

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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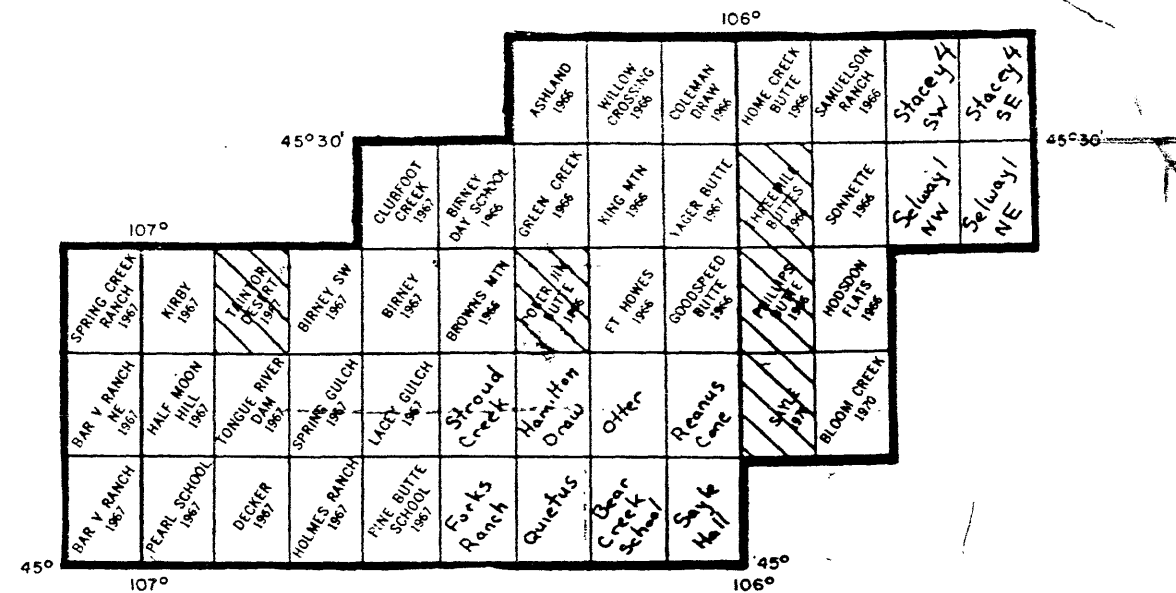
Maps of Alluvial Valley Floors and Strippable  
Coal in Forty-two 7 1/2-minute Quadrangles,  
Big Horn, Rosebud, and Powder River  
Counties, Southeast Montana

By  
Harold E. Malde and J. Michael Boyles

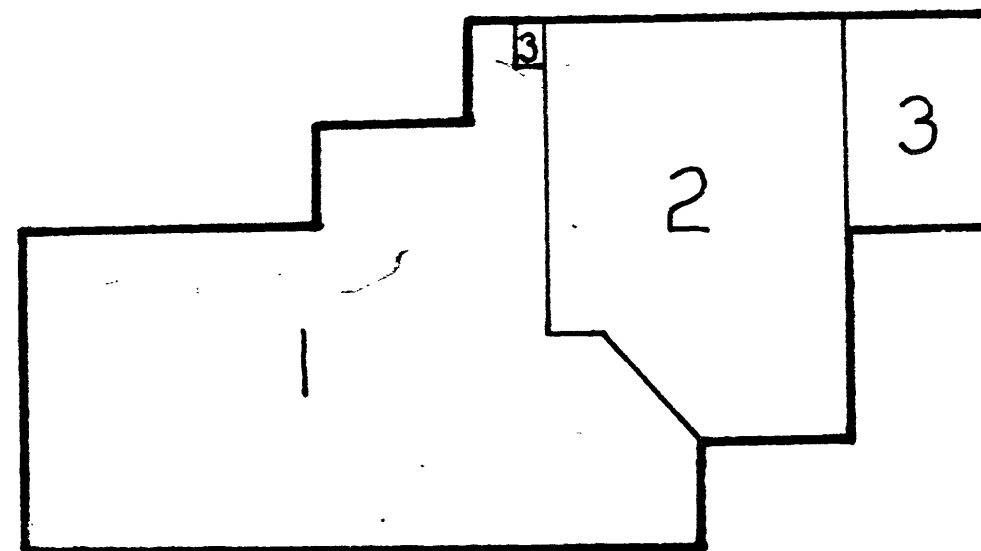
Open-File Report 76-162

1976

This report is preliminary and has not  
been edited or reviewed for conformity  
with U.S. Geological Survey standards.



INDEX TO QUADRANGLE MAPS OF THIS REPORT. Patterned quadrangles have  
no identified alluvial valley floors



INDEX TO AERIAL PHOTOGRAPHS USED IN FIELD MAPPING OF ALLUVIAL VALLEY  
FLOORS

1. Environmental Protection Agency, scale 1:40,000, taken 1973.
2. U.S. Department of Agriculture, Forest Service, scale 1:15,840, taken 1962.
3. U.S. Department of Agriculture, Soil Conservation Service, scale 1:20,000, taken 1954.


MAPS OF ALLUVIAL VALLEY FLOORS AND STRIPPABLE COAL


IN FORTY-TWO 7 1/2-MINUTE QUADRANGLES,  
BIGHORN, ROSEBUD, AND POWDER RIVER COUNTIES,  
SOUTHEAST MONTANA


By

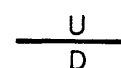
Harold E. Malde and J. Michael Boyles

EXPLANATION

 Areas of alluvial valley floor where width along valley exceeds 25 ft (8 m)--Includes stream channel, flood plain, and low alluvial terrace deposits. May be sub-irrigated by underflow of near-surface water or irrigated by diversion of flood flow. Alluvial terraces generally not higher than 5 ft (1.5 m) above channel floor of small streams but as much as 8 ft (2.5 m) high along principal streams. Terraces have distinct boundaries along bordering alluvial fans and colluvium, either at a step a few feet (about 1 m) high or, less commonly, along a line at which the ground surface begins to slope upward. Vegetation dominantly grass; mixed with silver sagebrush (Artemisia cana) along small streams and in the upper reaches of large streams. Greasewood (Sarcobatus) and big sagebrush (A. tridentata) are absent or rare. Typically used for growing hay, in places with supplemental irrigation. Noncultivated areas currently used for pasturage have potential for hay production. Mapped within Crow Indian Reservation only where continuous with alluvial valley floor beyond reservation boundary

