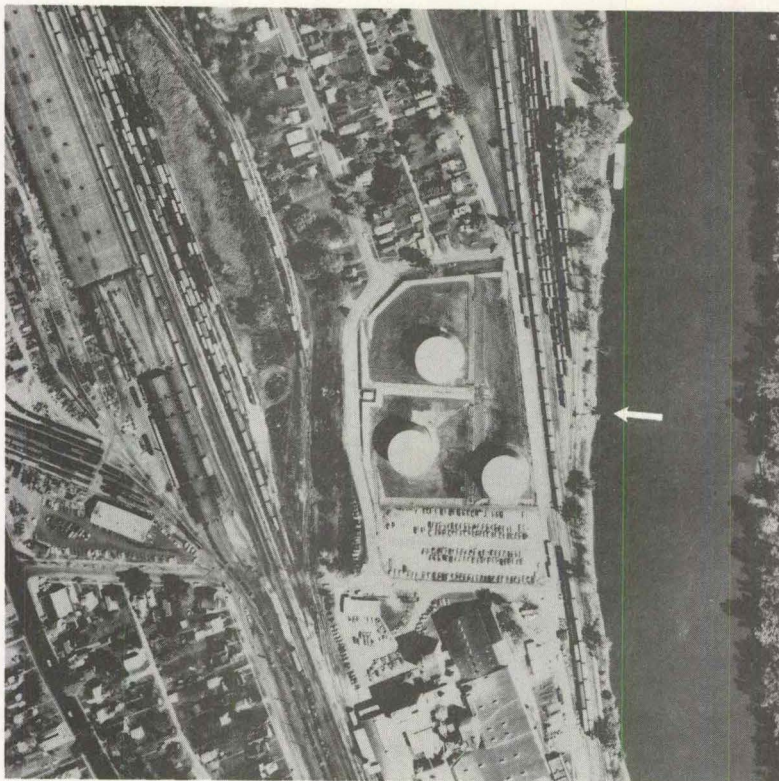
(Municipal Dock)  
ADDRESS:  
204-15th Ave., S.  
Clinton, IA 52732  
PHONE: (319)242-0962  
COMMODITIES HANDLED:

Soybean meal, corn feed pellets,  
beet pulp pellets, petroleum by-  
products, dry fertilizer & salt.

ACCESS:  
Truck - South of U.S. 30 via  
7 blocks of good, paved streets.  
Rail - Chicago, Milwaukee,  
St. Paul & Pacific  
- Chicago & Northwestern  
Transportation

NOTES: Shipping & receiving  
agent for all classes of commodities.  
The dock facilities are leased from  
the City of Clinton.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 54  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 517.5  
NAME: Clinton Corn Processing

ADDRESS:  
P.O. Box 340  
Clinton, IA 52732  
PHONE: (319)242-1121  
COMMODITIES HANDLED:  
Fuel oil

ACCESS:  
Truck - South of U.S. 30 on good,  
paved streets.  
Rail - Chicago & Northwestern  
Transportation  
- Chicago, Rock Island &  
Pacific  
- Burlington Northern  
- Chicago, Milwaukee,  
St. Paul & Pacific  
NOTES: Receives fuel oil for  
use at the corn processing  
plant.



MAP REFERENCE NO.: 55  
SERVICE AREA: Pool 14  
MILES ABOVE OHIO RIVER: 517.7  
NAME: Lewis & Lawson Harbor  
Service

ADDRESS:  
17th Ave. S. & River St.  
Clinton, IA 52732  
PHONE: (319)242-1646  
COMMODITIES HANDLED:  
Barge handling services.

ACCESS:  
South of U.S. 30 via 6 blocks  
of good paved streets & 1  
block on gravel street.  
NOTES: Groups, moves, cleans,  
and repairs barges.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 56  
POOL NO.: 14  
MILES ABOVE OHIO RIVER: 521.0  
NAME: CF Industries, Inc.  
(Carnes Oil Co.)  
ADDRESS:  
31st Ave., N. & River St.  
Clinton, IA 52732  
PHONE: (319)242-0433  
COMMODITIES HANDLED:  
Nitrogen

ACCESS:  
Truck - East of U.S. 67 about  
6 blocks via good streets (paved  
& gravel).  
Rail - Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Receives nitrogen.



MAP REFERENCE NO.: 57  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 559.0  
NAME: USS Agri-Chemicals Co.  
ADDRESS:  
R.F.D. 2  
Bellevue, IA 52031  
PHONE: (319)872-3218  
COMMODITIES HANDLED:  
Anhydrous ammonia.

ACCESS:  
Truck - East of U.S. 52 & 67 via  
¼ mile of good, asphalt road.  
Rail - Chicago, Milwaukee,  
St. Paul & Pacific.

NOTES: Receives anhydrous  
ammonia.

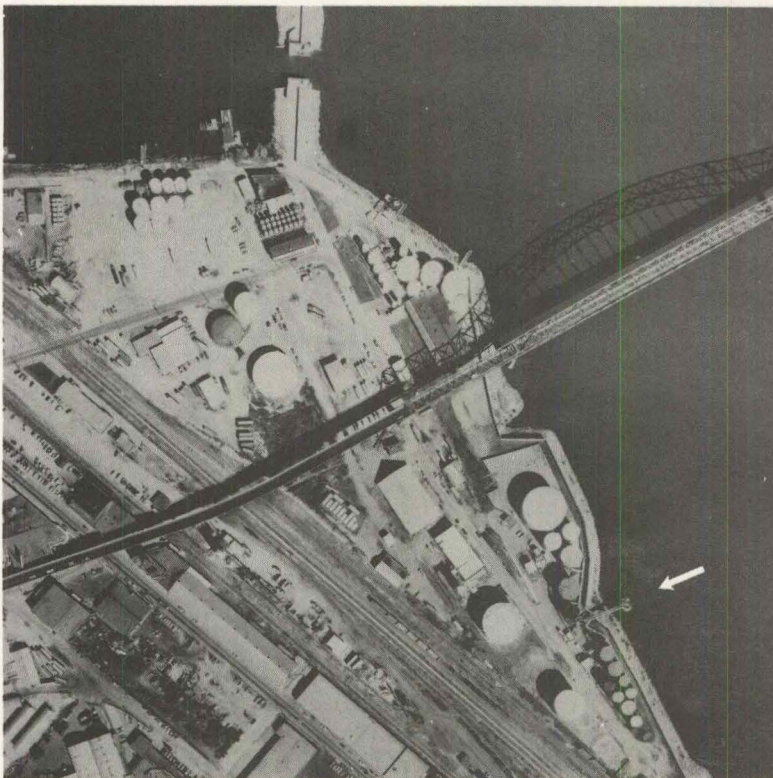
## MISSISSIPPI RIVER TERMINALS

NO PHOTO  
AVAILABLE

MAP REFERENCE NO.: 58  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 578.6  
NAME: Wisconsin Barge Line  
Fleeting & Harbor Service  
ADDRESS:  
P.O. Box 105  
Dubuque, Iowa 52001  
PHONE: 608-725-5413  
COMMODITIES HANDLED:  
Barge handling service

ACCESS:

NOTES: Areas served:  
Dubuque, Cassville, McGregor



MAP REFERENCE NO.: 59  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 579.2  
NAME: Sinclair Marketing, Inc.

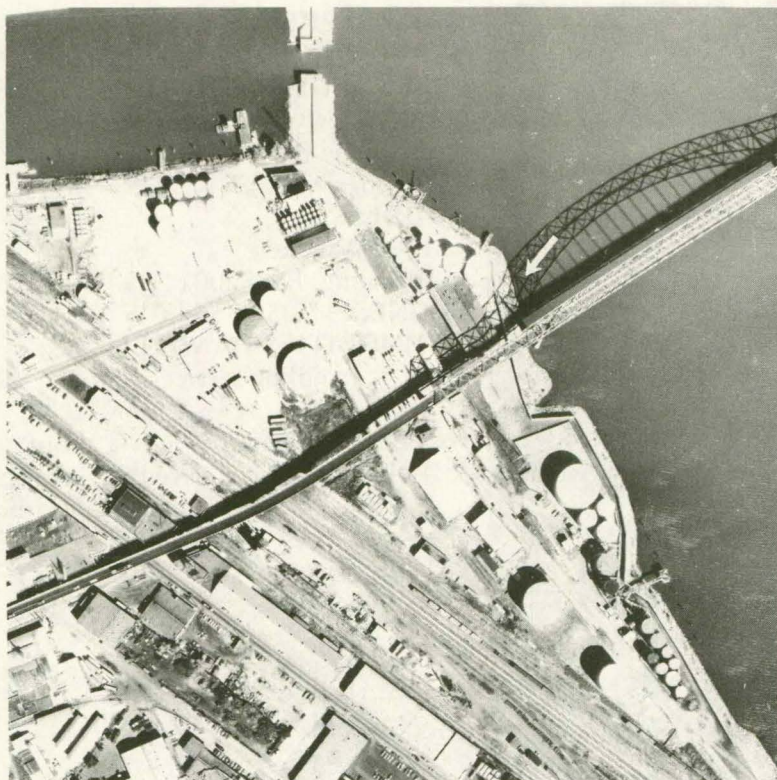
ADDRESS:  
200 Terminal St.  
Dubuque, IA 52001  
PHONE: (319)583-9718  
COMMODITIES HANDLED:  
Asphalt, gas, & fuel oil.

ACCESS:  
Truck - East of U.S. 52 via about  
6 blocks of good, paved streets.

NOTES: Receives petroleum  
products.



## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 60  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 579.3  
NAME: Dubuque Twine Company

**ADDRESS:**

Jones & Terminal St.  
Dubuque, IA 52001

**PHONE:** (319)583-9701

**COMMODITIES HANDLED:**

Baler twine

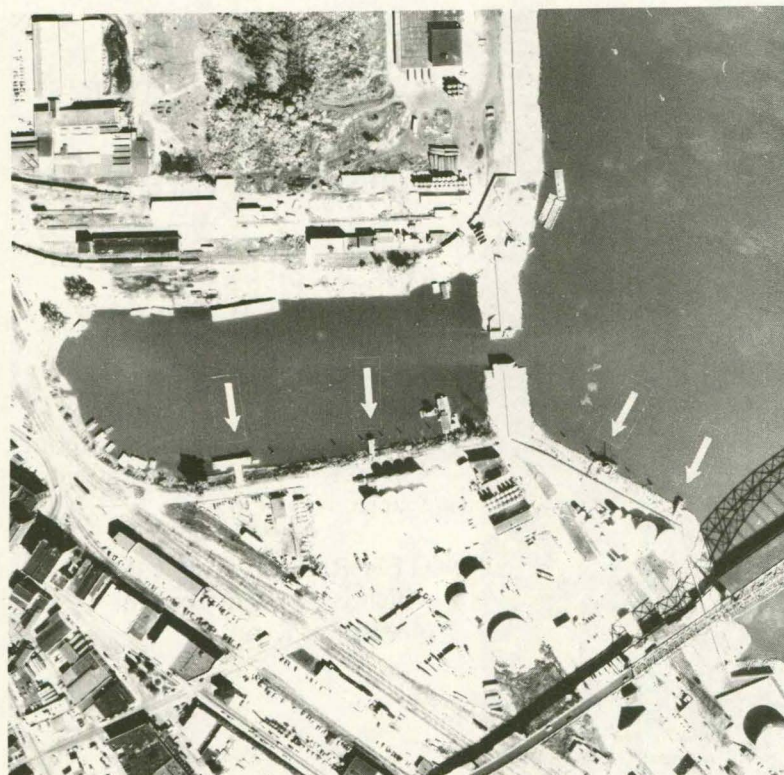
**ACCESS:**

Truck - East of U.S. 52 via about  
5 blocks of good, paved streets.

Rail - Burlington Northern  
Illinois Central Gulf

**NOTES:** Receives twine.

Dock and storage area owned  
by the City of Dubuque.



MAP REFERENCE NO.: 61  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 579.4  
NAME: Dubuque Tank Terminal Co.

**ADDRESS:**

Jones & Terminal St.  
Dubuque, IA 52001

**PHONE:** (319)583-6457

**COMMODITIES HANDLED:**

Lard, grease, tallow,  
liquid fertilizer, molasses,  
& salt.

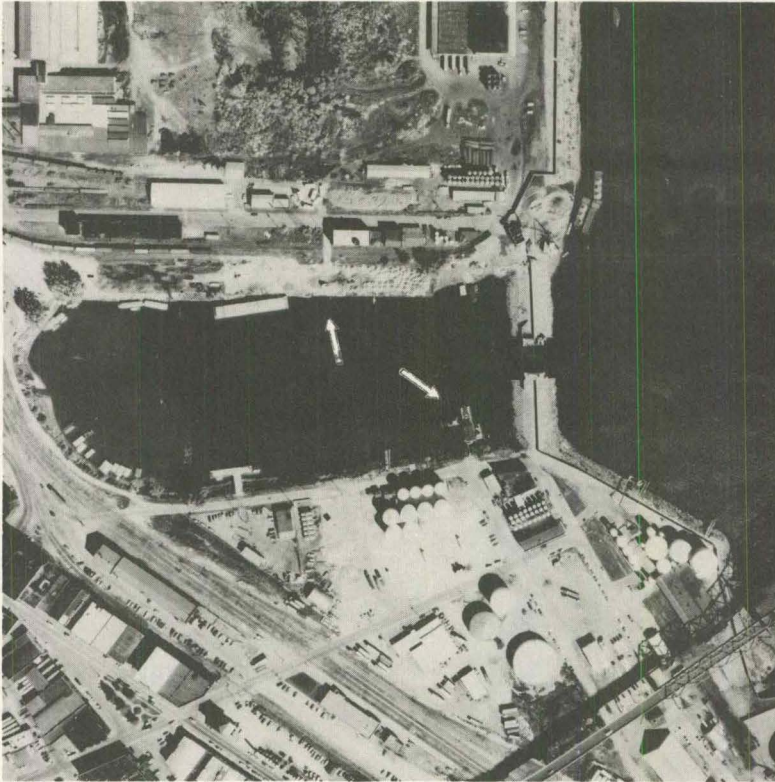
**ACCESS:**

Truck - East of U.S. 52 via about  
4 blocks of good, paved streets.

Rail - Burlington Northern  
Illinois Central Gulf

**NOTES:** Ships & receives a  
variety of commodities.

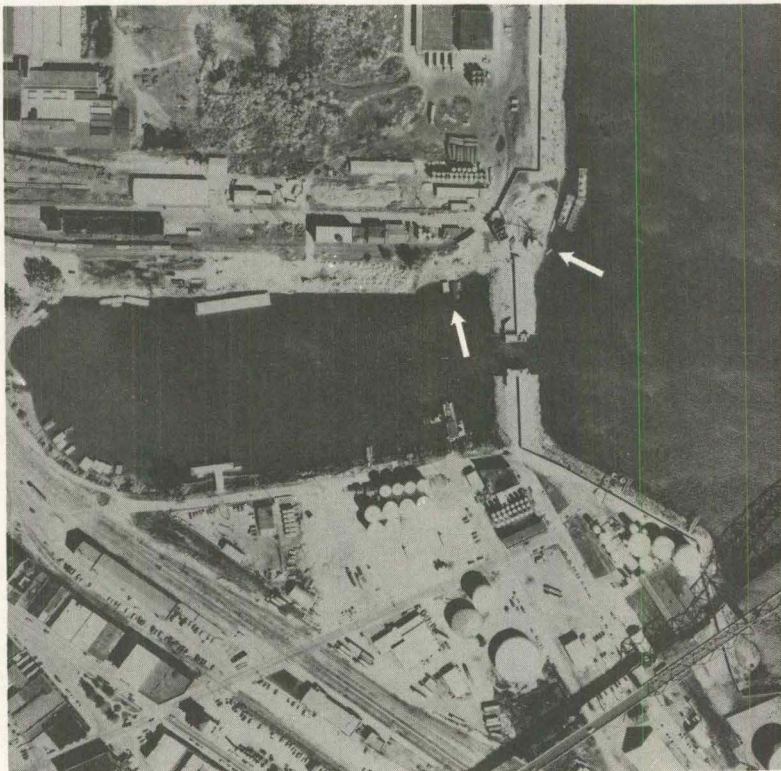
## MISSISSIPPI RIVER TERMINALS



**MAP REFERENCE NO.:** 62  
**SERVICE AREA:** Dubuque area of Pool 12  
**MILES ABOVE OHIO RIVER:** 579.5  
**NAME:** Newt Marine Service  
Dubuque Barge & Fleeting Service  
Company  
**ADDRESS:**  
1200 Adeline  
Dubuque, IA 52001  
**PHONE:** (319)582-5633  
**COMMODITIES HANDLED:**  
Barge handling services.

**ACCESS:** East of U.S. 52 via about  
4 blocks of good, paved streets to  
facilities on south side of Ice Harbor.

**NOTES:** Fleets, cleans, repairs and  
surveys barges.



**MAP REFERENCE NO.:** 63  
**POOL NO.:** 12  
**MILES ABOVE OHIO RIVER:** 579.5  
**NAME:** Molo Sand & Gravel Co.

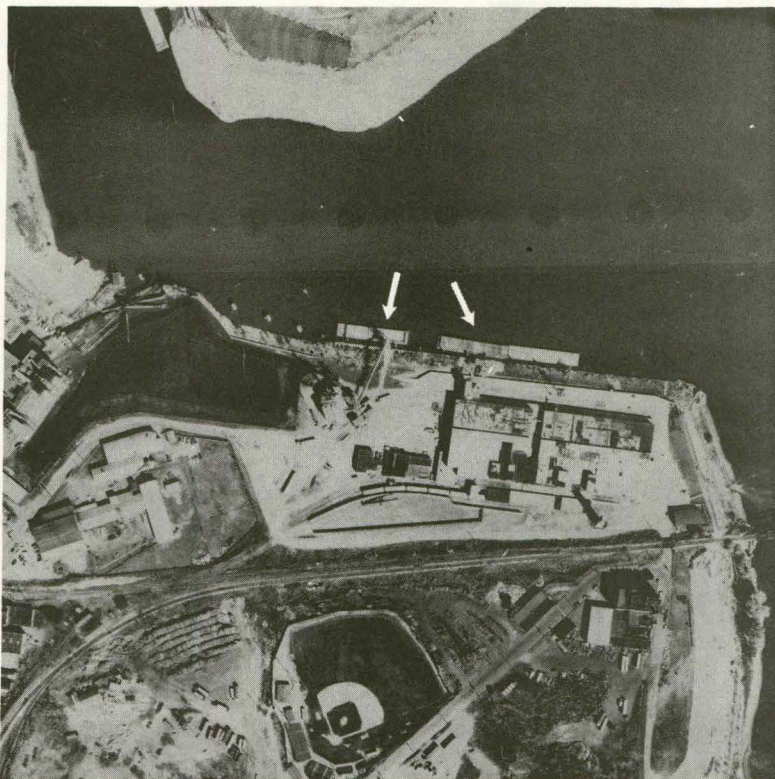
**ADDRESS:** (Plant: end of 3rd St.)  
Office: 41 Main St.  
Dubuque, IA 52001

**PHONE:** (319)582-3611  
**COMMODITIES HANDLED:**  
Sand & gravel.

**ACCESS:**  
Truck - East of U.S. 52 via about  
4 blocks of bumpy brick streets  
& across 9 RR tracks.

**NOTES:** Receives sand & gravel  
which is dredged from the  
Mississippi River.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 64  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 580.0  
NAME: Pillsbury Company

**ADDRESS:**

E. 7th & Commercial St.  
Dubuque, IA 52001

**PHONE:** (319)556-4245

**COMMODITIES HANDLED:**

Corn, soybeans, dry fertilizer,  
and coal.

**ACCESS:**

Truck - East of U.S. 52 via  
6 blocks of good, paved streets  
& 6 blocks of rough gravel &  
brick streets.

