

**KANSAS MINERAL
INDUSTRY REPORT 1973**

with Directory of Kansas Mineral Producers

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KANSAS MINERAL INDUSTRY REPORT, 1973

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with DIRECTORY OF KANSAS MINERAL PRODUCERS

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INTRODUCTION

The 1973 Mineral Industry Report summarizes the production of mineral commodities in Kansas during the past year as well as events related to the mineral industries. There is no doubt that costs associated with safety and health regulations, fuel, and the overall inflation spiral continue to pressure profit margins. These factors were responsible for price increases in many commodities during 1973. Such increases, plus increased production of some commodities, combined to give Kansas an all-time high in dollar value of mineral production. As in the past, the major component of the Kansas mineral industry is petroleum.

During 1973, price fluctuations in an upward direction were common for all mineral commodities. Although the dollar value from petroleum increased, production continued to decline. At a time when energy and fuel are so important, the question arises as to what future the oil and gas industry has in Kansas. An attempt to answer this question is included in this year's report. Another commodity in this year's report is helium, which was very much in the news throughout 1973 due to the termination of government contracts.

A brief review of the limestone industry and an article featuring the ceramic industries in Kansas including pottery, clay sewer pipe, brick, and lightweight aggregate conclude the report.

FRONT COVER: Looking into a rotary kiln used to produce lightweight aggregate or expanded shale by rapidly firing the shale at high temperatures. The picture was taken at Buildex, Incorporated in Ottawa, Kansas which also uses these kilns at their production facilities in Marquette, Kansas. Photo by Barbara Kelly, Kansas Geological Survey.

A Review of Kansas Mineral Industry Production During 1973

The estimated production of Kansas minerals reached an all-time high during 1973 of over \$644,000,000, representing an increase of 6.4% over 1972 production. This increase was due to both volume and price increases for all commodities except helium and petroleum. A summary of mineral commodity production in Kansas during 1972 and 1973 is given in Table 1.

CEMENT

The cement industry in Kansas enjoyed another good year as production of Portland cement passed the two-million ton mark. Masonry cement production was up sharply during 1973. Both products were in high demand throughout the year. The dollar value of these products set an all-time high due to increases in both production and prices (in the U.S. as well as Kansas). Monarch Cement at Humboldt began an expansion that will increase their capacity about 4%. The capacity for all Kansas plants is 2,274,000 tons which means that the total 1973 production of 2,159,000 is very near to full production capability. This strongly suggests that 1974 production volume will not increase much, if any, over 1973 relative to the sizable increases over the past few years. Furthermore, the demand for cement is expected to level or decline slightly during 1974.

The production of cement in Kansas requires large quantities of natural gas. Because of the shortage in fuels (natural gas and fuel oil), the industry is searching for more efficient firing procedures and may eventually be forced to install facilities for burning coal.

CLAY, SHALE, AND PRODUCTS

Clay, shale, and products production increased slightly during 1973. This category includes brick, clay sewer pipe, expanded shale, and pottery made from Kansas clay. The largest item, brick, began to experience a slow-down in demand

TABLE 1.
MINERAL PRODUCTION AND VALUE IN KANSAS, 1972 AND 1973
Annual Preliminary

Commodity	Unit	1972		1973 (Preliminary)	
		Quantity	Value \$1000	Quantity	Value \$1000
Cement: Portland	1000 short tons	1,986	37,257	2,085	43,785
Masonry	1000 short tons	54	1,332	74	2,009
Clay, Shale, and Products			11,085		11,351
Coal	1000 short tons	1,227	7,840	1,310	8,390
Helium: Refined	1,000,000 CF (14.7 psia; 70°F)	384	8,064	417	8,757
Crude		2,273	27,276	1,539	18,468
Natural Gas	1,000,000 CF (14.7 psia; 70°F)	889,268	127,859	902,190	144,766
Natural Gas liquids	1000-42 gal. bbl.	30,604	56,340	30,700	64,300
Petroleum (Crude Oil)	1000-42 gal. bbl.	73,744	259,578	66,227	264,910
Salt (Rock and Evaporated)	1000 short tons	1,387	20,800	1,400	20,995
Sand & Gravel	1000 short tons	11,591	10,920	12,800	12,800
Stone	1000 short tons	14,547	23,849	16,000	30,400
Miscellaneous: Gypsum (Raw & Calcined), Salt Brine, Carbon Black, Sulfur, Lime, Volcanic Ash			13,983		13,897
Total Value			606,183		644,828

Sources of information: State Geological Survey of Kansas, Kansas Corporation Commission, Kansas State Department of Labor, U.S. Bureau of Mines.

during the latter part of 1973, a trend that is expected to continue during 1974. The real growth item in this category is expanded shale which is finding increased usage in lightweight concrete, concrete blocks, and for landscaping purposes. It is also being tested by the Kansas Highway Commission as a suitable road aggregate.

All of these products require a firing process. With one exception, Kansas operations rely entirely on natural gas as their main fuel with fuel oil as their standby source. Obviously, the energy crisis is having a pronounced effect on the production of such products. This subject, along with a general review of the ceramic operations in Kansas, is covered in a later article in this report.

COAL

Coal production increased nearly 7% during 1973, an encouraging fact in view of the declining production over the past several years. The increase was due to the opening of the new Midway Mine (September 1972) by Pittsburg and Midway Coal Company in northeastern Linn County. 1974 production of coal in Kansas is expected to drop sharply because Pittsburg and Midway closed their Mine #19 on May 1, 1974. This mine, which normally supplies over half of the total Kansas coal production, has been closed for economic reasons. Furthermore, the new Midway Mine operation, which sells unwashed coal, has moved into Bates County, in Missouri, further reducing Kansas production.

New mines possibly may be opened in the near future in Bourbon and Osage Counties. In the absence of these new mines, Kansas coal production is expected to drop nearly 70% during 1974 relative to 1973.

Readers outside of the coal industry may wonder why coal production should decline drastically at a time when we face an energy crisis. The reasons involve the type of mining and the nature of the coal. Kansas coal is produced by strip-mining of thin seams in the southeastern part of the state. Recent mined-land reclamation laws have forced coal producers to reshape and partially restore the strip-mined area to a rolling terrain, an expense which absorbs the producers' profits, especially in view of the thin seams of coal. The nature of Kansas coal

is also a negative factor: all Kansas coals contain sulfur which is converted to sulfur dioxide (SO₂) during the burning of the coal. Since air quality standards have set definite limits on SO₂ emissions, large scale usage of Kansas coal has been restricted to those utilities who are able to afford expensive systems for removing SO₂.

It is likely that coal production in Kansas will increase during the late 1970's. Continued shortages of natural gas and fuel oil should increase the demand for coal and the development of an efficient, low cost pollution control system will allow more industrial facilities to use this commodity.

HELIUM

The production of refined or high purity helium in Kansas during 1973 increased 8.6% over 1972 but the crude helium production dropped over 30%. The sharp reduction in crude helium was due to the termination of helium contracts by the United States Government. This commodity is discussed in more detail in a following article.

NATURAL GAS

The production of natural gas in Kansas during 1973 (valued at nearly 145 million dollars) constituted over 22% of the total dollar value of the Kansas mineral industry production. The commodity continued to be in strong demand as the major industrial fuel source and most major users faced interruptable service during cold weather.

The production volume was up slightly over 1972 (1.5%). As with crude oil and natural gas liquids, price increases for natural gas during 1973 caused the dollar value to rise sharply (13%) relative to the production volume. 1974 should produce an even higher dollar value.

The shortage of this commodity undoubtedly has a restrictive effect on the expansion of the Kansas economy. Interruptable service is forcing many companies

to seek more efficient use of fuel and other fuel sources (at a cost of time and money). The gas companies, in some cases, cannot or will not supply new customers or old customers who wish to expand their facilities with the gas they require.

Looking toward the future, natural gas production in Kansas is expected to decline as present gas fields become exhausted, unless sizable new fields are discovered.

NATURAL GAS LIQUIDS

Natural gas liquids are relatively lightweight hydrocarbons which are extracted from natural gas by a condensation process. The principal products are propane and butane with lesser amounts of ethane, pentane, and natural gasoline. The strong demand and price increases for such items as natural gas and propane have kept the production volume of both natural gas and natural gas liquids relatively stable.

During 1973, the production volume of natural gas liquids increased 0.3% over 1972 while the dollar value increased 14% due to price increases which occurred during the year. As a result, the 1974 dollar value is expected to be significantly higher than 1973, even if the production volume declines slightly. The U.S. Bureau of Mines predicts that the production of natural gas liquids will decline in future years and that the U.S. will rely on continually increasing imports of this commodity.

PETROLEUM

During 1973, the production of crude oil accounted for over 40% of the total dollar value of mineral production in Kansas. Crude oil generated nearly twice as much revenue as its nearest "competitor", natural gas. Although 1973 revenues were slightly higher than 1972 (around 2%), production declined 10%. Because crude oil has been and continues to be such an important mineral commodity in Kansas, short articles on the petroleum industry are included elsewhere in this report.

SALT

The salt industry as a whole in Kansas was relatively stable during 1973. By contrast, the U.S. Bureau of Mines estimates that U.S. production declined by 3% in 1973. The major use of salt in the United States (nearly 60%) continues to be as the raw material for producing chlorine, caustic soda, and soda ash. Only 6% is used for food.

Although final production figures are not available, increased cattle numbers in the state likely created an increased demand for pressed salt blocks during 1973. Offsetting this temporary increase is the declining usage of salt for de-icing roads, a trend that probably will continue. Mild winters have led to appreciable stockpiles of de-icing material. Even with severe winters, the use of salt on highways will probably decline due to environmental factors, specifically the deleterious effect of salt on concrete and vegetation and the corrosive effect on automobiles and highway equipment.

SAND AND GRAVEL

Sand and gravel production in Kansas is dominantly a river industry; rivers in the state provide both the sand and gravel deposits and the water for screening (or washing) operations.

According to the U.S. Bureau of Mines, national sand and gravel production increased only 1% in 1973 with production being reported in every state. Kansas fared much better with an estimated 10% production increase (and roughly a 5% price increase). Sand and gravel are primarily used in construction and continued demand is expected to create another good year during 1974.

STONE

The limestone industry in Kansas produces building stone, crushed stone for construction applications, and agricultural lime. The stone industry reported a

10% increase during 1973, largely due to extremely heavy demand for crushed stone. Price increases of 5% occurred on most products. The 10% increase in volume is in line with the 9% nationwide increase predicted by the U.S. Bureau of Mines.

The outlook for limestone in 1974 is very good. Some Kansas producers are predicting another 10% increase as demand continues to be heavy. A brief outlook for the limestone industry is presented later in this report.

MISCELLANEOUS

The miscellaneous grouping of mineral commodities includes raw and calcined gypsum, salt brine, carbon black, sulfur, lime, and volcanic ash. There are a limited number of producers of these commodities and their dollar values are listed as a lump sum to preserve confidentiality of company data. As a whole, the category remained relatively stable during 1973, a trend that is expected to continue during 1974.

The Petroleum Industry in Kansas - 1973

Petroleum production in Kansas during 1973 was typical of its performance in recent years. It continued to be the largest contributor to the dollar value of the state's mineral production. However, production continued to decline, a trend which has continued since the mid-1950's. On the surface, it would appear that this trend could be slowed down or temporarily reversed in the not too distant future in view of the energy shortage and price increases. However, the most important negative factor currently affecting oil production, the shortage of well casing, is sharply limiting new drilling.

Many Kansans find it difficult to accept the fact that crude oil production declines year after year, especially now that both the demand and price for oil have increased. The average reader is more confused when he reads that there were over 2,000 wells drilled during 1973.

The 2,000 new wells drilled in 1973 represent a decline from 1972. Over the past five years, the annual new well figure has declined by one-third. In 1955, there were 4,950 wells drilled in Kansas. Knowing such drilling statistics makes it easier to understand in part why oil production has been declining in Kansas.

Increased petroleum production cannot begin overnight. Although many wells are drilled each year, only a small fraction will produce good yields. Thus, all other factors being equal, it would take a significant increase in new drilling to appreciably affect oil production.

There are other factors which also affect oil production. It is true that many existing wells have been shut in during the past few years due to their low yields (which make the wells uneconomical to operate) and that many of these wells are now in operation. However, it takes a long time to drill and open a new well; during 1973, drilling was held back by an acute shortage of well casing. Threatened elimination of the oil depletion allowance also may have held up drilling plans.

During 1973, wellhead prices for domestic crude oil rose, hence, the commodity showed a dollar value gain over 1972, even though production volume declined. Since price increases occurred twice during the year, oil in 1974 likely

will generate an even greater dollar value, although production may continue to decline. The increased wellhead price should stimulate both exploratory work and stripper well operation. The latter consists of relatively shallow, often low-yielding wells. With higher prices, many stripper wells which have been operating marginally or shut down for economical reasons will be able to operate at a profit. It is impossible to predict when or if it will occur but the sizable increase in the price of crude oil could help to slow or reverse the declining production trend which Kansas has experienced for over a decade.

The situation described above is too complex to allow for predictions. For the immediate future, alleviating the scarcity of well casing would certainly play a role in affecting the recent production trend. Casing was so scarce in 1973 that producers were acquiring used casing from outside the state. More of the same is expected during 1974 and some producers has estimated that the lack of casing has delayed their drilling program to the point that they are years behind their drilling schedule.

Another factor which would affect oil production is the possible elimination of the oil depletion allowance (currently 22%). The subject has received considerable attention for the past several years. The elimination would hurt all oil companies but particularly the small independent oil companies. One plan currently under discussion by the Federal government would eliminate the allowance on oil from known wells but would provide an allowance on new oil wells. Proponents of the plan feel this would encourage exploratory drilling. People who favor retaining the present depletion allowance feel that the money to drill for new oil must come from profits made on old oil, or money borrowed against old production.

The severity of winter weather is an unpredictable factor in oil consumption. The past winter was not particularly cold. The relatively mild winter, removal of the Middle East oil embargo, various government measures aimed at fuel conservation, the publicity associated with the energy crisis, and the high price for oil has led some people to predict that there might be a sufficient amount or even a surplus of oil in the immediate future. Other factors such as demand on gasoline supplies this summer and refinery expansion will play an important part

in determining whether this prediction becomes fact.

If the production of crude oil increases, the refineries in Kansas logically will expand their facilities. Two events occurred along these lines as this report was ready to go to press. Century Refinery at Scott City, Kansas, with a capacity of 7,000 barrels per day, was purchased in 1971 by North American Petroleum Corporation but closed in late 1972 for economic reasons. In late April of this year, the refinery reopened with an expanded capacity of 10,000 barrels per day, using Kansas crude oil as its raw material. At least one other company, The Cooperative Refinery Association, expects an increase in available crude in the future. The CRA refinery at McPherson is expanding its refinery capacity approximately 30% during 1974.

Research and development is another factor which may help to offset the serious decline in Kansas oil production, specifically new techniques for (1) getting more oil from the existing reservoirs and (2) processing of tar sands. Direct pumping from Kansas pools (primary recovery) obtains at best around 33% of the oil present in the reservoir. Water flooding (secondary recovery) obtains at best an additional one-third of the oil. This means a vast quantity of oil remains in Kansas oil pools. Considering the number of Kansas wells presently producing less than 10 barrels per day, it is important that, wherever possible, various techniques (chemical, steam, thermal, etc.) for tertiary recovery be initiated soon, before these wells are plugged and abandoned. Much work remains to be done on the methods of extracting oil from the tar sands (mostly asphaltic or low gravity API oil) before such processes become economical. All of the above mentioned recovery methods are now in the planning and research stages and it is difficult to assess their effectiveness or when (if ever) they will be in common use.

Assessing the immediate future, it would appear that the shortage of well casing will seriously hinder any increase in oil production over 1973 despite the increased price for crude oil. Since known oil fields are gradually becoming exhausted using present techniques for production, the sharply declining oil production in Kansas can be slowed down in the long term only if (1) significant new oil fields are discovered and utilized or (2) an inexpensive efficient method

of tertiary recovery is found and adopted on a sizable scale.

Oil and Gas Industry Activity in Kansas in 1973*

By Margaret O. Oros

A brief review of activity and significant developments in exploration during 1973 indicates the current state of this important industry in Kansas. Crude oil production in Kansas decreased 10.2% during 1973 to 66,227,391 bbl. Refinery runs to stills at 136,077,943 bbl. was more than double the state's oil production. Natural gas liquids or liquid petroleum gas (LPG) production during 1973 was 31,378,468 bbl., up 2.5% from 1972 Kansas production. Natural gas production in 1973 increased only 0.4% to 902,189,763.

Kansas drilling activity decreased 14.6% to 2,114 new holes reported in 1973. Total footage drilled decreased from 8,028,634 ft. in 1972, to 6,876,242 ft. in 1973, and averaged 3,253 ft. per well.

Of the 2,053 holes drilled for oil or gas, 976 (47.5%) were successful (Table 1). Of 1,314 field development holes, 838 (63.8%) were completed as producing wells. There were 739 exploratory tests drilled; 138 (18.7%) found oil or gas. Thirty-four (14.7%) of the 232 holes drilled more than 2 miles from production found oil or gas; 41 (12%) of the 340 new pool wildcats, 62 (40%) of the 156 outpost-extensions, and 1 (10%) of the 11 deeper pool tests were productive.

Table 1. Completion Summary for Kansas, 1973

	<u>Oil</u>	<u>Gas</u>	<u>Dry</u>	<u>Misc.</u>	<u>Total</u>	<u>% Success</u>
Exploratory	98	40	601	--	739	18.7
Development	494	344	476	--	1,314	63.8
Miscellaneous	--	--	--	61	61	--
Total	<u>592</u>	<u>384</u>	<u>1,077</u>	<u>61</u>	<u>2,114</u>	<u>47.5</u>

*The following text was extracted from the article "Oil and Gas Developments in North Mid-Continent in 1973" written by Margaret O. Oros (Head of the Oil and Gas Division, Kansas Geological Survey) et al. which will appear in the American Association of Petroleum Geologists Bulletin 58 (8), August 1974. Minor revisions of the original text have been made by staff members of the Kansas Geological Survey and the text has been included in the 1973 Mineral Industry Report with the permission of M. Oros and the American Association of Petroleum Geologists.

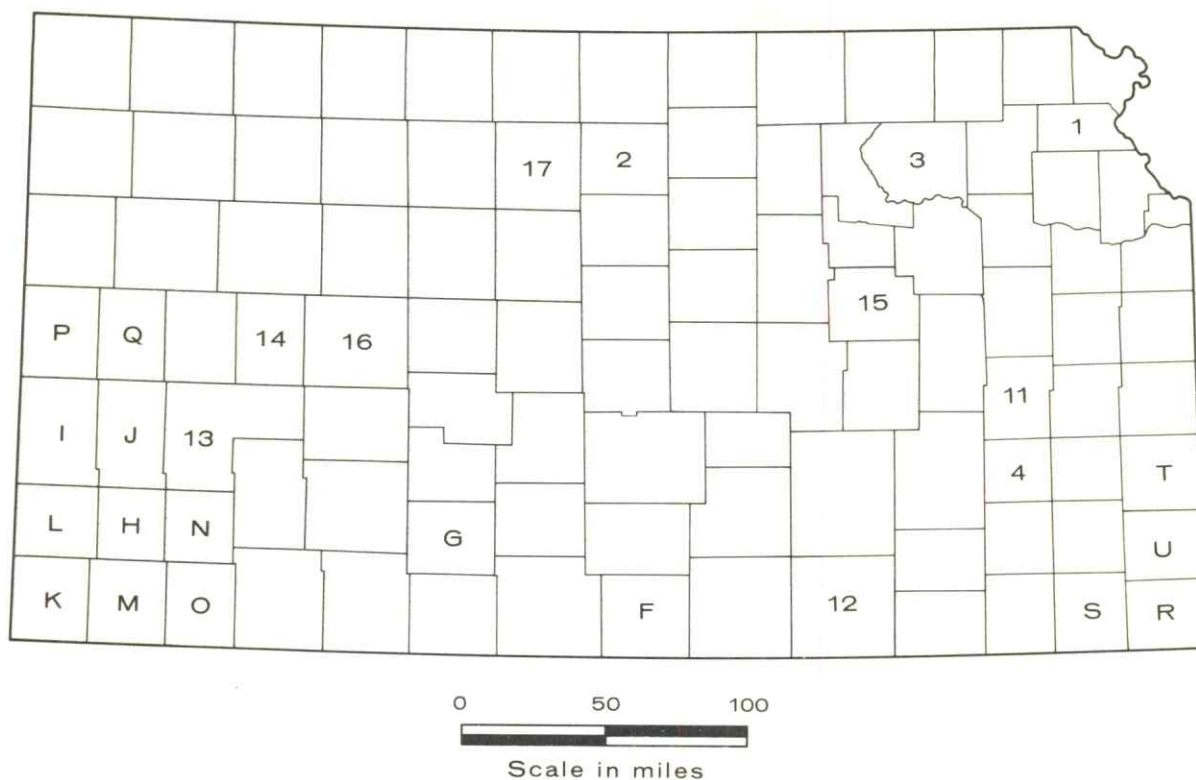


Fig. 1.--Index map of Kansas showing areas of interest in 1973. Numbers show locations of wells listed in Tables 2 and 3; capital letters identify other areas referred to in text.

Sixty-one service wells were also drilled. Important exploratory failures are shown in Table 2, and Figure 1.

Kansas oil well completions during 1973 (592) decreased 32.7% from the 880 reported in 1972. The 384 gas well completions comprised 39% of all producing wells.

Twenty-three holes changed classification between the spudding of the hole and completion. Of these, 22 new-pool test wells were completed as outpost-extension wells, and one new-field wildcat was completed as an outpost-extension. One of the wells was a former dry hole that was drilled deeper for production.

The producing zones in the 138 discoveries were divided among the following geologic groups: Permian, 10; Pennsylvanian, 68; Mississippian, 45; Hunton, 2; Ordovician, 8; Arbuckle, 4; and Cambrian, 1. The relative positions of these geologic groups is shown in Figure 2 (Zeller (ed.) et al., 1968).

