

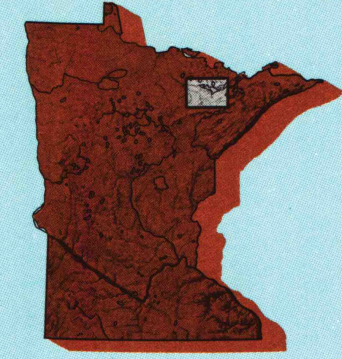
VERMILION LAKE, MINNESOTA

30 X 60 MINUTE SERIES (TOPOGRAPHIC)



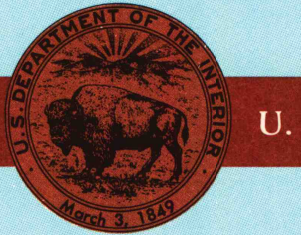
Vermilion Lake
MINNESOTA

1:100 000-scale metric
topographic map



30 X 60 MINUTE QUADRANGLE
SHOWING

- Contours and elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names



U. S. GEOLOGICAL SURVEY

1994

Produced by the United States Geological Survey

Compiled from USGS 1:24 000-scale topographic maps dated 1949-1976. Planimetry revised from aerial photographs taken 1991-92 and other source data. Revised information not field checked. Map edited 1994 1927 North American Datum (NAD 27). Projection and 10 000-meter grid: Universal Transverse Mercator, zone 15 25 000-foot ticks: Minnesota coordinate system, north zone The difference between NAD 27 and North American Datum of 1983 (NAD 83) is too small to show at this scale. The values of the shift between the datums for 7.5-minute intersections are given in USGS Bulletin 1875 There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 10 METERS
NATIONAL GRID/VERTICAL DATUM OF 1929
ELEVATIONS SHOWN TO THE NEAREST METER

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

CONVERSION TABLE		DECLINATION DIAGRAM	ADJOINING MAPS			
Meters	Feet		1	2	3	
1	3.2808		1	2	3	
2	6.5617		4	5		
3	9.8425		6	7	8	
4	13.1234					
5	16.4042					
6	19.6850					
7	22.9659					
8	26.2467					
9	29.5275					
10	32.8084					
To convert meters to feet multiply by 3.2808		UTM grid convergence (GN) and 1984 magnetic declination (MN) at center of map. Diagram is approximate	1 Littlefork 2 Crane Lake 3 Basswood Lake 4 Bigfork 5 Elg 6 Polesga Lake 7 Hibbing 8 Two Harbors			
To convert feet to meters multiply by 0.3048						

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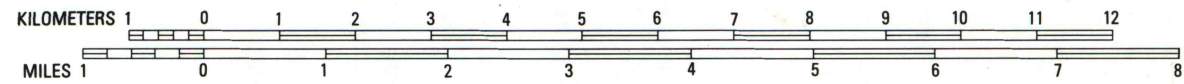
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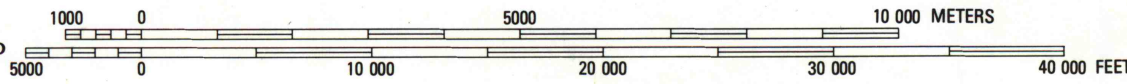
Topographic Map Symbols

Primary highway, hard surface	
Secondary highway, hard surface	
Light duty road, principal street, hard or improved surface	
Other road or street; trail	
Route marker: Interstate, U.S., State	
Railroad: standard gage, narrow gage	
Bridge: overpass, underpass	
Turnout: road; railroad	
Bus stop area, locality, elevation	
Airport; landing field, landing strip	
National boundary	
State boundary	
County boundary	
Civil township boundary	
National or State reservation boundary	
Land grant boundary	
U.S. public lands survey: range, township, section	
Range, township, section line: projected	
Power transmission line; pipeline	
Dam; dam with lock	
Cemetery; building	
Windmill; water well, spring	
Mine shaft; adit or cave; mine, quarry; gravel pit	
Campground; picnic area; U.S. location monument	
Ruins; cliff dwelling	
Distorted surface: strip mine, lava, sand	
Contours: index; intermediate; supplementary	
Bathymetric contours: index; intermediate	
Stream, lake, perennial; intermittent	
Rapids, large and small; falls, large and small	
Area to be submerged; marsh, swamp	
Land subject to controlled inundation; woodland	
Scrub; mangrove	
Orchard; vineyard	

A pamphlet describing topographic maps is available on request



SCALE 1:100 000
1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
CONTOUR INTERVAL 10 METERS



VERMILION LAKE, MINNESOTA
47092-E1-TM-100

1994

2006-98