

VIGIL NETWORK SITE: TYPICAL SECTION

NUMBER THREE NEAR LANCE CREEK

VILLAGE, WYOMING, U.S.A.

Submitted by: William W. Emmett

U. S. Geological Survey

Washington, D. C. 20242

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Typical Section Number Three is one of several sites which were selected for an investigation to show the relationship between three terrace levels bordering Lance Creek. At Typical Section Number Three, Lance Creek is adjacent to the highest terrace level which stands approximately 40 feet above the bed of Lance Creek. As Lance Creek migrates laterally, this high terrace must retreat by erosion of its vertical wall face. It is included in the Vigil Network to determine the rate of retreat of a high river terrace.

Typical Section Number Three is located 8.10 miles north of Lance Creek Village. The road log of table 1 will enable the observer to find the site in the field. It is included on the topographic map published by the U. S. Geological Survey entitled "Newcastle, Wyo.; S. Dak.; Neb.;" scale 1:250,000 (part of which appears in this folder, figure 1). Its coordinates are lat. $43^{\circ} 07' 40''$ N., long. $104^{\circ} 36' 43''$ W. in T. 11 So., R. 65 W. The average elevation of the site is approximately 4300 feet; the annual precipitation is about 15 inches per year.

At the time of preparation of this file, two field surveys had been made: August 14, 1962 and July 5, 1968. The 1962 survey consisted of installing two permanent reference points (each a four-foot length of $\frac{1}{2}$ -inch diameter steel rod driven into the ground and protruding about six inches above the ground surface)

and a plane table map outline of the brink of the high terrace and showing the location of the reference points or bench marks (BM), see figure 2. Because the retreat of the terrace is very slow, the 1968 survey consisted only of measuring the distance from the two bench marks to the brink of the terrace. These measurements were recorded as:

BM-1 to brink = 42.2 feet

BM-2 to brink = 48.3 feet

The file of original data includes the planetable map and black and white ground photography (1962). Original data is on file with William W. Emmett, U. S. Geological Survey, Washington, D. C. 20242, U.S.A. Photographs are available for the cost of reproduction.