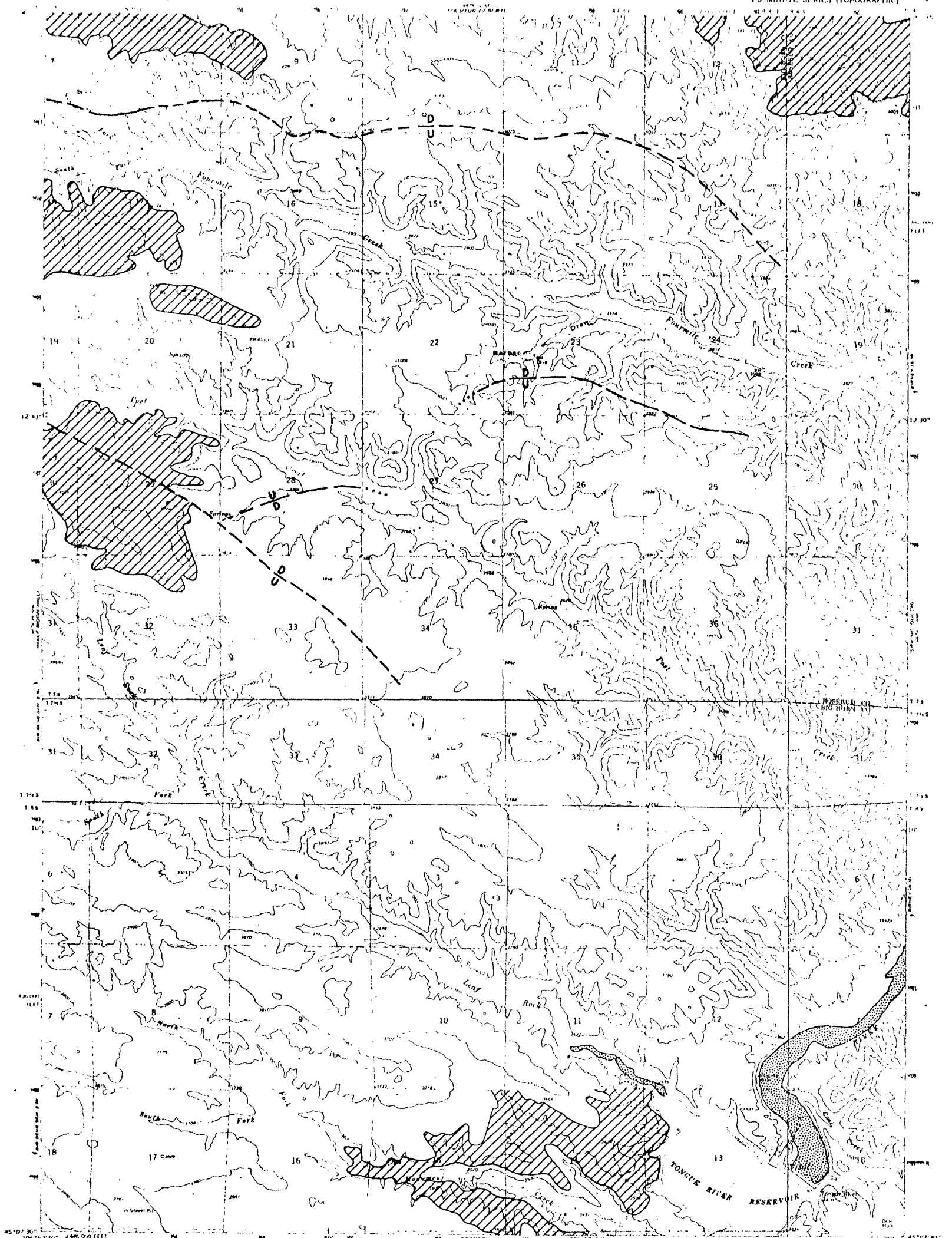
 Area of high alluvial valley floor incised by narrow sinuous channel as deep as 12 ft (4 m)--Forms nearly flat alluvial terrace of low gradient above lower alluvial valley floor mapped elsewhere along Mispah Creek in Stacey 4 SE quadrangle. Mostly used for growing hay, in places with supplemental irrigation

 Areas of strippable coal--Mapped where maximum overburden thickness is 150-250 ft (46-76 m), depending on thickness of underlying coal. Area commonly includes more than one bed of strippable coal. Straight lines across some valleys mark limits for calculating coal reserves. Not mapped on Indian lands. Mapped by Matson and Blumer (1973)

 FAULT--Dashed where inferred; dotted where concealed. U, upthrown side; D, downthrown side. Mapped by Matson and Blumer (1973)

REFERENCE

Matson, R. E., and Blumer, J. W., 1973, Quality and reserves of strippable coal, selected deposits, southeastern Montana, with analytical data by L. A. Wegelin: Montana Bur. Mines and Geology Bull. no. 91, 135 p.



Map prepared and published by the Geological Survey

Control by USGS and USGS

Topography by photogrammetric methods from aerial

photographs taken 1966. 3rd checked 1967

Projection: projection - 1927 North American datum

10,000 foot grid based on Montana coordinate system

Scale: 1 inch = 1 mile

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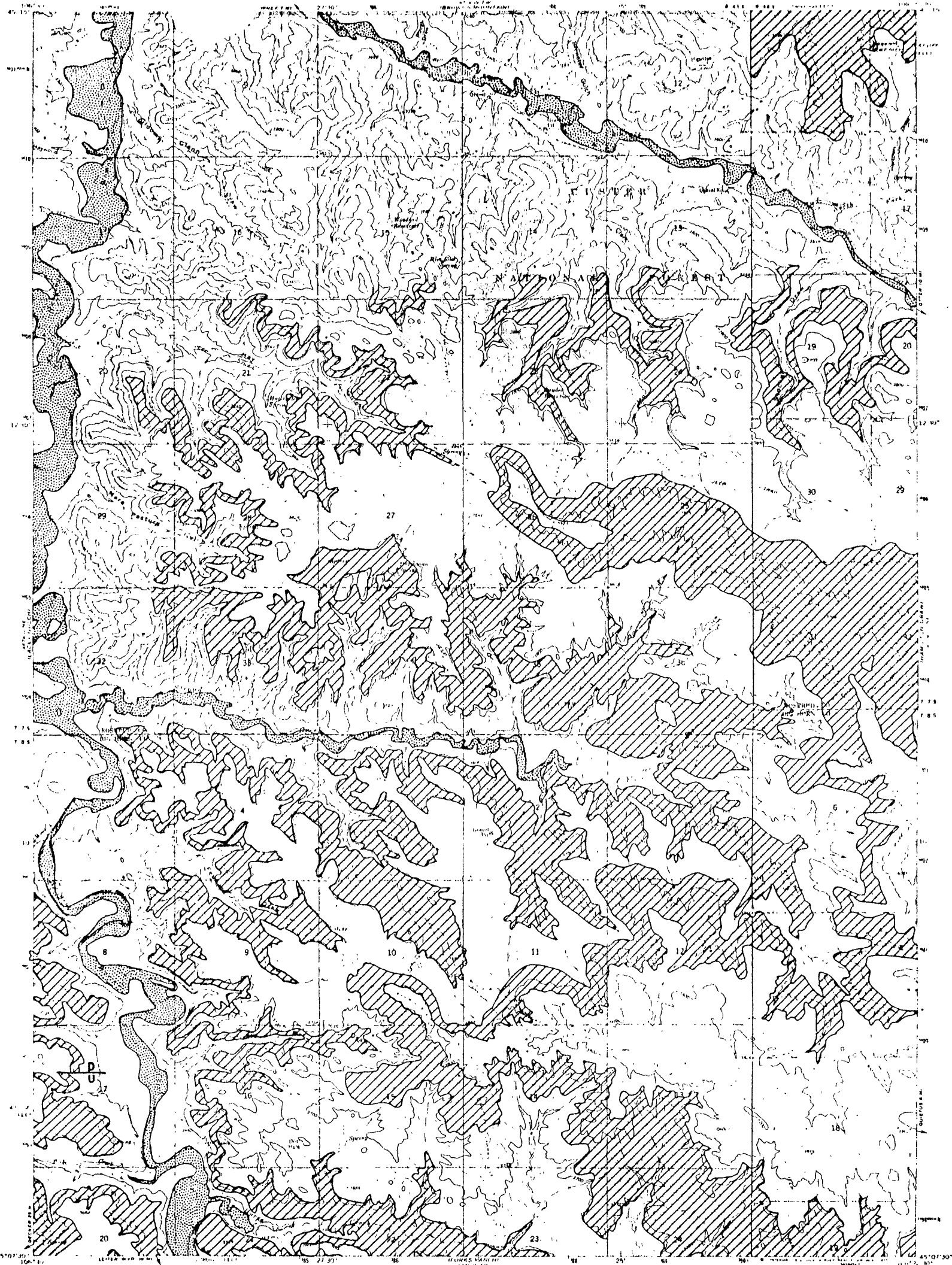
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Mapped, edited, and published by the Geological Survey  
Control by U.S.S. and U.S.G.S.  
Topography by photogrammetric methods from aerial  
photographs taken 1970. Field checked 1972.  
Projection and 10 000 foot grid ticks. Montana  
coordinate system (south zone II Lambert conformal conic;  
1000 meter Universal Transverse Mercator grid ticks;  
zone 13 shown in blue. 1927 North American datum.  
Fine red dashed lines indicate selected fence lines.