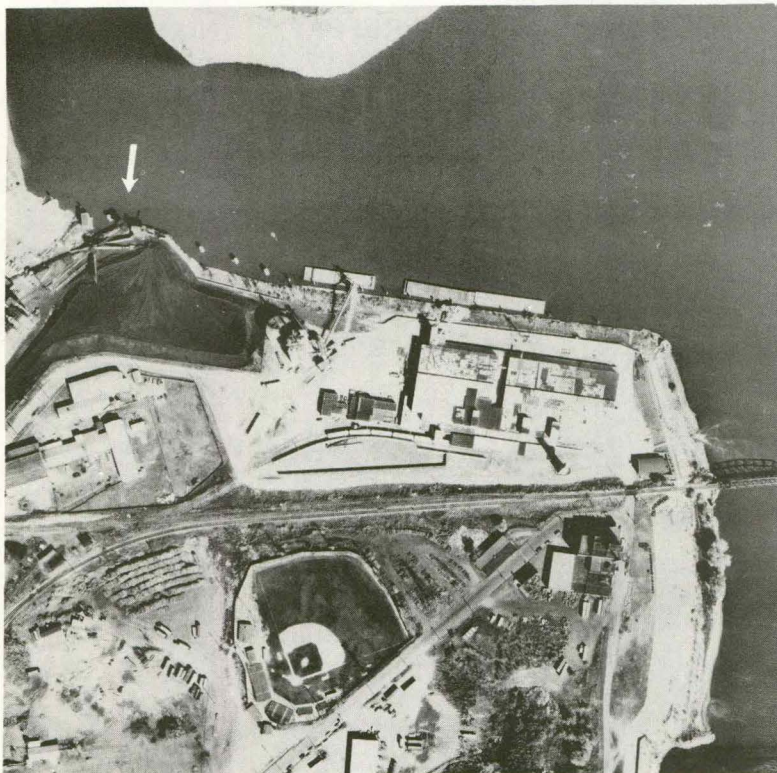
Rail - Illinois Central Gulf

- Chicago, Milwaukee,  
St. Paul & Pacific

- Burlington Northern

- Chicago & Northwestern  
Transportation

**NOTES:** Ships & receives  
commodities.



MAP REFERENCE NO.: 65  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 580.0  
NAME: Interstate Power Co.

**ADDRESS:**

1000 Main St.  
Dubuque, IA 52001

**PHONE:** (319)582-5421

**COMMODITIES HANDLED:**

Coal

**ACCESS:**

East of U.S. 52 via about 6  
blocks of good paved streets.

Rail (not used) - Chicago, Milwaukee  
St. Paul & Pacific

**NOTES:** Receives coal.

All coal used for producing  
electricity.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 66  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 580.1  
NAME: Dubuque Oil Company

ADDRESS: (12th St. Extension)  
Box 921  
Dubuque, IA 52001  
PHONE: (319)556-1304  
COMMODITIES HANDLED:  
Gasoline & fuel oil.

ACCESS:  
Truck - East of U.S. 52 via  
good, paved streets.

NOTES: Receives petroleum  
products. Owned by Koch  
Industries. Expansion now in  
progress.



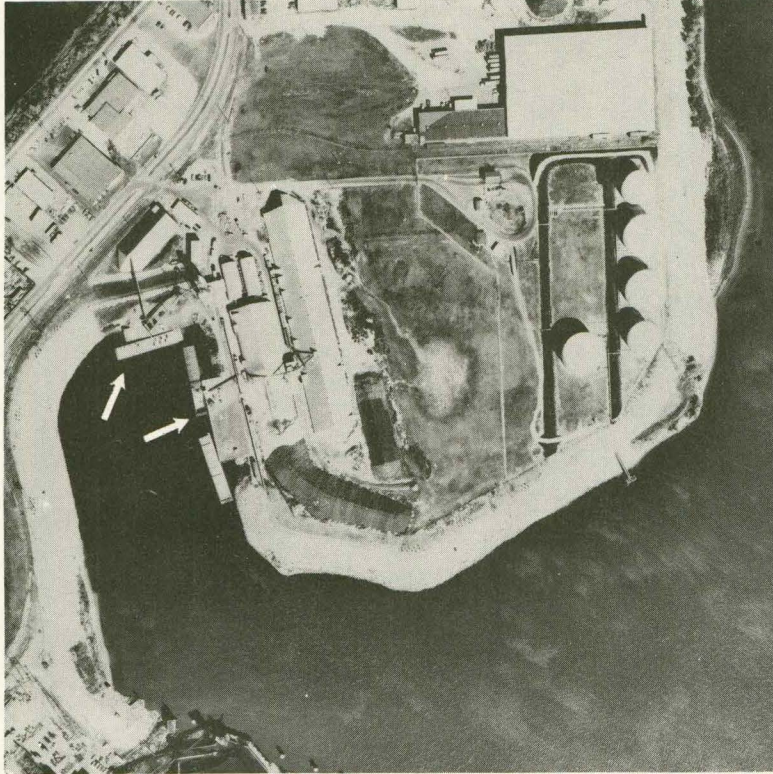
MAP REFERENCE NO.: 67  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 580.3  
NAME: Dubuque Tank Terminal Co.

ADDRESS: (Office)  
Jones & Terminal St.  
Dubuque, IA 52001  
PHONE: (319)583-6457  
COMMODITIES HANDLED:  
Salt & dry fertilizer.

ACCESS:  
Truck - East of U.S. 52 via  
good, paved streets.  
Rail - Chicago & Northwestern  
Transportation

NOTES: Receives general  
commodities.

## MISSISSIPPI RIVER TERMINALS

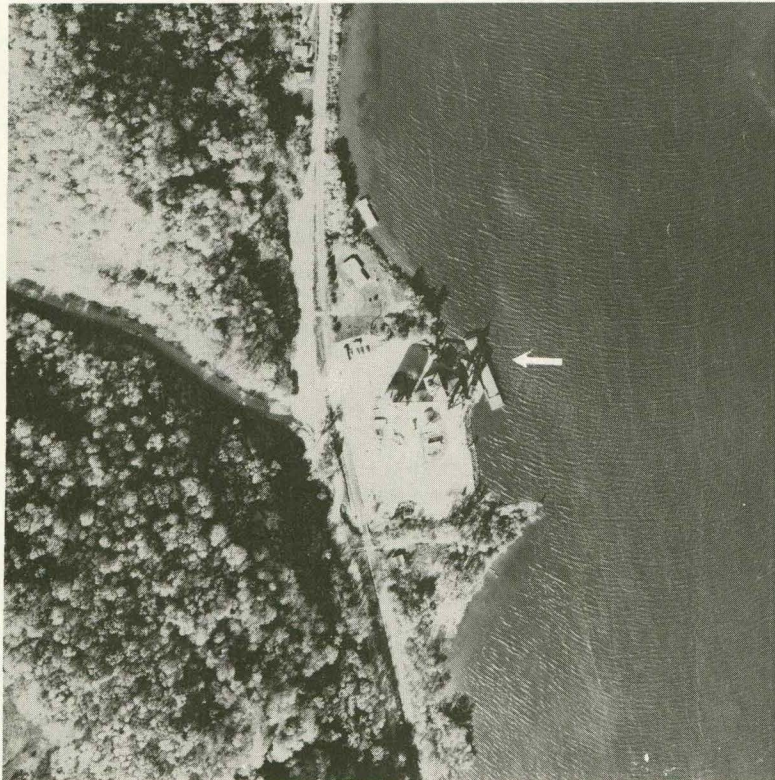


MAP REFERENCE NO.: 68  
POOL NO.: 12  
MILES ABOVE OHIO RIVER: 580.3  
NAME: ContiCarriers &  
Terminals, Inc.

ADDRESS:  
1050 Kerper Blvd.  
Dubuque, IA 52001  
PHONE: (319)556-4532  
COMMODITIES HANDLED:  
Corn, soybeans, salt,  
dry fertilizer, coal, steel,  
& pig iron.

ACCESS:  
Truck - East of U.S. 52 via  
good, paved streets.  
Rail - Chicago & Northwestern  
Transportation

NOTES: Ships & receives  
bulk commodities.



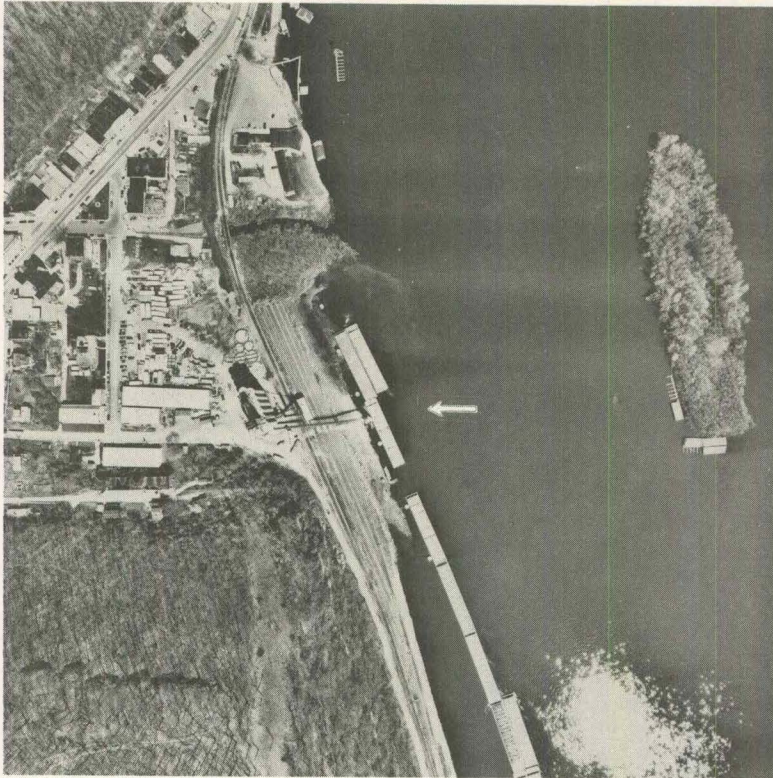
MAP REFERENCE NO.: 69  
POOL NO.: 10  
MILES ABOVE OHIO RIVER: 624.0  
NAME: Pattison Grain Terminal

ADDRESS:  
Clayton, IA 52049  
PHONE: (319)964-2133  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - East of paved county  
road (X-56) via a steep, winding,  
gravel road for 1 mile.