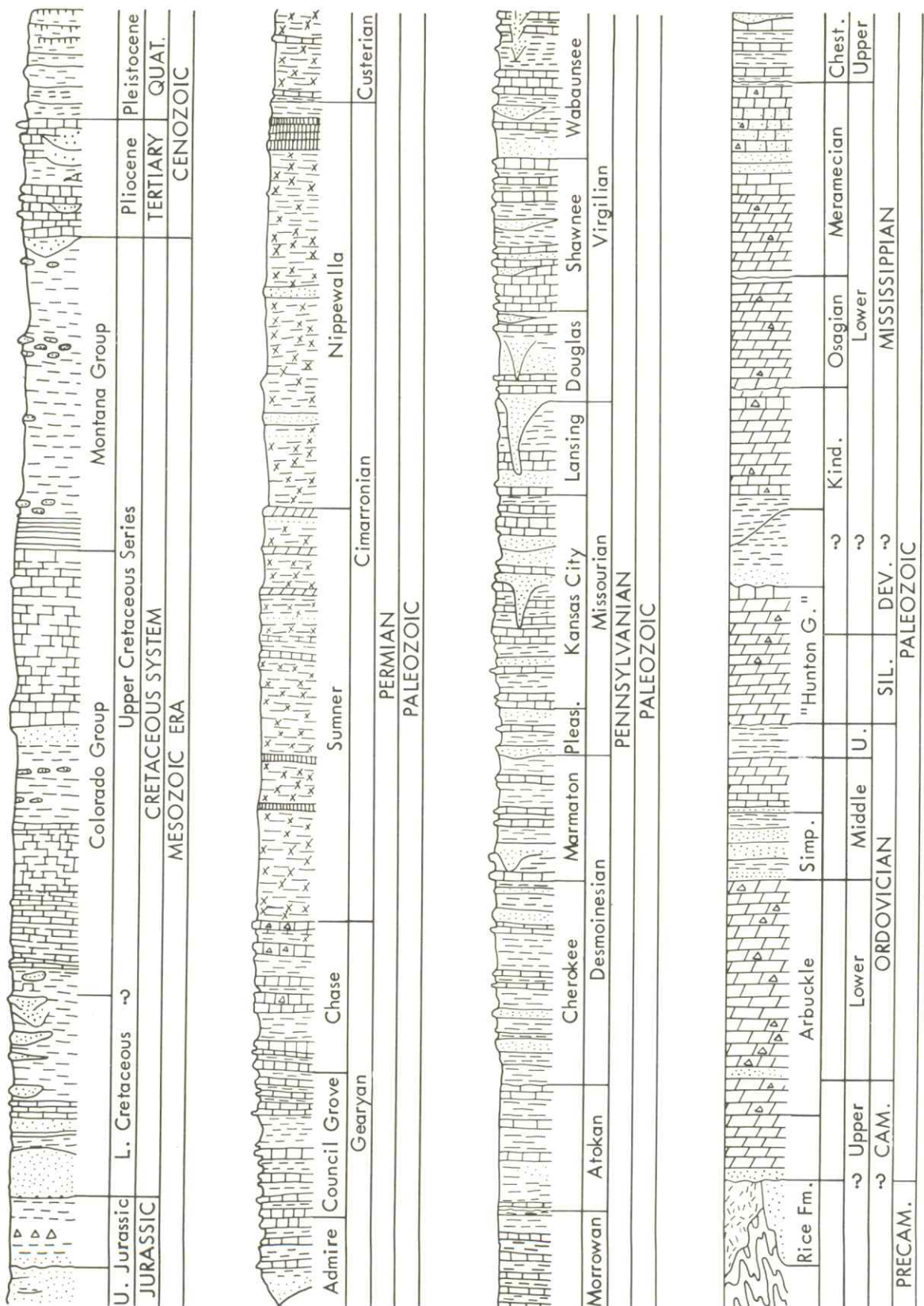


Fig. 2.--Classification of rocks in Kansas (Oros, 1971, modified from Jewett, in Zeller (ed.) 1968).

Table 2. Important Exploratory Failures, Kansas, 1973

Map No.	Operator, Well No., and Lease	County and Location	TD (Ft)	Formation at TD	Remarks
1	Anadarko Production 1 Schuele "A"	Atchison 27-6S-20E	1,515	Mississippian	Forest City
1	Anadarko Production 1 Funk "A"	Atchison 5-7S-21E	1,525	Mississippian	Forest City
1	Anadarko Production 1 Buchanan "A"	Atchison 15-7S-21E	1,545	Mississippian	Forest City
1	Anadarko Production 1 Corpstein "A"	Atchison 18-7S-21E	1,600	Mississippian	Forest City
2	Kai Oil Co., Inc. 1 R. Thierolf	Mitchell 34-6S-6W	4,320	Precambrian	Salina basin
3	John E. Brewer and Southwest Petro-Chem 1 Pinick	Pottawatomie 16-7S-12E	3,680	Precambrian	Forest City
4	Ross & Keas Oil 1 Solomon	Woodson 29-26S-17E	3,828	Precambrian	Cherokee basin

Table 3. Selected List of Discoveries, Kansas, 1973

Map Index No.	Operator, Well Number, and Lease	County and Location	Total Depth (Ft.)	Pay Zone and Production	Field Name
11	Dunne Equities No. 1 Reisbig	Coffey 11-21S-14E	1922	Simpson 35 BOPD	Lake Shore
11	Oscar Keopke No. 2 Gilbert	Coffey 3-22S-16E	1688	Viola 25 BOPD	Avon
11	Eureka Drilling and Westran Petroleum No. 1 Warren	Coffey 25-20S-14E	2002	Mississippian 12 1/2 BOPD + Water	Ottumwa
12	Craig Morris No. 1 Miller (OWFO)	Cowley 23-33S-5E	3510	Mississippian 35 BOPD	Silver Creek
13	Petroleum, Inc. No. 1 Brown "AJ"	Finney 19-25S-34W	5187	St. Louis 165 BOPD	Orange J
14	Thunderbird Drilling & Petroleum Resources No. 1 Davis "B"	Lane 24-17S-28W	4686	Lansing 110 BOPD	White Rock
15	Brandt Oil & George Ablah No. 1 Bosch	Morris 24-16S-7E	3120	Hunton 25 BOPD	Bosch
16	Patrick Petroleum & Thunderbird Drilling No. 1 Stutz	Ness 17-17S-25W	4475	Mississippian 30 BOPD + Water	Stutz East
17	Petroleum Management No. 1 Bales	Osborne 14-8S-14W	3621	Tarkio 25 BOPD + 80% Water	Kill Creek

Seventy-three new-pay zones in producing fields were also found; 32 were gas zone discoveries and 41 found new oil. Eight were in rocks of Permian Age, 44 were Pennsylvanian, 19 were Mississippian, and two were Ordovician rocks.

Nine of the fields discovered during 1973 are listed in Table 3. Seven of these are mentioned in the text.

Ness County (16^{*}), with 106 new holes, led in total completions in the state; 48 were producers. Nine fields were named and five new pay zones in fields were discovered. Stutz East, with 8 Mississippian oil wells, was the county's most important discovery.

Cowley County (12), with 99 holes, was second in total completions; 57 of these were producers. The discovery well of Silver Creek field was a former dry hole that was re-worked and completed as a Mississippian oil well. No additional footage was drilled. The field had 7 wells at year-end.

Exploration for pre-Pennsylvanian zones continued in central Coffey County (11), resulting in 3 field discoveries from 23 oil well completions. Lake Shore with 4 wells, and 10 new wells in Thomsen field, discovered in 1972, extended the now six-mile long multi-field area almost to the shores of John Redmond Lake. The other field discoveries in Coffey County are Avon, with Viola oil, and Ottumwa, which has Mississippian oil production.

Twenty-one wildcat tests resulted in 5 new oil fields and 1 extension to a field in Lane County (14), on the northern flanks of the Hugoton basin. All are producing from Lansing-Kansas City rocks. White Rock field had 4 wells at year-end. Four of the 10 development wells found oil.

Bosch field in Morris County (15) had 8 Hunton oil wells by year-end. The field is on the western slopes of the Nemaha anticline; its producing area may be limited by faults.

Kill Creek field, Osborne County (17), with Tarkio (Wabaunsee Group) oil production, 12 miles northeast of fields on the flanks of the Central Kansas uplift, is in the deeper part of the Saline basin. Tests to the Arbuckle failed to find production. A fault, traced in the subsurface, extends northwest for 45

* These designations refer to Figure 1.

miles from about 6 miles west of this field (Cole, 1962). Three wells were completed in 1973.

The only successful test for deeper production discovered the Orange J field, with St. Louis (Mississippian) oil production, in Finney County (13). The two completed wells do not indicate the nature of the trap. In the large Pleasant Prairie field, 6 miles south of Orange J, the St. Louis oil producing reservoir is described as a combination stratigraphic and structural trap (Roby, 1959). Both fields are within the boundaries of the Hugoton Gas area, and like other deeper producing areas in this field, have been given their own distinctive field names.

Exploration for shallow gas pay zones was quite extensive on and near the Pratt anticline, resulting in a large number of completions (Kornfeld, 1973). Harper County (F) counted 5 new gas fields, 3 gas pools, and 3 field extensions (2 gas and 1 oil), in 1973. Twenty-six of the 50 wells drilled were productive.

Natural gas was also found in Cottonwood limestone (Council Grove) rocks in Kiowa (G) County's Barstow and Conklin East fields, where past production had been from Tarkio (Pennsylvanian) and Mississippian rocks. Field limits appear to be confined to favorable porous zones in a stratigraphic trap. The best well was completed with an initial potential of 33 MMCFGD, after fracture and acidizing treatments.

Panoma Gas field added 186 (48%) of the 384 gas wells completed in Kansas during 1973. In two years, 448 Council Grove (Permian) gas wells have been drilled in the 6-county field (Grant, Hamilton, Kearny, Morton, Stanton, and Stevens). Panoma lies stratigraphically below the Hugoton Gas field, which produces only from the Chase Group of the Permian. Hugoton wells are in all or part of nine counties [Finney (13), Grant (H), Hamilton (I), Haskell (N), Kearny (J), Morton (K), Seward (O), Stanton (L), and Stevens (M)].

An additional 31 gas wells were drilled in other southwestern Kansas gas fields. Sixteen of these, in Greeley County (P), extended the Bradshaw Gas area (Chase production) about 9 miles north of its previous limits in Hamilton County (I). Prior to 1973 there was no commercial production in Greeley County.

Wichita County (Q), which has had minor production in the past, was the site of 9 wildcat tests, but missed finding production. Eight of these were drilled in

a broad exploration program by Galaxy Oil Company. Test data have not been released.

Seven dry wildcat tests that provide significant subsurface data are listed in Table 2. The hole in Woodson County (4) is particularly interesting as it was 1,476 feet into Precambrian rocks at its total depth of 3,828 feet. Three drill-stem tests were taken in the igneous rocks that were penetrated. It was completed in 1972.

Other unsuccessful tests included 29 in southeastern Kansas drilled by BMG, Inc., during 1973 and early 1974 in a continuing exploration program. All holes were 900 feet or less in depth, and penetrated Arbuckle rocks. Thirteen tests were drilled in both Cherokee (R) and Labette (S) Counties, 2 in Bourbon (T), and 1 in Crawford (U) County. Commercial quantities of oil have not been found in Cherokee County, but it has been important for coal, lead, and zinc production; the other counties have had oil and gas production for years. Much oil of low gravity is present on both sides of the Kansas-Missouri border.

A county by county breakdown of wells reported to the AAPG-API Committee on Statistics of Drilling during 1973 is presented in Table 4.

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Table 4 --Tabulation of wells reported to the AAPG-API Committee on Statistics of Drilling during 1973.

COUNTY	Producers					Dry					Total holes	Intents to Drill	
	New field W.C.	New pool W.C.	Deep pay test	Out-post ext.	Dev. well	New field W.C.	New pool W.C.	Deep pay test	Out-post ext.	Dev. well			Misc. wells
Allen	--	--	--	--	19	--	--	--	--	8	2	29	57
Anderson	--	--	--	--	7	--	--	--	1	7	9	33	51
Atchison	--	--	--	--	--	--	--	--	--	--	--	4	5
Barber	1	--	--	2	6	--	11	--	4	11	--	35	32
Barton	--	1	--	2	14	--	7	--	1	19	--	44	57
Bourbon	--	--	--	--	2	--	1	--	1	2	--	6	10
Brown	--	--	--	--	--	--	--	--	--	--	--	0	0
Butler	--	--	--	--	9	--	8	--	1	13	--	32	33
Chase	--	--	--	--	1	--	2	--	--	--	--	3	6
Chautauqua	1	--	--	--	30	--	1	--	1	13	--	47	59
Cherokee	--	--	--	--	--	--	4	--	--	--	--	6	11
Cheyenne	--	--	--	--	1	--	2	--	1	5	--	13	15
Clark	--	--	--	--	--	--	--	--	--	--	--	0	0
Clay	--	--	--	--	--	--	--	--	--	--	--	0	0
Cloud	--	--	--	--	--	--	--	--	--	--	--	0	0
Coffey	2	1	--	2	18	--	3	--	1	7	2	45	58
Comanche	--	--	--	--	1	--	1	--	--	1	--	6	13
Cowley	--	1	--	1	55	--	12	--	3	22	4	99	133
Crawford	--	--	--	--	1	--	1	--	--	--	--	2	4
Decatur	--	2	--	1	8	--	5	--	3	7	2	32	24
Dickinson	--	--	--	--	--	--	--	--	--	--	--	0	1
Doniphan	--	--	--	--	--	--	--	--	--	--	--	0	7
Douglas	--	--	--	--	--	--	--	--	--	--	2	2	1
Edwards	--	--	--	--	5	--	--	--	--	3	--	9	10
Elk	1	1	--	1	18	--	8	--	2	14	2	49	39
Ellis	--	4	--	1	22	--	11	--	8	21	--	68	59
Ellsworth	1	1	--	1	13	--	3	--	3	5	2	38	44
Finney	--	--	1	--	5	--	--	--	1	2	1	11	10
Ford	--	--	--	--	2	--	3	--	--	5	--	15	18
Franklin	--	--	--	1	5	--	3	--	--	4	1	19	27
Geary	--	--	--	--	--	--	--	--	--	--	--	0	1
Gove	3	3	--	1	8	--	8	--	3	10	--	45	35
Graham	--	1	--	6	23	--	19	--	4	12	--	65	61
Grant	--	--	--	--	49	--	--	--	--	--	--	49	39
Gray	--	--	--	--	--	--	--	--	--	--	--	0	0

Table 4 (cont.)

COUNTY	Producers				Dry				Misc. wells	Total holes	Intents to Drill
	New field W.C.	New pool W.C.	Deep pay test	Out- post ext.	Dev. well	New field W.C.	New pool W.C.	Deep pay test			
Greeley	--	--	--	3	13	2	--	--	--	27	30
Greenwood	--	--	--	--	21	1	--	1	1	46	54
Hamilton	--	--	--	--	15	6	1	--	--	22	19
Harper	5	3	--	3	13	3	--	3	--	50	61
Harvey	--	--	--	--	4	--	--	1	--	10	13
Haskell	--	--	--	--	2	--	1	1	--	4	9
Hodgeman	--	1	--	2	18	14	--	5	1	73	64
Jackson	--	--	--	--	--	--	--	--	--	0	1
Jefferson	--	--	--	--	--	--	--	--	--	0	0
Jewell	--	--	--	--	--	--	--	--	--	0	0
Johnson	1	--	--	--	5	1	--	--	--	10	15
Kearny	--	--	--	--	31	2	2	--	1	39	52
Kingman	--	1	--	--	11	6	--	1	--	37	30
Kiowa	--	--	--	2	14	6	--	1	--	41	52
Labette	--	--	--	--	6	6	--	2	--	22	34
Lane	5	--	--	1	4	10	--	1	--	31	34
Leavenworth	--	--	--	--	--	--	--	--	--	1	0
Lincoln	--	--	--	--	1	--	--	--	--	1	1
Linn	--	--	--	--	--	--	3	--	--	3	6
Logan	--	2	--	--	--	3	1	--	--	8	7
Lyon	--	--	--	1	7	2	--	--	1	18	20
McPherson	2	--	--	1	5	1	3	2	1	19	22
Marion	--	1	--	--	4	2	1	--	--	8	6
Marshall	--	--	--	--	--	--	--	--	--	0	0
Meade	--	--	--	2	10	3	2	4	--	27	22
Miami	--	--	--	--	4	--	--	--	--	6	21
Mitchell	--	--	--	--	--	1	--	--	--	1	2
Montgomery	--	--	--	1	14	--	1	1	6	27	56
Morris	--	1	--	--	6	--	2	4	--	13	16
Morton	--	--	--	2	14	--	2	2	--	25	28
Nemaha	--	--	--	--	--	--	--	--	--	0	0
Neosho	--	--	--	--	9	--	--	--	9	23	51
Ness	2	7	--	8	31	3	19	6	--	106	113
Norton	1	--	--	1	--	1	--	--	--	5	5
Osage	--	--	--	--	--	--	--	--	--	1	3

Table 4 (concl.)

COUNTY	Producers					Dry					Total holes	Intents to Drill	
	New field W.C.	New pool W.C.	Deep pay test	Out-post ext.	Dev. well	New field W.C.	New pool W.C.	Deep pay test	Out-post ext.	Dev. well			Misc. wells
Osborne	1	--	--	--	--	1	1	--	--	--	--	3	6
Ottawa	--	--	--	--	--	--	--	--	--	--	--	0	0
Pawnee	1	1	--	--	12	3	7	--	1	3	1	29	33
Phillips	--	--	--	--	3	--	1	--	--	--	--	4	7
Pottawatomie	--	--	--	--	--	--	--	--	--	1	--	1	1
Pratt	1	--	--	--	12	--	2	--	2	2	--	19	26
Rawlins	2	1	--	1	3	12	4	--	--	5	1	29	28
Reno	--	1	--	--	2	3	1	--	1	6	--	14	20
Republic	--	--	--	--	--	--	--	--	--	--	--	0	0
Rice	--	2	--	--	10	3	4	--	--	6	--	25	38
Riley	--	--	--	--	--	--	--	--	--	--	--	0	2
Rooks	--	--	--	3	12	2	10	--	3	10	2	42	31
Rush	2	--	--	--	4	1	9	--	2	12	--	30	28
Russell	1	1	--	--	26	--	9	--	2	15	1	55	59
Saline	--	--	--	--	--	--	--	--	--	2	--	2	3
Scott	--	--	--	4	6	--	2	--	--	2	--	14	13
Sedgwick	--	--	--	--	--	3	2	--	--	2	1	8	8
Seward	--	--	--	2	9	--	1	4	4	6	--	26	26
Shawnee	--	--	--	--	--	--	--	--	--	--	--	0	0
Sheridan	--	--	--	2	9	3	13	--	3	8	--	38	28
Sherman	--	--	--	--	--	--	--	--	--	--	--	0	1
Smith	--	--	--	--	--	--	--	--	--	--	--	0	0
Stafford	--	1	--	2	7	--	3	--	1	10	1	25	41
Stanton	--	--	--	--	58	--	--	--	--	2	--	60	49
Stevens	--	--	--	--	51	--	--	2	1	3	--	57	54
Sumner	--	1	--	1	15	5	12	--	4	11	--	49	54
Thomas	--	--	--	--	--	2	--	--	--	--	--	2	3
Trego	1	2	--	1	--	3	5	--	--	3	1	16	16
Wabaunsee	--	--	--	--	--	4	2	--	--	--	--	6	2
Wallace	--	--	--	--	--	--	--	--	--	--	--	0	0
Washington	--	--	--	--	--	--	--	--	--	--	--	0	0
Wichita	--	--	--	--	--	9	--	--	--	--	--	9	5
Wilson	--	--	--	--	1	--	2	--	--	3	--	6	18
Woodson	--	--	--	--	14	--	4	--	1	9	6	34	56
Wyandotte	--	--	--	--	--	--	--	--	--	--	--	0	0
TOTALS	34	41	1	62	838	198	299	10	94	476	61	2114	2425

The Current Status of Helium

Helium has been in the spotlight of the mineral industry in Kansas (and nationwide) during 1973 due to the termination of government purchase contracts for crude helium and the subsequent litigation. This subject is of prime importance to Kansas as six of the nation's 12 helium extraction plants are located here. In 1973 crude helium production in Kansas was 1.54 billion cubic feet, a sharp drop from the 2.27 billion cubic feet produced in 1972.

The termination of helium contracts by the government began in January 1971, when the Department of the Interior announced that the U.S. Bureau of Mines would cease purchase of helium on March 28, 1971. Legal action by the contractors and subsequent litigation on both sides kept the government purchasing helium until November 12, 1973. As of this writing, the Supreme Court has upheld the lower court's decision allowing cancellation of these contracts. The government's reasons for terminating these contracts involve the adequate supply of crude helium in underground storage coupled with the fact that gases like argon and nitrogen can be used in place of helium for some applications. At present, the Bureau of Mines estimates the U.S. has over 38 billion cubic feet of crude helium in conservation storage.

The future of helium is still clouded by litigation. Individuals who own property from which helium-containing natural gas has been taken have filed suit against the gas producers because the landowners were not paid royalties for the helium produced, only for the natural gas. Problems remain on establishing the value of the helium produced (in order to determine the royalty payment).

Helium is the second lightest element known to man (second only to hydrogen) and is produced as a by-product in the radioactive decay series of uranium and thorium.* Chemically, helium is described as a non-flammable, colorless, odorless,

*The presence of helium does not imply that there is a nearby source of radioactivity. Some helium may never have been associated with nuclear decay but rather was present during the earth's formation, while the remainder was later formed by radioactive decay. However, we know nothing about the movement (lateral or vertical) of helium through rock where it can collect in natural gas pools. Being such a small molecule of such low mass, we can speculate that helium has the ability to travel large distances; hence, its present source may be very far away from the original radioactive source.

inert gas. As far as is known, the gas has no undesirable ecological effects.

The average American probably knows little about the sources or uses of helium except that it is used to fill balloons at the circus or carnival. Although the gas actually has a widespread occurrence including trace amounts in the atmosphere, all current U.S. production of helium is achieved by extracting it from natural gas. Normally, natural gas is not used as a source of helium unless it contains at least 0.3% helium. The extraction produces crude helium which is an approximate mixture of 70% helium and 30% nitrogen with trace amounts of other gases. After a refining process to remove the nitrogen, the refined or high purity helium (99.995%) can be used for various purposes. The major use for helium is in the space program as a purging and pressurizing agent in spacecraft. Other uses include cryogenic research, breathing mixtures and other controlled atmosphere work, and as an inert atmosphere for welding. Because helium is so lightweight and non-flammable, it possesses obvious advantages over hydrogen which is highly flammable. Refined helium production in Kansas during 1973 was 417 million cubic feet, up from the 1972 production of 384 million cubic feet.

Because of its large supply of natural gas, the United States has always been the major producer of helium. Production statistics are unknown for the U.S.S.R. (which contains large natural gas fields) but the United States consistently produces over 90% of the known world production. There is no specific depletion allowance on helium, only a 22% allowance on the natural gas production from which the helium is extracted.

In summary, the future of helium production in Kansas is uncertain, but not promising from a government purchase standpoint. The commodity is still in demand and the Bureau of Mines has predicted an increase of helium consumption through 1980 at an annual rate of 7%. Another fact will become important in the future, namely the gas fields which supply natural gas containing over 0.3% helium will eventually be exhausted and force helium producers to use gas containing lesser concentrations of helium or use other unproven but potential sources. Although it is purely speculation, the long-term outlook for helium may not be too bad and continued demand increases might cause the government to begin purchasing helium again in the future.

A Brief Look at the Limestone Industry

Kansas contains numerous limestone ledges suitable for quarrying which supply a large number of producers. Limestone is produced in three general sizes (1) large blocks for building stone, (2) crushed rock for roads, aggregate etc., and (3) very fine sizes for agricultural lime. The requirements for each category vary, by far the largest volume produced is in the crushed rock category.