UTM GRID AND 1000 METER NORTH  
TICKS SHOWN AT 10 000 FOOT INTERVAL

CONTOUR INTERVAL 20 FEET  
NATIONAL GEODESIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION  
Primary highway: ——— hard surface  
Secondary highway: ——— hard surface  
Light duty road: ——— hard surface  
Unimproved road: ———  
Interstate Route: ——— U.S. Route: ——— State Route: ———

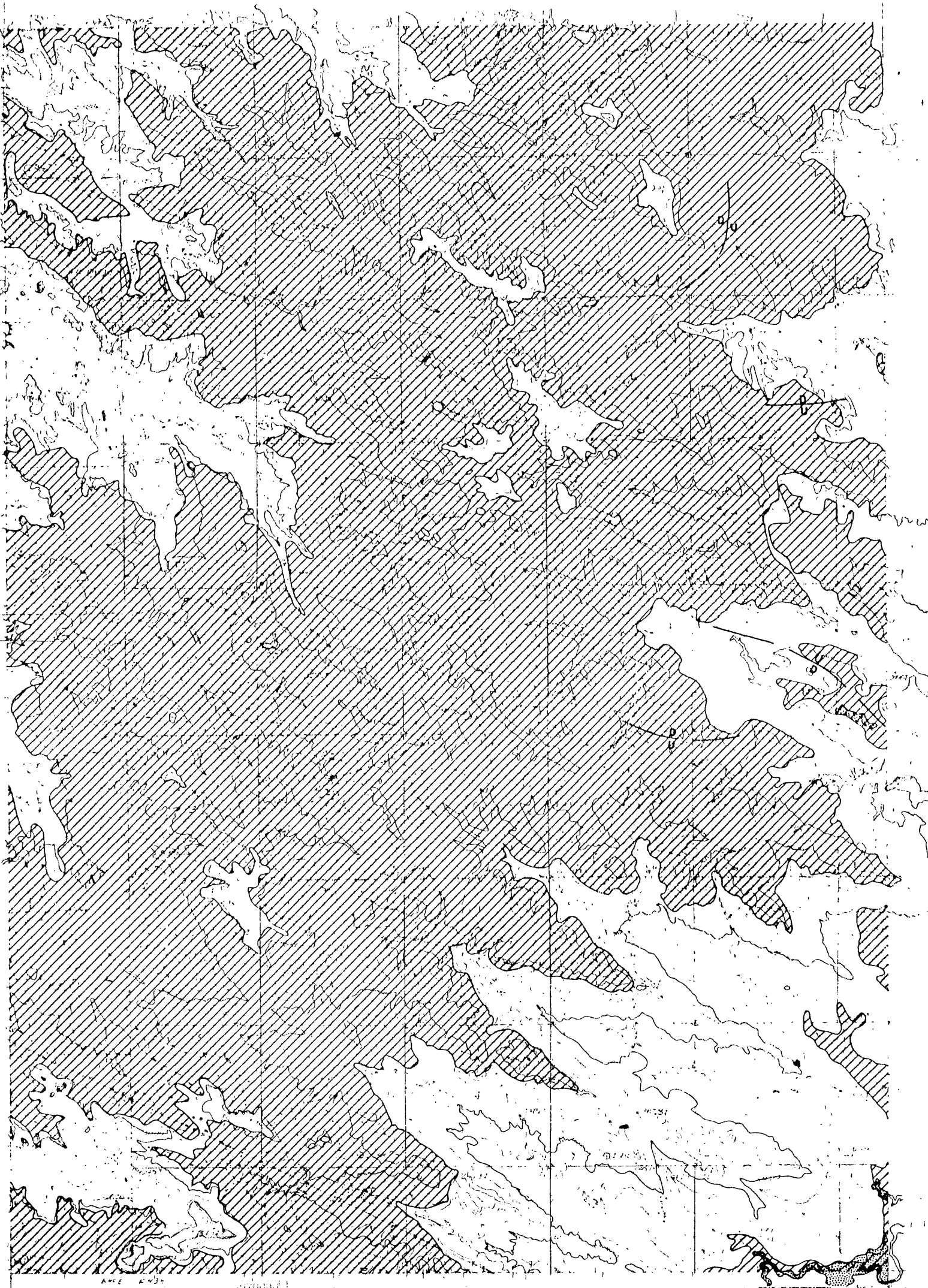


THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

STROUD CREEK, MONT.  
NAD83 5-WIDE, 2.5 7.5

1972  
AMS 474 II NW SERIES V884

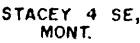
76-162



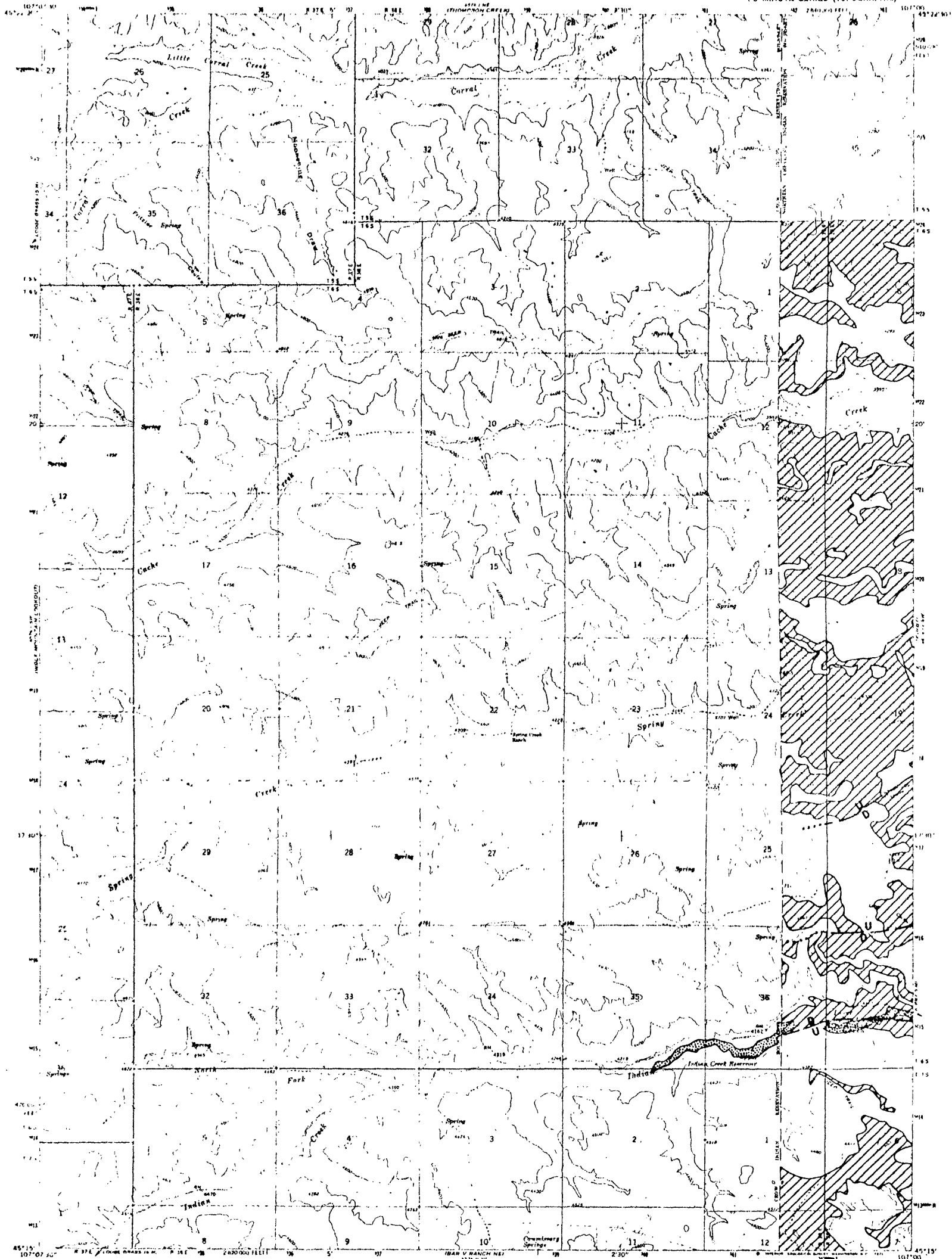
Scale 1:50,000  
Geological Survey  
Department of the Interior  
Washington, D. C.  
1900