NOTES: Ships grain.

## MISSISSIPPI RIVER TERMINALS



MAP REFERENCE NO.: 70  
POOL NO.: 10  
MILES ABOVE OHIO RIVER: 633.3  
NAME: Farmers Grain Dealers  
Association  
ADDRESS:  
McGregor, IA 52157

PHONE: (319)873-3436  
COMMODITIES HANDLED:  
Corn & soybeans.

ACCESS:  
Truck - East of U.S. 18 via  
2 blocks of good, paved streets.  
Rail - Chicago, Milwaukee,  
St. Paul & Pacific

NOTES: Ships grain.



MAP REFERENCE NO.: 71  
POOL NO.: 9  
MILES ABOVE OHIO RIVER: 660.0  
NAME: Interstate Power Co.

ADDRESS:  
Lansing Power Plant  
Lansing, IA 52151  
PHONE: (319)533-4717  
COMMODITIES HANDLED:  
Coal

ACCESS:  
East of paved county road  
(X-52) via a good, gravel  
road for 0.7 mile.

NOTES: Receives coal.  
All coal used in producing  
electricity.

## MISSOURI RIVER TERMINALS

MAP REFERENCE NO.: 72  
MILES ABOVE MO. RIVER MOUTH: 614.1  
NAME: Terminal Packaging Corp.

**ADDRESS:**

2850 River Road  
Council Bluffs, IA 51501

**PHONE:** (712)323-9802

**COMMODITIES HANDLED:**

Antifreeze, methanol, brake fluid,  
oil.

**ACCESS:**

Truck - West of I-29 via 1 mile  
of good roads - paved & gravel.  
Rail - Union Pacific

**NOTES:** Receives antifreeze.



MAP REFERENCE NO.: 73  
MILES ABOVE MO. RIVER MOUTH: 614.4  
NAME: Cargill, Inc.

**ADDRESS:**

2401 S. 37th St.  
Council Bluffs, IA 51501

**PHONE:** (712)323-9481

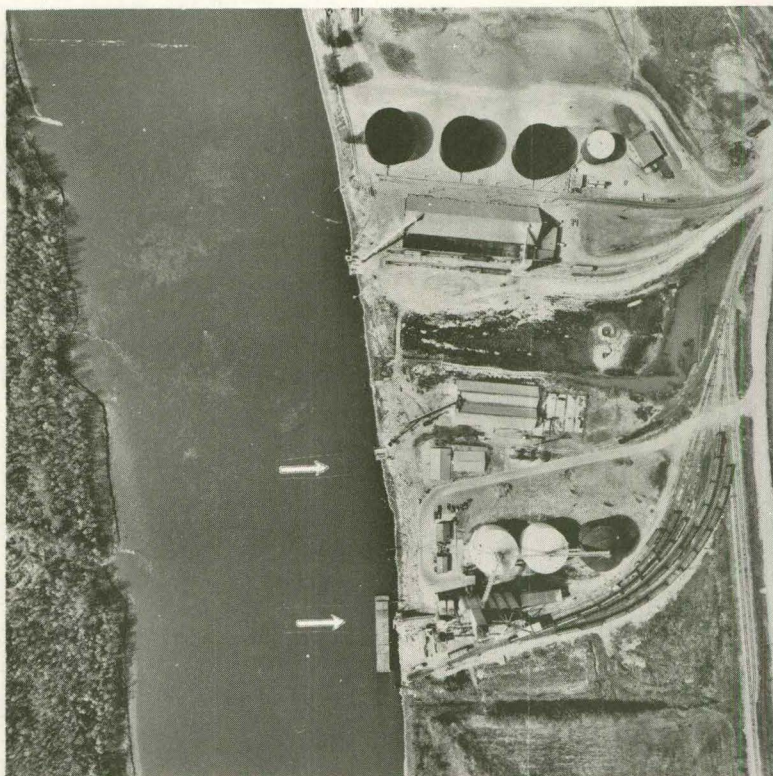
**COMMODITIES HANDLED:**

Corn, wheat, & dry fertilizer.

**ACCESS:**

Truck - West of I-29 via ½ mile  
of good roads - paved & gravel.  
Rail - Union Pacific

**NOTES:** Ships grain & receives  
fertilizer.



## MISSOURI RIVER TERMINALS

MAP REFERENCE NO.: 74  
MILES ABOVE MO. RIVER MOUTH: 614.45  
NAME: Farmland Industries

**ADDRESS:**

2301 S. 37th St.  
Council Bluffs, IA 51501

**PHONE:** (712)322-8287

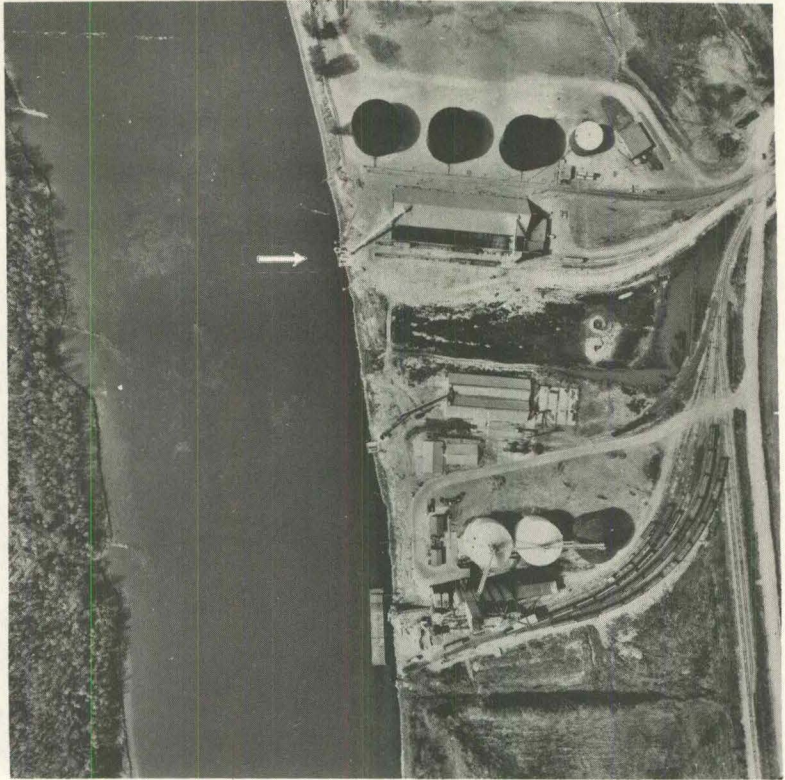
**COMMODITIES HANDLED:**

Dry fertilizer.

**ACCESS:**

Truck - West of I-29 via ½ mile  
of good roads - paved & gravel.  
Rail - Union Pacific

**NOTES:** Receives bulk fertilizer.



MAP REFERENCE NO.: 75  
MILES ABOVE MO. RIVER MOUTH: 614.55  
NAME: MacMillan Oil Company

**ADDRESS:** I-29 and Nebraska  
P.O. Box 911  
Council Bluffs, Iowa 51501

**PHONE:** (712)323-6122

**COMMODITIES HANDLED:**

Petroleum products

**ACCESS:**

Truck - West of I-29 via ½ mile  
of good roads - paved & gravel.  
Rail - Union Pacific

**NOTES:**





## MISSOURI RIVER TERMINALS

MAP REFERENCE NO.: 76  
MILES ABOVE MO. RIVER MOUTH: 680.6  
NAME: Pilus Transfer Point

**ADDRESS:**

Rural Delivery  
Blencoe, IA 51523

**PHONE:** (712)452-2749

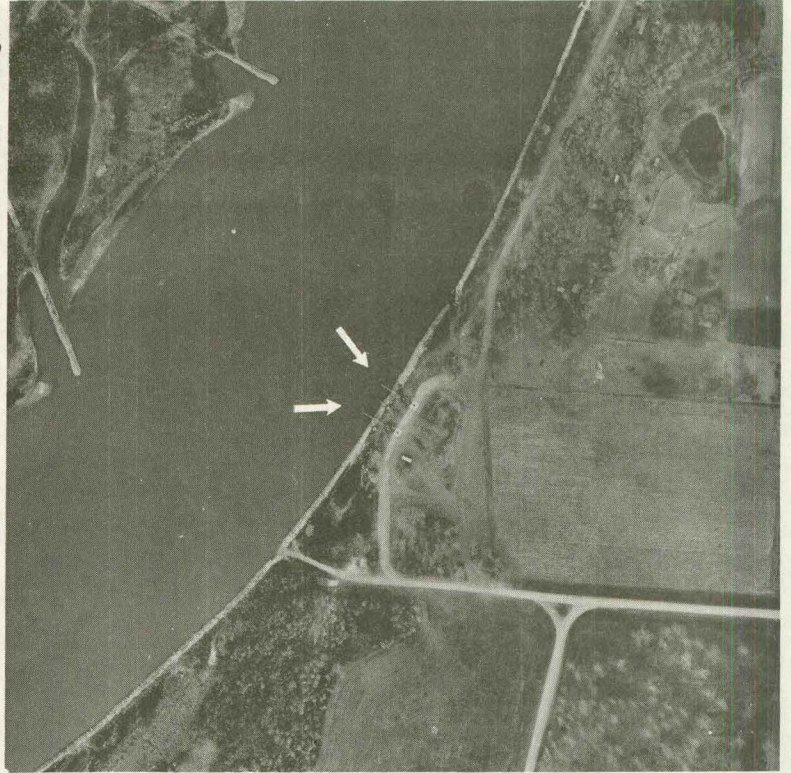
**COMMODITIES HANDLED:**

Corn & soybeans.

**ACCESS:**

Truck - West of I-29 via about  
3 miles of good county roads -  
paved & gravel.

**NOTES:** Ships grain.



MAP REFERENCE NO.: 77  
MILES ABOVE MO. RIVER MOUTH: 716.6  
NAME: Farmland Soy Processing Co.  
(Farmland Industries, Inc.)

