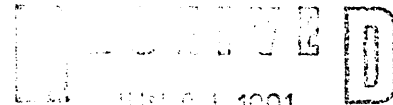


United States Department of the Interior
National Park Service



National Register of Historic Places
Registration Form

NATIONAL REGISTER

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Kettle River Sandstone Company Quarry
other names/site number N/A

2. Location

street & number off MN Hwy. 123 not for publication N/A
city, town Sandstone (Sandstone Township) vicinity N/A
state Minnesota code MN county Pine code 115 zip code 55072

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
<input checked="" type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input checked="" type="checkbox"/> district	<u>2</u>	<u>5</u> buildings
<input checked="" type="checkbox"/> public-State	<input type="checkbox"/> site	<u>1</u>	<u> </u> sites
<input type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>1</u>	<u> </u> structures
	<input type="checkbox"/> object	<u> </u>	<u> </u> objects
		<u>4</u>	<u>5</u> Total

Name of related multiple property listing: N/A

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official Ian R. Stewart Date 5/29/91
Deputy State Historic Preservation Officer

State or Federal agency and bureau Minnesota Historical Society

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official _____ Date _____

State or Federal agency and bureau _____

5. National Park Service Certification

I, hereby, certify that this property is:

- entered in the National Register.
- See continuation sheet.
- determined eligible for the National Register. See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:) _____

entered in the National Register

Andrew Zyner 7/18/91

for Signature of the Keeper

Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)
Industry/Extraction:
extractive facility

Current Functions (enter categories from instructions)
Landscape: park
unoccupied land

7. Description

Architectural Classification
(enter categories from instructions)

No style

Materials (enter categories from instructions)

foundation Sandstone
walls Sandstone
Concrete
roof Asphalt
other

Describe present and historic physical appearance.

The Kettle River Sandstone Company Quarry is located along the Kettle River on the east edge of the city of Sandstone in east-central Minnesota. It consists of an abandoned quarry site about three-fourths of a mile long and 600' at its widest point, as well as eight contributing and noncontributing buildings and structures.

When the Kettle River Quarry first opened the site was an undisturbed, tree-covered rock outcrop along the river. Within ten years, however, trees and soil had been cleared, multiple layers of stone were blasted away, and a railroad spur line ran through the middle of a cavity that slowly receded further and further from the water. During its peak in the early 1900s, the quarry contained at least 15 major buildings and dozens of derricks reaching from north of the Great Northern Railroad trestle to south of the former wagon bridge (now MN Hwy 123 bridge), where the powder house and hoist house were located.

After the quarry closed in 1919 all of the buildings and equipment were either destroyed or salvaged during World War II. The property was designated a city park in 1960, and by this time it had been partially reclaimed by shrubs and trees. Gradually, a series of trails have been cleared, although because of the sheer size of the site neither these foot paths nor the newer park buildings have compromised the historical integrity of the former quarry itself.

The following summary description of the property corresponds to a map enclosed with the registration form.

- 1) Deep well pump house 1967, noncontributing building. This is a small cinder block building with a flat roof located at the south end of the site.
- 2) Pumping Station, ca.1895, contributing building. This is a one-story, gable roofed, rectangular building made of coursed rough-faced sandstone. It has a ca.1960 cinder block addition on the north gable end. Original 2/2 double hung windows were infilled in 1984 but retain sandstone lintels and sills.
- 3) Reservoir 1967, noncontributing building. This is a large rectangular cinder block building with a flat roof. It is built on the sandstone foundation of the former reservoir.
- 4) Park shelter, 1975, noncontributing building. This is a gable roofed open shelter constructed of cinder blocks and wood.

United States Department of the Interior
National Park Service

**National Register of Historic Places
Continuation Sheet**

Kettle River Sandstone Company Quarry, Pine Co., MN

Section number 7 Page 1

- 5) Bathroom, 1975, noncontributing building. This is a cinder block bathroom.
- 6) Park shelter 1975, noncontributing building. This is a small gable roofed open shelter constructed of cinder blocks and wood.
- 7) Artesian well control building, ca.1895, contributing building. This is a small shed roofed building constructed of coursed rough-faced sandstone. It has a door and two windows to the east, the latter of which were infilled in 1984.
- 8) Derrick mast, ca.1900, contributing structure. This 100'-high wooden mast, stabilized by nine guy wires, originally had an attached boom used to hoist stone during quarrying. The boom was removed at an unknown date but the mast and foundation remain in good condition.
- 9) Quarry site ruins, 1885-1919, contributing site. This area consists of exposed sandstone walls between 75'-125' in height, some with evidence of drill marks indicating the long holes drilled for blasting; the walls of two stone crushers; a circular sandstone artesian well; rail beds identifying locations of tracks used to move sandstone blocks around the quarry; several foundations of quarry buildings; the remains of the dam; and piles of sandstone blocks.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)