The author has no idea when the first limestone operation began. Thinking back to earlier days, limestone is probably best remembered by many for making such durable fenceposts. Others might recall the old buildings made from stone, which are still standing. In either case, it is interesting that one remembers such a limited tonnage item and tends to overlook the vast quantities which have been and continue to be used in road and building construction.

The limestone industry as a whole enjoyed a good year during 1973. Demand for building stone remained about the same as during 1972. A wet spring hampered the agricultural lime producers. The weather broke so late that many farmers barely had time to do their planting and there was little opportunity to lime the fields. Crushed rock for various purposes continued to be in strong demand. Because of the wet spring and construction needs, demand was tremendous when the drier spring weather arrived.

Sales for limestone set a record during 1973 but problems remain within the industry. A topic upon which the industry is divided in its opinion is the area of dust pollution. Government regulations now call for the installation of sprayers on portable crushers of any product to prevent dust pollution. Some companies have already complied, while the rest are in the process of installing such equipment. Opinions from producers in the industry vary from "we are doing our part" to "it's a necessary evil" to "it's a waste of time and money" to "I may just close up shop." There is no doubt that some producers find it difficult to accept the government's ruling. First, the expense is especially prohibitive to the smaller operations. Furthermore, some quarries are located far from any housing and the rock being produced has such a high moisture content that there is no dust produced during crushing. Spraying such rock would produce material

which cannot be screened. Under such circumstances, the need to install sprayers is questionable. By far the most common opinion from the producers is that lime dust isn't harmful and the farmer plowing his field or a car traveling down a gravel road raises more dust than the crushing operations. Producers seem to agree that when a quarry is located near housing, the dust level should be controlled.

Another major problem area is fuel. One industry spokesman commented that while they were allowed a .05/ton increase in crushed rock prices last year, the additional revenue was more than offset by a .15/ton increase in fuel cost to produce the rock. A further increase in rock prices would be desirable to meet the additional fuel expense.

In summary, the limestone industry of Kansas is doing well because of the high product demand but expenses associated with pollution and safety regulations as well as the increased cost for fuel continue to squeeze profit margins.

The Ceramic Industry in Kansas

The Kansas Mineral Industries Report for 1973 highlights the ceramic industry in Kansas, which includes the production of brick, sewer pipe, lightweight aggregate (expanded shale), and pottery. The first three products are industrial ceramics while the latter is more often associated with art.

There are a large number of pottery or, more properly, ceramic hobby shops in Kansas. Ceramics as a hobby seems to be increasing in popularity as evidenced by the increasing number of shops catering to the ceramic hobbyist. However, these shops are outside the scope of this report because all of the raw materials they use are imported from other states. The notable exception to the use of imported raw material is Pittsburg Pottery (Pittsburg) which uses Kansas underclay, found beneath certain coal seams in southeastern Kansas, to make all of their jiggered stoneware.

The underclays in southeastern Kansas are used extensively by the W. S. Dickey Clay Manufacturing Company whose headquarters are located in Pittsburg. Founded well before the turn of the century, the company is certainly one of the leaders in the clay sewer pipe field and their facilities at Pittsburg include the largest clay sewer pipe testing lab in the country. Last year the Pittsburg operation used well over 100,000 tons of underclay for the production of sewer pipe. The basic process for making sewer pipe is similar to that used for making brick. The clay is ground, mixed with the right amount of water, extruded as pipe, dried, and fired.

Kansas hosts six brick plants which include Humboldt Brick and Tile (Humboldt), Acme Brick (Weir and Kanopolis), Kansas Brick and Tile (Hoisington), Excelsior Clay Products (Fredonia), and Cloud Ceramics (Concordia). Although there is a spread of over 50 years between the age of the oldest and the newest plants, all of them use a similar process once the shale or clay is at the plant. The clay is ground, water added, and then the body is extruded in a long ribbon which is cut into brick. The bricks are loaded on cars, dried, and then fired. The plants use different types of equipment for digging and milling the shale and for texturing and/or coloring and firing the brick, but this basic process pro-

duced some 97 million brick in Kansas during 1973.

The brick plants faced a shortage of barium carbonate during most of 1973. This chemical is added to prevent scumming of the brick during drying (it reacts with soluble sulfate salts which normally migrate to the brick surface during drying where they are deposited as a white scum). The chemical is supplied to midwestern users by a sole producer, The Sherwin Williams Company in Coffeyville. A shut down in their barium carbonate production line for several months caused the inventory of some brick manufacturers to become dangerously low before production resumed in late 1973.

In contrast to the other ceramic industries who must slowly dry and slowly fire their shale products to obtain a relatively high density product, Buildex, Inc. (Ottawa) very rapidly fires shale in rotary kilns (see cover) to produce low density expanded shales (lightweight aggregate) used in lightweight concrete and concrete blocks. Founded in the early 1950's, the industry has expanded rapidly and a second plant (Marquette) was installed in 1961.

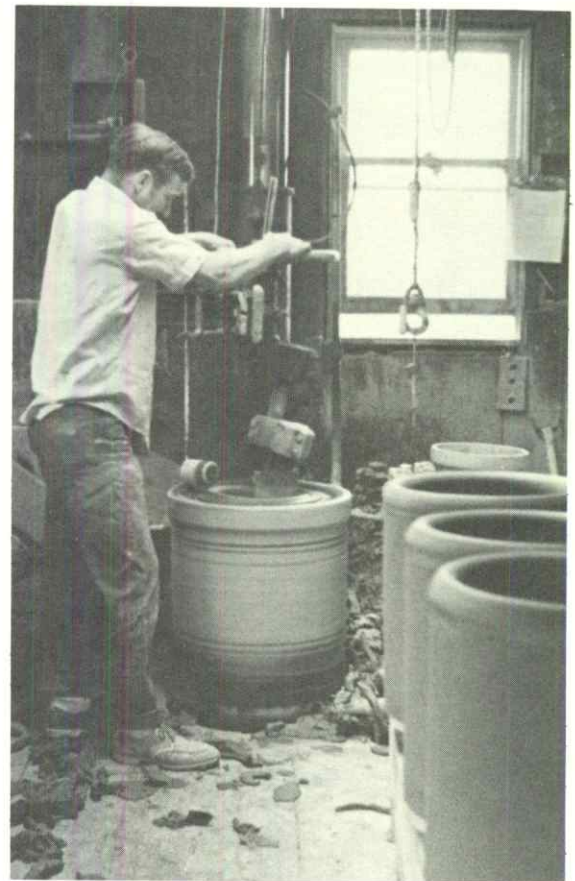
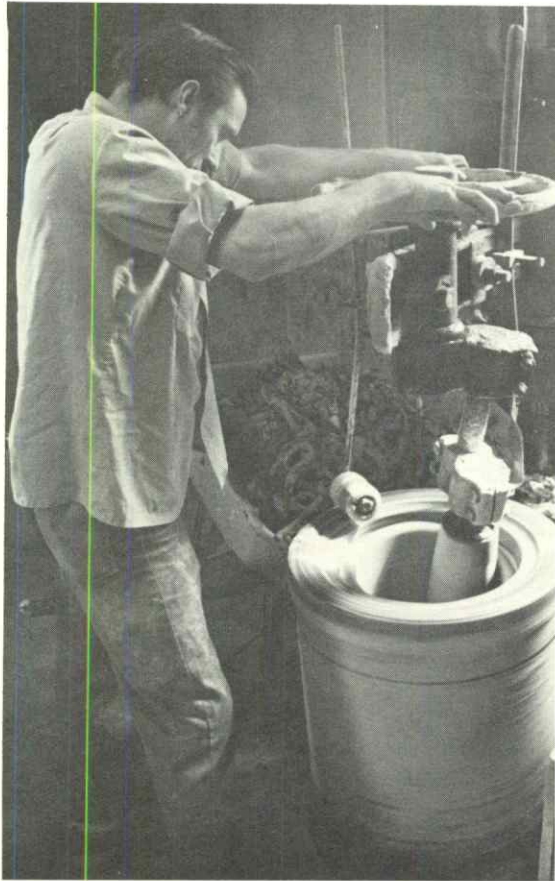
Only brief mention has been made of each product. Some of the history of the individual companies can be found in the next section of this report. These ceramic companies have certain common problems. All of them use shale or clay as their raw material, all are concerned with the amount and consistency of their reserves, and all use a gas kiln operation to make their products. Fuel is a serious problem and many producers face interruptions in their natural gas supply. This means they must have a standby fuel source such as oil since (1) a kiln (especially a tunnel kiln) cannot be rapidly cooled without the deterioration of the refractories and (2) it takes considerable time to heat a kiln once it has cooled, which means additional costs. Not only are fuels sometimes difficult to obtain but escalating costs of fuels (as well as labor, transportation, etc.) have increased the cost of goods sold. Consequently, profit margins have been squeezed to such an extent that prices of ceramic products have increased. Further price increases appear inevitable.

An additional cost factor over the past few years has originated from Federal and State regulations pertaining to safety and pollution control. Such regulations require items like dust collectors, hard hats, safety shoes and glasses,

plant or equipment modifications for safety purposes, etc. As in all industries, these costs are passed on to the consumer.

Related directly to the fuel shortage is the restrictive effect on expansion. In general, the past two years have seen a strong demand for the ceramic products of Kansas. Demand has been greater than the supply at most plants, and inventories, if they exist, are minimal. Although most plants have no plans for expansion, one individual flatly stated that he wanted to expand but had little encouragement to do so in view of the fuel shortage. The problems associated with fuel will be with the industry for some time.

Although it appears detrimental to progress on the surface, the fuel shortage has forced manufacturers to examine their processes in order to find more efficient ways to use fuel. Kiln manufacturers and industrial engineers are examining air flow patterns within kilns in order to obtain uniform and optimum heat transfer to the objects being heated in order to conserve heat. The idea of using hot exhaust gases from the higher temperature zones of tunnel kilns to heat the cooler portions on the ends of the kiln has gained in popularity. Exhaust gas from hot kilns can also be used for drying operations. Engineers are constantly working on more efficient firing operations, burners, and fuel-air mixtures as well as new types of insulating materials and kiln designs using a fuel combination of coal and natural gas. A recent report in the March issue of Brick and Clay Record mentioned that during an experimental firing cycle in a periodic kiln, only 2,800 cubic feet of gas was used per 1,000 brick. Research and development of this type indicate the fuel shortage is not without its blessings.



Jiggering is used to produce large stoneware crocks at Pittsburg Pottery in Pittsburg, Kansas. Photo by Xerk White, Kansas Geological Survey.

PITTSBURG POTTERY

Pittsburg Pottery in Pittsburg, Kansas is an example of a successful family-owned business. It is interesting that both Pittsburg Pottery and the Pittsburg brick plant, the latter acquired and converted to clay sewer pipe production by W. S. Dickey during the 1900's, began in 1898 and today, both are well-known throughout their respective industries.

Early records on Pittsburg Pottery are sparse but it is known that the company began as a result of community effort. From the beginning, the operation was designed for stoneware production. Although many of the original uses for such ware have passed with the decades, stoneware remains their best known item.

The Matarazzi family first appeared on the scene in 1928 when the late Henry Matarazzi, the present owner's father, began to work at the Pottery. At that time the operation was run by a Mrs. Larson. Henry Matarazzi and others bought controlling interest in the business around 1936, and by 1939 owned all interest. Vic Matarazzi, the present owner, joined the company in 1946.

Pittsburg Pottery specializes in both stoneware and castware. The raw material for the latter is brought in from such places as Kentucky and Georgia because the Kansas clays are not as suitable for casting. The Pottery has its own mold department which makes the plaster molds used for slip casting.

The raw material for Pittsburg Pottery's main product line, stoneware, is supplied by the Wilkinson Coal Company. Certain kaolinitic clays found under the coal seams (hence the name underclay) in southeastern Kansas are ideal for producing stoneware. The clay is washed, filter pressed, and brought to the right consistency for jiggering. In the latter process a lump of the moist clay is thrown into a spinning mold and the operator then inserts a forming tool to form the clay to the shape of the mold (see picture). After removal, the piece is dried, dipped in glaze and fired to the desired temperature. Items formed in this manner include different sizes of stoneware crocks and flower pots.

Vic Matarazzi graduated from the Kansas State College at Pittsburg in 1951 and in the same year became owner of Pittsburg Pottery. Under his direction, the company has enjoyed continued success and expansion. Additions were made to the

building in 1965 and 1970 to handle the increased business. The original building had high ceilings so racks have now been installed to make use of this space. During the 1960's, the company began using a group of display sales trucks and this move contributed greatly to the company tripling its business over the next three years.

Matarazzi at times has been aggressive in expanding the business but at other times has been wisely conservative in order to avoid overextending himself. At present, the company receives requests for stoneware from all over the country and the company delivers regularly to 31 states. Today, Pittsburg Pottery can be described as an institution in the pottery field.

W. S. DICKEY CLAY MANUFACTURING CO.

The W. S. Dickey Clay Company is named after its founder and first owner, Walter Simpson Dickey. The life of this native of Toronto, Canada has quite a success story. He made the best of his opportunities in rapidly developing the clay sewer pipe business.

Dickey moved into management circles at the early age of 25 when he became general manager of the Kansas City Sewer Pipe Company. At the time, the company was in relatively poor shape, but under Dickey's management profits improved considerably.

The W. S. Dickey Clay Manufacturing Company was started in 1885 when Dickey leased a sewer pipe operation from the Keith and Perry Coal Company in Deepwater, Missouri. Dickey proceeded to upgrade the plant and set up a small yard and office in the Kansas City area. He also acquired another plant in the Deepwater area. During the late 1880's, Dickey purchased his father's stock in the Kansas City Sewer Pipe Company and then proceeded to acquire the remaining stock, thus becoming the sole owner. As a result of this acquisition, Dickey maintained control of most of the plants west of St. Louis that produced vitrified clay sewer pipe.

Acquisitions of clay sewer pipe plants were a significant feature during the first two decades of Dickey Clay's history. By 1905, just 20 years after its founding, W. S. Dickey Clay Manufacturing Company had become the largest manufacturer of clay sewer pipe in the United States. They owned 26 plants in 12 states.

Since 1905, the Dickey Company has maintained its preeminent position in the industry. Manufacturing operations have been consolidated and most of the plants owned in 1905 have been closed with larger, modern units replacing them.

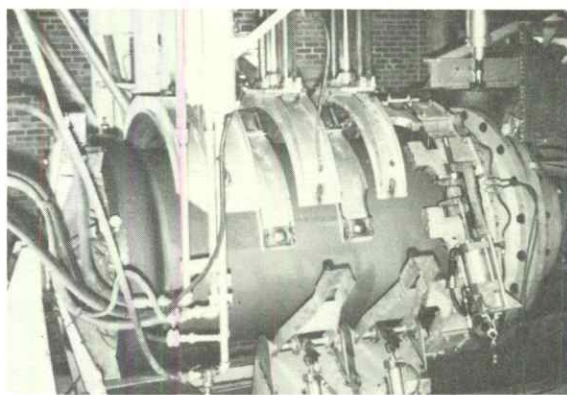
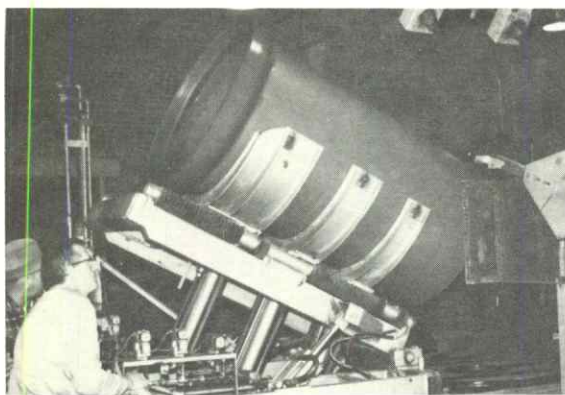
Through the years, it seems that part of the company's philosophy has been to develop top management within the company. The current President, Paul B. Friley, took over in 1963 and he has been with the company for over 30 years. His predecessor, H. P. Wilhelmsen, was President for 21 years and was associated with the company for 45 years. Along the same lines, many of the employees have lengthy service records. The low turnover and continuous operation have contri-

buted greatly to the company's success.

The plant at Pittsburg was originally built in 1898 as a brick plant and shortly thereafter began producing building tile. The plant was acquired by Dickey during the 1900's. Brick and tile production were immediately discontinued and the plant was converted to clay sewer pipe production.

During the 1940's, Dickey Clay decided to further expand the operation in Pittsburg. Beginning in 1941, the Pittsburg plant has constantly undergone expansion and renovation. After World War II, the economy was ripe for expansion. Pittsburg was selected as the site for a new plant constructed in 1947, due to the availability of fuel, labor, power, raw material, and transportation facilities. A revolutionary event occurred in 1951 when the first automatic pipe-handling equipment was installed at Pittsburg. As a result, the various sizes of pipe (4" to 36" diameter) which are formed by extrusion require little handling (see picture). The years 1962-1965 saw the construction of the W. S. Dickey Research Center, the largest clay pipe research center in the world.

At present time, W. S. Dickey Clay Manufacturing Company owns 7 plants located at Bessemer, Alabama; Lehigh, Iowa; Meridian, Mississippi; San Antonio, Texas; Texarkana, Texas; St. Louis, Missouri; and Pittsburg, Kansas. Although part of their sales force still functions in Kansas City, on July 26, 1971 the company's headquarters officially moved from Kansas City to Pittsburg. This combination of management, research and production has made W. S. Dickey Clay Manufacturing Company the largest ceramic company in Kansas.



Automatic pipe handling equipment is used to handle all sizes of extruded clay sewer pipe at the W. S. Dickey Clay Manufacturing facilities in Pittsburg, Kansas. Photo courtesy of W. S. Dickey Clay Manufacturing Company.

CLOUD CERAMICS

Located at Concordia, Kansas, Cloud Ceramics largely owes its origin to the research efforts of Norman Plummer, then a member of the Kansas Geological Survey, and to the convictions of Charles Cook, a resident of Concordia. In 1938, Plummer discovered a thick deposit of Dakota clay suitable for making brick, located near Concordia. The thickness and area of the deposit were large enough to support an annual plant capacity of 12 million brick for an 80 year period. During the early 1940's, Cook tried to persuade the city to enter the brick business (particularly during his term as President of the Chamber of Commerce). Although the city rejected his idea, Cook was so convinced about the merits of a brick plant in Concordia that he started it himself. The #1 plant, consisting of a series of five beehive kilns, was constructed during 1945 and production was started in 1946.

During the following years, the capacity of the plant was increased by adding a new dryer and two more beehive kilns. By 1954, the production had increased to 80,000 brick per day. The present tunnel kiln (#2 plant) was constructed in 1956, and by 1957 the production capacity of the plant had further increased to 130,000 brick per day. At this point, Cloud began phasing out their beehive kilns. By 1960, production was almost entirely accomplished with the tunnel kiln.

Although there has been a terrific demand for brick during the last couple of years, Cloud has not reactivated their beehives because of problems associated with air pollution and the shortage of fuel and labor. Because of the progressive action of the Chamber of Commerce, Concordia is undergoing a rapid industrial growth which has created a labor shortage. Furthermore, the management at Cloud estimates that it would cost around \$150,000 to \$200,000 to switch the entire production process back to the beehives. These kilns are kept on a standby basis in case their tunnel kiln would be shut down for extensive repairs.

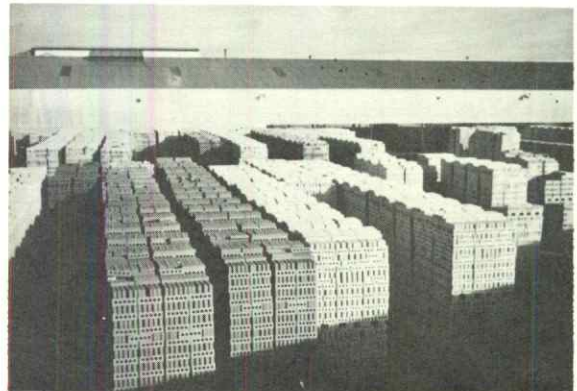
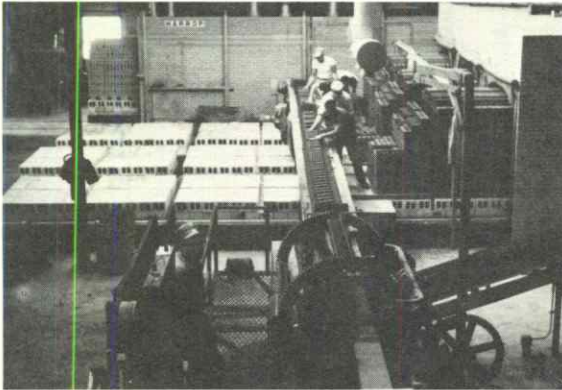
As an example of the "brick boom" during 1973, the demand for brick had stripped inventories to the bone and production was so far behind that Cloud Ceramics refused to accept orders for a six month period. Although they are now

accepting orders, demand is still heavy.

Unlike some brick producers who are producing only a few varieties to meet demands, Cloud Ceramics still offers 10 sizes and 4 textures which include 24 color varieties. Many of these colors are native to the clays (or blends of clays) which Cloud mines.

Cloud has endeavored to keep pace with new pollution and safety regulations. Nature conveniently has helped by providing springs in the clay pits to minimize dust pollution. Further dust control has been obtained over the past 10 years by installing cyclone dust collectors. Dick Cook, Vice-President and Treasurer of Cloud Ceramics, estimates they have spent over \$50,000 during the past three years for safety measures.

At the present time, Cloud Ceramics sells brick in 30 states and Canada. Their market area includes Chicago and occasional shipments to New Jersey. Current production is approximately 80,000 brick per day or a modular equivalent (7 5/8" brick) of 27 million per year.



A typical process for forming brick includes extrusion of a ribbon of clay or mixture of clays which is cut to the appropriate size. The wet brick are stacked on cars, dried and then fired. Photo courtesy of Cloud Ceramics, Concordia, Kansas.

HUMBOLDT BRICK & TILE

Humboldt Brick & Tile, located just north of Humboldt, Kansas is a product of the "cheap gas--great demand" era that typified eastern (especially southeastern) Kansas during the late 19th-early 20th centuries. During this period, brick plants sprung up almost everywhere in order to produce brick (especially paving brick). In fact, there were about 70 plants in southeastern Kansas during the early 1900's. Today, Humboldt claims to be the oldest brick plant in Kansas as it has never been bankrupt, shut down, or been reorganized.

Humboldt was organized in 1897 and the first brick were produced in 1898 including 133,000 brick for a schoolhouse. The names Works and Amos figure prominently in the company's history. R. M. Works and G. A. Amos were on the original Board of Directors. Works, a thirty-year resident in Humboldt, was the first president and his son, R. L. Works, later became president. J. J. Amos was the first general manager and served in that capacity until his death in 1944.