**ADDRESS:** Port Neal Ind. Area  
P.O. Box 200  
Sergeant Bluff, IA 51054

**PHONE:** (712)943-4282

**COMMODITIES HANDLED:**

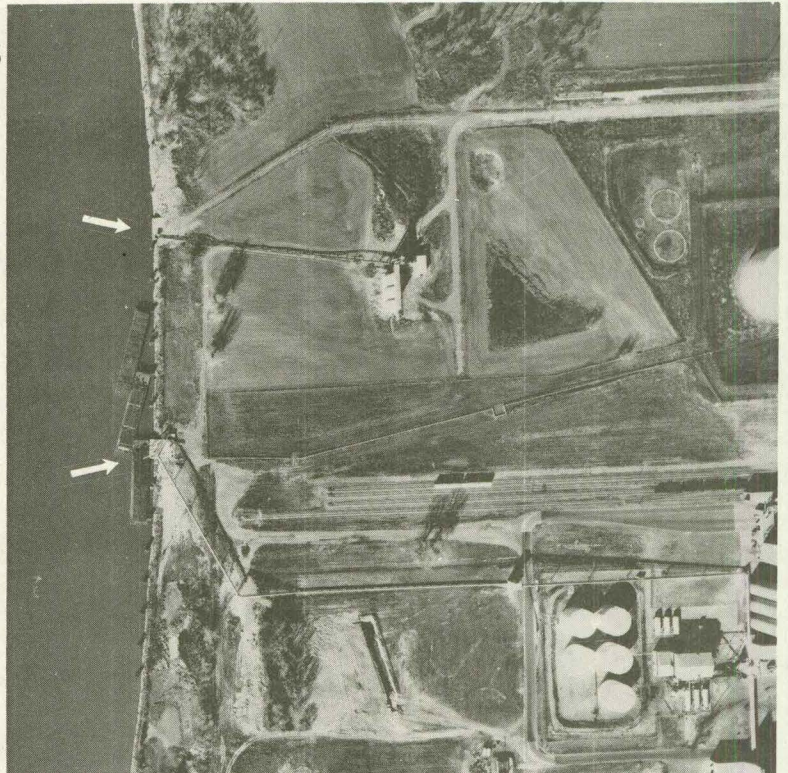
Soybean meal & soybean oil.

**ACCESS:**

Truck - West of I-29 via 3 miles  
of good paved roads.

Rail - Chicago & Northwestern  
Transportation

**NOTES:** Ships soybean products  
produced at the terminal.



## MISSOURI RIVER TERMINALS

MAP REFERENCE NO.: 78  
MILES ABOVE MO. RIVER MOUTH: 727.0  
NAME: Flavorland By-Products

**ADDRESS:**

1900 Murray  
Sioux City, IA

**PHONE:** (712)258-7524

**COMMODITIES HANDLED:**

Tallow

**ACCESS:**

Truck - West of I-29 via 1.6 miles  
of good paved roads.

**NOTES:** Tallow shipments to  
start upon completion of new  
barge facility in 1977.



MAP REFERENCE NO.: 79  
MILES ABOVE MO. RIVER MOUTH: 727.5  
NAME: Jebro, Inc.

**ADDRESS:** (2303 Bridgeport)

P.O. Box 2813  
Sioux City, IA 51106

**PHONE:** (712)277-8855

**COMMODITIES HANDLED:**

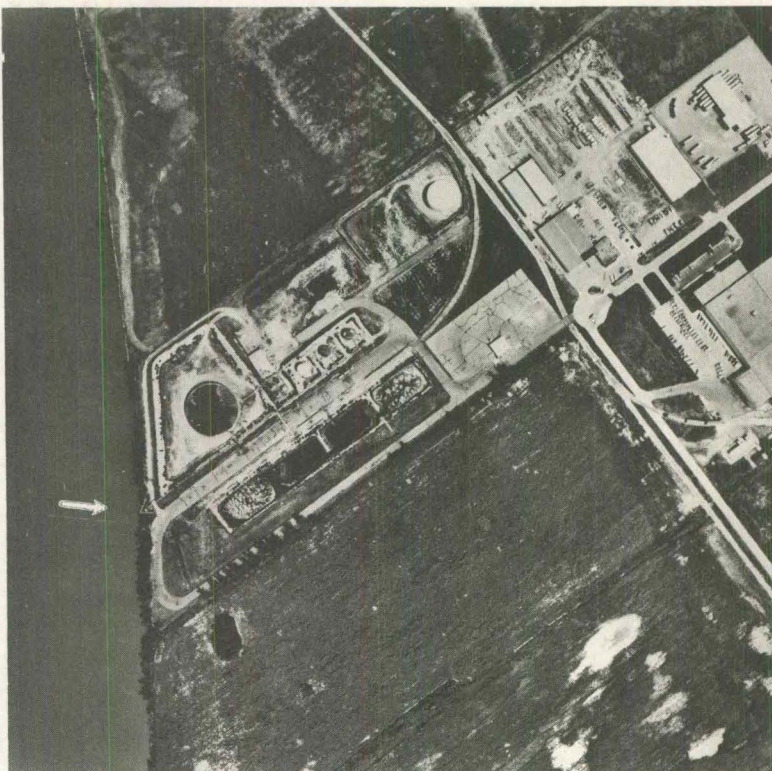
Asphalt

**ACCESS:**

Truck - West of I-29 via 0.8 mile  
of good, paved roads.

Rail - Chicago & Northwestern  
Transportation

**NOTES:** Received asphalt before  
1975, but none since then.



## MISSOURI RIVER TERMINALS

MAP REFERENCE NO.: 80  
MILES ABOVE MO. RIVER MOUTH: 727.8  
NAME: Big Soo Terminal

**ADDRESS:**

4101 Harbor Drive  
Sioux City, IA 51111

**PHONE:** (712)258-0537

**COMMODITIES HANDLED:**

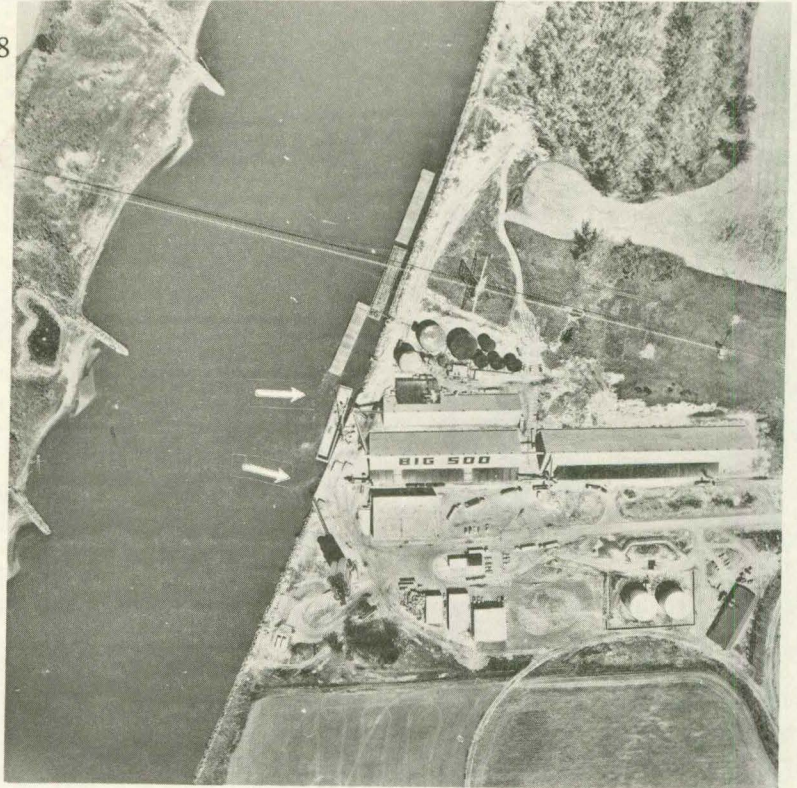
Grain, soybean meal, alfalfa pellets, tallow, salt, molasses, paper, steel, dry and liquid fertilizer & pitch.

**ACCESS:**

Truck - West of I-29 via 0.4 mile of good gravel road.

Rail - Chicago & Northwestern Transportation

**NOTES:** Ships & receives general commodities. Owned by: Terminal Grain Corp., 615 Benson Bldg., Sioux City, IA 51101.



MAP REFERENCE NO.: 81  
MILES ABOVE MO. RIVER MOUTH: 731.2  
NAME: Nutra Flo Chemical Co. & Industrial Molasses

**ADDRESS:**

514 S. Floyd Blvd.  
Sioux City, IA 51101

**PHONE:** (712)277-2011

**COMMODITIES HANDLED:**

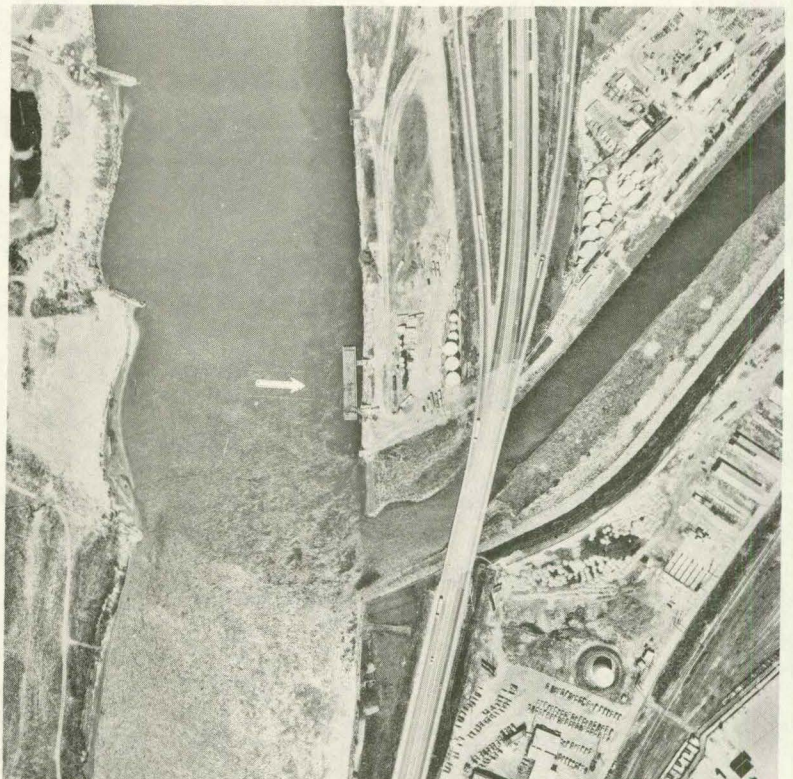
Tallow & industrial molasses.