Exploration/Settlement

Industry

Period of Significance

1885-1919

Significant Dates

1885

1895

Cultural Affiliation

N/A

Significant Person N/A

Architect/Builder

Unknown

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Considered in the statewide context of "St. Croix Triangle Lumbering, 1830s-1900s," the Kettle River Sandstone Company Quarry is historically significant under National Register criterion A as the site of Minnesota's most extensive sandstone quarry operation during the late 19th and early 20th centuries. This industry was directly responsible for the platting and development of the town of Sandstone, and the growth of east-central Minnesota. The quarry was the source of a variety of high quality stone used in buildings and construction sites throughout the United States.

The white pine forests extending north of Minneapolis/St. Paul between the Mississippi and St. Croix Rivers keyed the development of a lumbering economy beginning in the late 1830s. Logs were transported by river to boom sites and milled at sawmills, some of which gradually evolved into townsites. In the St. Croix region the industry reached its peak in 1895, when it produced 373 million board feet of lumber. At the same time the timber industry was waning, however, other natural resources in the St. Croix triangle were being exploited. By 1870 several granite quarries had been developed in eastern Stearns County, and by the early 20th century over 30 businesses were in operation in the area. Over the years these quarries have provided a variety of pink, red, and gray granite for buildings and monuments throughout the United States. Several quarries remain active today. Another major quarrying center was established in the northeastern corner of the St. Croix triangle at Sandstone in the late 1880s.

The buff- and salmon-colored bedrock quarried at Sandstone is part of the Hinckley Formation from the Precambrian Era. This cross-bedded sandstone has uniform-size grains joined by a high percentage of silica cement. The resulting bonding produced a durable stone that was impervious to dampness or frost. Tests conducted in the 1890s by the Geological Survey of Minnesota indicated that Kettle River sandstone had a resistance to crushing nearly equal to that of granite. It was ideally suited for use in building and bridge foundations, as well as for entire structures, paving blocks, curbing, and riprap. Hundreds of buildings including churches, courthouses, city halls, schools, commercial blocks, banks, railroad stations, and hospitals were constructed with Kettle River sandstone from the late 1800s into the first third of the 20th century.

See continuation sheet

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Kettle River Sandstone Company Quarry, Pine Co., MN

Section number 8 Page 1

The opening of the Kettle River quarry in 1885 signaled the beginning of the sandstone industry in east-central Minnesota. Under the direction of St. Paul attorney William H. Grant, stone was first hauled from the quarry about ten miles by a team of animals to the rail line in Hinckley, where it was shipped to St. Paul for strength and durability testing. In 1886 Grant constructed a short rail spur from the quarry to the St. Paul and Duluth Railroad, three miles to the west. That summer the Kettle River Railroad Company was incorporated by Grant, John P. Knowles (a St. Paul associate), Fred A. Hodge (Pine County Auditor), and James Hurley (Pine County District Court Clerk). A settlement known as Sandstone Junction comprised of a general store, hotel, and school soon developed at the rail crossing.

Like many of his contemporaries, Grant did not confine his business activities to one arena. During the early 1880s he began to purchase large tracts of land along the Kettle River, and by 1885 Grant and his three associates owned over 1,000 acres surrounding the quarry site. In the spring of 1887 these businessmen formed the Sandstone Townsite Company, and by June forty-seven lots had been sold in the newly-platted town of Sandstone. The community is distinctive because, unlike most other towns in the St. Croix triangle, it did not originate from the cutover following the harvest of white pine. While other area towns evolved after the forests were cleared, Sandstone is unique within the region because of its direct link to the quarrying industry.

In January 1887 Grant and Knowles entered into a ten-year lease with the Minneapolis contracting firm of Ring and Tobin allowing them "to quarry a 500-foot frontage on the banks of the Kettle River." Martin Ring and James Tobin had experience constructing bridges and streets and their connections in the Twin Cities clearly benefitted the fledgling quarry operation. The lease agreement stipulated that all stone quarried by Ring and Tobin would be hauled by the Kettle River Railroad Company for exclusive use in Minneapolis. The quarry developed quickly with 200 men working day and night shifts for \$1.75 per day. A lack of adequate housing in Sandstone resulted in the construction of a boarding house, and one block of land was set aside for employee dwellings. Six derricks and three locomotives hauled an average of 16 rail cars of stone a day. Grant's son, William Jr., who had moved to Sandstone to work as agent for the Townsite Company, reported that "orders for building stone are coming in at a lively rate."