Originally the company was called the Humboldt Brick Manufacturing Company. The company also dealt in natural gas and oil. They sold their oil interest in 1903 but continued to produce and sell or use their own natural gas until 1926.

The brick business was so successful that in 1906 the company decided to double its capacity. In 1908 the company began manufacturing drain tile. Continued demand led to the construction of a continuous kiln (Hoffman) which again doubled the plant's capacity. Humboldt changed its name to Humboldt Brick & Tile in 1926.

The Hoffman kiln at Humboldt is the only one of its type in Kansas. The firing process uses coal which is dropped through the top of the kiln into the brick-filled chamber. In the years 1949 to 1952 the company expanded its facilities by adding 7 downdraft beehive kilns. During this period the company abandoned their power plant and began purchasing electricity.

In 1972, Humboldt stopped making drain tile and today, nearly all brick are made in the 12 beehive kilns. Half of the Hoffman kiln is still functional and if the gas shortage worsens, it may see increased use. During 1972 and 1973, Humboldt Brick and Tile had an annual production of 8-9 million brick. Included in their line are 40 varieties including 15 colors.

EXCELSIOR CLAY PRODUCTS, INC.

Like many other brick plants in Kansas around the turn of the century, the plant at the western edge of Fredonia was started in 1903 by a group of local citizens. The company was originally named Excelsior Brick and Tile Company and J. D. Linkenfelter was the first President and Manager. Although the original wooden office is still standing (it only was used for several years), of far greater interest is the present office building which was constructed with brick in 1910 and is still furnished with what one would now call antique fixtures.

The Fredonia plant originally used horse-drawn carts to transport the raw material to the plant where the clay was finely ground and then dry-pressed into brick. Originally, a Scove kiln was used but this was abandoned in 1913 when a Haigh kiln was built. The latter kiln consisted of two parallel chambers (300 feet in length) connected by a draft tunnel which could also be used for firing brick. Although it probably was never used at its fullest capacity, the kiln was capable of firing 3 million brick per month.

Progress continued to produce many changes over the decades. A J. C. Steele soft mud brick machine was installed early in the century and was replaced in 1956 by the now commonly used de-airing counterpart. The horse-drawn cart gave way to a cable winch line (wagon on rails) which in turn was replaced by the present gas locomotive for transporting clay to the plant. Digging clay by pick and shovel was replaced by a steam shovel which in turn gave way to a shale planer. Both Excelsior and Humboldt still use a shale planer.

In 1928, nine beehive kilns were constructed for firing tile. Eventually, tile production ceased and by 1969 firing in the Haigh kiln was discontinued and all brick were produced in the beehive kilns. Also during 1969, ownership changed to the Lusco Brick and Tile Company which has sold the entire Fredonia plant production since around 1930. The name of the Fredonia operation was changed to Excelsior Clay Products Company, Inc.

Today, the company produces only red burning face brick and all brick are produced in beehive kilns at the rate of about 35,000 brick per day. An interesting point about the company is that they have been using women fork lift operators for the past few years.

KANSAS BRICK & TILE

Kansas Brick and Tile at Hoisington, Kansas is the state's newest plant and is another example of a successful home-grown ceramic industry. The company's entry into the field has been both rapid and impressive.

The history of the company started with Ray Smith who owned a piece of land two and one-half miles south of Hoisington along U.S. 281. In Smith's words, the location was so ideal for a brick plant that "it would have been almost illegal not to build one there." In addition to the highway, there was electricity, fuel, a rail line, and plenty of suitable clay at the site.

Smith began efforts to organize a brick company during 1954 and the company was incorporated in August. Ground was broken for the plant in September and by January, production had begun. This was indeed a remarkably fast entry into the brick industry.

The plant had expert help. It was designed by T. J. Orrender, former head of the Salina Brick & Tile Company (which supplied some of the original equipment used by Kansas Brick & Tile), who also became the first plant manager. D. J. Wierman, manager of the Great Bend Brick & Tile Company, was hired by Kansas Brick & Tile as general manager in charge of sales. Both the Salina and Great Bend facilities have since closed.

Kansas Brick & Tile, like Cloud Ceramics, uses Dakota clays which give them a variety of natural brick colors. They use both a tunnel kiln and beehive kilns for production. During 1973, they installed a crown-fired beehive kiln, increasing their weekly production capability to 400,000 bricks.

BUILDEX, INC.

Like Cloud Ceramics, the existence of Buildex, Inc. is largely due to the research efforts of the ceramic division of the Kansas Geological Survey. In 1951, Norman Plummer and co-workers completed experimental tests that showed many Kansas shales and clays could be bloated to manufacture lightweight aggregate. Notable among the successful tests was the Weston shale in the vicinity of Ottawa, Kansas.

Almost immediately, Buildex, Inc. constructed a plant including two rotary kilns south of Ottawa and by the spring of 1952, the company, with George K. Mackie, Jr. as President, began production. The bloated or expanded shale, sometimes called a porous clinkered shale, is produced by rapidly heating crushed shale in a rotary kiln (see cover). The product is used as lightweight aggregate along with Portland Cement in the production of lightweight concrete blocks and reinforced structural concrete. In addition to its light weight, the material has good strength as well as good thermal and accoustical insulation properties. Although the volume is small, the material has been used increasingly in the past few years for decorative purposes in landscaping.

From its initial beginning in 1952, the company has expanded rapidly. A second plant with two rotary kilns was installed at Marquette in the fall of 1961. At the present time, six rotary kilns are producing expanded shale, four at Ottawa (two were added in 1971) and two at Marquette. The market area extends throughout the Midwest from the Mississippi River to the Rocky Mountains.

DIRECTORY OF KANSAS MINERAL PRODUCERS, 1973

Compiled by

Operations Research: Douglas L. Beene

Mineral Resources: Helen Wolfe, Joyce Barnhart, Joanne Laskowski
Diana Bandler, and David A. Grisafe

The Kansas Geological Survey gratefully acknowledges the assistance of the county engineers and mineral producers throughout Kansas without whose cooperation this Directory would not have been possible.

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CEMENT PRODUCERS LISTED ALPHABETICALLY

COMPANY ADDRESS TELEPHONE COUNTY LOCATION LEASE

PORTLAND CEMENT

ASH GROVE CEMENT CO. CHANUTE, KANSAS 66720 316-431-4500 NEOSHO 24-27-18E
 25-27-18E
 08-27-18E
 18-27-18E
 18-27-18E

GENERAL PORTLAND CEMENT CO. BOX 479 316-378-2189 WILSON 24-29-14E
 TRINITY DIVISION FREDONIA, KANSAS 66736

IDEAL CEMENT CO. BOX 228 402-879-3267 JEWELL 06-01-07M IDEAL CEMENT
 SUPERIOR, NEBRASKA 68978

LONE STAR INDUSTRIES, INC. BOX 297 913-422-1050 WYANDOTTE NW 28-11-23E
 BONNER SPRINGS KANSAS 66012

MONARCH CEMENT CO. HUMBOLT KANSAS 66748 316-473-2223 ALLEN SE 09-26-18E
 NE 16-26-18E

UNIVERSAL ATLAS CEMENT BOX 428 316-331-0206 MONTGOMERY NW 04-33-16E
 DIVISION, U.S. STEEL CORP. INDEPENDENCE, KANSAS 67301 NE 05-33-16E
 NE 32-32-16E
 NW 05-33-16E
 SE 05-33-16E
 SW 04-33-16E

CLAY AND SHALE PRODUCERS LISTED ALPHABETICALLY

BRICK, BRICK & TILE

ACME BRICK CO. S. WASHINGTON ST. 316-396-8217 CHEROKEE SW 17-32-25E WILKINSON
 WEIR, KANSAS 66781 34-31-24E ACME BRICK

BOX 98 913-634-5211 ELLSWORTH SW 34-16-08W BOGGS
 KANOPOLIS, KANSAS 67454 W 23-14-07W REMLEY
 N 25-15-07W SPARKS
 SE 34-15-07W VONDERS

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
CLOUD CERAMICS DIVISION GENERAL FINANCE INC.	P.O. BOX 417 CONCORDIA, KANSAS 66901	913-243-1284	CLOUD	NE 13-06-03W SW 32-07-02W NW 05-08-02W SE 30-07-02W	
EXCELSIOR CLAY PRODUCTS, INC.	FREDONIA, KANSAS 66736	316-378-2174	WILSON	04-29-14E 10-29-14E 11-29-14E	
HUMBOLDT BRICK & TILE CO.	910 NEW YORK HUMBOLDT, KANSAS 67951	316-473-2211	ALLEN	34-25-18E	
KANSAS BRICK & TILE CO., INC.	BOX 414 HOISINGTON, KANSAS 67544	316-653-2157	BARTON	E 20-18-13W	SMITH
LIGHTWEIGHT AGGREGATE -----					
BUILDEX, INC.	BOX 62299 PITTSBURG, KANSAS 66762 BOX 15 OTTAWA, KANSAS 66067 BOX 87 MARQUETTE, KANSAS 67464	316-231-1050 913-242-2177 913-546-2276	FRANKLIN MCPHERSON	23-17-19E 01-17-05W	BUILDEX, INC. BUILDEX, INC.
POTTERY -----					
PITTSBURG POTTERY	BOX 5 PITTSBURG, KANSAS 66762	316-231-3920	CHEROKEE	SW 17-32-25E	WILKINSON, INC.
SEWER PIPE -----					
W.S. DICKEY CLAY MANUFACTURING CO.	PITTSBURG, KANSAS 66762	316-231-1400	CRAWFORD CHEROKEE	E SE 16-29-25E NE SW 09-20-25E W SW 22-30-25E SW 17-32-25E SW 10-20-25E 20-32-25E	W. S. DICKEY W. S. DICKEY FERGUSON WILKINSON, INC. PRICE #4

COAL PRODUCERS LISTED ALPHABETICALLY

 COMPANY ADDRESS TELEPHONE COUNTY LOCATION LEASE

THE CLEMENS COAL CO. BOX 62299 316-231-1050 CRAWFORD 21-28-25E NO. 22
 PITTSBURG, KANSAS 66762 02-31-25E NO. 25

PITTSBURG-MIDWAY COAL TENMAIN CENTER 816-842-5430 P & M
 MINING CO. KANSAS CITY, MO. 64105 04-32-23E P & M
 109 W. 11TH. PITTSBURG, KANSAS 66762 CHEROKEE 05-32-23E P & M
 18-32-23E P & M
 13-32-23E P & M
 AMSTERDAM, MISSOURI 64723 LINN 14-20-25E P & M
 23-20-25E P & M
 02-20-25E P & M
 03-20-25E P & M

WILKINSON INC. WEIR, KANSAS 66781 316-396-8411 CHEROKEE 20-32-25E WILKINSON

GYPSUM PRODUCERS LISTED ALPHABETICALLY

 GEORGIA PACIFIC CORP. 913-226-6331 MARSHALL NW 16-04-07E
 BESTWALL GYPSUM DIVISION BLUE RAPIDS, KANSAS 66411
 NATIONAL GYPSUM CO. 316-886-5613 BARBER 09-31-15W
 MEDICINE LODGE, KANSAS 67104 16-31-15W

MISCELLANEOUS INDUSTRIAL MINERAL PRODUCERS LISTED ALPHABETICALLY

 DIATOMACEOUS MARL

 N L INDUSTRIES, INC. BOX 158 913-899-2131 WALLACE W 01-11-38W COGSWELL
 EDSON, KANSAS 67733 NW NE 10-11-38W COGSWELL
 11-11-38W COGSWELL

VOLCANIC ASH

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
ERNEST HANZLICEK	WILSON, KANSAS 67490	913-658-4172	LINCOLN	SW 27-13-10W	HANZLICEK
SAN ORE CONSTRUCTION CO.	BOX 417 MCPHERSON, KANSAS 67460	316-241-2240	LOGAN MCPHERSON NORTON	NW 12-13-35W NE 32-17-02W SE 32-03-24W	SCHERTZ PATRICK BRUNSON
STATE HIGHWAY COMMISSION DIVISION III	NORTON, KANSAS 67654	913-927-3315	NORTON	S 32-03-24W	BRUNSON
WYANDOTTE B.A.S.F. CORP.	WYANDOTTE MICH. 48192	313-282-3300	NORTON	SW 25-02-22W	MILLER
SALT PRODUCERS LISTED ALPHABETICALLY -----					
AMERICAN SALT CORP	3142 BROADWAY KANSAS CITY, MO. 64105 LYONS, KANSAS 67554	816-753-7100 316-267-2361	RICE	10-20-08W	
THE BARTON SALT CO.	BOX 1403 HUTCHINSON, KANSAS 67501	316-663-2141	RENO	23-23-06W	
THE CAREY SALT CO. SUBSIDIARY OF INTERPACE CORP	1800 CAREY BLVD. HUTCHINSON, KANSAS 67501	316-662-3341	RENO	16-23-05W	
CARGILL	BOX 188 PAMNEE ROCK, KANSAS 67547	316-982-4382	BARTON	SW 28-20-15W	CARGILL, INC.
INDEPENDENT SALT CO.	KANOPOLIS, KANSAS 67454	913-634-5221	ELLSWORTH	NW 29-15-07W	
MORTON SALT CO. DIV. MORTON-NORMICH PRODUCTS	110 N. WACKER DR. CHICAGO, ILLINOIS 60606 BOX 1547 HUTCHINSON, KANSAS 67501	312-621-5200 316-662-4441	RENO	148 23-23-06W	

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
VULCAN MATERIALS COMPANY CHEMICALS DIVISION	BOX 545 WICHITA, KANSAS 67201	316-524-4211	SEDGWICK	20-29-02W	VULCAN MAT, L.S. CO.
SAND AND GRAVEL PRODUCERS LISTED ALPHABETICALLY					
ABILENE SAND, INC.	BOX 524 ABILENE, KANSAS 67410	913-263-3492	DICKINSON	SE 25-13-01E	WILSON
JOHN H. ALSOP SAND CO.	11TH & M ST. BOX 345 BELLEVILLE, KANSAS 66935	913-527-2248	CLAY REPUBLIC	SW 02-08-02E SE 07-03-04E NW 20-03-04E	BITTNER RUNFT RUNFT
ALSOP & SONS SAND CO.	1107 GILLESPIE GARDEN CITY, KANSAS 67846	316-276-3130	FINNEY	NE 19-26-32W	CITY OF GARDEN CITY
AMERICAN SAND & MATERIAL CO. INC.	4600 SPEAKER ROAD KANSAS CITY, KANSAS 66106	913-342-4208	WYANDOTTE	18-11-25E	KANSAS RIVER
ARENSMAN SAND & GRAVEL CO.	CHASE KANSAS 67524 RAYMOND KANSAS 67573	316-938-2532 316-534-2822	RICE	NE 29-20-10W	HAGEN
ARKANSAS SAND CO., INC.	BOX 742 GREAT BEND, KANSAS 67530	316-793-9458	BARTON	NE 04-20-13W SE 06-20-11W	G.D. PETERS
ASSOCIATED MATERIAL SUPPLY CO., INC.	BOX 4064 N. WICHITA STA. 67204 4405 W. 52ND WICHITA, KANSAS 67204	316-744-0433 316-722-0281	SEDGWICK	N N 23-26-01W	CLARK
BARTON CO. ROAD DEPT	BOX 46 GREAT BEND, KANSAS 67530	316-453-4571	BARTON	05-20-11W SE 32-19-13W 32-19-14W	#620 #622 #624
ROD BENTLEY SAND & GRAVEL	SHIELDS, KANSAS 67874	316-397-5669	GOVE	SW 24-15-28W	BENTLEY
BENTLEY SAND CO.	BENTLEY KANSAS 67016	316-432-5235	SEDGWICK	NW 13-25-02W NE 17-25-01W	WOLFE VOGT

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
BIG RIVER SAND CO.	1651 W. MACARTHUR WICHITA, KANSAS 67212 4100 S. SENECA WICHITA, KANSAS 67212	316-524-0691	SEDGWICK	18-28-01E	DAVIS CORP.
BIG THREE SAND & GRAVEL CO.	6000 W. 21ST STREET WICHITA, KS. 67212	316-943-6361	SEDGWICK	SE 03-27-01W	RITCHIE CONSTRUCTION
BLUE RAPIJS SAND & GRAVEL	BLUE RAPIIDS, KS. 66411 RT. 1 BLUE RAPIIDS, KS. 66411	913-562-3577 913-226-8881	MARSHALL	18-04-07E	HAMILTON
BLUE RIVER SAND & GRAVEL CO.	BOX 38 BLUE RAPIIDS, KANSAS 66411	913-226-8881	MARSHALL	SW 19-04-07E SE 27-04-07E	STRYKER SMITH
BOWERSOCK MILLS & POWER CO.	BOX 218 LAWRENCE, KANSAS 66044	913-843-1051	DOUGLAS	6TH + NEW YORK	KANSAS RIVER
BROE & SMITH, INC.	BOX 9 LARNED, KANSAS 67550	316-285-2189	PAWNEE	SE SE 05-22-16W	BAHLS
BRYANT SAND & GRAVEL CO.	RT. 1 BOX 218 BURRTON, KANSAS 67020 RT 2 BOX 218 BURRTON, KANSAS 67020	316-463-5621 316-463-2711	HARVEY HARVEY	NE 06-24-03W 27-23-03W	
BUILDERS SAND CO.	78TH & HOLLIDAY DRIVE KANSAS CITY, KANSAS 66106	913-375-1414	JOHNSON WYANDOTTE	05-12-24E SW 32-11-24E	THE DEN GARRETT
CHASE CO. ROAD DEPT	COTTONWOOD FALLS, KANSAS 66845	316-273-6386 66845	CHASE	VARIOUS	VARIOUS
CHEYENNE CO. ROAD DEPT	ST. FRANCIS, KANSAS 67756	913-332-2621	CHEYENNE	19-01-41W 16-02-42W 09-05-37W 19-01-38W	PAMER MORRIS NELLSON RAMSEY

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
CLARK CO. ROAD DEPT	ASHLAND, KANSAS 67831	316-635-2832	CLARK	SE 12-32-22W 27-32-23W 12-32-25W 18-31-22W NW 13-30-23W NE 18-33-23W	DORSEY ABELL SMITH YOUNG BROS. PYLE RHODES
HOWARD CLEVENGER	LEOTI, KANSAS 67861	316-375-2575	WICHITA	SE 32-18-37W	
COMANCHE CO. ROAD DEPT	COLDWATER, KANSAS 67029	316-582-7231	COMANCHE	NW 28-32-16W 14-32-17W 06-32-18W 12-35-19W 30-33-16W	WAITE LENERTZ GARD DEGOLYER BURNETT
CONCRETE MIX & CONSTRUCTION	HAYS, KANSAS 67601	913-625-3459	ELLIS	NW 29-15-18W	WERTH
CONSUMERS SAND CO., INC.	924 W. RAILROAD STREET TOPEKA, KANSAS 66608 4120 NE BELMONT STREET TOPEKA, KANSAS 66616	913-232-5117 913-232-1414	SHAWNEE SHAWNEE	SW 23-11-16E KAW HALF-BREED RESERVE	NEWMAN KS. RIVER
HOWARD COVERT	ALTON, KANSAS 67623	913-984-2533	ROOKS	NW 22-07-17W	SIMONS
CHARLES CUMMINGS	BOX 681 GARDEN CITY, KS. 67846	316-276-7813	KEARNY	NE 06-25-35W	TERHUNE & HARMS
DAVIS & SONS SAND SALES	RT. 1 DODGE CITY, KANSAS 67801	316-227-6301	FORD	SW 31-26-25W	BAILEY
DODGE CITY SAND CO.	500 E. CHERRY DODGE CITY, KANSAS 67801	316-227-6091	FORD	36-26-25W	
DOLESE BROTHERS CO.	BOX 1841 WICHITA, KANSAS 67212	316-262-1428	SEDGWICK	NW 07-27-01E	
EAKIN SAND & GRAVEL CO.	BOX 48 LARNED, KANSAS 67550	316-285-3916	PANNEE	SW 05-22-16W NW 08-22-16W	EAKIN

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
EDWARDS CO. HIGHWAY DEPT.		316-659-2188			
	P.O. BOX 187 KINSLEY, KANSAS 67547	316-659-2632	EDWARDS	35-24-19W	FELDMAN
ELK CO. ROAD DEPT	HOWARD, KANSAS 67349	316-374-2580	ELK	31-28-09E	BARNES
ELLIS CO. ROAD DEPT	HAYS, KANSAS 67601	913-625-7334	ELLIS	23-15-19W 22-15-16W	DINGES FOSTER
ELLSWORTH CO. ROAD DEPT.	ELLSWORTH, KANSAS 67439	913-472-4003	ELLSWORTH	SE SW 30-14-10W NE SW 30-14-10W W SW 22-15-09W SE NW 10-15-09W NE 35-15-10W SW 18-15-08W NW 22-15-08W SW SW 35-15-08W SE SW 23-16-07W NW 36-16-06W SW 27-15-08W SW 23-15-09W NE NW 03-14-10W	MCEVOY BORRELL ROOT BURMEISTER URBANEK CROY HOMOLKA HOFFMAN PEPPIATT BUFFINGTON THIELEN DALECHEK PEJSHA
FINLAYSON GRAVEL & READY-MIX	BARNES, KANSAS 66933	913-763-4314	WASHINGTON	NE 18-03-05E	
FORD CO. ROAD DEPT.	DODGE CITY, KANSAS 67801	316-225-4861	FORD	NW 12-27-24W S NW 01-27-21W	FORD CO. MOLITOR
FOUNTAIN SAND & GRAVEL PIT	ARLINGTON, KANSAS 67514	316-538-2393	RENO	SE 06-25-07W	FOUNTAIN
FYFE SAND & GRAVEL CO.	BOX 331 CONCORDIA, KANSAS 66902	913-243-4249	CLOUD	26-05-03W	
BURL GAUNT	106 W. HACKNEY MEDICINE LODGE, KANSAS 67104	316-886-4187	BARBER	E NW 07-32-11W	PALMER
GLOBE CONSTRUCTION CO. INC.	1041 N. WATER WICHITA, KANSAS 67203	316-265-2623	SEDGWICK	SE 02-27-01W	STEWART