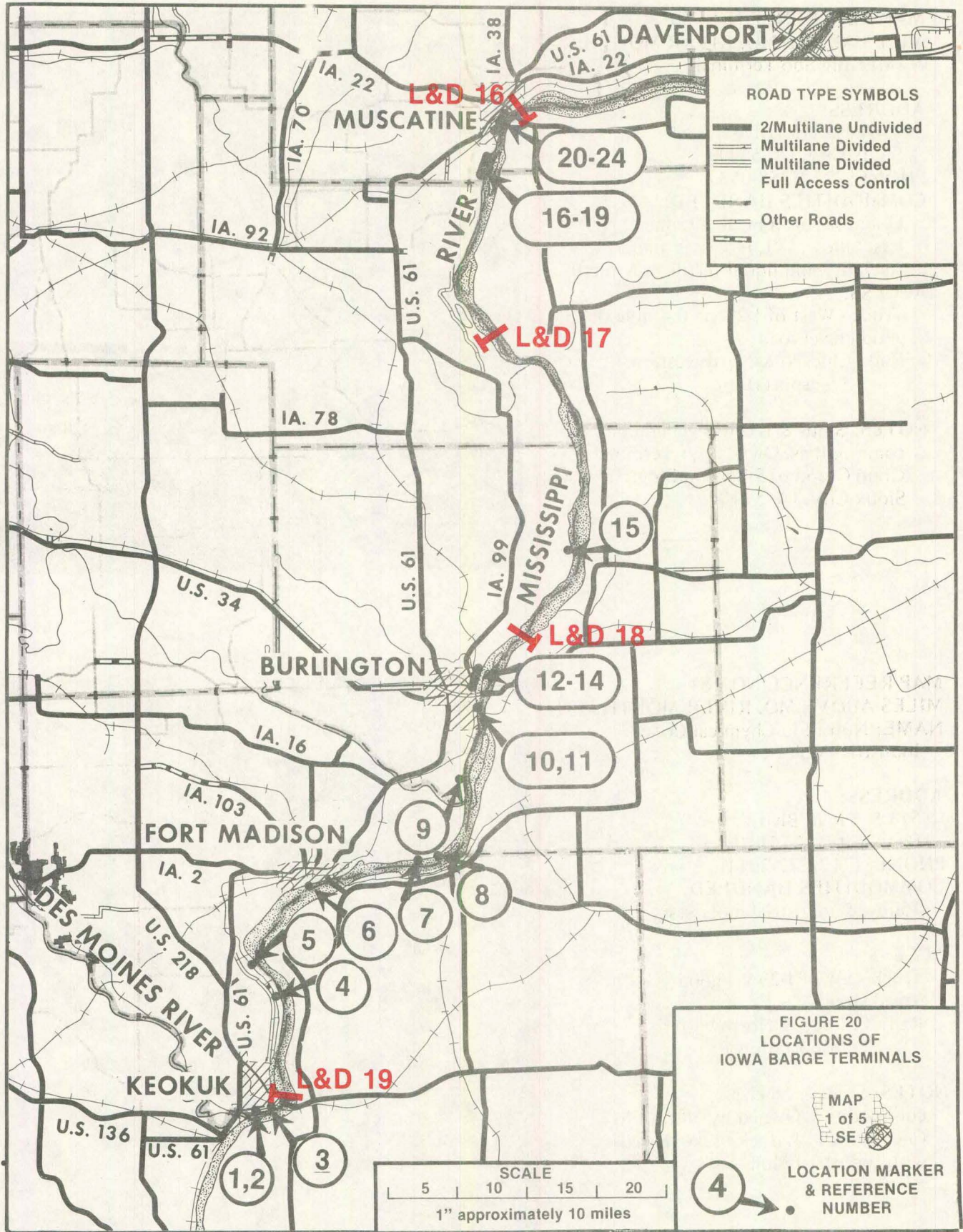
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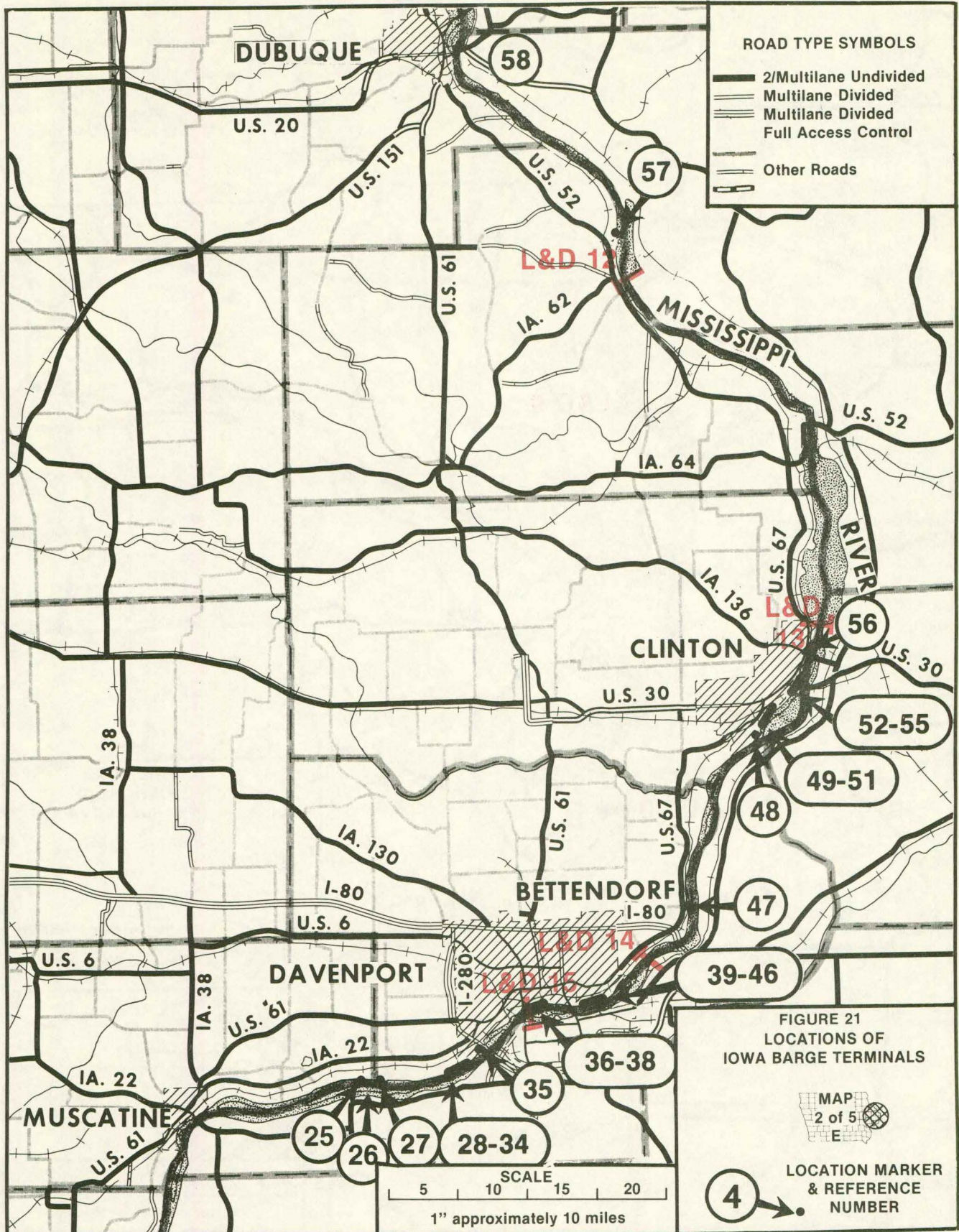
Truck - SW of I-29 via good paved streets.