STACEY 4 SW,  
MONT.





2016



Mapped, edited, and published by the Geological Survey

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Topography by photogrammetric methods from aerial  
photographs taken 1966. Field checked 1967.

Horizontal projection: 1927 North American datum.  
Elevation based on Montana coordinate system.  
Vertical datum: 1929 mean universal Transverse Mercator grid (zone 13), shown in blue.

Unimproved dashed lines indicate selected fence lines.

UTM GRID AND 1983 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

Scale 1:50,000  
Horizontal scale: 1 inch = 1 mile  
Vertical scale: 1 inch = 1,000 feet

CONTOUR INTERVAL 40 FEET

DATUM 12 MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION  
Light duty — Unimproved dirt



SPRING CREEK RANCH, MONT

N4515-W10700/7.5

1967

AMS 4874 (BE) SERIES 1984

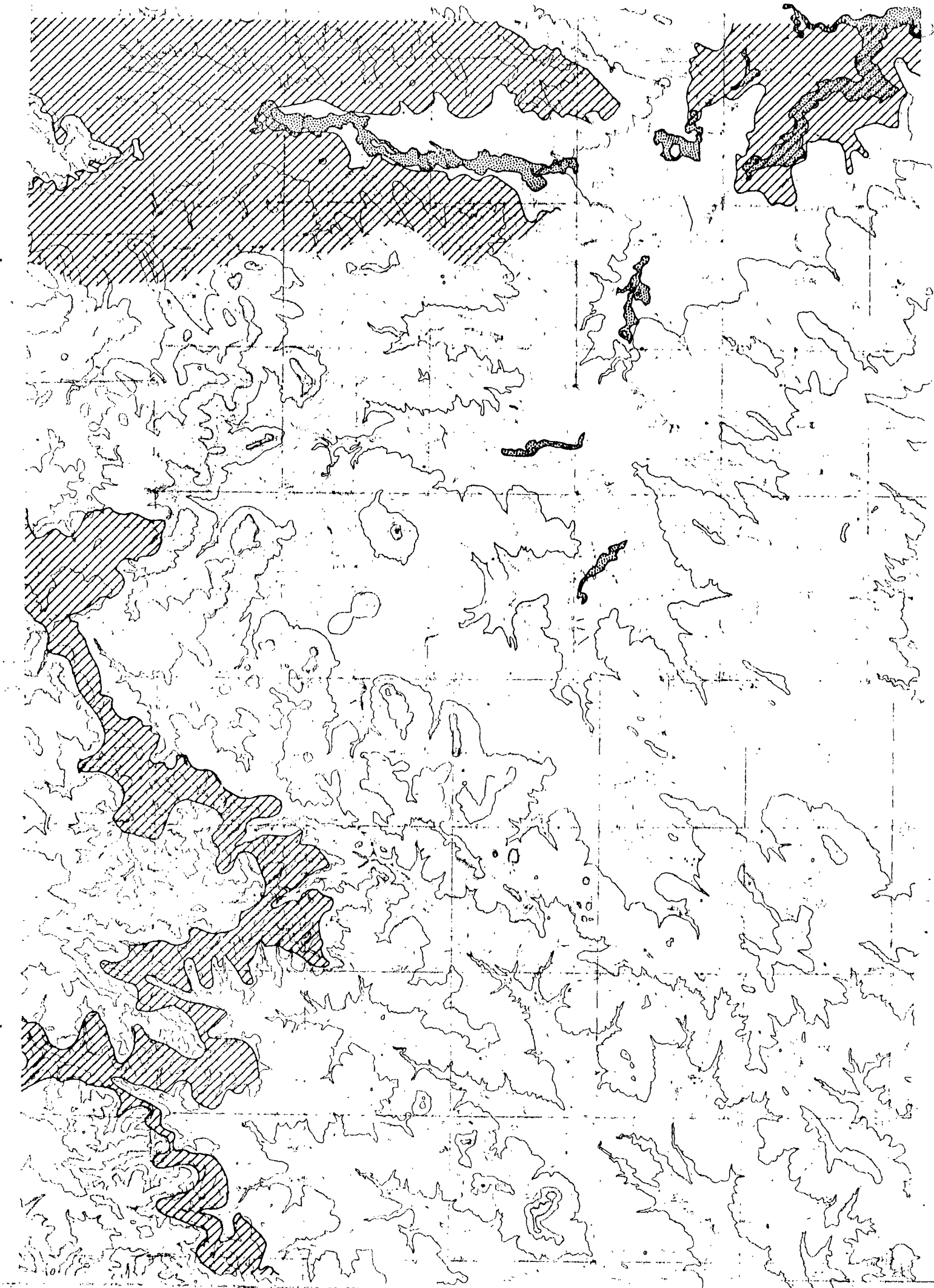
76-162



Maped, edited and published by the U.S. Geological Survey  
Scale 1:50,000  
Horizontal scale: 1 inch = 1 mile  
Vertical scale: 1 inch = 1,000 feet  
Contour interval: 20 feet  
Datum: Mean Sea Level  
Road Classification: Light duty, Heavy duty  
Sonnette, Mont.  
145°25' W, 45°22' N  
1966  
AMS 4874 14 NE 51 1155 1004