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
GOODLAND RED-E-MIX	GOODLAND, KANSAS 67735	913-899-7232	SHERMAN	NW 29-08-40W	ELLIOTT
GOVE CO. ROAD DEPT.	GOVE, KANSAS 67736	913-938-2871	GOVE	VARIOUS	VARIOUS
GRAVEL PRODUCTS, INC.	NICKERSON, KANSAS 67561	316-422-3249	RENO	SW 15-22-07W	PAULSON
GRAY CO. ROAD DEPT.	CIMARRON, KANSAS 67835	316-855-3815	GRAY	35-25-29W	
GREELEY CO. ROAD DEPT.	TRIBUNE, KANSAS 67869	316-376-4253	GREELEY	VARIOUS	VARIOUS
HAIGH SAND & GRAVEL	BELOIT, KANSAS 67420	913-738-2367	MITCHELL	NW 10-07-07W	NORTH
HAMILTON CO. ROAD DEPT.	SYRACUSE, KANSAS 67878	316-384-5135	HAMILTON	VARIOUS	VARIOUS
HARPER CO. ROAD DEPT.	COURTHOUSE ANTHONY, KANSAS 67003	316-842-5240	HARPER	02-34-06W 23-34-05W 05-31-09W 09-32-08W 33-33-07W 34-33-07W 09-31-07W 36-31-06W 28-32-09W 08-34-06W	WELSH MAYO JACOBS HOYT MONTAGUE MASNER BARBER WINTERS JOHNSON HARPER
HASKELL CO. ROAD DEPT.	SUBLETTE, KANSAS 67877	316-675-2234	HASKELL	20-30-34W	BRYANT
HAVEN SAND CO.	HAVEN, KANSAS 67543	316-465-7738	RENO	NE 20-24-04W	MOUNT
HAYNES SAND & GRAVEL	RT 1, 1300 W. MAJISON AVE ARKANSAS CITY, KANSAS 67005 1800 W. CHESTNUT ARKANSAS CITY, KANSAS 67005	316-442-2000	COWLEY	NE 26-34-03E	ANDREWS

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
HAYS CONCRETE PRODUCTS CO.	HAYS, KANSAS 67601	913-625-2716	ELLIS	SEL 12-15-20W	MILLARU MOORE
HODGEMAN CO. ROAD DEPT.	JETMORE, KANSAS 67854	316-357-4355	HODGEMAN	VARIOUS	VARIOUS
HOLLIDAY SAND & GRAVEL CO.	6811 W. 63RD OVERLAND PARK, KANSAS 66202	913-236-5920			
	BONNER SPRINGS, KANSAS 66012	913-422-3095	JOHNSON	32-11-23E	SCHYT
	EDWARDSVILLE, KANSAS 66022	913-422-3080	WYANDOTTE	27-11-23E	H.S.G.
	MUNCIE, KANSAS 66057	913-299-2263	WYANDOTTE	29-11-24E	H.S.G.
HOSKINSON SAND & GRAVEL CO.	RT. 1 HUTCHINSON, KANSAS 67501	316-662-7783	RENO	SE 08-23-06W	HOSKINSON
HY-GRADE CONSTRUCTION & MATERIALS, INC.	ST. PAUL, KS. 66771	316-449-2575	NEOSHO	SE 15-29-20E	HY-GRADE
INLAND ENGINEERING	STOCKTON, KS. 67669		ROOKS	SESE 29-07-18W NE 29-07-18W	EISENHOWER LINDQUIST
J & R SAND CO., INC.	1141 S. PERSHING LIBERAL, KANSAS 67901	316-624-5287	SEWARD	28,33 34-32-33W	LEMERT
JEWELL CO. ROAD DEPT.	MANKATO, KANSAS 66956	913-378-3431	JEWELL	10-01-06W	HEITMAN
KANSAS SAND & CONCRETE, INC.	531 N. TYLER TOPEKA, KANSAS 66608	913-235-6284	SHAWNEE	KS, RIVER	N. TOPEKA DRAIN. BRU
KEARNY CO. ROAD DEPT.	BOX 346 LAKIN, KANSAS 67860	316-355-6571	KEARNY	10-25-36W 11-25-36W 24-25-35W	PUCKETT BEYMER TACKETT
WALT KEELER CO., INC.	826 E. LINCOLN WICHITA, KANSAS 67211	316-265-1601	SEDGWICK	SW 02-28-01W	
KERR SAND	CIMARRON, KS. 67835		GRAY	24-26-28W	

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
KERSHAW REDI-MIX CONCRETE & SAND CO., INC.	BOX 668 MANHATTAN, KANSAS 66502	913-776-8811	RILEY	S 05-10-08E SE 30-10-08E	
KINGMAN CO. ROAD DEPT.	KINGMAN, KANSAS 67068	316-532-3771	KINGMAN	03-28-08W 02-28-06W 28-28-10W 14-30-08W 17-27-10W SW 03-27-10W	MCKENNA OSNER STERNEKER BROWN VOSS CROFT
KINSLEY SAND & GRAVEL, INC.	KINSLEY, KS. 67547	316-659-3401	EDWARDS	02-25-19W	OWENS
KIOWA CO. ROAD DEPT.	GREENSBURG, KANSAS 67054	316-723-2531	KIOWA	03-29-17W 02-29-16W NE 20-29-17W	HULME STARKEY HAMMOND
LANE CO. ROAD DEPT.	DIGHTON, KANSAS 67839	316-397-2401	LANE	NW 15-20-30W	HOLLINGSWORTH
LARNED SAND & GRAVEL	BOX 227 LARNED, KANSAS 67550	316-285-3236	PAWNEE	SE 04-22-16W	BUSTER
LAWRENCE SAND CO.	LAWRENCE, KANSAS 66044	913-843-8717	DOUGLAS	20-12-20E	HAYDEN & NUNEMAKER

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
LINCOLN CO. ROAD DEPT.	LINCOLN, KANSAS 67455	913-524-4443	LINCOLN	28-13-10W	PEJSHA
				30-12-09W	BUZICK
				17-12-09W	O. NELSON
				19-10-09W	OETTING
				26-10-09W	JENSEN
				03-10-08W	HEALY
				12-10-08W	D. JONES
				25-10-07W	M. JONES
				29-10-06W	HARTZELL
				34-12-07W	RITTMANN
				29-12-06W	GARRISON
				08-13-07W	WOLTING
				33-13-06W	HOEH
				29-10-06W	MYERS
				36-10-06W	KELLY
				20-10-07W	MCCLURE BROS.
				26-10-07W	GOOD
				28-10-07W	MARSHALL
				25-10-08W	TROMBLE
				25-10-08W	WIEBKE
				20-12-08W	LUCK ESTATE
				03-10-09W	NITSCH
				01-11-06W	GRIMES
				06-11-06W	KOWALKE
				27-11-08W	BRUCE
				06-11-09W	OETTING
				14-11-09W	H. NELSON
				05-12-06W	SCHMIDT
				08-12-06W	REES
				29-12-06W	MORRICAL
				04-12-07W	LEMMONS
				23-12-07W	WALTERS
				26-12-07W	BOLTE
				26-12-07W	GOURLEY
				29-12-08W	MEILI
				04-12-09W	BLOCK
				18-12-09W	BECKER & NELSON
				35-12-09W	LIEPITZ
				07-12-10W	MEITLER
				28-12-10W	HLAD
				28-12-10W	E. HYNES
				33-12-10W	THAEMERT
				32-13-06W	NEEL
				05-13-07W	L. VONFANGE
				14-13-09W	F. WACKER
				34-13-10W	SOUKUP
				27-10-10W	GIER
				36-11-09W	POWERS

LOGAN CO. ROAD DEPT.

RUSSELL SPRINGS, KANSAS 67755
913-846-2266

LOGAN

22-13-35W

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
MCFARLAND GRAVEL	RT. 2 ARKANSAS CITY, KANSAS 67005	316-442-9580	COWLEY	12-34-04E 17-34-04E 18-34-04E	DUNCAN MCFARLAND MCFARLAND
MCPHERSON CO. ROAD DEPT.	MCPHERSON, KANSAS 67460	316-241-0466	MCPHERSON	16-18-04W 16-18-04W	AELMORE LARSON
MARSHALL CO. HIGHWAY DEPT.	MARYSVILLE, KANSAS 66508	913-443-4941	MARSHALL	29-01-06E	KRUSE
MEADE CO. ROAD DEPT.	MEADE, KANSAS 67864	316-873-2481	MEADE	20-33-28W	BORCHER
MILES SAND, INC.	4857 N. MERIDAN WICHITA, KANSAS 67204	316-838-3362	SEDGWICK	25-26-01W	
MISSOURI VALLEY SAND, INC.	BOX 89 LEAVENWORTH, KANSAS 66048	913-682-3621	LEAVENWORTH	NE 01-09-22E	MISSOURI RIVER
MORE SAND CO., INC.	RT. 3 JUNCTION CITY, KANSAS 66441	913-238-6922	GEARY	NW 34-11-05E	MOORE
MORTON CO. ROAD DEPT.	RICHFIELD, KANSAS 67953	316-592-2166	MORTON	S 21-33-41W	
MORTON SAND & GRAVEL	BOX 213 OBERLIN, KANSAS 67749	913-475-3245	RAWLINS	W SW 14-02-32W	MARTIN
MT. HOPE SAND CO.	RT. 1, BOX 11 HAVEN, KANSAS 67543	316-465-3447	RENO	36-24-04W	
MUELLER SAND & GRVEL CO., INC.	HANOVER, KANSAS 66945	913-337-2252	WASHINGTON	SW 05-02-05E NE 18-02-05E SE 07-03-05E S 28-01-04E NW 08-02-04E NE 07-02-05E	MUELLER MUELLER MUELLER SPITSNOGLE MUELLER MUELLER

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
MULVANE SAND CO., INC.	6015 N BROADWAY BOX 4664 WICHITA, KANSAS 67208	316-744-0433	SUMNER	31-29-02W	BUTTS
MULVANE, KANSAS 67110		316-777-1421			
GEO. M. MYERS, INC.	BOX 238 ELDORADO KANSAS 67042	316-442-9120	COWLEY	SW 66-35-03E	MEYERS, INC.
NESS CO. ROAD DEPT.	NESS CITY, KANSAS 67560	913-798-3350	NESS	31-17-23W 32-16-22W 01-16-25W 35-20-23W 02-16-24W 23-20-26W	HORCHEM MUSSELMAN CLYNE FRUSHER HARRIS GOODMAN
OATVILLE SAND & GRAVEL	4100 W. 31ST SOUTH WICHITA, KANSAS 67217	316-942-3871	SEDGWICK	NE 11-28-01W	LEENDERSTE
OSBORNE CO. ROAD DEPT.	OSBORNE, KANSAS 67473	913-346-2153	OSBORNE	28-07-14W 04-07-15W	MOREYNOLDS COX
OXFORD SAND & GRAVEL CO. DIV. OF FEASTER BROS. INC.	BOX 266 OXFORD, KANSAS 67119	316-455-3545	COWLEY	SW 07-32-03E	OXFORD
ALBERT PARTIN SAND & GRAVEL CO	BOX 274 STAFFORD, KANSAS 67578	316-234-5445	STAFFORD	SE 14-25-11W	
PAVING CONTRACTORS, INC.	6405 E. KELLOGG WICHITA, KANSAS 67207 8700 S. HYDRAULIC WICHITA, KANSAS 67207	316-684-6161 316-788-0412	SEDGWICK	NW 15-29-01E	COSTIN
PAWNEE CO. ROAD DEPT.	LARNED, KANSAS 67550	316-285-3761	PAWNEE	03-22-16W	BALDWIN
CARROLL PAXSON	1220 MIAMI BURLINGTON, KANSAS 66839	316-364-2161	COFFEY	SE 10-22-15E	PAXSON
PECK-WOOLF SAND AND MATERIAL CO.	7301 KAW DRIVE KANSAS CITY, KANSAS 66111	913-299-3342	WYANDOTTE	SE 21-11-24E SW 31-11-24E	

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
ROBERT W. PENNOCK	BOX 102 MEDICINE LODGE, KANSAS 67104	316-886-5213	BARBER	NW 08-32-11W	KAMINSKA
PHILLIPS CO. ROAD DEPT.	PHILLIPSBURG, KANSAS 67661	913-543-2912	PHILLIPS	NW 13-05-18W NW 28-02-19W	MCKINLEY KATS
PLAZA SAND & GRAVEL	R. R. 2 GRANDVIEW PLAZA JUNCTION CITY, KS. 66441	913-238-152	GEARY	04-11-06E	
POPEJOY CONSTRUCTION CO., INC.	BOX 385 ULYSSES, KANSAS 67880	316-356-2404	KEARNY	SW 03-25-36W 09-25-36W SE 03-25-36W	BEYMER BAHTGE
PRATT CO. ROAD DEPT.	PRATT, KANSAS 67124	316-672-2441	PRATT	29-28-11W 10-27-12W SE 15-29-15W 35-27-14W SE 04-28-13W 21-27-12W 09-27-12W 22-28-14W	ARMISTEAD STUDER HOGARD EUBANK WHITFIELD MAAS HOEME CRANDELL
QUINTER REDI-MIX CO.	QUINTER, KANSAS 67752	913-754-3361	SHERIDAN	SE 27-10-28W	MILLER
RAWLINS CO. ROAD DEPT.	ATWOOD, KANSAS 67730	913-626-3726	RAWLINS	30-03-32W 25-04-34W 11-02-32W	ANDERSON REEVES KOGEL
CHARLES REISE CONTRACTOR	614 S. 6TH STREET SENECA, KANSAS 66538	913-336-2819	NEMAHA	NE 32-01-13E	PERKINS
RIVER SAND CO., INC.	BOX 4044, 3220 WATERWORKS TOPEKA, KANSAS 66604	913-233-3877	SHAWNEE	N 26-11-15E	KAW RIVER
RIVERSIDE SAND INC.	SATANTA, KANSAS 67870	316-649-2421	HASKELL	NW 33-30-34W	W. F. WALKER
DALE ROBERTS	PARK, KANSAS 67751	913-754-3519	GOVE	E 25-13-28W	ROBERTS

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
ROBINS SAND & GRAVEL INC.	323 W. 2ND MINNEAPOLIS, KANSAS 67467	913-392-2087	OTTAWA	NW 02-11-04W W 20-10-04W NE 34-10-04W 08-09-04W E 19-10-05W NE 26-11-04W 17-09-04W	WATSON STRATTON BARCUS PAYNE HAUCK ROBSON PAYNE
ROCK HILL STONE & GRAVEL CO. INC.	STERLING, KANSAS 67579	316-278-3514	RICE	NE 27-21-08W	ROCK HILL
ROTTINGHAUS ROCK & GRAVEL CO.	BAILEYVILLE, KANSAS 66404	913-336-2056	NEMAHA	NW 16-01-11E SE 28-04-14E	OTOOLE
RUSSELL CO. ROAD DEPT.	BOX 415 RUSSELL, KANSAS 67560	913-483-4032	RUSSELL	12-15-15W 21-11-14W 05-12-15W 26-12-13W 01-15-15W NW 29-14-12W 30-14-11W 02-13-14W 08-15-15W 35-14-14W	BENDER BUNKER BRUMITT K.C.CORPS OF ENG. DUMLER EHRlich HERBER MAJOR TRUAN DUMLER
ST. FRANCIS REDI-MIX	ST. FRANCIS, KS. 67756	913-332-3123	CHEYENNE	21-03-40W	ST. FRANCIS
SALINA SAND CO., INC.	MENTOR, KANSAS 67465	913-823-2932	SALINE	SE 07-15-02W NW 19-16-02W	JENNEY MORSE
SCOTT CO. ROAD DEPT.	SCOTT CITY, KANSAS 67871	316-872-2202	SCOTT	VARIOUS	VARIOUS
SEACAT SAND & EXCAVATION	409 W. LINCOLN GREENSBURG, KANSAS 67054	316-723-2396 316-723-2995	KIOWA	SW 03-29-17W	SEACAT
SEGGWICK SAND CO.	SEGGWICK, KANSAS 67135	316-766-0456	SEGGWICK	10-26-01W	NICHOLSON

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
SEWARD CO. ROAD DEPT.	LIBERAL, KANSAS 67901	316-624-3401	SEWARD	02-33-33W 01-35-31W	
J.H. SHEARS, SONS, INC.	819 W. 1ST STREET HUTCHINSON, KANSAS 67501	316-662-3307	RENO JEWELL	SE 14-23-05W 11-01-07W	SHEARS HUTT
SHERIDAN CO. ROAD DEPT.	HOXIE, KANSAS 67740	913-675-3621	SHERIDAN	07-09-27W 12-06-30W 20-07-26W 30-10-30W 15-06-27W 23-10-26W	OCHS ZODROW CURRIER ROBERTS WAGONER MCWILLIAM
SHERMAN CO. ROAD DEPT.	GOODLAND, KANSAS 67735	913-899-5253	SHERMAN	VARIOUS	VARIOUS
SIEBERT SAND CO., INC.	BOX 10 NESS CITY, KANSAS 67560	913-798-2224	LOGAN DECATUR	SW 12-13-34W NW 33-04-27W	LUTHER MUIRHEAD
SMITH SAND CO., INC.	BOX 391, 1206 E. FULTON GARDEN CITY, KANSAS 67846	316-276-3771	FINNEY	NW 17-24-33W	
STAFFORD CO. ROAD DEPT.	BOX 224 ST. JOHN, KANSAS 67576	316-549-3597	STAFFORD	06-24-13W	FISHER

COMPANY

STATE HIGHWAY COMMISSION
DIVISION 3 MAT'L.S. ENG.

309 S. SECOND
NORTON, KANSAS 67654

913-927-2178

ADDRESS

TELEPHONE

COUNTY

LOCATION

LEASE

CHEYENNE
DECATUR
GRAHAM
LOGAN
NORTON
OSBORNE
PHILLIPS
RAWLINS
ROOKS
RUSSELL
SHERIDAN
SHERMAN
SMITH
THOMAS
TREGO
WALLACE

N 13-05-38W
W 29-05-39W
SE 29-04-27W
S 22-03-29W
NE 08-08-22W
SE 07-08-22W
SE 35-14-32W
SW 04-15-32W
18-12-36W
SE 19-05-25W
SW 09-05-23W
SW 14-07-13W
SE 19-07-11W
NW 23-05-18W
NW 34-02-20W
NE 26-02-20W
SE 26-02-33W
NW 06-03-32W
NW 08-11-17W
NW 22-07-17W
NW 02-13-14W
03-15-14W
N 33-10-28W
09-09-28W
SE 08-06-29W
NW 17-07-39W
NE 35-08-39W
SE 13-08-42W
SW 04-05-15W
NW 05-05-13W
34-10-32W
E SW 20-06-32W
E 19-07-34W
NE 32-06-33W
SHULL
SW 17-07-32W
SE 34-13-22W
NE 33-12-23W
NE 05-15-23W
10-15-40W
SE 10-13-42W

BUSSE
BUCKINGHAM
RITTER
TILDEN
STUCHLIK
DAVIS
CRISTY EST.
DEARDEN
KELLEY
LINDEN
CLYDESDALE
UBELAKER
WALL
MADDOX
NYLAND
GREVING
NIERMEIER
MEYER
CARMICHAEL
MCCONNELL
OLIVER
BECKER
KAISER
BILLINGER
RICHTER
LUKEN
DAVIS
BRABHAM
SWEAT
JOHNSON
FULTON
BARNETT
GROVER
SEARS
CARLSON
TINKLER
HILLE
HEISE
GUNZELMAN

J.E. STEELE SAND

1400 N. HALSTEAD
HUTCHINSON, KANSAS 67501

316-662-5741

RENO

S NW 09-23-05W

STEELE

STEWART SAND & MATERIAL CO.

4049 PENNSYLVANIA
KANSAS CITY, MO. 64111

816-753-3920

MORRIS KANSAS

913-375-1377

WYANDOTTE

SE 29-11-24E

MORRIS P_LANT

TURNER KANSAS 66087

913-287-7059

WYANDOTTE

SS 23-11-24E

MEAGER

MUNCIE KANSAS 66057

913-287-8212

WYANDOTTE

SW 12-11-24E

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
STEVENS CO. ROAD DEPT.	BOX 1167 HUGOTON, KANSAS 67951	316-544-4782	STEVENS	29-31-38W 01-31-35W	CIMARRON RIV. CULLISON
STONE SAND CO.	BOX 872 GREAT BEND, KANSAS 67530	316-793-7864	BARTON	SW 33-19-13W	STONE
SUMNER CO. ROAD DEPT.	WELLINGTON, KANSAS 67152	316-326-2791	SUMNER	36-32-02E	DONLEY
SUPERIOR SAND CO., INC.	6500 W. 21ST WICHITA, KANSAS 67212	316-722-0592	SEDGWICK	NW 03-27-01W	SUPERIOR SAND CO.
SUPERIOR SAND & GRAVEL CO.,	BOX 11145 KANSAS CITY, KANSAS 66111 88TH & WOODLAND KANSAS CITY, KANSAS 66111	913-289-6525 913-441-2800	WYANDOTTE	31-11-24E	
THACH SAND INC.	R.F.D. 2 BURRTON, KS. 67020	316-463-6313	HARVEY	27-23-03W	
THOMAS CO. ROAD DEPT.	COLBY, KANSAS 67701	913-462-2122	THOMAS	24-09-34W SW 26-06-31W	WIELAND ZOBERST
TINKLE SAND CO.	CLAFLIN KANSAS 67525 ELLINWOOD, KANSAS 67526	316-587-3942 316-564-3166	BARTON	NE 06-20-11W	KNOP
TOBIAS & BIRCHENOUGH, INC.	BOX 470 LYONS, KANSAS 67554	316-257-2161	RICE	NE 16-20-08W N NE 21-29-08W	TOBIAS
TOPEKA SAND CO.	RT. 4 TOPEKA, KANSAS 66603	913-233-9849	SHAWNEE	SE 23-11-16E	
TREGO CO. ROAD DEPT.	WAKENNEY, KANSAS 67672	913-743-6441	TREGO	VARIOUS	VARIOUS
TRI COMPANY CONSTRUCTION, INC.	6700 S. HYDRAULIC WICHITA, KANSAS 67233	316-524-8631	SEDGWICK	NW 34-28-01E	BLOOD

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
VIC, S SAND & GRAVEL CO.	6600 W. 21ST WICHITA, KANSAS 67212	316-943-4372	SEDGWICK	NW 01-27-01W	
VICTORY SAND & CONCRETE, INC.	BOX 281 TOPEKA, KANSAS 66601	913-233-3285	SHAWNEE	NW 25-11-15E	KANSAS RIVER
WABAUNSEE CO. ROAD DEPT.	ALMA, KANSAS 66401	913-765-3712	WABAUNSEE	VARIOUS	VARIOUS
WAKEENEY REDI-MIX, INC.	BOX 835 WAKEENEY, KANSAS 67672	913-743-2810	TREGO	SE 33-12-23W	TINKLER
WAMEGO SAND CO., INC.	BOX 119 WAMEGO, KANSAS 66547	913-456-9888	POTTAWATOMIE	NW 10-10-10E	
RAY WELLS SAND & GRAVEL	RT. 1 KINGMAN, KANSAS 67068	316-532-2088	KINGMAN	NE 01-28-08W SW 01-28-08W	COLEMAN WELLS
WESTOFF BROTHERS	BROADWAY & MORTON GREAT BEND, KS. 67530	316-793-8307	BARTON	SE 32-19-13W	EARL & ROY WESTOFF
WHITE CONSTRUCTION CO.	KANOPOLIS, KANSAS 67454	913-634-5350	LINCOLN	W 26-12-07W	BOLTE
WHITFIELD SAND & CONCRETE, INC.	BOX 66 PRATT, KANSAS 67124	316-672-3181	PRATT	SE 04-28-13W	BARNES
WICHITA CO. ROAD DEPT.	LEOTI, KANSAS 67861	913-375-2814	WICHITA	E 08-19-36W SE 09-17-38W W 16-17-36W	WILLIS BAUCK LEE
WILSON BROTHERS	RT. 3 ARKANSAS CITY, KANSAS 67005	316-442-4956	COWLEY	32-34-04E	WILSON
CRUSHED ROCK PRODUCERS LISTED ALPHABETICALLY					

DEPARTMENT OF THE ARMY	FORT RILEY BRANCH JUNCTION CITY, KANSAS 66442	913-239-3728	RILEY	SE 03-11-06E	CAMPBELL HILL QY.