On 28 July 1887 Grant's business partners and his son incorporated the Kettle River Sandstone Company, with their main office in St. Paul's Gilfillan Block. Although business was flourishing, less than a year later the firm was acquired by the Eastern Railroad Company of Minnesota, one of many branch lines owned and operated by rail magnate James J. Hill. Improved rail connections and access

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Kettle River Sandstone Company Quarry, Pine Co., MN

Section number 8 Page 2

to a Great Lakes shipping port resulted in greater opportunities for Eastern Railroad to secure quarry contracts outside of Minneapolis. For example, the company provided stone for the Duluth reservoir, a Missouri River bridge at Omaha, and several other bridges spanning the Mississippi. One of Ring and Tobin's major commissions was to provide the foundation stone for the immense Minneapolis City Hall and Courthouse (1888-1906, NRHP). The quarry's apparent success was reflected in Sandstone's population, which grew from about 300 residents in 1889 (when the town was incorporated) to 1,058 in 1895. By the summer of 1893, however, Ring and Tobin's lease had been cancelled and creditors were running the quarry at a minimum level to fill orders for the St. Anthony Falls wing dam and the Great Northern Railroad. A proposed sale of all quarry machinery in the fall of 1894 never occurred because the devastating Hinckley fire on September 1 destroyed nearly everything in the quarry as well as the town of Sandstone.

In December 1894 Samuel Hill organized a group of investors who incorporated the Minnesota Sandstone Company. They began immediately to rebuild the business using the most advanced quarry machinery available. In the spring of 1895 a 180'-long dam was built across the Kettle River to generate power for air compressors to operate the quarry equipment. The company drilled a 700'-deep artesian well and laid out a system of water pipes for the town and the Great Northern Railroad. Later in the year a wagon bridge was constructed just south of the quarry to provide easier access into eastern Pine County. The first stone crusher was built in the quarry in 1896, and after it was destroyed by fire two more were added in 1897 and 1902. About \$30,000 worth of new machinery was installed in 1900, including an improved air compressor plant, a powerful hoist, and an addition to the stonecutters' shed. An array of railroad tracks and dozens of derricks were scattered throughout and above the quarry. By the early 1900s the physical plant had grown to become the state's largest quarry and the most important industry in east-central Minnesota.

The Minnesota Sandstone Company proved to be an extremely successful business soon after incorporation. As the firm grew they established branch agencies in Chicago, Detroit, St. Louis, Pittsburgh, New York City, and Winnipeg. When quarry samples proved effective as paving material, James J. Hill suggested that the city of St. Paul pave Third Street with the sandstone blocks. These pavers were perhaps the most widely used product extracted from the quarry. At a time when many cities were searching for an ideal source for surfacing streets, Kettle River sandstone paving blocks developed a reputation as the most suitable and economical material available. A promotional booklet prepared by the company described the superior qualities of their stone:

United States Department of the Interior
National Park ServiceNational Register of Historic Places
Continuation Sheet

Kettle River Sandstone Company Quarry, Pine Co., MN

Section number 8 Page 3

Repeated tests have demonstrated that from twenty to thirty per cent heavier loads can be hauled on Kettle River stone pavements than on any other kind. This is because the horses have a firm footing and the pavement is even and unyielding. As a result draymen, teamsters and drivers generally are enthusiastic advocates of Kettle River stone pavements. Being less dusty than asphalt, more durable and less noisy than brick, all things considered it is the best pavement now on the market (Kettle River Quarries, 14-15).

By the end of 1895 the quarry was extracting an average of 23 railroad cars of stone per day. During the summer of 1896 nearly 300 men were employed in the quarry, many of them working to fulfill a contract to provide stone for the massive University of Illinois Library (now Altgeld Hall, NRHP). In November 1897 the quarry transported 50,000 paving stones, sold \$4,500 worth of sandstone for a public library in Keokuk, Iowa, and provided the main piers for the Minnesota state capitol. A number of bridges spanning the Mississippi, Missouri, and Des Moines Rivers utilized the stone, and "a majority of the leading railroads of the Northwest now specify Kettle River Sandstone for all their best work, such as turn table centers, coping stone, bridge caps and seats...." (Kettle River Quarries, 13). At the end of the 1898 season, the quarry had shipped 300,000 paving blocks and up to 400 rail cars of crushed stone per day. The company had paid their personnel \$9,000 during the month of October, approximately one-half of the total payroll for the town of Sandstone.