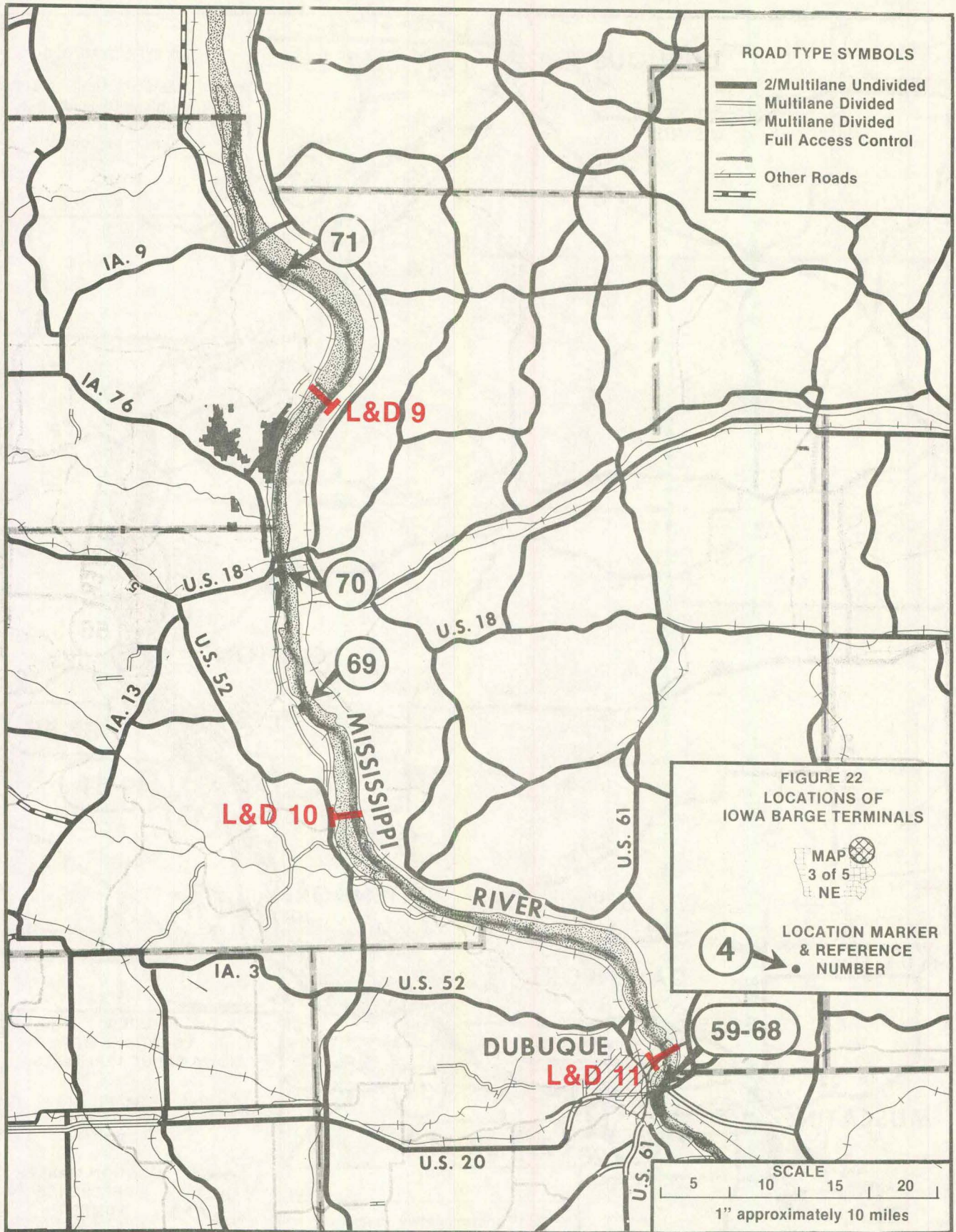
Rail - Chicago & Northwestern Transportation

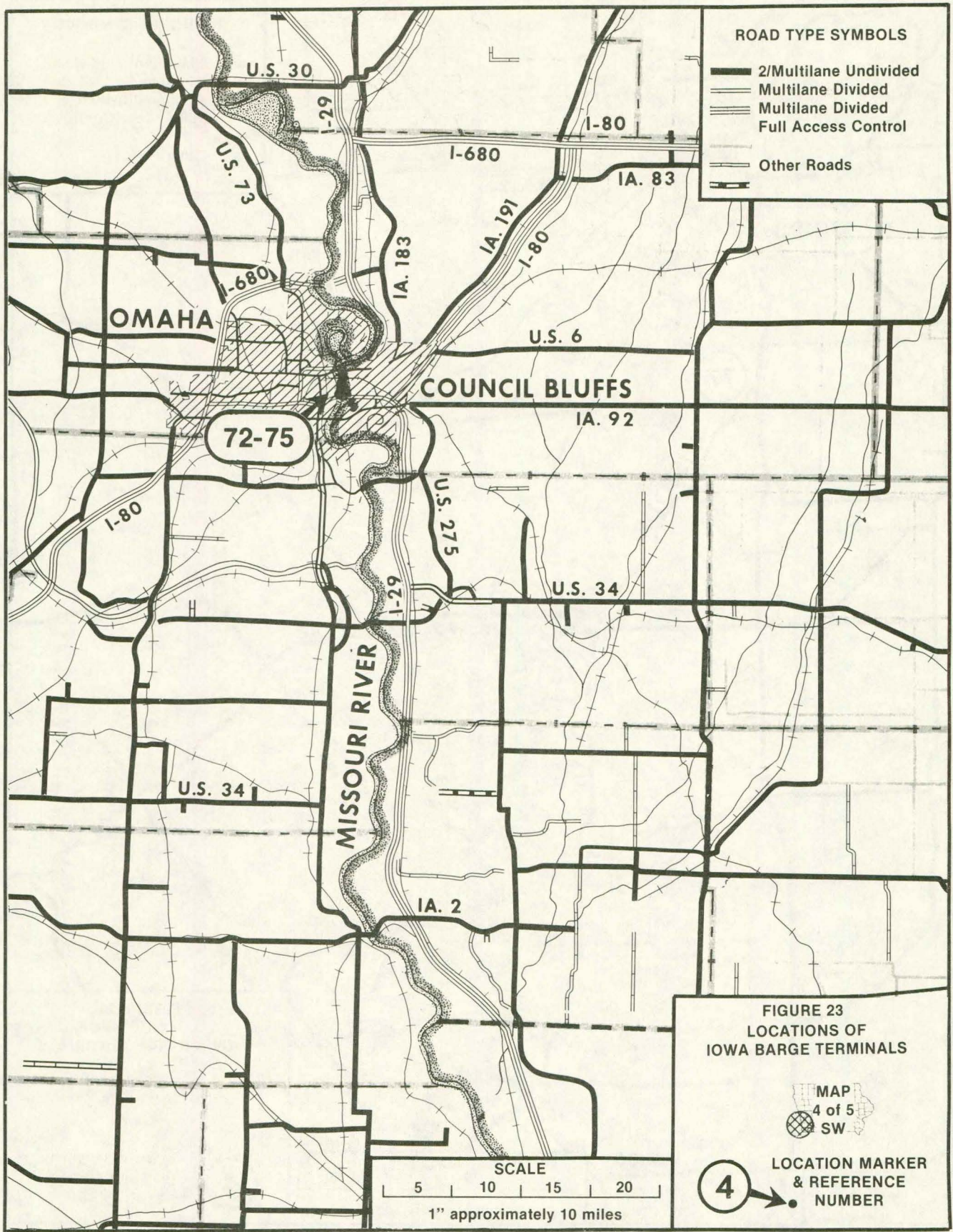
**NOTES:** Ships & receives commodities. Owned by Nutra Flo Chemical Co. & dock usage shared with Industrial Molasses.