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
AUBEL ASPHALT, INC.	RT. 1, BOX 151 HAYS, KANSAS 67601	913-625-3105	ELLIS	17-13-18W	CITY OF HAYS
ROY BAKER QUARRY, INC.	BOX 100 VALLEY FALLS, KANSAS 66088	913-945-3213	JEFFERSON	NE 20-08-18E	BAKER
BATES COUNTY ROCK, INC. DIVISION OF ASH GROVE	BOX 70 BUTLER, MO. 64730	816-679-4123 913-352-8811	LINN	NW 24-21-24E	PLEASANTON QY.
BAYER CONSTRUCTION CO., INC.	BOX 889, 509 YUMA MANHATTAN, KANSAS 66502	913-776-8839	CLAY RILEY	NW 04-09-04E S 28-10-09E NE 29-10-08E SE NE 06-06-07E NE SE 06-06-07E NW 26-08-06E E 17-02-09E SE 10-05-09E SW 19-09-09E	MARTIN MOORE REICHLING SMERCHEK SMERCHEK WOODWORTH JONES (BEATTIE) MARYSVILLE LEINWEBER EBERT
BENEDICT ROCK & LIME CO.	BENEDICT, KANSAS 66714	316-698-2102	WILSON	NE SE 02-28-15E	BENEDICT R & L
HARRY BYERS & SONS, INC.	500 N. PLUMMER CHANUTE, KANSAS 66731	316-431-0700	NEOSHO	NW 19-27-18E	BYERS
CULLOR LIMESTONE CO., INC.	20TH & SIDNEY FORT SCOTT, KANSAS 66701	316-223-4250	BOURBON	NW 02-25-26E SE 17-24-23E SE 09-26-22E SE 08-26-22E E 26-23-24E SE 06-25-22E SE 11-24-25E SW 21-26-25E SE 06-25-22E SE 02-25-25E	JOHNSON WOMELSDORF DRAKE DRAKE DOTSON RAMSEY MALONE BROWN BRONSON MALONE
DANIELS STONE CO.	R.F.C. 3 WINFIELD, KANSAS 67156	316-221-9060	COWLEY	32-32-04E	DANIELS

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
DEITZ HILL DEVELOPMENT CO. BOX 4 KANSAS CITY, MISSOURI 66141	816-221-1311 913-764-2127	JOHNSON	SE 19-14-23E	C-B-H RANCH	
EAGLE-PICHER INDUSTRIES, INC. CHEMICALS & METALS DIV. BOX 910 MIAMI, OKLAHOMA 74354	918-673-1740	CHEROKEE	NE 10-35-24E	BALLARD	
ELLIS CO. ROAD DEPT.	913-625-7334	ELLIS	23-15-19W 22-15-16W	DINGES FOSTER	
EVERETT QUARRIES CO., INC. WATHENA, KANSAS 66090	913-989-4921	DONIPHAN	2L-03-22E	THOMPSON	
FOGLE QUARRY CO., INC. 18TH & MAIN OTTAWA, KANSAS 66067	913-242-4864	FRANKLIN	NE&SE 12-17-19E	FOGLE	
GREENWOOD CO. ROAD DEPT. EUREKA KANSAS 67045	316-583-6241	GREENWOOD	36-25-11E NE 31-22-13E 11-28-11E NE 48-27-10E 16-26-11E	BOONES CHRISTY JORDON ANSPAUGH VINSON	
GROSSHANS & PETERSEN, INC. BOX 350 MARYSVILLE, KANSAS 66508	913-562-2301	GEARY	NE 08-12-06E	PETEREN EQUIP.	
HALLETT CONSTRUCTION CO. BOX 296 MARION, KANSAS 66861	316-382-3330	CHASE DICKINSON MCPHERSON MARION RICE	SW 26-20-07E SE 10-14-04E SW 11-18-02W NE 06-21-04E SE 10-20-06W	MOTT RUHNKE HOLM SCHLEHUBER CONRAD	

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	JEFFERSON	SW 09-10-17E SE 35-11-19E SE 03-11-18E NW 29-11-19E SW 16-11-17E SW 21-09-19E SW 02-11-18E SW 01-09-19E NW 12-09-19E SE 02-09-21E NE 02-12-21E SW 23-12-21E 29-19-25E NE 15-10-15E SW 08-12-17E SW 13-10-15E NE 13-10-13E SE 16-11-17E SW 23-12-13E SE 08-11-15E 21-18-14E 16-18-14E 20-18-14E S 15-16-14E NE 22-27-16E	CLARK HECK RICHTER HAMM HAMM MEYER REID WALLACE SEICHELIN BROMMELL MALONE QUINLAN MORRIS HAMM HAMM HAMM HAMM HUMMER CLEVENGER DOYLE JONES PETERSON PETERSON KINNEY CARLSON
			LEAVENWORTH		
			LINN SHAWNEE		
			OSAGE		
			WILSON		

N.R. HAMM QUARRY, INC. HERINGTON DIVISION	30X 17 PERRY, KS. 66073	913-597-6711	CLAY	SW 24-09-03E SE 24-09-03E E 02-16-04E NW SW 24-13-03E SW SW 24-13-03E E 05-13-04E SE 01-06-12E SE 29-14-06E NW 11-18-14E SE 17-16-06E SW 04-14-07E NE 14-01-14E SE 11-01-14E SW 16-09-12E SE 34-06-10E SE 11-07-07E NE 35-06-04E NE 08-02-04E SW SW 32-04-05E W NW 05-05-05E	FORSYTH PEITET JONES HANSON KAUFFMAN DEINES PICKETT CLARK NORQUIST NELSON JOHNSON BECHTELHEIMER,D BECHTELHEIMER,H MARSTALL FALK MELLGREN EGGERMAN KOEHLER WEICHE
			DICKINSON		
			JACKSON MORRIS		
			NEMAHA		
			POTTAWATOMIE		
			RILEY WASHINGTON		

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
L.W. HAYES, INC.	BOX 236 PAOLA, KANSAS 66071	913-294-4011	MIAMI	SE 18-17-23E	
HOLLAND QUARRIES, INC.	BOX 5283 LENEXA, KANSAS 66215	913-888-5277	JOHNSON	SE 06-13-24E	(M) JOHNSON
HOPPER BROTHERS QUARRIES	PAWNEE CITY, NEB. 68420	402-852-2031			
			CLOUD	SW 25-07-05W	JORDEN
			MARSHALL	NW 06-01-08E	PRIBYL
			REPUBLIC	NE 18-04-05W	WOODS
			WASHINGTON	SE 28-02-05E	NIEMEIER
				SE 02-03-01E	CHAMBERS
HUNT ROCK CO.	RT. 3 GARNETT, KANSAS 66032	913-448-5962	ANDERSON	12-20-18E	BRUMMEL
J. H. & J. ROCK CO.	300 EAST 21ST STREET TOPEKA, KS. 66601	913-232-8291	SHAWNEE	SE 10-10-15E	
JEWELL CO. ROAD DEPT.	MANKATO, KANSAS 66956	913-378-3431	JEWELL	VARIOUS	VARIOUS
WALT KEELER QUARRY	FLORENCE, KANSAS 66851	316-878-4352	MARION	SE 06-21-05E	
HARRY KEITH	COFFEYVILLE, KANSAS 67337	316-251-9416	LABETTE	SW 35-34-17E	KEITH
KILLOUGH-CLARK, INC.	BOX 623 OTTAWA, KANSAS 66067	913-242-4535	ANDERSON	SE 32-21-19E	STARR
		913-242-4535		NW 01-23-19E	PENLAND
			DOUGLAS	SSE 24-20-20E	
				NE 15-15-18E	CLARK
				SW 27-14-20E	HOLMES
			FRANKLIN	NE SW 13-16-19E	EDWARDS
				SE NW 17-16-21E	KILLOUGH
				SW 25-18-21E	KILLOUGH
			MIAMI	N NW 30-16-24E	CRAWFORD
				SW 27-16-22E	BONE
				07-16-25E	WELLS
				SW 27-18-23E	BLOCK
				NW 07-17-22E	HAIGHT
			OSAGE	NW 04-17-17E	LACEY

LEASE

LOCATION

COUNTY

TELEPHONE

ADDRESS

COMPANY

25-31-21E

CRAWFORD

316-632-4464

304 MEMORIAL DRIVE
PITTSBURG, KS. 66762

KUNSEK CHAT AND COAL

SE 29-32-19E DUVALL

LABETTE

316-795-4812
316-784-5449

OSWEGO KANSAS 67356
ALAMONT, KANSAS 67330

LABETTE CO. ROAD DEPT.

NE 01-20-19E BENUS
SW 28-20-23E
NW 19-22-24E WEESE

ANDERSON
LINN

913-448-3179
316-237-4408

RT. 1
GARNETT, KANSAS 66032
MORAN, KS. 66755

MCADAM LIMESTONE PRODUCTS, INC

913-266-5556

1305 W. 42ND
TOPEKA, KANSAS 66609

MARTIN MARIETTA AGGREGATES

NW 02-21-13E JONES QY
SW 10-03-22E WATHENA QY
SW NE 21-02-20E SPARKS QY
NE 04-13-21E EUDORA QY
12-31-10E MOLINE QY.
W SE 06-17-20E OTTAWA QY.
NW 11-11-18E LEECH-BALL
NW 31-09-23E LANSING QY.
N SW 23-19-21E RUES
E NW 24-03-14E FIDELITY
SW 34-17-16E MELVERN QY.
NW 35-16-15E FARNSWORTH
SE 29-10-09E ZEANDALE QY.
18-12-17E E. TOPEKA QY.
14-10-15E N. TOPEKA QY.
SE SE 20-13-16E MCQUEEN
NW 30-12-12E SCHAEFFER

COFFEY
DONIPHAN
DOUGLAS
ELK
FRANKLIN
JEFFERSON
LEAVENWORTH
LINN
NEMAHA
OSAGE
RILEY
SHAWNEE
WABAUNSEE

913-367-0646

ATCHISON, KS.
66002

MIDLAND QUARRY

32-06-21E (M) SERVAES
12-04-19E BURKE
19-05-20E BOOS

ATCHISON
DONIPHAN

913-367-3731

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
MIDWEST MINERALS, INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	CHEROKEE CRAWFORD	S 21-31-23E SE 12-30-23E SW 31-28-24E SE 01-32-19E SW 06-35-21E NW 32-34-17E 29-31-17E S 17-32-14E S 04-33-16E S 06-32-15E S 05-32-15E S 18-30-16E S 18-29-16E 36-29-14E	CHEROKEE QY. GIRARD QY. FARLINGTON QY. PARSONS QY. CHETOPIA QY. COFFEYVILLE QY. CHERRYVALE QY. ELK CITY QY. INDEPENDENCE QY. INDEPENDENCE QY. INDEPENDENCE QY. NEDESHA QY. ALTOONA QY. FULGUM
GEORGE M. MYERS INC.	BOX 289 EL DORADO, KANSAS 67042	316-321-4040	BUTLER	NW 08-27-04E	LEFEVER
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	ALLEN	32-26-18E SW 25-24-20E 34-24-19E SW 20-23-19E NE 20-25-24E 12-22-13E NW 31-21-16E NE 33-19-14E NW 03-34-04E SW 28-20-23E NE 20-21-22E NE 16-22-23E SW 17-32-14E	NELSON NELSON NELSON STRICKLER CLEAVER BIRK NELSON NELSON DOWLER NELSON COX OIL MURROW BURLINGAME FOWLER OIL PATTERSON HEFFEREN PRINGLE STOCKEBRAND
NEOSHO CO. ROAD DEPT.	ERIE, KANSAS 66733	316-244-3273	NEOSHO	30-28-19E 27-27-20E 33-29-19E 23-27-19E 16-30-20E	NEELY BEBBINGTON JONES REINHARDT LACEN
O. BRIEN ROCK CO., INC.	BOX 217 ST. PAUL, KANSAS 66771	316-449-2257	LABETTE NEOSHO	NW 06-35-21E E NE 04-29-21E	PICKERING O'BRIEN

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
QUARTZITE STONE CO., INC.	LINCOLN, KANSAS 67455	913-524-4494	LINCOLN	SE 14-12-08W S SW 11-20-08W 07-12-07W SE 23-12-08W 13-12-08W NE 14-12-08W	LEWICK BRYAN HEIRS WILSON BROTHERS MARY ZIER BOLTE JOHN MULLOY
RENO CONSTRUCTION CO., INC.	BOX 4278 OVERLAND PARK, KANSAS 66204	913-681-2381	JOHNSON	SE 18-14-25E SW 06-12-24E	STANLEY RENNER
ROBINS SAND & GRAVEL	323 W. 2ND MINNEAPOLIS, KS. 67467	913-392-2087	LINCOLN	E SE 08-11-06W W SW 09-11-06W	LANCASTER LANCASTER
J.D. SCHWARCK QUARRIES OF KANSAS INC.	BOX 147 HILL CITY, KANSAS 67642	913-627-3771	GRAHAM	NW 34-07-24W	SMITH
SCOTT CO. ROAD DEPT.	SCOTT CITY, KANSAS 67871	316-872-2202	SCOTT	SE 02-17-33W	PATTON
SCOTT ROCK CO.	NEODSHA, KANSAS 66757	316-325-2298	MONTGOMERY	23-31-15E	DON WOOD
SEDAN LIMESTONE CO., INC.	SEDAN, KANSAS 67361	316-725-3404	CHAUTAUQUA ELK	33-33-11E NE 36-29-12E NW 04-30-11E NE 10-28-11E SE 34-25-11E N NE 31-22-13E S 19-25-14E	SMYLIE RANKIN MCLELLAN BLAKE BLAKE CHRISTE NORDMEYER
SOUTHWEST ROCK & CHAT CO., INC	703 W. 12 ST., BOX 30 BAXTER SPRINGS, KANSAS 66713	316-856-2192	CHEROKEE	SE 02-35-23E	EARLY BIRD MINE
THOMPSON-STRAUSS QUARRIES	7000 HOLLIDAY DRIVE KANSAS CITY, KANSAS 66106	913-375-1016	WYANDOTTE	SW 23-11-24E	(M) INLAND UNDERGROUND
J.A. TOBIN CONSTRUCTION CO.	BOX 3270 KANSAS CITY, KANSAS 66103	913-342-6770	WYANDOTTE	07-11-25E	(M) TOBIN CONST. CO.

COMPANY	ADDRESS	TELEPHONE	COUNTY	LOCATION	LEASE
UNION QUARRIES INC.	P.O. BOX 4540 OVERLAND PARK, KANSAS 66204 95TH & OGG ROAD LENEXA, KANSAS 66215	913-888-3838	JOHNSON	NW 31-12-24E	(M) VAN LERBERG
WADE AGRICULTURAL PRODUCTS	BOX 38 LA CYGNE, KANSAS 66040	316-757-4457	LINN MIAMI	NW 19-22-24E SW 28-18-25E	
WALKER STONE CO., INC.	BOX 563 CHAPMAN, KANSAS 67431	913-922-6797	DICKINSON GEARY	SW 27-12-04E 28-12-04E SW 02-11-05E HUSTON NE 04-13-05E CASPAR NE 36-12-04E JANICKE SE 36-12-04E SCHUJER SE SW 36-12-04E HASSELMAN NW 02-11-05E WALKER 33-11-05E ZUMBRUNN S 28-12-04E GORMAN SW 08-12-04E MARSTON NE 26-15-02E GANTENBEIN SE 03-12-03E WALKER SNW 02-12-03E ZUMBRUNN	
WEST LAKE QUARRY & MATERIAL CO	RT. 1, BOX 206 BRIDGETON, MO. 63042	314-739-1122	DONIPHAN	1U-02-20E	SCHNEIDER
BUILDING STONE PRODUCERS -----	LISTED ALPHABETICALLY				
BAYER STONE, INC.	ST. MARYS, KANSAS 66536	913-437-2281	CHASE POTTAWATOMIE RILEY	SE NE 29-18-07E SW 15-07-12E NE NE 29-10-08E NW NW 28-10-08E	HALEY BAYER BAYER BAYER
H.J. BORN STONE, INC.	BOX 45 SILVERDALE, KANSAS 67139	316-442-5750	COWLEY	ALL 03-35-05E ALL 04-35-05E N 14-35-05E ALL 11-35-05E NW 32-34-05E ALL 02-35-05E	BORN BORN HART HART BORN BORN
	901 W. 35TH N. WICHITA, KANSAS 67219	316-838-7788	CHASE	SE 12-19-06E S 07-19-07E S 13-19-06E	THUT BORN BORN

COMPANY

J.D. SCHWARCK QUARRIES OF
KANSAS, INC.

ADDRESS

BOX 147
HILL CITY, KANSAS 67642

TELEPHONE

913-627-3900

COUNTY

GRAHAM

LOCATION

NW 34-07-24W SMITH

LEASE

70

SAND AND GRAVEL PRODUCERS...LISTED BY COUNTY ALPHABETICALLY

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
BARBER				
BURL GAUNT	106 W. HACKNEY MEDICINE LODGE, KANSAS 67104	316-886-4187	E NW 07-32-11W	FALMER
ROBERT W. PENNOCK	BOX 102 MEDICINE LODGE, KANSAS 67104	316-886-5213	NW 08-32-11W	KAMINSKA
BARTON				
ARKANSAS SAND CO., INC.	BOX 742 GREAT BEND, KANSAS 67530	316-793-9458	NE 04-20-13W SE 06-20-11W	G.D. PETERS
BARTON CO. ROAD DEPT	BOX 46 GREAT BEND, KANSAS 67530	316-453-4571	05-20-11W SE 32-19-13W 32-19-14W	#620 #622 #624
STONE SAND CO.	BOX 872 GREAT BEND, KANSAS 67530	316-793-7864	SW 33-19-13W	STONE
TINKLE SAND CO.	CLAFLIN KANSAS 67525 ELLINWOOD, KANSAS 67526	316-587-3942 316-564-3166	NE 06-20-11W	KNOP
WESTOFF BROTHERS	BROADWAY & MORTON GREAT BEND, KS. 67530	316-793-8307	SE 32-19-13W	EARL & ROY WESTOFF
CHASE				
CHASE CO. ROAD DEPT	COTTONWOOD FALLS, KANSAS 65845	316-273-6386	VARIOUS	VARIOUS
CHEYENNE				
CHEYENNE CO. ROAD DEPT	ST. FRANCIS, KANSAS 67756	913-332-2621	19-01-41W 16-02-42W 09-05-37W 19-01-38W	PALMER MORRIS NELSON RAMSEY
ST. FRANCIS REED-MIX	ST. FRANCIS, KS. 67756	913-332-3123	21-03-40W	ST. FRANCIS
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	N 13-05-38W W 29-05-39W	BUSSE BUCKINGHAM

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
CLARK -----				
CLARK CO. ROAD DEPT	ASHLAND, KANSAS 67831	316-635-2832	SE 12-32-22W 27-32-23W 12-32-25W 18-31-22W NW 13-30-23W NE 18-33-23W	DORSEY ABELL SMITH YOUNG BROS. PYLE RHODES
CLAY -----				
JOHN H. A-SOP SAND CO.	11TH & M ST. BOX 345 BELLEVILLE, KANSAS 66935	913-527-2248	SW 02-08-02E	LITTMAR
CLOUD -----				
FYFE SAND & GRAVEL CO.	BOX 331 CONCORDIA, KANSAS 66902	913-243-4249	26-05-03W	
COFFEY -----				
CARROLL PAXSON	1220 MIAMI BURLINGTON, KANSAS 66839	316-364-2161	SE 10-22-15E	PAXSON
COMANCHE -----				
COMANCHE CO. ROAD DEPT	COLDWATER, KANSAS 67029	316-582-7231	28-32-16W NW 14-32-17W 06-32-18W 12-35-19W 30-33-16W	WAITE -ENERTZ GARU JEGOLYER BURNETT
COWLEY -----				
HAYNES SAND & GRAVEL	RT 1, 1300 W. MADISON AVE. ARKANSAS CITY, KANSAS 67005 1800 W. CHESTNUT ARKANSAS CITY, KANSAS 67005	316-442-2000	NE 26-34-03E	ANDREWS
MCFARLAND GRAVEL	RT. 2 ARKANSAS CITY, KANSAS 67005	316-442-9580	12-34-04E 17-34-04E 18-34-04E	DUNCAN MCFARLAND MCFARLAND
GEO. M. MYERS, INC.	BOX 238 ELDORADO KANSAS 67042	316-442-9120	SW 06-35-03E	MEYERS, INC.
OXFORD SAND & GRAVEL CO. DIV. OF FEASTER BROS. INC.	BOX 266 OXFORD, KANSAS 67119	316-455-3545	SW 07-32-03E	OXFORD

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
WILSON BROTHERS DECATUR -----	RT. 3 ARKANSAS CITY, KANSAS 67005	316-442-4956	32-34-04E	WILSON
SIEBERT SAND CO., INC.	BOX 10 NESS CITY, KANSAS 67560	913-798-2224	NW 33-04-27W	MUIRHEAD
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SE SE 29-04-27W S 22-03-29W	RITTER TILDEN
DICKINSON -----				
ABILENE SAND, INC.	BOX 524 ABILENE, KANSAS 67410	913-263-3492	SE 25-13-01E	WILSON
DONIPHAN -----				
J.D. SCHWARCK QUARRIES OF KANSAS, INC.	RT. 1, BOX 206 BRIDGETON, MO. 63042	314-739-1122	10-02-20E	SCHNEIDER
DOUGLAS -----				
BOWERSOCK MILLS & POWER CO.	BOX 218 LAWRENCE, KANSAS 66044	913-843-1051	6TH + NEW YORK	KANSAS RIVER
LAWRENCE SAND CO.	LAWRENCE, KANSAS 66044	913-843-8717	20-12-20E	HAYDEN & NUNEMAKER
EDWARDS -----				
EDWARDS CO. HIGHWAY DEPT.	P.O. BOX 187 KINSLEY, KANSAS 67547	316-659-2188	35-24-19W	FELDMAN
KINSLEY SAND & GRAVEL, INC.	KINSLEY, KS. 67547	316-659-3401	02-25-19W	OWENS
ELK ---				
E-K CO. ROAD DEPT	HOWARD, KANSAS 67349	316-374-2580	31-28-09E	BARNES