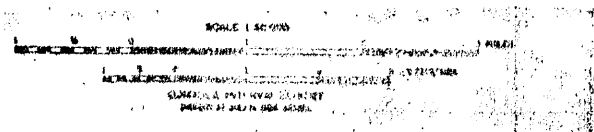
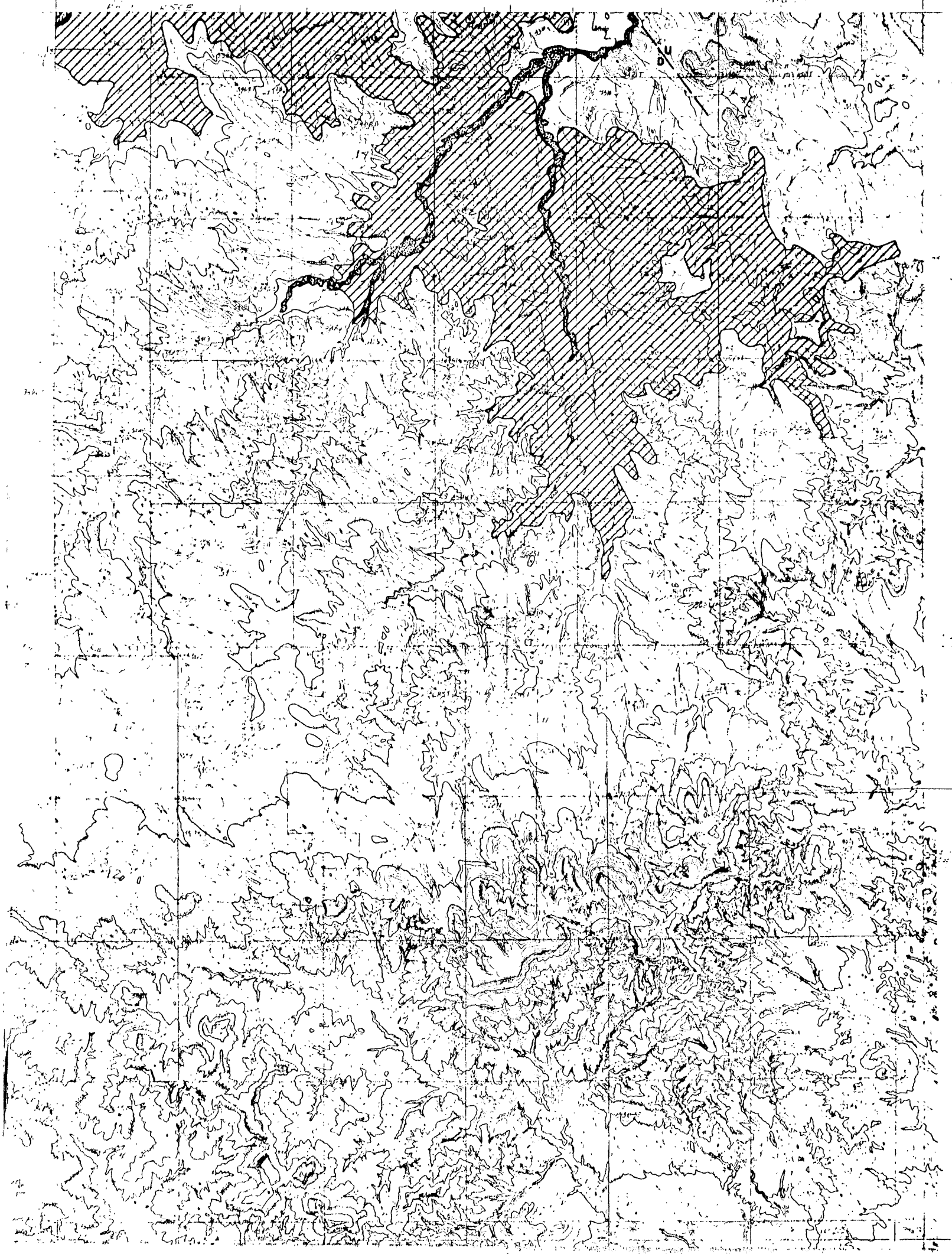
ADVANCE PROOF  
SUBJECT TO CORRECTION



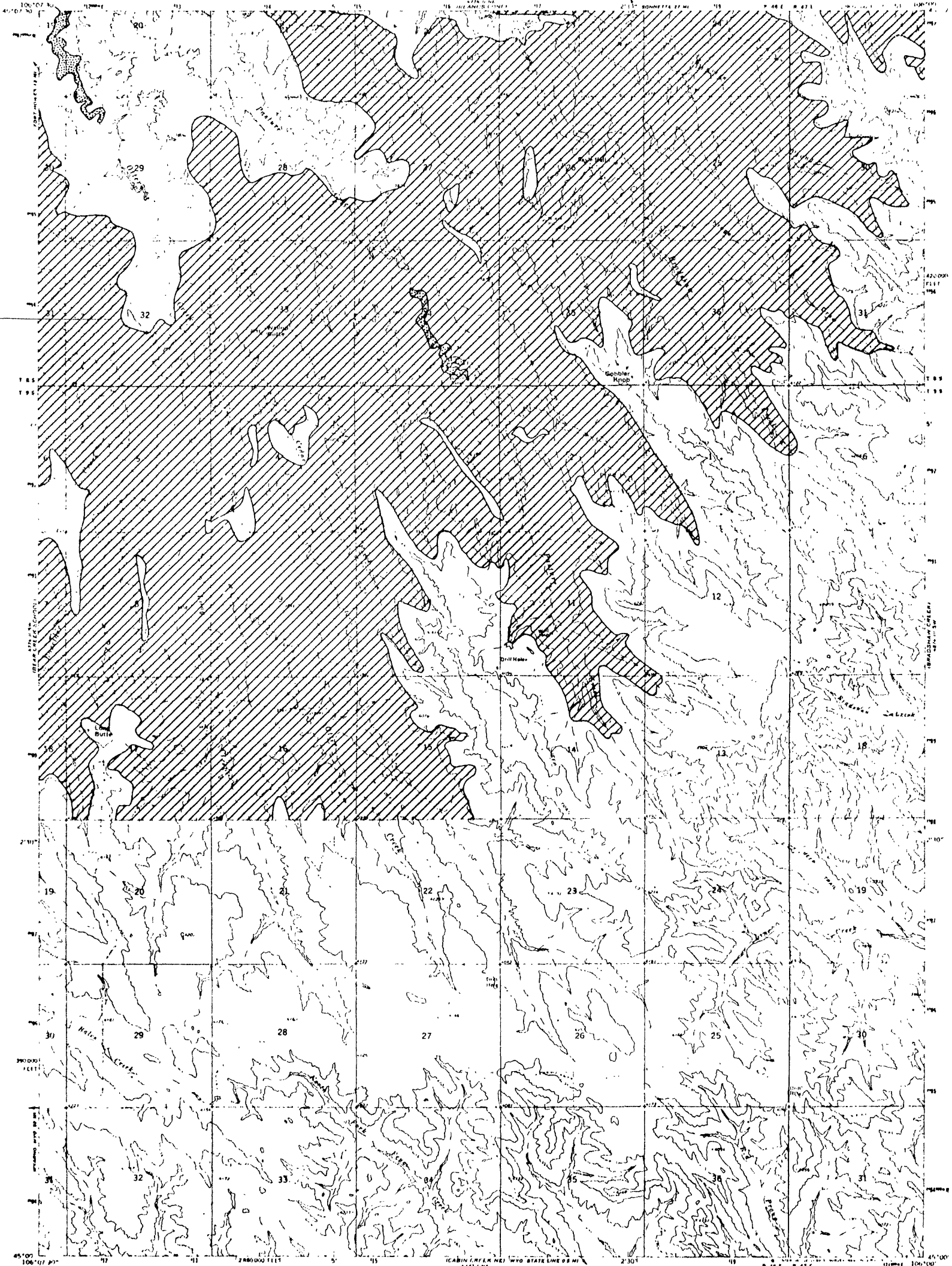
FOOT 1:50,000  
GEOLOGICAL SURVEY  
UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY  
WASHINGTON, D. C.  
1907

SELWAY I NW,  
MONT.

ADVANCE PROOF  
SUBJECT TO CORRECTION



SELWAY I NE,  
MONT.



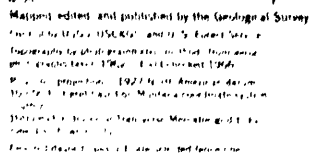
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Control by USGS and USF&WS  
Topography by photogrammetric methods from aerial  
photographs taken 1970. 1:50,000 scale 1972.  
Projection and 10,000 foot grid ticks, Montana  
State Plane System, south zone (Lambert conformal conic)  
1000-meter Universal Transverse Mercator grid ticks,  
zone 13, shown in blue. 1927 North American datum.  
Thin red dashed lines indicate selected fence lines.

CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION  
Primary highway  
hard surface  
Secondary highway  
hard surface  
Unimproved road  
Interstate Route  
U.S. Route  
State Route

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

BAYLE HALL, MONT.  
H4500-W10600/7.5  
1972



SCALE 1:50 000

(CONC) IN INTERVAL 20 IF  
RATUM IS MEAN SEA LEVEL

Medium duty — — — light duty  
(improvised drill)

SAMUELSON RANCH, MONT.  
445 Hl. W10545-75

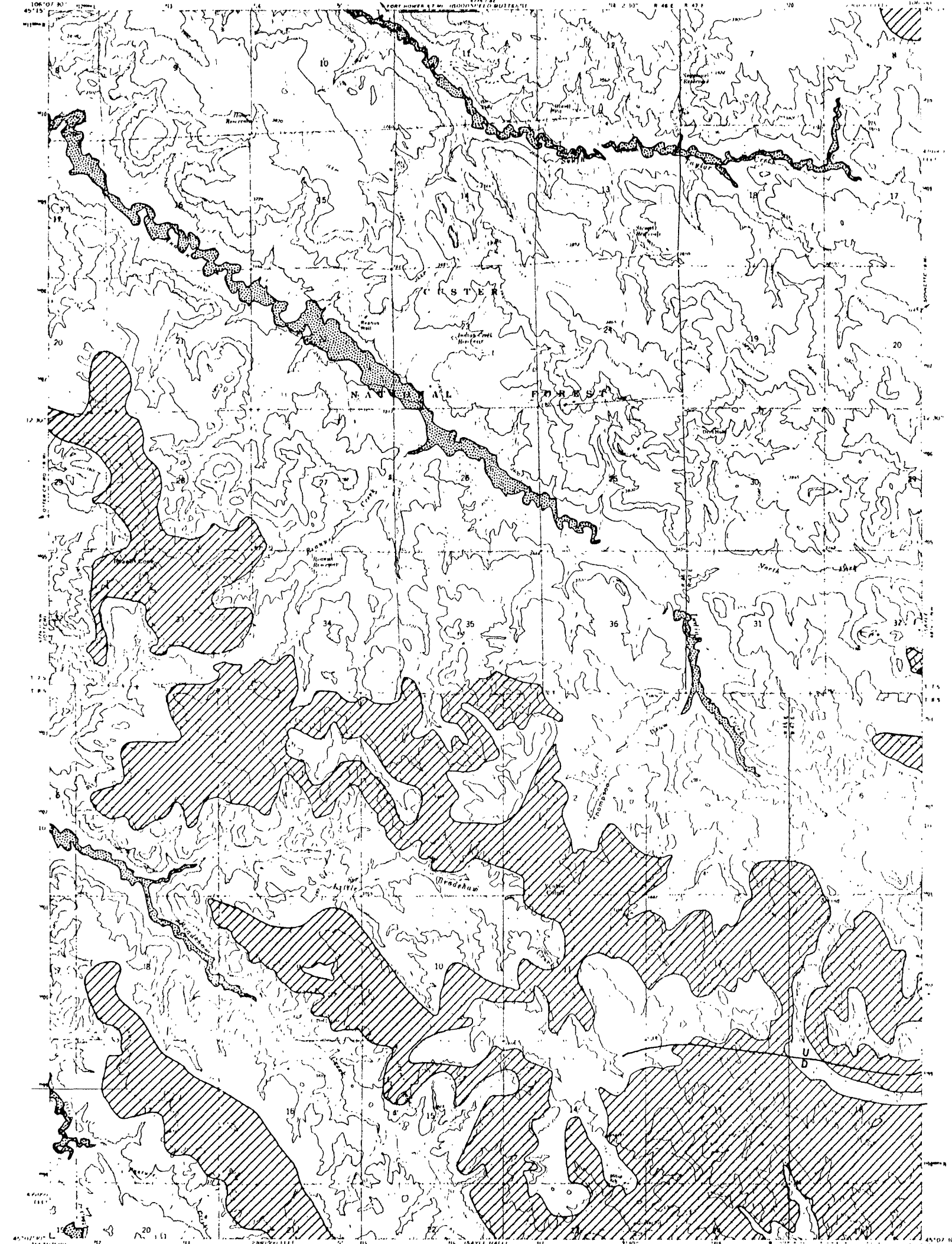
1966

AMS 40/5 III SE SERIES Y894

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

25





Maped, edited, and published by the Geological Survey  
Control by U.S.G.S. and U.S. Forest Service  
Topography by photogrammetric methods from aerial  
photographs taken 1970. Field check 1972.  
From 1:50,000 and 1:100,000 topographic maps, Montana  
coordinate system, with zone 12 (Lambert) conformal conic  
1983, metric Universal Transverse Mercator grid ticks,  
zone 12, shown in blue. 1927 North American datum.  
Fine red dashed lines indicate selected fence lines.

SCALE 1:50,000

CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ROAD CLASSIFICATION  
Primary highway  
hard surface  
Secondary highway  
hard surface  
Interstate Route  
U.S. Route  
State Route  
Light-duty road, hard  
improved surface  
Unimproved road

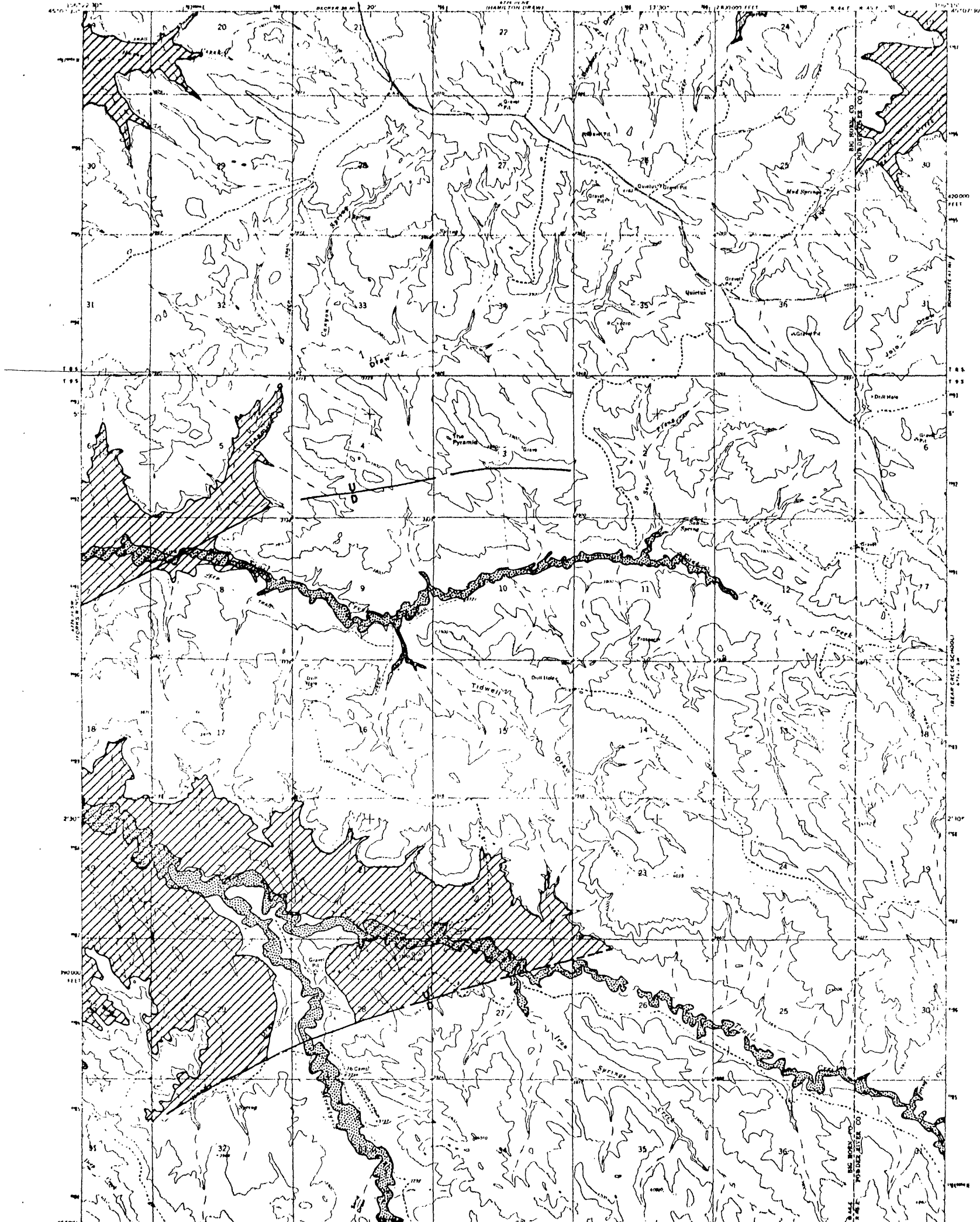
THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