Quarrying involved a number of steps including drilling 2"-wide holes into the stone (which are still visible in the quarry today). Usually about 2' apart, they often reached a depth of 18' into which black powder was poured for blasting. In 1898 a block of stone measuring 17' deep, 38' wide, and 145' long was blasted from the quarry. Perhaps the largest single block produced from blasting was taken in 1904; it measured 20' x 44' x 310'. Once these blocks were broken into smaller pieces called "millstones" a combination of derricks (many built and installed by the American Hoist and Derrick Company of St. Paul) and flatcars transported the stone for cutting and fabrication.

In 1903 the Minnesota Sandstone Company was reorganized as the Kettle River Quarries Company. That spring the quarry sent out over 1,200 rail cars of stone, and was averaging a monthly payroll of over \$20,000 for 500 quarry men. In 1904 the company made an agreement with the William Penn Cut Stone Company to have them fabricate all quarried sandstone. Five years later a 100' x 300' stone cutting building was erected above the quarry. A major contract secured by the firm to provide stone for the North Dakota capitol building took nearly two years to complete. In 1904 the quarry company constructed a creosote plant in Sandstone in response to an increasing demand for inexpensive wood block streets

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Kettle River Sandstone Company Quarry, Pine Co., MN

Section number 8 Page 4

and sidewalks. A larger dam was built one mile downstream in 1907 and the Kettle River Power Company was incorporated one year later to supply power for both the quarry and the town.

As the firm reached its zenith in 1910 its name was changed again to the Kettle River Company. The next year they consolidated all subsidiary businesses thereby raising their capital from 1.25 million to 2 million dollars. Soon after the restructuring, however, a combination of factors contributed to the demise of the quarry. The growing popularity of less expensive building materials like the steel frame and concrete, coupled with higher maintenance costs, a stone-cutters strike in 1914, and World War I led to the quarry closing in 1919.

The city of Sandstone would not have achieved economic success without the quarry. The Kettle River Quarry provided the genesis for the platting and development of Sandstone in a region that was closely associated with the logging industry. Other towns typically evolved as logging camps into small crossroad villages after the pine forests had been cleared. But while the population of these towns were on the decline, Sandstone grew and prospered for many years. Even though active quarrying lasted less than 35 years, Kettle River sandstone achieved, in that time, an enduring reputation as an attractive and durable building material. The lone derrick and quarry ruins are all that remain from this important Minnesota industry.

9. Major Bibliographical References

- Bowles, Oliver. Structural and Ornamental Stones of Minnesota. (United States Geological Survey Bulletin 663). Washington, D.C.: Government Printing Office, 1918.
- Jesberg, Thomas. "Once There Was a Quarry." Department of History, University of Minnesota, 1989.
- Langseth, Muriel, ed. Sandstone, the Quarry City. Dallas, TX.: Taylor Publishing Co., 1989.
- Minnesota Sandstone Company. Kettle River Quarries. Minneapolis: Kimball & Storer, Co, 1898.
- _____. Kettle River Sandstone. Minneapolis: Moffett, Thurston & Plank Co., 1896.
- Thiel, George A. and Carl E. Dutton. The Architectural, Structural, and Monumental Stones of Minnesota. Minneapolis: University of Minnesota Press, 1935.
- Winchell, N.H. The Geology of Minnesota. (Final Report of the Minnesota Geological and Natural History Survey, St. Paul, 1884-1901).

See continuation sheet

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository: _____

10. Geographical Data

Acreage of property approximately 42 acres

UTM References

A	<u>1,5</u>	<u>51,072,0</u>	<u>5,1081,9,0</u>	B	<u>1,5</u>	<u>51,088,0</u>	<u>5,1087,4,0</u>
	Zone	Easting	Northing		Zone	Easting	Northing
C	<u>1,5</u>	<u>51,077,0</u>	<u>5,1090,2,0</u>	D	<u>1,5</u>	<u>51,091,0</u>	<u>5,1090,4,0</u>
E 15	510780	5109280	F 15	510900	5109290		
			G 15	511060	5108180		

See continuation sheet

Verbal Boundary Description

The nominated property is roughly bounded by MN Highway 123 to the south, on the north by a point 600 feet north of the Great Northern Railroad bridge, the Kettle River to the east, and the former quarry walls to the west, as shown on the accompanying map entitled "Kettle River Sandstone Company Quarry, May 1990."