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
ELLIS				
CONCRETE MIX & CONSTRUCTION	HAYS, KANSAS 67601	913-625-3459	NW 29-15-18W	WERTH
ELLIS CO. ROAD DEPT	HAYS, KANSAS 67601	913-625-7334	23-15-19W 22-15-16W	CINGES FOSTER
HAYS CONCRETE PRODUCTS CO.	HAYS, KANSAS 67601	913-625-2716	SEL 12-15-20W	MILLARD MOORE
ELLSWORTH				
ELLSWORTH CO. ROAD DEPT.	ELLSWORTH, KANSAS 67439	913-472-4003	SE SW 30-14-10W NE 30-14-10W W SW 22-15-09W SE NW 10-15-09W NE 35-15-10W SW 18-15-08W NW 22-15-08W SW SW 35-15-08W SE SW 23-16-07W NW 36-16-06W SW 27-15-08W SW 23-15-09W NE NW 03-14-10W	MCEVOY BORRELL ROOT BURMEISTER URBANEK CROY HOMOLKA HOFFMAN PEPPIATT SUFFINGTON THIELEN DALECHEK PEJSHA
FINNEY				
ALSOP & SONS SAND CO.	1107 GILLESPIE GARDEN CITY, KANSAS 67846	316-276-3130	NE 19-26-32W	CITY OF GARDEN CITY
SMITH SAND CO., INC.	BOX 391, 1206 E. FULTON GARDEN CITY, KANSAS 67846	316-276-3771	NW 17-24-33W	
FORD				
DAVIS & SONS SAND SALES	RT. 1 DODGE CITY, KANSAS 67801	316-227-6301	SW 31-26-25W	BAILY
DODGE CITY SAND CO.	500 E. CHERRY DODGE CITY, KANSAS 67801	316-227-6091	36-26-25W	
FORD CO. ROAD DEPT.	DODGE CITY, KANSAS 67801	316-225-4861	NW 12-27-24W S NW 01-27-21W	FORD CO. MOLLITOR
GEARY				
MORE SAND CO., INC.	RT. 3 JUNCTION CITY, KANSAS 66441	913-238-6922	NW 34-11-05E	MOORE

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
PLAZA SAND & GRAVEL GOVE -----	R. R. 2 GRANDVIEW PLAZA JUNCTION CITY, KS. 66441	913-238-152	C 4-11-06E	
ROD BENTLEY SAND & GRAVEL GOVE CO. ROAD DEPT. DALE ROBERTS GRAHAM -----	SHIELDS, KANSAS 67874 GOVE, KANSAS 67736 PARK, KANSAS 67751	316-397-5669 913-938-2871 913-754-3519	SW 24-15-28W VARIOUS E 25-13-28W	BENTLEY VARIOUS ROBERTS
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG. GRAY -----	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	NE 08-08-22W SE 07-08-22W	STUCHLIK LAVIS
GRAY CO. ROAD DEPT. KERR SAND GREELEY -----	CIMARRON, KANSAS 67835 CIMARRON, KS. 67835	316-855-3815	35-25-29W 24-26-28W	
GREELEY CO. ROAD DEPT. HAMILTON -----	TRIBUNE, KANSAS 67869	316-376-4253	VARIOUS	VARIOUS
HAMILTON CO. ROAD DEPT. HARPER -----	SYRACUSE, KANSAS 67878	316-384-5135	VARIOUS	VARIOUS
HARPER CO. ROAD DEPT.	COURTHOUSE ANTHONY, KANSAS 67003	316-842-5240	C 2-34-06W 23-34-05W 05-31-09W 09-32-08W 33-33-07W 34-33-07W 09-31-07W 36-31-06W 28-32-09W C 8-34-06W	WELSH MAYO JACOBS HOYT MONTAGUE MASNER BARBER WINTERS JOHNSON HARPER

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
HARVEY				
BRYANT SAND & GRAVEL CO.	RT. 1 BOX 218 BURRTON, KANSAS 67020	316-463-5621	NE 06-24-03W	
BRYANT SAND & GRAVEL CO.	RT 2 BOX 218 BURRTON, KANSAS 67020	316-463-2711	27-23-03W	
THACH SAND INC.	R.F.D. 2 BURRTON, KS. 67020	316-463-6313	27-23-03W	
HASKELL				
HASKELL CO. ROAD DEPT.	SUBLETTIE, KANSAS 67877	316-675-2234	20-30-34W	RYANT
RIVERSIDE SAND INC.	SATANTA, KANSAS 67870	316-649-2421	NW 33-30-34W	W. F. WALKER
HODGEMAN				
HODGEMAN CO. ROAD DEPT.	JETMORE, KANSAS 67854	316-357-4355	VARIOUS	VARIOUS
JEWELL				
JEWELL CO. ROAD DEPT.	MANKATO, KANSAS 66956	913-378-3431	10-01-06W	HEITMAN
J.H. SHEARS, SONS, INC.	819 W. 1ST STREET HUTCHINSON, KANSAS 67501	316-662-3307	11-01-07W	HUTT
JOHNSON				
BUILDERS SAND CO.	78TH & HOLLIDAY DRIVE KANSAS CITY, KANSAS 66106	913-375-1414	05-12-24E	THEOEN
HOLLIDAY SAND & GRAVEL CO.	6811 W. 63RD OVERLAND PARK, KANSAS 66202	913-236-5920		
	BONNER SPRINGS, KANSAS 66012	913-422-3095	32-11-23E	SCHYT
KEARNY				
CHARLES CUMMINGS	BOX 681 GARDEN CITY, KS. 67846	316-276-7813	NE 06-25-35W	TERHUNE & HARMS
KEARNY CO. ROAD DEPT.	BOX 346 LAKIN, KANSAS 67860	316-355-6571	10-25-36W 11-25-36W 24-25-35W	PUCKETT BEYMER TACKETT

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
POPEJOY CONSTRUCTION CO., INC.	BOX 385 ULYSSES, KANSAS 67880	316-356-2404	SW 03-25-36W 09-25-36W SE 03-25-36W	SEYMER BAHNTGE
KINGMAN				
KINGMAN CO. ROAD DEPT.	KINGMAN, KANSAS 67068	316-532-3771	03-28-08W 02-28-06W 28-28-10W 14-30-08W 17-27-10W SW 03-27-10W	MCKENNA OSNER STERNEKER BROWN VOSS CROFT
RAY WELLS SAND & GRAVEL	RT. 1 KINGMAN, KANSAS 67068	316-532-2088	NE 01-28-08W SW 01-28-08W	OLEMAN WELLS
KIOWA				
KIOWA CO. ROAD DEPT.	GREENSBURG, KANSAS 67054	316-723-2531	03-29-17W 02-29-16W NE 20-29-17W	HULME STARKEY HAMMOND
SEACAT SAND & EXCAVATION				
	409 W. LINCOLN GREENSBURG, KANSAS 67054	316-723-2396 316-723-2995	SW 03-29-17W	SEACAT
LANE				
LANE CO. ROAD DEPT.	DIGHTON, KANSAS 67839	316-397-2401	NW 15-20-30W	HOLLINGSWORTH
LEAVENWORTH				
MISSOURI VALLEY SAND, INC.	BOX 89 LEAVENWORTH, KANSAS 66048	913-682-3621	NE 01-09-22E	MISSOURI RIVER

COMPANY

LEASE

ADDRESS

LOCATION

TELEPHONE

LINCOLN

LINCOLN CO. ROAD DEPT.

913-524-4443

LINCOLN, KANSAS 67455

28-13-10W PEJSHA
30-12-09W BUZICK
17-12-09W O. NELSON
19-10-09W OETTING
26-10-09W JENSEN
03-10-08W HEALY
12-10-08W D. JONES
25-10-07W M. JONES
29-10-06W FARTZELL
34-12-07W RITTMANN
29-12-06W GARRISON
08-13-07W WOLTING
33-13-06W HOEH
29-10-06W MYERS
36-10-06W KELLY
20-10-07W MCCLURE BROS.
26-10-07W GOOD
28-10-07W MARSHALL
25-10-08W TROMBLE
20-12-08W WIEBKE
03-10-09W LUCK ESTATE
01-11-06W GRIMES
06-11-06W KOWALKE
27-11-08W BRUCE
06-11-09W OETTING
14-11-09W H. NELSON
05-12-06W SCHMIDT
08-12-06W REES
29-12-06W MORRICAL
04-12-07W - EMMONS
23-12-07W WALTERS
26-12-07W BOLTE
26-12-07W GOURLEY
29-12-08W MELLI
04-12-09W SLOCK
18-12-09W BECKER & NELSON
35-12-09W LIEPITZ
07-12-10W MEITLER
28-12-10W HLAD
28-12-10W E. HYNES
33-12-10W THAEMERT
32-13-06W NEEL
05-13-07W L. VONFANGE
14-13-09W F. WACKER
34-13-10W SOUKUP
27-10-10W GIER
36-11-09W POWERS

WHITE CONSTRUCTION CO.

KANOPOLIS, KANSAS 67454

913-634-5350

W 26-12-07W

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COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
LOGAN -----				
LOGAN CO. ROAD DEPT.	RUSSELL SPRINGS, KANSAS 67755	913-846-2266	22-13-35W	
SLEBERT SAND CO., INC.	BOX 10 NESS CITY, KANSAS 67560	913-798-2224	SW 12-13-34W	LUTHEP
STATE HIGHWAY COMMISSION DIVISION 3 MAT, L.S. ENG.	309 S. SECOND MORTON, KANSAS 67654	913-927-2178	SE 35-14-32W SW 04-15-32W 18-12-36W	CRISTY EST. WEARDEN KELLEY
MCPHERSON -----				
MCPHERSON CO. ROAD DEPT.	MCPHERSON, KANSAS 67460	316-241-0466	16-18-04W 16-18-04W	AELMORE LARSON
MARSHALL -----				
BLUE RAPIDS SAND & GRAVEL	BLUE RAPIDS, KS. 66411 RT. 1 BLUE RAPIDS, KS. 66411	913-562-3577 913-226-8881	18-04-07E	HAMILTON
BLUE RIVER SAND & GRAVEL CO.	BOX 38 BLUE RAPIDS, KANSAS 66411	913-226-8881	SW 19-04-07E SE 27-04-07E	STRYKER SMITH
MARSHALL CO. HIGHWAY DEPT.	MARYSVILLE, KANSAS 66508	913-443-4941	29-01-06E	KRUSE
MEADE -----				
MEADE CO. ROAD DEPT.	MEADE, KANSAS 67864	316-873-2481	20-33-28W	BORCHER
MITCHELL -----				
HAIGH SAND & GRAVEL	BEL-OIT, KANSAS 67420	913-738-2367	NW 10-07-07W	NORTH
MORTON -----				
MORTON CO. ROAD DEPT.		316-592-2166		
	RICHFIELD, KANSAS 67953		S 21-33-41W	

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
NEMAHA				
CHARLES REISE CONTRACTOR	614 S. 6TH STREET SENECA, KANSAS 66538	913-336-2819	NE 32-01-13E	PERKINS
ROTTINGHAUS ROCK & GRAVEL CO.	BAILEYVILLE, KANSAS 66404	913-336-2056	NW 16-01-11E SE 28-04-14E	OTOOLE
NEOSHO				
HY-GRADE CONSTRUCTION & MATERIALS, INC.	ST. PAUL, KS. 66771	316-449-2575	SE 15-29-20E	HY-GRADE
NESS				
NESS CO. ROAD DEPT.	NESS CITY, KANSAS 67560	913-798-3350	31-17-23W 32-16-22W 01-16-25W 35-20-23W 02-16-24W 23-20-26W	HORCHEM MUSSELMAN CLYNE FRUSHER HARRIS GOUMAN
NORTON				
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SE 19-05-25W SW 09-05-23W	-INDEN CLYDESDALE
OSBORNE				
OSBORNE CO. ROAD DEPT.	OSBORNE, KANSAS 67473	913-346-2153	28-07-14W 04-07-15W	MCREYNOLDS COX
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SW 14-07-13W SE 19-07-11W	UBELAKER WALL
OTTAWA				
ROBINS SAND & GRAVEL	323 W. 2ND MINNEAPOLIS, KANSAS 67467	913-392-2087	NW 02-11-04W W 20-10-04W NE 34-10-04W 08-09-04W E 19-10-05W NE 26-11-04W 17-09-04W	WATSON STRATTON BARCUS PAYNE HAUCK ROBSON PAYNE

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
PAMNEE				
BROCK & SMITH, INC.	BOX 9 LARNED, KANSAS 67550	316-285-2189	SE SE 05-22-16W	SAHLS
EAKIN SAND & GRAVEL CO.	BOX 48 LARNED, KANSAS 67550	316-285-3916	SW 05-22-16W NW 08-22-16W	EAKIN
LARNED SAND & GRAVEL	BOX 227 LARNED, KANSAS 67550	316-285-3236	SE 04-22-16W	EUSTER
PAMNEE CO. ROAD DEPT.	LARNED, KANSAS 67550	316-285-3761	03-22-16W	BAUDWIN
PHILLIPS				
PHILLIPS CO. ROAD DEPT.	PHILLIPSBURG, KANSAS 67661	913-543-2912	NW 13-05-18W NW 28-02-19W	MCKINLEY KATS
STATE HIGHWAY COMMISSION DIVISION 3 MATLS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178		
POTTAWATOMIE				
WAMEGO SAND CO., INC.	BOX 119 WAMEGO, KANSAS 66547	913-456-9888	NW 10-10-10E	MADDOX NYLAND GREVING
PRATT				
PRATT CO. ROAD DEPT.	PRATT, KANSAS 67124	316-672-2441	29-28-11W 10-27-12W SE 15-29-15W 35-27-14W SE 04-28-13W 21-27-12W 09-27-12W 22-28-14W	ARMISTEAD STUDER FOGARU EUBANK WHITFIELD MAAS HOEME CRANDELL
WHITFIELD SAND & CONCRETE, INC.	BOX 66 PRATT, KANSAS 67124	316-672-3181	SE 04-28-13W	BARNES
RAWLINS				
MORTON SAND & GRAVEL	BOX 213 OBERLIN, KANSAS 67749	913-475-3245	W SW 14-02-32W	MARTIN

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
RAWLINS CO. ROAD DEPT.L	ATWOOD, KANSAS 67730	913-626-3726	30-03-32W 25-04-34W 11-02-32W	ANDERSON REEVES KOGI
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SE 26-02-33W NW 06-03-32W	NIERMEIER MEYER
RENO				
FOUNTAIN SAND & GRAVEL PIT	ARLINGTON, KANSAS 67514	316-538-2393	SE 06-25-07W	FOUNTAIN
GRAVEL PRODUCTS, INC.	NICKERSON, KANSAS 67561	316-422-3249	SW 15-22-07W	PAULSON
HAVEN SAND CO.	HAVEN, KANSAS 67543	316-465-7738	NE 20-24-04W	MOUNT
HOSKINSON SAND & GRAVEL CO.	RT. 1 HUTCHINSON, KANSAS 67501	316-662-7783	SE 08-23-06W	HOSKINSON
MT. HOPF SAND CO.	RT. 1, BOX 11 HAVEN, KANSAS 67543	316-465-3447	36-24-04W	
J.H. SHEARS, SONS, INC.	819 W. 1ST STREET HUTCHINSON, KANSAS 67501	316-662-3307	SE 14-23-05W	SHEARS
J.E. STEELE SAND	1400 N. HALSTEAD HUTCHINSON, KANSAS 67501	316-662-5741	S NW 09-23-05W	STEELE
REPUBLIC				
JOHN H. ALSOP SAND CO.	11TH & M ST. BOX 345 BELLEVILLE, KANSAS 66935	913-527-2248	SE 07-03-04E NW 20-03-04E	RUNFT RUFNT
RICE				
ARENSMAN SAND & GRAVEL CO.	CHASE KANSAS 67524 RAYMOND KANSAS 67573	316-938-2532 316-534-2822	NE 29-20-10W	HAGEN
ROCK HILL STONE & GRAVEL CO. INC.	STERLING, KANSAS 67579 BOX 470 LYONS, KANSAS 67554	316-278-3514 316-257-2161	NE 27-21-08W NE 16-20-08W N NE 21-29-08W	ROCK HILL TOBIAS

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
RILEY				
KERSHAW REDI-MIX CONCRETE & SAND CO., INC.	BOX 668 MANHATTAN, KANSAS 66502	913-776-8811	S 05-10-08E SE 30-10-08E	
ROOKS				
HOWARD COVERT	ALTON, KANSAS 67623	913-984-2533	NW 22-07-17W	SIMONS
INLAND ENGINEERING	STOCKTON, KS. 67669		SESE 29-07-18W NE 29-07-18W	EISENHOWER LINDQUIST
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178		CARMICHAEL MCCONNELL
RUSSELL				
RUSSELL CO. ROAD DEPT.	BOX 415 RUSSELL, KANSAS 67560	913-483-4032	12-15-15W 21-11-14W 05-12-15W 26-12-13W 01-15-15W NW 29-14-12W 30-14-11W 02-13-14W 08-15-15W 35-14-14W	BENDER BUNKER BRUMITT K.C. CORPS OF ENG. LUMLER EHR-ICH HERBER MAJOR TRUAN LUMLER
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178		OLIVER BECKER
SALINE				
SALINA SAND CO., INC.	MENTOR, KANSAS 67465	913-823-2932	NW 02-13-14W 03-15-14W	JENNEY MORSE
SCOTT				
SCOTT CO. ROAD DEPT.	SCOTT CITY, KANSAS 67871	316-872-2202	VARIOUS	VARIOUS

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
SEJGWICK				
ASSOCIATED MATERIAL SUPPLY CO., INC.	BOX 4064 N. WICHITA STA. 67204 4405 W. 52ND WICHITA, KANSAS 67204	316-744-0433 316-722-0281	N N 23-26-01W	CLARK
BENTLEY SAND CO.	BENTLEY KANSAS 67016	316-432-5235	NW 13-25-02W NE 17-25-01W	WOLFE VOGT
B.G RIVER SAND CO.	1651 W. MAJARTHUR WICHITA, KANSAS 67212 4100 S. SEMECA WICHITA, KANSAS 67212	316-524-0691	18-28-01E	DAVIS CORP.
B.G THREE SAND & GRAVEL CO.	6000 W. 21ST STREET WICHITA, KS. 67212	316-943-6361	SE 03-27-01W	RITCHIE CONSTRUCTION
DOLESE BROTHERS CO.	BOX 1841 WICHITA, KANSAS 67212	316-262-1428	NW 07-27-01E	
GLOBE CONSTRUCTION CO. INC.	1041 N. WATER WICHITA, KANSAS 67203	316-265-2623	SE 02-27-01W	STEWART
WALT KEELER CO., INC.	826 E. LINGOLN WICHITA, KANSAS 67211	316-265-1601	SW 02-28-01W	
MILES SAND, INC.	4857 N. MERICAN WICHITA, KANSAS 67204	316-838-3362	25-26-01W	
OATVILLE SAND & GRAVEL	4100 W. 31ST SOUTH WICHITA, KANSAS 67217	316-942-3871	NE 11-28-01W	LEENDERSTE
PAVING CONTRACTORS, INC.	6405 E. KELLOGG WICHITA, KANSAS 67207 8700 S. HYDRAULIC WICHITA, KANSAS 67207	316-684-6161 316-788-0412	NW 15-29-01E	COSTIN
SEJGWICK SAND CO.	SEJGWICK, KANSAS 67135	316-766-0456	10-26-01W	NICHOLSON
SUPERIOR SAND CO., INC.	6500 W. 21ST WICHITA, KANSAS 67212	316-722-0592	NW 03-27-01W	SUPERIOR SAND CO.
TRI COMPANY CONSTRUCTION, INC.	6700 S. HYDRAULIC WICHITA, KANSAS 67233	316-524-8631	NW 34-28-01E	BLOOD
VIC,S SAND & GRAVEL CO.	6600 W. 21ST WICHITA, KANSAS 67212	316-943-4372	NW 01-27-01W	
SEWARD				
J & R SAND CO., INC.	1141 S. PERSHING LIBERAL, KANSAS 67901	316-624-5287	28,33 34-32-33W	LEMERT

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
SEWARD CO. ROAD DEPT. SHAWNEE -----	LIBERAL, KANSAS 67901	316-624-3401	02-33-33W 01-35-31W	
CONSUMERS SAND CO., INC.	924 W. RAILROAD STREET TOPEKA, KANSAS 66608	913-232-5117	SW 23-11-16E	NEWMAN
CONSUMERS SAND CO., INC.	4120 NE BELMONT STREET TOPEKA, KANSAS 66616	913-232-1414	KAW HALF-BREED RESERVE	KS. RIVER
KANSAS SAND & CONCRETE, INC.	531 N. TYLER TOPEKA, KANSAS 66608	913-235-6284	KS. RIVER	N. TOPEKA DRAIN. BRD
RIVER SAND CO., INC.	BOX 4044, 3220 WATERWORKS TOPEKA, KANSAS 66604	913-233-3877	N 26-11-15E	KAW RIVER
TOPEKA SAND CO.	RT. 4 TOPEKA, KANSAS 66603	913-233-9849	SE 23-11-16E	
VICTORY SAND & CONCRETE, INC.	BOX 281 TOPEKA, KANSAS 66601	913-233-3285	NW 25-11-15E	KANSAS RIVER
SHER-DAN -----				
QUINTER REDI-MIX CO.	QUINTER, KANSAS 67752	913-754-3361	SE 27-10-28W	MILLER
SHERIDAN CO. ROAD DEPT.	HOXIE, KANSAS 67740	913-675-3621	07-09-27W 12-06-30W 20-07-26W 30-10-30W 15-06-27W 23-10-26W	OCHS ZODROW CURRIER ROBERTS WAGONER MCWILLIAM
STATE HIGHWAY COMMISSION DIVISION 3 MAT, LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	N 33-10-28W 09-09-28W SE 08-06-29W	KAISER BILLINGER RIECHTER
SHERMAN -----				
GOOLLAND REU-E-MIX	GOOLLAND, KANSAS 67735	913-899-7232	NW 29-08-40W	ELLIOTT
SHERMAN CO. ROAD DEPT.	GOOLLAND, KANSAS 67735	913-899-5253	VARIOUS	VARIOUS

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	NW 17-07-39W NE 35-08-39W SE 13-08-42W	LUKEN JAVIS BRABHAM
SMITH -----				
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SW 04-05-15W NW 05-05-13W	SWEAT JOHNSON
STAFFORL -----				
ALBERT PARTIN SAND & GRAVEL CO	BOX 274 STAFFORD, KANSAS 67578	316-234-5445	SE 04-25-11W	
STAFFORL CO. ROAD DEPT.	BOX 224 ST. JOHN, KANSAS 67576	316-549-3597	06-24-13W	FISHER
STEVENS -----				
STEVENS CO. ROAD DEPT.	BOX 1167 HUGOTON, KANSAS 67951	316-544-4782	29-31-38W 01-31-35W	CIMARRON RIV. CULLISON
SUMNER -----				
MULVANE SAND CO., INC.	6015 N BROADWAY BOX 4064 WICHITA, KANSAS 67208 MULVANE, KANSAS 67110	316-744-0433 316-777-1421	31-29-02W	EUTTS
SUMNER CO. ROAD DEPT.	WELLINGTON, KANSAS 67152	316-326-2791	36-32-02E	JONLEY
THOMAS -----				
STATE HIGHWAY COMMISSION DIVISION 3 MAT,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	34-10-32W E SW 20-06-32W E 19-07-34W NE 32-06-33W SW 17-07-32W	FULTON BARNETT GROVER SHULL SEARS
THOMAS CO. ROAD DEPT.	COLBY, KANSAS 67701	913-462-2122	24-09-34W SW 26-06-31W	WIELAND ZOBERST