REANUS CONE, MONT.  
145507 5--W-10000 1:5  
1972

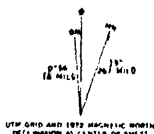
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76-162





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Topography by photogrammetric methods from aerial  
photographs taken 1970. Field checked 1972.  
Projection and 10,000 foot grid ticks. Montana  
coordinate system, south zone (Lambert conformal conic)  
1000 meter Universal Transverse Mercator grid ticks,  
zone 13, shown in blue. 1927 North American datum.  
Fine red dashed lines indicate selected fence lines.



CONTOUR INTERVAL 20 FEET  
NATIONAL GEODESIC VERTICAL DATUM OF 1929



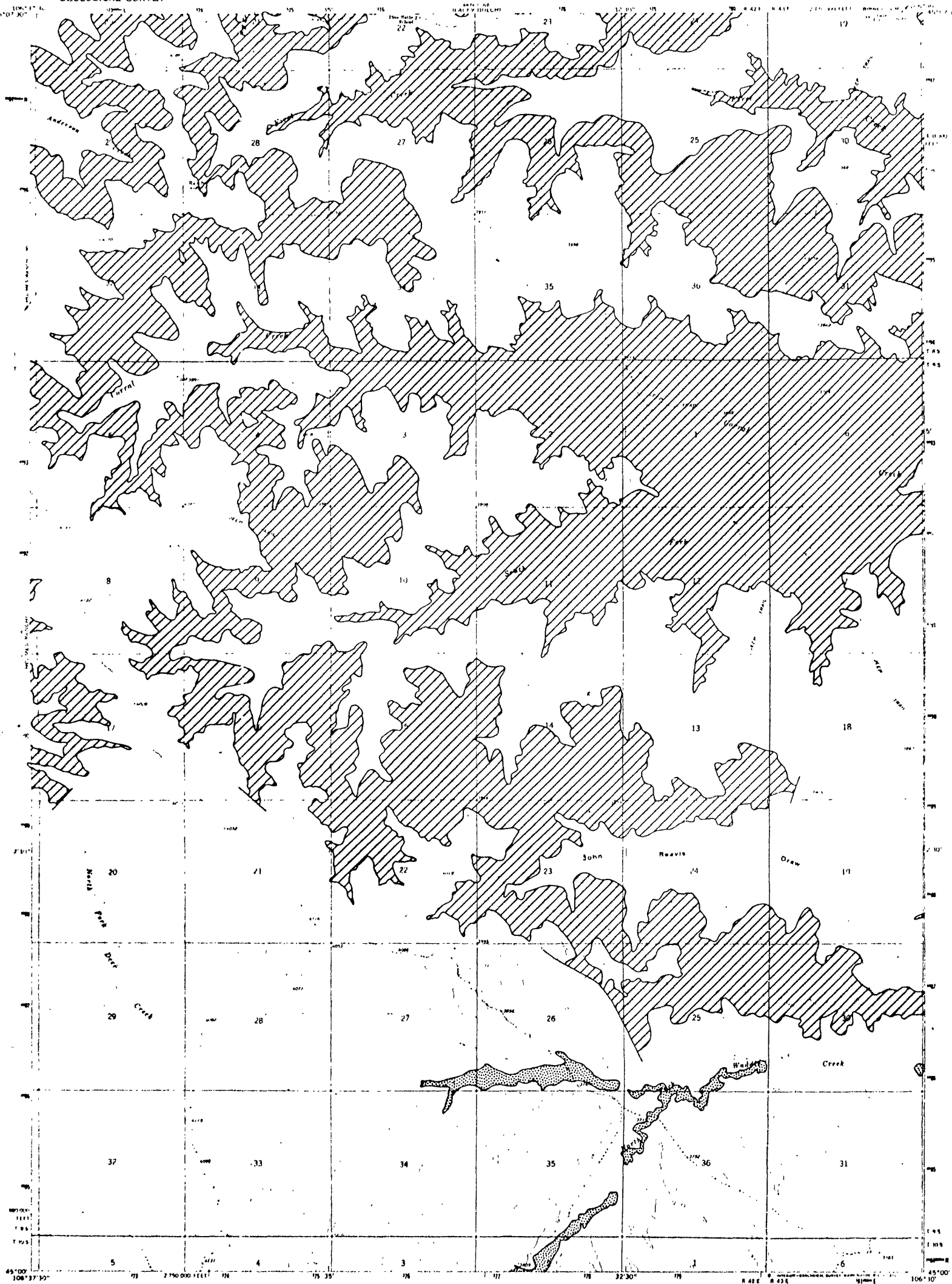
ROAD CLASSIFICATION  
Primary highway ——— Light-duty road, hard or  
hard surface ——— improved surface  
Secondary highway ——— Unimproved road  
hard surface ———  
( ) Interstate Route : U S Route : State Route

QUIETUS, MONT.  
N4500-W106147.5  
1972

AMS 474 IN SR - SERIES 7004

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

76-1002



Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1966. Field checked 1967.  
Projection: 1927 North American datum  
10,000-foot grid based on Montana coordinate system,  
south zone  
1983 meters Universal Transverse Mercator grid (zone  
13) shown in blue  
Fine red dashed lines indicate sectioned fence lines