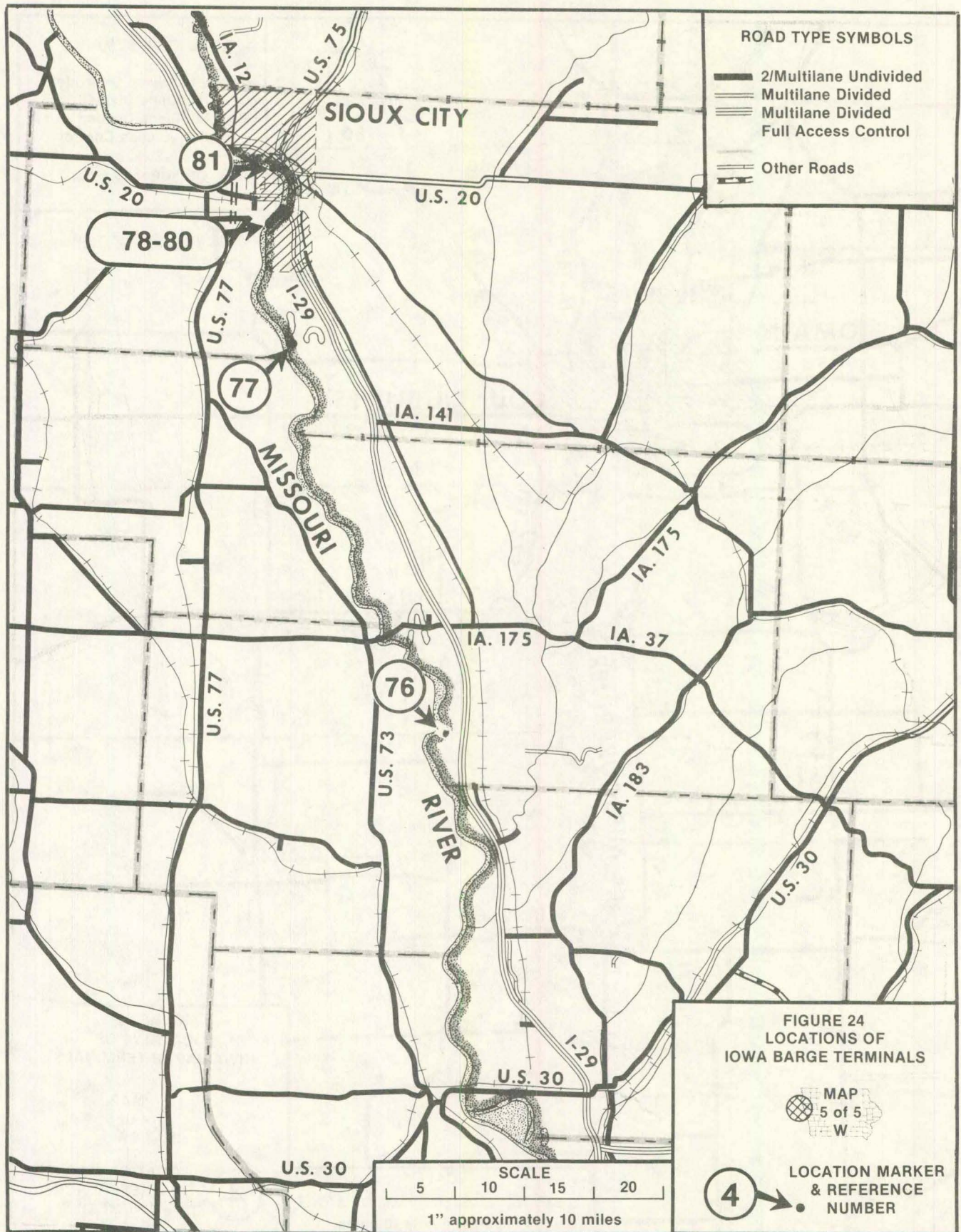














## INDEX OF TERMINALS BY COMMODITIES HANDLED

COMMODITY HANDLED	MAP REFERENCE NO. OF TERMINAL
Acrylonitrile	16
Alcohol	22
Aluminum	48
Anhydrous ammonia	7, 9, 57
Antifreeze	72
Asphalt	31, 59, 79
Barge handling services	3, 6, 11, 33, 55, 58, 62
Cement	28, 39
Coal	4, 20, 25, 26, 28, 29, 32, 48, 51, 64, 65, 68, 71
Coke	28
Condensed fish solubles	19
Construction equipment	1, 48
Corn	2, 5, 8, 10, 13, 15, 21, 23, 24, 27, 32, 34, 37, 52, 64, 68, 69, 70, 73, 76, 80
Corn screenings	32
Diammonium phosphate	7
Fertilizer - dry	6, 14, 17, 48, 53, 64, 67, 68, 73, 74, 80
Fertilizer - liquid	5, 14, 19, 29, 31, 61, 80
Gravel (sand, rock, stone)	18, 29, 35, 36, 38, 44, 47, 48, 49, 63
Grease	61
Gypsum	28
Lard	61
Lumber - oak logs	32, 48
Machinery	48
Manganese ore	1
Molasses	19, 27, 61, 80, 81
Newsprint - paper	4, 48, 80
Nitrogen	56
Pellets - alfalfa	80
Pellets - beet pulp	53
Pellets - corn gluten	2, 10, 32, 53
Petroleum (fuel oil, road oil, gasoline, furnace oil, by-products, etc.)	7, 12, 30, 31, 40, 41, 42, 43, 45, 46, 53, 54, 59, 66, 72, 75
Phosphate rock	7
Pig iron	1, 68
Pipe	32, 48
Pitch	80
Salt (industrial, road)	4, 27, 32, 48, 53, 61, 67, 68, 80

COMMODITY HANDLED  
(CONT'D)

MAP REFERENCE NO. OF TERMINAL  
(CONT'D)

Scrap (iron, car bodies, misc. steel, ingots)	37, 68, 80
Soda - caustic	27, 50
Soybean meal	10, 27, 32, 53, 77, 80
Soybean oil	19, 77
Soybeans	2, 5, 8, 13, 15, 21, 23, 24, 27, 32, 34, 37, 52, 64, 68, 69, 70, 76, 80
Steel products	4, 14, 26, 37, 48, 80
Styrene	16
Tallow	61, 80, 81
Twine - baler	60
Urea	48
Vegetable oils	27
Wheat	5, 8, 15, 32, 73

**ALPHABETICAL LIST OF TERMINALS &  
FLEETING & HARBOR SERVICES**

NAME	PAGE NO.
Alter Company, Buffalo	B-14
Alter Company, Davenport	B-19
AMOCO Oil Company, Bettendorf	B-22
AMOCO Oil Company, Burlington	B- 5
AMOCO Oil Company, Davenport	B-16
Bettendorf Terminal Company	B-23
Big Soo Terminal	B-41
Builders Sand & Gravel Company	B-19
Burlington River Terminal, Inc.	B- 8
C F Industries Inc., Clinton (Mile 521.0)	B-29
C F Sales, Inc., Clinton (Mile 517.5)	B-27
Cargill, Inc., Buffalo	B-14
Cargill, Inc., Council Bluffs	B-37
Central Soya Company, Muscatine (Mile 454.2)	B-12
Central Soya Company, Muscatine (Mile 455.3)	B-13
Clinton Corn Processing	B-28
ContiCarriers & Terminals, Inc.	B-35
Determann Industries, Inc.	B-25
Dubuque Oil Company	B-34
Dubuque Tank Terminal Co., Dubuque (Mile 579.4)	B-31
Dubuque Tank Terminal Co., Dubuque (Mile 580.3)	B-34
Dubuque Twine Company	B-31
E. I. DuPont DeNemours, Inc.	B-26
Eastern Iowa Light & Power Cooperative	B-13
Farmers Grain Dealers Association, McGregor	B-36
Farmers Grain Dealers Association, Muscatine	B-11
Farmers Grain Dealers Association, Burlington	B- 8
Farmland Industries, Council Bluffs	B-38
Farmland Industries, Muscatine	B- 9
Farmland Soy Processing Co., Sergeant Bluff	B-39
FirstMiss, Inc.	B- 4
Flavorland By-Products	B-40
Foote Mineral Co.	B- 1
Grain Processing Corporation	B-12
Green Bay Grain Co.	B- 5
Hall Towing, Inc.	B- 4
Hubinger Company	B- 2
Hunold Elevator, Inc.	B- 3
Interstate Power Co., Clinton	B-26
Interstate Power Co., Dubuque	B-33
Interstate Power Co., Lansing	B-36

NAME (Cont'd)	PAGE NO.
Iowa Gateway Terminal	B- 3
Iowa Marine Repair Corporation	B- 2
Jebro, Inc.	B-40
LeClaire Quarries, Inc.	B-24
Lewis & Lawson Harbor Service	B-28
Linwood Stone Products Co., Inc.	B-15
MacMillan Oil Company, Council Bluffs	B-38
MacMillan Oil Company, Davenport	B-16
Martin Marietta Cement	B-15
Mississippi River Grain Elevator, Inc.	B-18
Mobil Oil Company	B-21
Molo Sand & Gravel Co.	B-32
Monsanto Agricultural Products Co.	B- 9
Muscatine Power & Water Company	B-11
Newt Marine Service	B-32
Nutra Flo Chemical Company & Industrial Molasses	B-41
P-D Harbor Service Company	B- 6
Pattison Grain Terminal	B-35
Peavy Company	B-27
Phillips Petroleum Company	B-22
Pillsbury Company, Davenport	B-17
Pillsbury Company, Dubuque	B-33
Pilus Transfer Point	B-39
River Terminal Corporation	B-10
Shell Oil Company	B-21
Sinclair Marketing, Inc.	B-30
Tabor & Co., Div. of Archer-Daniels-Midland Co.	B- 6
Terminal Packaging Corporation	B-37
Texaco Company	B-23
Union Oil Company	B-24
Universal Atlas Cement	B-20
USS Agri-Chemicals Company	B-29
W. G. Block Co., (Mile 451.2)	B-10
W. G. Block Co., (Mile 477.8)	B-18
W. G. Block Co., (Mile 483.3)	B-20
W. G. Block Co., (Mile 513.5)	B-25
Wayne Brothers Grain Company	B- 7
Williams Marine Enterprise, Inc.	B-17
Wisconsin Barge Line Fleeting & Harbor Service	B-30
Yetter Oil Company	B- 7








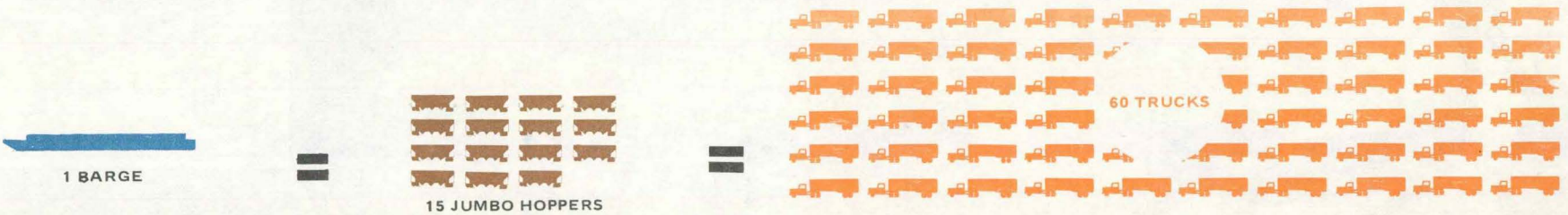
River Transportation Division  
 Iowa Department of Transportation  
 5268 N.W. 2nd Avenue  
 Des Moines, Iowa 50313  
 515/281-4292

# COMPARE

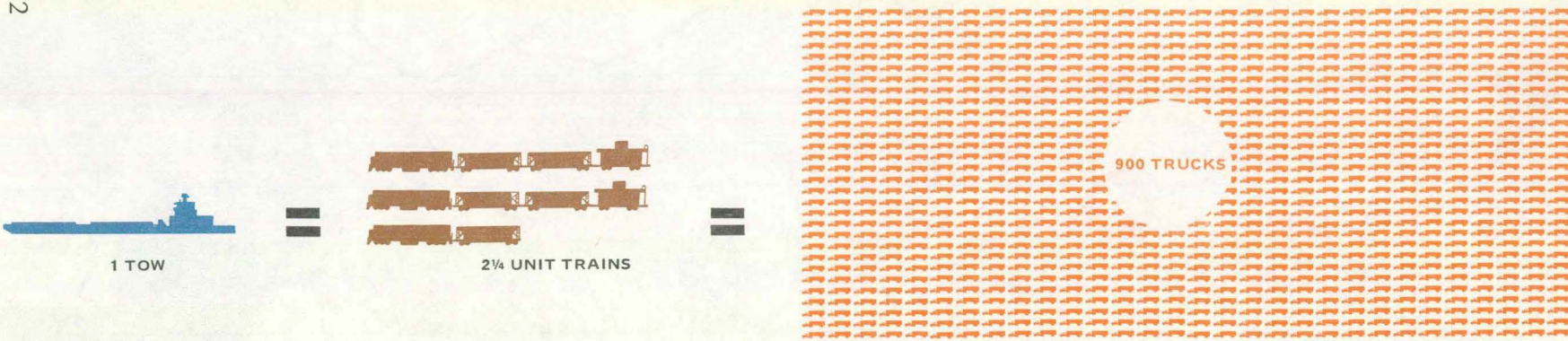
## CARGO CAPACITY

				
<b>BARGE</b> 1500 TON 52,500 BUSHELS 453,600 GALLONS	<b>15 BARGE TOW</b> 22,500 TON 787,500 BUSHELS 6,804,000 GALLONS	<b>JUMBO HOPPER CAR</b> 100 TON 3,500 BUSHELS 30,240 GALLONS	<b>100 CAR UNIT TRAIN (GRAIN)</b> 10,000 TON 350,000 BUSHELS 3,024,000 GALLONS	<b>LARGE SEMI</b> 25 TON 875 BUSHELS 7,560 GALLONS

## EQUIVALENT UNITS



B-52



## EQUIVALENT LENGTHS