See continuation sheet

Boundary Justification

The boundary encompasses all of the abandoned quarry site including those buildings, structures, and ruins that have historically been part of the Kettle River Sandstone Company and that maintain historic integrity. Within the boundary is city-owned Robinson Park and the recently-constructed park shelters and buildings located toward the south end of the quarry.

See continuation sheet

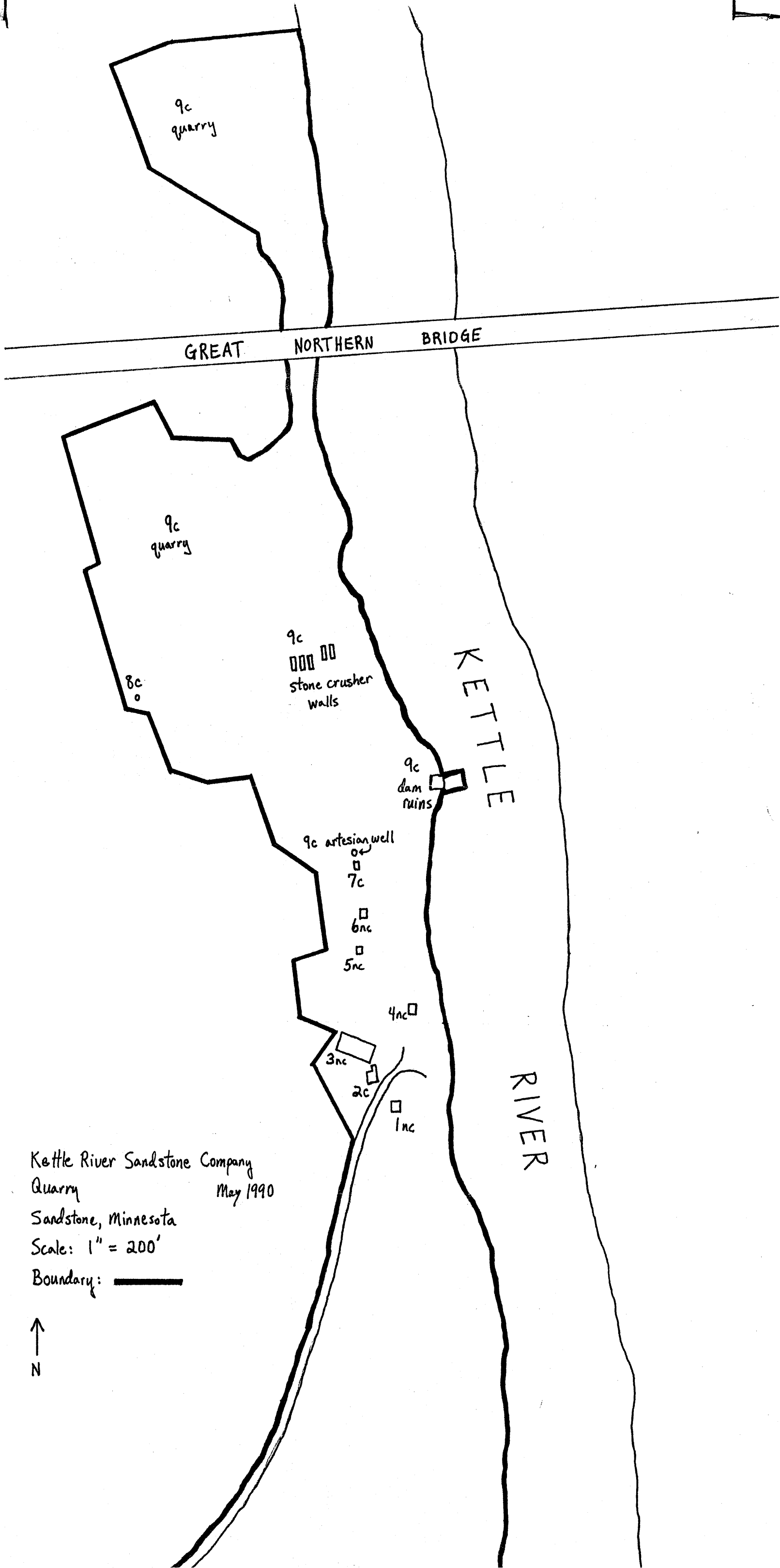