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
TREGO -----				
STATE HIGHWAY COMMISSION DIVISION 3 MAT.,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178	SE 34-13-22W NE 33-12-23W NE 05-15-23W	CARLSON TINKLER HILLE
TREGO CO. ROAD DEPT.	WAKENNEY, KANSAS 67672	913-743-6441	VARIOUS	VARIOUS
WAKEENEY REGI-MIX, INC.	BOX 835 WAKEENEY, KANSAS 67672	913-743-2810	SE 33-12-23W	TINKLER
WABAUNSEE -----				
WABAUNSEE CO. ROAD DEPT.	ALMA, KANSAS 66401	913-765-3712	VARIOUS	VARIOUS
WALLACE -----				
STATE HIGHWAY COMMISSION DIVISION 3 MAT.,LS. ENG.	309 S. SECOND NORTON, KANSAS 67654	913-927-2178		HEISE GUNZELMAN
WASHINGTON -----				
FINLAYSON GRAVEL & READY-MIX	BARNES, KANSAS 66933	913-763-4314	NE 18-03-05E	
MUELLER SAND & GRVEL CO., INC.	HANOVER, KANSAS 66945	913-337-2252	SW 05-02-05E NE 18-02-05E SE 07-03-05E S 28-01-04E NW 08-02-04E NE 07-02-05E	MUELLER MUELLER MUELLER SPITSNOGLE MUELLER MUELLER
WICHITA -----				
HOWARD CLEVENGER	LEOTTI, KANSAS 67861	316-375-2575	SE 32-18-37W	
WICHITA CO. ROAD DEPT.	LEOTTI, KANSAS 67861	913-375-2814	E 08-19-36W SE 09-17-38W W 16-17-36W	WILLIS BAUCK LEE

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
WYANJOTTE				
AMERICAN SAND & MATERIAL CO. INC.	4600 SPEAKER ROAD KANSAS CITY, KANSAS 66106	913-342-4208	18-11-25E	KANSAS RIVER
BUILDERS SAND CO.	78TH & HOLLILAY DRIVE KANSAS CITY, KANSAS 66106	913-375-1414	SW 32-11-24E	GARRETT
HOLL-DAY SAND & GRAVEL CO.	6811 W. 63RD OVERLAND PARK, KANSAS 66202	913-236-5920		
	EDWARDSVILLE, KANSAS 66022	913-422-3080	27-11-23E	H.S.G.
HOLL-DAY SAND & GRAVEL CO.	6811 W. 63RD OVERLAND PARK, KANSAS 66202	913-236-5920		
	MUNCIE, KANSAS 66057	913-299-2263	29-11-24E	H.S.G.
PECK-WOLFF SAND AND MATERIAL CO.	7301 KAW DRIVE KANSAS CITY, KANSAS 66111	913-299-3342	SE 21-11-24E SW 31-11-24E	
STEWART SAND & MATERIAL CO.	4049 PENNSYLVANIA KANSAS CITY, MO. 64111	816-753-3920		
	MORRIS KANSAS	913-375-1377	SE 29-11-24E	MORRIS PLANT
STEWART SAND & MATERIAL CO.	4049 PENNSYLVANIA KANSAS CITY, MO. 64111	816-753-3920		
	TURNER KANSAS 66087	913-287-7059	SS 23-11-24E	MEAGER
STEWART SAND & MATERIAL CO.	4049 PENNSYLVANIA KANSAS CITY, MO. 64111	816-753-3920		
	MUNCIE KANSAS 66057	913-287-8212	SW 12-11-24E	
SUPERIOR SAND & GRAVEL CO.,	BOX 11145 KANSAS CITY, KANSAS 66111	913-289-6525		
	88TH & WOODLAND KANSAS CITY, KANSAS 66111	913-441-2800	31-11-24E	

CRUSHED ROCK PRODUCERS...LISTED BY COUNTY ALPHABETICALLY. (M) = UNDERGROUND MINE

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
ALLEN				
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	32-26-18E SW 25-24-20E 34-24-19E SW 20-23-19E	NELSON NELSON NELSON STRICKLER
ANDERSON				
HUNT ROCK CO.	RT. 3 GARNETT, KANSAS 66032	913-448-5962	12-20-18E	BRUMMEL
KILLOUGH-CLARK, INC.	80X 623 OTTAWA, KANSAS 66067	913-242-4535 913-242-4535	SE 32-21-19E NW 01-23-19E SSE 24-20-20E	STARR PENLAND
MCADAM LIMESTONE PRODUCTS, INC	RT. 1 GARNETT, KANSAS 66032	913-448-3179	NE 01-20-19E	BENUS
ATCHISON				
MIDLAND QUARRY	ATCHISON, KS. 66002	913-367-0646 913-367-3731	32-06-21E	(M)SERVAES
BOURBON				
CULLOR LIMESTONE CO., INC.	20TH & SIDNEY FORT SCOTT, KANSAS 66701	316-223-4230	NW 02-25-26E SE 17-24-23E SE 09-26-22E SE 08-26-22E E 26-23-24E SE 06-25-22E SE 11-24-25E SW 21-26-25E SE 06-25-22E SE 02-25-25E	JOHNSON WOMELSDORF DRAKE DRAKE DOTSON KAMSEY MALONE BROWN BRONSON MALONE
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	NE 20-25-24E	CLEAVER

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
BUTLER				
GEORGE M. MYERS INC.	BOX 289 EL DORADO, KANSAS 67042	316-321-4040	NW 08-27-04E	LEFEVER
CHASE				
HALLETT CONSTRUCTION CO.	BOX 296 MARION, KANSAS 66861	316-382-3330	SW 26-20-07E	MOTT
CHAUTAUQUA				
SEDAN LIMESTONE CO., INC.	SEDAN, KANSAS 67361	316-725-3404	33-33-11E	SMYLIE
CHEROKEE				
EAGLE-PICHER INDUSTRIES, INC. CHEMICALS & METALS DIV.	BOX 910 MIAMI, OKLAHOMA 74354	918-673-1740		BALLARD
MIDWEST MINERALS, INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	S 21-31-23E	CHEROKEE QY.
SOUTHWEST ROCK & CHAT CO., INC.	703 W. 12 ST., BOX 30 BAXTER SPRINGS, KANSAS 66713	316-856-2192	SE 02-35-23E	EARLY BIRD MINE
CLAY				
BAYER CONSTRUCTION CO., INC.	BOX 889, 509 YUMA MANHATTAN, KANSAS 66502	913-776-8839	NW 04-09-04E	MARTIN
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	SW 24-09-03E SE 24-09-03E	FORSYTH PETTET
CLOUD				
HOPPER BROTHERS QUARRIES	PAWNEE CITY, NEB. 68420	402-852-2031	SW 25-07-05W	JORDEN

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
COFFEY -----				
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	NW 02-21-13E	JONES QY
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	12-22-13E NW 31-21-16E NE 33-19-14E	BIRK NELSON NELSON
COWLEY -----				
DANIELS STONE CO.	R.F.D. 3 WINFIELD, KANSAS 67156	316-221-9060	32-32-04E	DANIELS
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	NW 03-34-04E	DOWLER
CRAWFORD -----				
KUNSHEK CHAT AND COAL	304 MEMORIAL DRIVE PITTSBURG, KS. 66762	316-632-4464	25-31-21E	
MIDWEST MINERALS, INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	SE 12-30-23E SW 31-28-24E	GIRARD QY. FARLINGTON QY.
DICKINSON -----				
HALLETT CONSTRUCTION CO.	BOX 296 MARION, KANSAS 66861	316-382-3330	SE 10-14-04E	RUHNKE
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	E 02-16-04E NW SW 24-13-03E SW SW 24-13-03E E 05-13-04E	JONES HANSON KAUFFMAN LEINES
WALKER STONE CO., INC.	BOX 563 CHAPMAN, KANSAS 67431	913-922-6797	SW 27-12-04E 28-12-04E	WALKER WALKER
DONIPHAN -----				
EVERETT QUARRIES CO., INC.	WATHENA, KANSAS 66090	913-989-4921	20-03-22E	THOMPSON

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	SW SW 10-03-22E SW NE 21-02-20E	WATHENA QY SPARKS QY
MIDLAND QUARRY	ATCHISON, KS. 66002	913-367-0646	12-04-19E 19-05-20E	BURKE BOOS
WEST LAKE QUARRY & MATERIAL CO	RT. 1, BOX 206 BRIDGETON, MO. 63042	314-739-1122	10-02-20E	SCHNEIDER
DOUGLAS -----				
KILLOUGH-CLARK, INC.	BOX 623 OTTAWA, KANSAS 66067	913-242-4535	NE 15-15-18E SW 27-14-20E	LARK HOLMES
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	NE 04-13-21E	EUDORA QY
ELK ----				
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	12-31-10E	MOLINE QY.
SEDAN LIMESTONE CO., INC.	SEDAN, KANSAS 67361	316-725-3404	NE 36-29-12E NW 04-30-11E	RANKIN MCLELLAN
ELLIS -----				
AUBEL ASPHALT, INC.	RT. 1, BOX 151 HAYS, KANSAS 67601	913-625-3105	17-13-18W	CITY OF HAYS
ELLIS CO. ROAD DEPT.	HAYS, KANSAS 67601	913-625-7334	23-15-19W 22-15-16W	LINGS FOSTER
FRANKLIN -----				
FOGLE QUARRY CO., INC.	18TH & MAIN OTTAWA, KANSAS 66067	913-242-4864	NE&SE 12-17-19E	FOGLE

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
KILLGOUGH-CLARK, INC.		913-242-4535		
	BOX 623 OTTAWA, KANSAS 66067	913-242-4535	NE SW 13-16-19E SE NW 17-16-21E SW 25-18-21E	EDWARDS KILLGOUGH KILLGOUGH
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	W SE 06-17-20E	OTTAWA QY.
GEARY				
GROSSHANS & PETERSEN, INC.	BOX 350 MARYSVILLE, KANSAS 66508	913-562-2301	NE 08-12-06E	PETEREN EQUIP.
WALKER STONE CO., INC.	BOX 563 CHAPMAN, KANSAS 67431	913-922-6797	SW 02-11-05E NE 04-13-05E NE 36-12-04E SE 36-12-04E SE SW 36-12-04E NW 02-11-05E 33-11-05E S 28-12-04E SW 08-12-04E NE 26-15-02E SE 03-12-03E SNW 02-12-03E	HUSTON CASPAR JANICKE SCHULER HASSELMAN WALKER ZUMBRUNN SORMAN MARSTON GANTENBEIN WALKER ZUMBRUNN
GRAHAM				
J.D. SCHWARCK QUARRIES OF KANSAS INC.	BOX 147 HILL CITY, KANSAS 67642	913-627-3771	NW 34-07-24W	SMITH
GREENWOOD				
GREENWOOD CO. ROAD DEPT.	EUREKA KANSAS 67045	316-583-6241	36-25-11E NE 31-22-13E 11-28-11E NE 48-27-10E 16-26-11E	JOONES CHRISTY JORDON ANSPAUGH VINSON
SEDAN LIMESTONE CO., INC.	SEDAN, KANSAS 67361	316-725-3404	NE 10-28-11E SE 34-25-11E N NE 31-22-13E	BLAKE BLAKE CHRISTE
JACKSON				
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	SE 01-06-12E	PICKETT

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
JEFFERSON				
ROY BAKER QUARRY, INC.	BOX 100 VALLEY FALLS, KANSAS 66088	913-945-3213	NE 20-08-18E	BAKER
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	SW 09-10-17E SE 35-11-19E SE 03-11-18E NW 29-11-19E SW 16-11-17E SW 21-09-19E SW 02-11-18E SW 01-09-19E NW 12-09-19E	J LARK HECK RICHTER HAMM HAMM MEYER REID WALLACE SEICHELIN
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	NW 11-11-18E	ECH-BALL
JEWELL				
JEWELL CO. ROAD DEPT.	MANKATO, KANSAS 66956	913-378-3431	VARIOUS	VARIOUS
JOHNSON				
DEITZ H.L.L. DEVELOPMENT CO.	BOX 4 KANSAS CITY, MISSOURI 66141	816-221-1311 913-764-2127	SE 09-14-23E	C-B-H RANCH
HOLLAND QUARRIES, INC.	BOX 5283 LENEXA, KANSAS 66215	913-888-5277	SE 06-13-24E	(M) JOHNSON
RENO CONSTRUCTION CO., INC.	BOX 4278 OVERLAND PARK, KANSAS 66204	913-681-2381	SE 18-14-25E SW 06-12-24E	STANLEY RENNER
UNION QUARRIES INC.	P.O. BOX 4540 OVERLAND PARK, KANSAS 66204 95TH & OGG ROAD LENEXA, KANSAS 66215	913-888-3838	NW 31-12-24E	(M) VAN LERBERG
LABETTE				
HARRY KEITH	COFFEYVILLE, KANSAS 67337	316-251-9416	SW 35-34-17E	KEITH

COMPANY -----	ADDRESS -----	TELEPHONE -----	LOCATION -----	LEASE -----
LABETTE CO. ROAD DEPT.	OSWEGO KANSAS 67356	316-795-4812	SE 29-32-19E	JUVALL
M-DWEST MINERALS, INC.	ALFAMONT, KANSAS 67330	316-784-5449	SE 01-32-19E SW 06-35-21E	PARSONS QY. CHETOPA QY.
O.BRIEN ROCK CO., INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	NW 06-35-21E	PICKERING
LEAVENWORTH -----	BOX 217 ST. PAUL, KANSAS 66771	316-449-2257		
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	SE 02-09-21E NE 02-12-21E SW 23-12-21E	ROMMELL MALONE QUINLAN
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	NW 31-09-23E	LANSING QY.
LINCOLN -----				
QUARTZITE STONE CO., INC.	LINCOLN, KANSAS 67455	913-524-4494	SE 14-12-08W S SW 11-20-08W 07-12-07W SE 23-12-08W 13-12-08W NE 14-12-08W	LEWICK BRYAN HEIRS WILSON BROTHERS MARY ZIER BOLTE JOHN MULLOY
ROBINS SAND & GRAVEL	323 W. 2ND MINNEAPOLIS, KS. 67467	913-392-2087	E SE 08-11-06W W SW 09-11-06W	LANCASTER LANCASTER
LINN -----				
BATES COUNTY ROCK, INC. DIVISION OF ASH GROVE	BOX 70 BUTLER, MD. 64730	816-679-4123	NW 24-21-24E	PLEASANTON QY.
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-352-8811		
MCAJAM LIMESTONE PRODUCTS, INC MORAN, KS. 66755		913-597-6711	29-19-25E	MORRIS
		316-237-4408	SW 28-20-23E NW 19-22-24E	WEESE

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	N SW 23-19-21E	RUES
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	SW 28-20-23E NE 20-21-22E NE 16-22-23E	NELSON COX OIL MURROW
WADE AGRICULTURAL PRODUCTS	BOX 38 LA CYGNE, KANSAS 66040	316-757-4457	NW 19-22-24E	
MCPHERSON				
HALLETT CONSTRUCTION CO.	BOX 296 MARION, KANSAS 66861	316-382-3330	SW 11-18-02W	HOLM
MARION				
HALLETT CONSTRUCTION CO.	BOX 296 MARION, KANSAS 66861	316-382-3330	NE 06-21-04E	SCHLEHUBER
WALT KEELER QUARRY	FLORENCE, KANSAS 66851	316-878-4352	SE 06-21-05E	
MARSHAL				
BAYER CONSTRUCTION CO., INC.	BOX 889, 509 YUMA MANHATTAN, KANSAS 66502	913-776-8839	E 17-02-09E 06-03-08E SE 10-05-09E	JONES (BEATTIE) MARYSVILLE LEINWEBER
HOPPER BROTHERS QUARRIES	PAWNEE CITY, NEB. 68420	402-852-2031	NW 06-01-08E	PRIBYL
MIAMI				
L.W. HAYES, INC.	BOX 236 PAOLA, KANSAS 66071	913-294-4011	SE 18-17-23E	
KILLOUGH-CLARK, INC.	BOX 623 OTTAWA, KANSAS 66067	913-242-4535	N NW 30-16-24E SW 27-16-22E 07-16-25E SW 27-18-23E NW 07-17-22E	CRAWFORD BONE WELLS BLOCK HAIGHT

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
WADE AGRICULTURAL PRODUCTS MONTGOMERY	BOX 38 LA CYGNE, KANSAS 66040	316-757-4457	SW 28-18-25E	
MIDWEST MINERALS, INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	NW 32-34-17E 29-31-17E S 17-32-14E S 04-33-16E S 06-32-15E S 05-32-15E	COFFEYVILLE QY. CHERRYVALE QY. ELK CITY QY. INDEPENDENCE QY. INDEPENDENCE QY. INDEPENDENCE QY.
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	NE 10-31-17E SW 17-32-14E 27-32-15E	BURLINGAME FOWLER OIL PATTERSON
SCOTT ROCK CO.	NEOSHAWA, KANSAS 66757	316-325-2298	23-31-15E	DON WOOD
MORRIS				
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	SE 29-14-06E NW 11-18-14E SE 17-16-06E SW 04-14-07E	LARK MORQUIST NELSON JOHNSON
NEMAHA				
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	NE 14-01-14E SE 11-01-14E	BECHTELHEIMER, D BECHTELHEIMER, H
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	E NW 24-03-14E	FIDELITY
NEOSHO				
HARRY BYERS & SONS, INC.	500 N. PUMMER CHANUTE, KANSAS 66731	316-431-0700	NW 19-27-18E	BYERS
NEOSHO CO. ROAD DEPT.	ERIE, KANSAS 66733	316-244-3273	30-28-19E 27-27-20E 33-29-19E 23-27-19E 16-30-20E	NEELY EBBINGTON JONES REINHARDT ACEN

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
O'BRIEN ROCK CO., INC.	BOX 217 ST. PAUL, KANSAS 66771	316-449-2257	E NE 04-29-21E	O'BRIEN
OSAGE				
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	21-18-14E 16-18-14E 20-18-14E S 15-16-14E	JONES PETERSON PETERSON KINNEY
KILLOUGH-CLARK, INC.	BOX 623 OTTAWA, KANSAS 66067	913-242-4535	NW 04-17-17E	LACEY
MARTIN MARLETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	SW 34-17-16E NW 35-16-15E	MELVERN QY. FARNSWORTH
POTTAWATOMIE				
BAYER CONSTRUCTION CO., INC.	BOX 889, 509 YUMA MANHATTAN, KANSAS 66502	913-776-8839	SW 19-09-09E	EBERT
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66773	913-597-6711	SW 16-09-12E SE 34-06-10E SE 11-07-07E	MARSTALL FALK MELGREN
REPUBLIC				
HOPPER BROTHERS QUARRIES	PANNEE CITY, NEB. 68420	402-852-2031	NE 18-04-05W	WOODS
RICE				
HALLETT CONSTRUCTION CO.	BOX 296 MARION, KANSAS 66861	316-382-3330	SE 10-20-06W	CONRAD
RILEY				
DEPARTMENT OF THE ARMY	FORT RILEY BRANCH JUNCTION CITY, KANSAS 66442	913-239-3728	SE 03-11-06E	CAMPBELL HILL QY.

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
BAYER CONSTRUCTION CO., INC.	BOX 889, 509 YUMA MANHATTAN, KANSAS 66502	913-776-8839	S 28-10-09E NE 29-10-08E SE NE 06-06-07E NE SE 06-06-07E NW 26-08-06E	MOORE REICHLING SMERCHEK SMERCHEK WOODWORTH
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	NE 35-06-04E	EGGERMAN
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	SE 29-10-09E	ZEANDALE QY.
SCOTT				
SCOTT CO. ROAD DEPT.	SCOTT CITY, KANSAS 67871	316-872-2202	SE 02-17-33W	PATTON
SHAWNEE				
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	NE 15-10-15E SW 08-12-17E SW 13-10-15E NE 13-10-13E SE 16-11-17E SW 23-12-13E SE 08-11-15E	HAMM HAMM HAMM HAMM HUMMER CLEVENGER JOYLE
J. H. & J. ROCK CO.	300 EAST 21ST STREET TOPEKA, KS. 66601	913-232-8291	SE 10-10-15E	
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	18-12-17E 14-10-15E SE SE 20-13-16E	E. TOPEKA QY. N. TOPEKA QY. MCQUEEN
WABAUNSEE				
MARTIN MARIETTA AGGREGATES	1305 W. 42ND TOPEKA, KANSAS 66609	913-266-5556	NW 30-12-12E	SCHAEFFER

COMPANY	ADDRESS	TELEPHONE	LOCATION	LEASE
WASHINGTON -----				
N.R. HAMM QUARRY, INC. HERINGTON DIVISION	BOX 17 PERRY, KS. 66073	913-597-6711	NE 08-02-04E SW 32-04-05E W NW 05-05-05E	KOEHLER WEICHE WEICHE
HOPPER BROTHERS QUARRIES	PAMNEE CITY, NEB. 68420	402-852-2031	SE 28-02-05E SE 02-03-01E	NIEMEIER CHAMBERS
WILSON -----				
BENEDICT ROCK & LIME CO.	BENEDICT, KANSAS 66714	316-698-2102	NE SE 02-28-15E	BENEDICT R & L
N.R. HAMM QUARRY, INC. PERRY DIVISION	BOX 17 PERRY, KS. 66.73	913-597-6711	NE 22-27-16E	CARLSON
MIDWEST MINERALS, INC.	709 N. LOCUST PITTSBURG, KS. 66762	316-231-8120	S 18-30-16E S 18-29-16E 36-29-14E	NEODESHA QY. ALTOONA QY. FULGUM
WOODSON -----				
NELSON QUARRIES	LA HARPE, KS. 66751	316-496-2211	SE 05-25-17E NW 19-26-16E NW 09-24-15E	HEFFEREN PRINGLE STOCKEBRAND
SEDAN LESTONE CO., INC.	SEDAN, KANSAS 67361	316-725-3404	S 19-25-14E	NORDMEYER
WYANDOTTE -----				
THOMPSON-STRAUSS QUARRIES	7000 HOLLIDAY DRIVE KANSAS CITY, KANSAS 66106	913-375-1016	SW 23-11-24E	(M)INLAND UNDERGROUND
J.A. TOBIN CONSTRUCTION CO.	BOX 3270 KANSAS CITY, KANSAS 66103	913-342-6770	07-11-25E	(M) TOBIN CONST. CO.