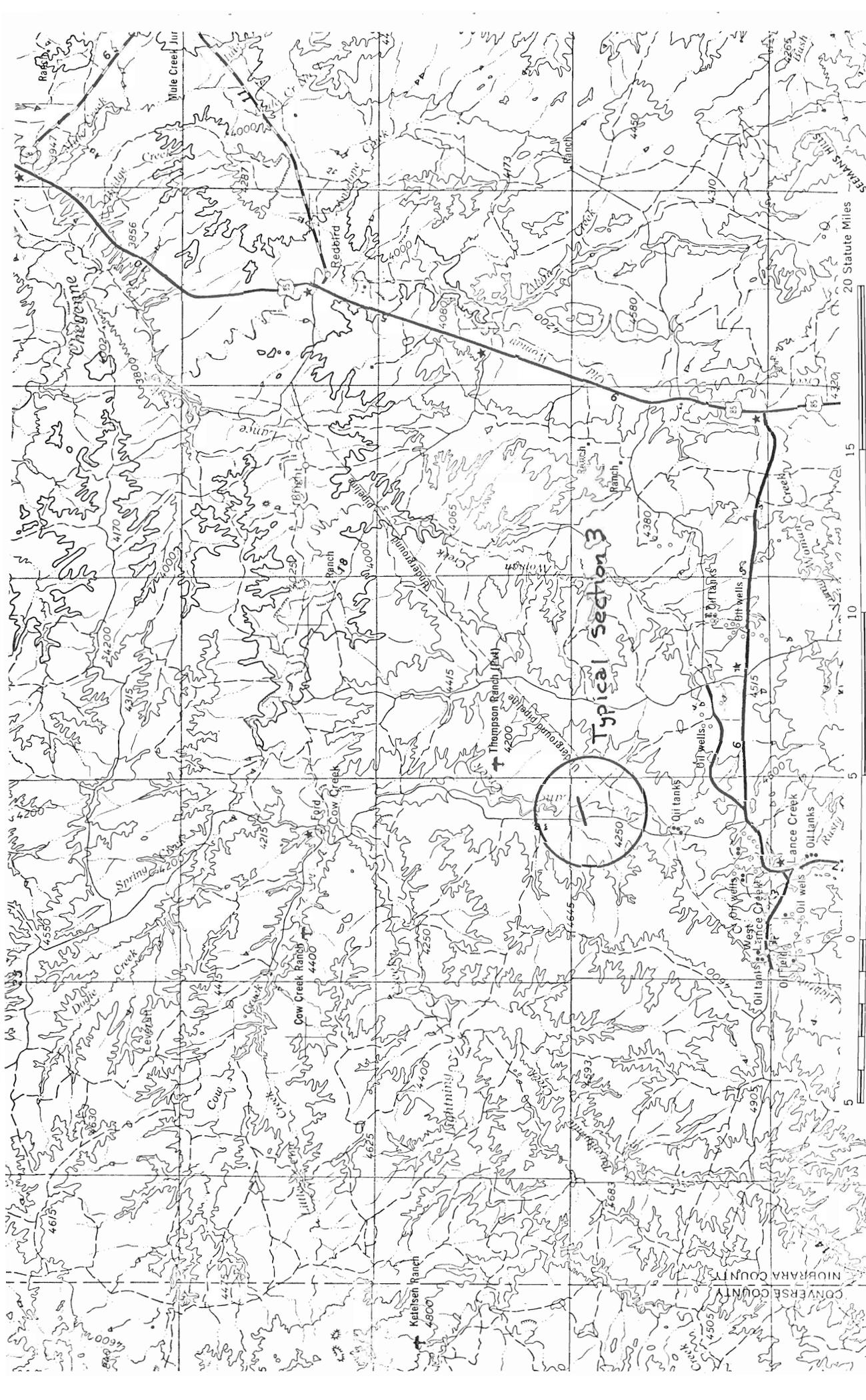
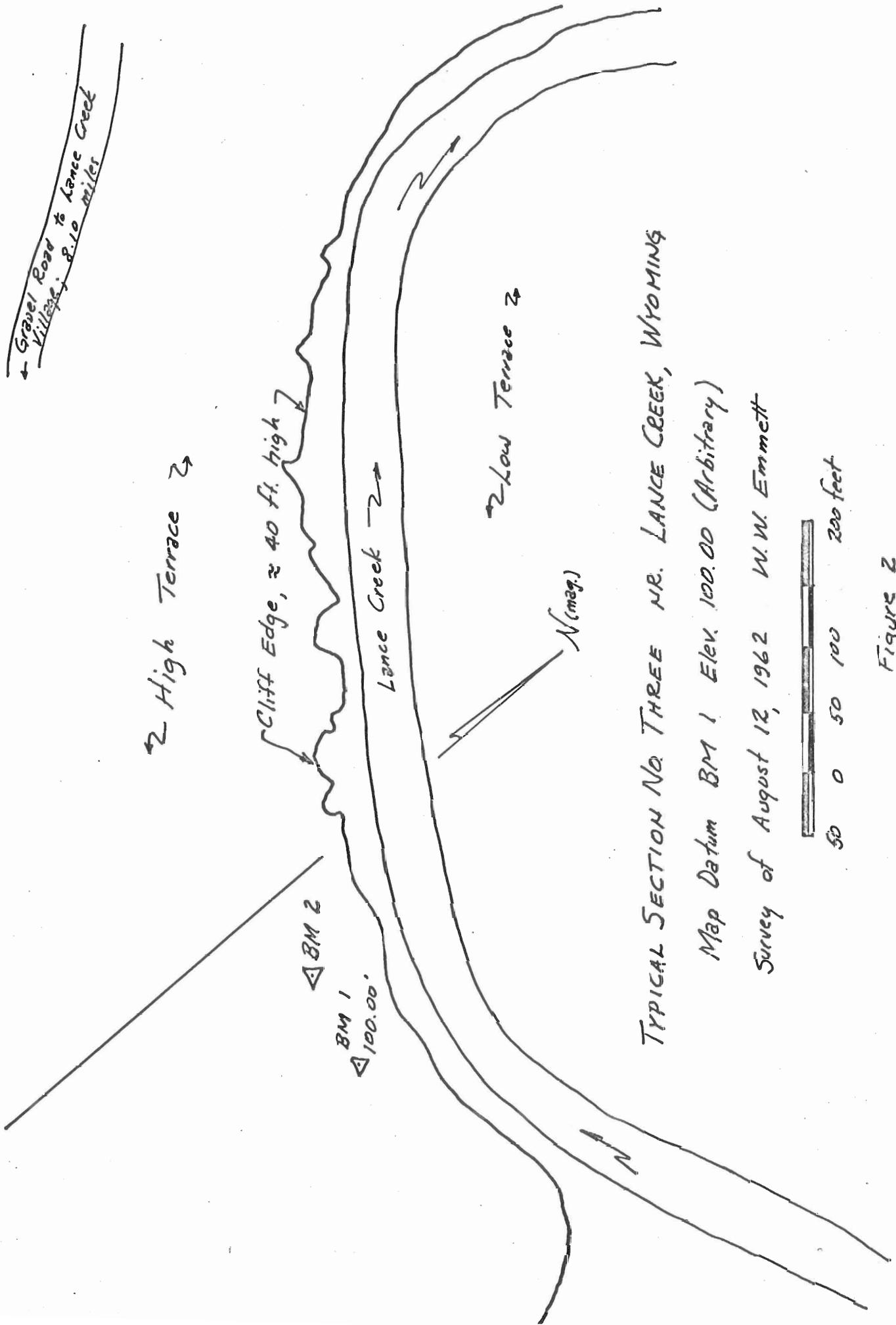


Figure 1:- Part of Newcastle, Wyo, S. Dak, Neb, 1:250,000 topographic map showing location of Typical Section 3.

Gravel Road to Lance Creek
Village, 8.10 miles



TYPICAL SECTION No THREE NR. LANCE CREEK, WYOMING

Map Datum BM 1 Elev. 100.00 (Arbitrary)

Survey of August 12, 1962 W.W. Emmett



Figure 2

Table 1.- Road Mileage Log to Typical Section Number Three; Distances are from post office in Lance Creek Village, Wyo.

Miles	Location and Direction
0	Post office, Lance Creek Village
0.20	Jct. to West Lance Creek, ctr. of two spur roads; bear east on Wyo. Hwy. 1401
2.50	Intersection of gravel road to Cow Creek community; turn left
8.10	Typical Section Number Three on right side of road.