11. Form Prepared By


name/title Michael Koop/Preservation Consultant

organization N/A date August 1990

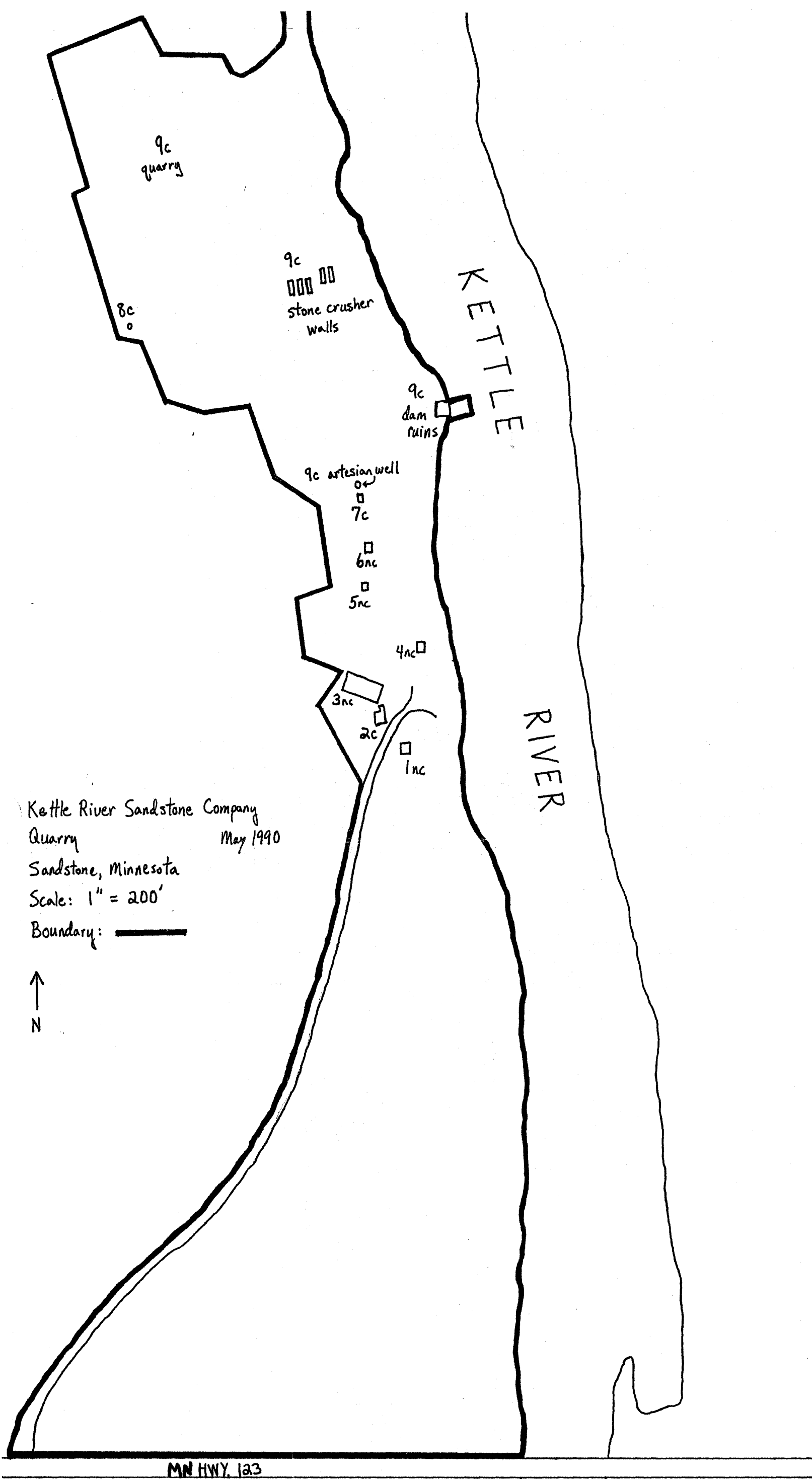
street & number 615 Jackson St. NE telephone 612-623-8356


city or town Minneapolis state MN zip code 55413



Kettle River Sandstone Company
Quarry
Sandstone, Minnesota
Scale: 1" = 200'
Boundary: 





Kettle River Sandstone Company
Quarry
Sandstone, Minnesota
Scale: 1" = 200'
Boundary: 



MN HWY. 123