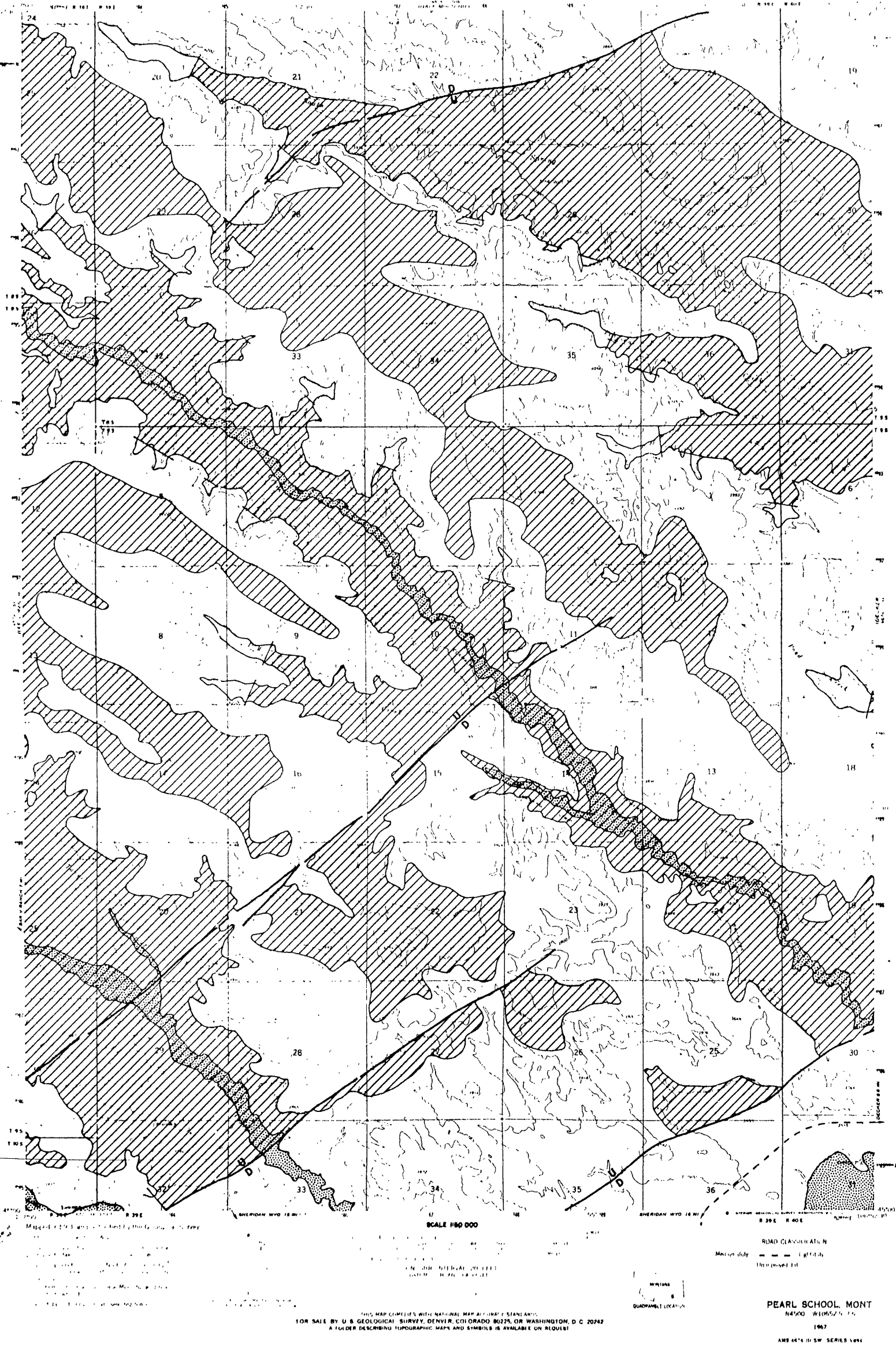
SCALE 1:80,000  
CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION  
Light duty road, all weather. Unimproved road, fair or dry weather



THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS  
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PINE BUTTE SCHOOL, MONT.  
N4900-W10010/7.5  
1967  
AMB 4614 IISB-SERIES 5004



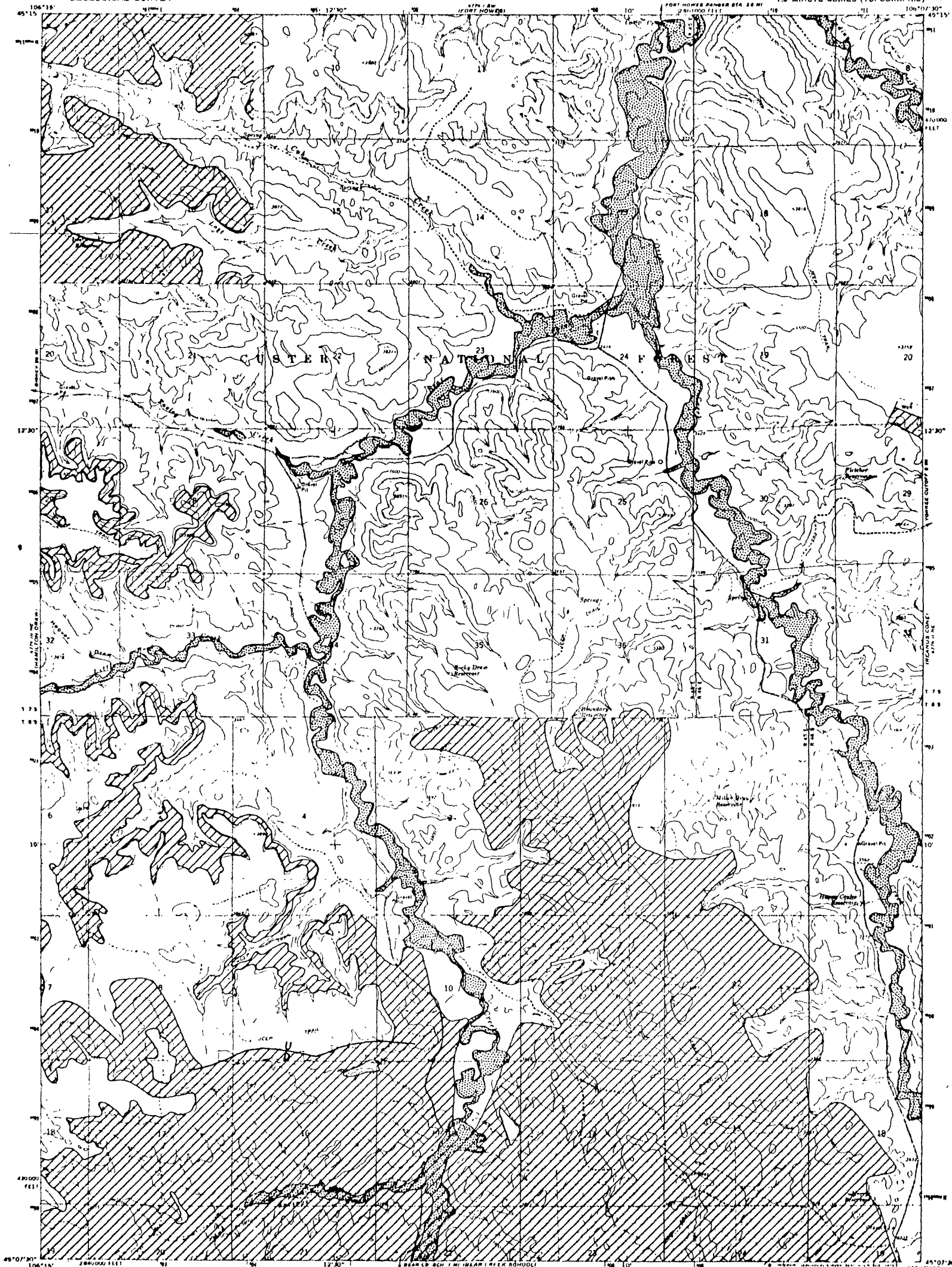
18.

76-162

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

ADVANCE PRINT  
SUBJECT TO CORRECTION  
SCALE 1:50,000

OTTER QUADRANGLE  
MONTANA POWDER RIVER CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey  
Control by U.S.S., U.S.G.S., and U.S. Forest Service  
Topography by photogrammetric methods from aerial  
photographs taken 1970. Field checked 1972  
Projection and 10,000 foot grid ticks: Montana  
coordinate system, south zone (Lambert conformal conic)  
1000-meter Universal Transverse Mercator grid ticks,  
zone 13, shown in blue. 1927 North American datum  
Fine red dashed lines indicate selected fence lines



CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

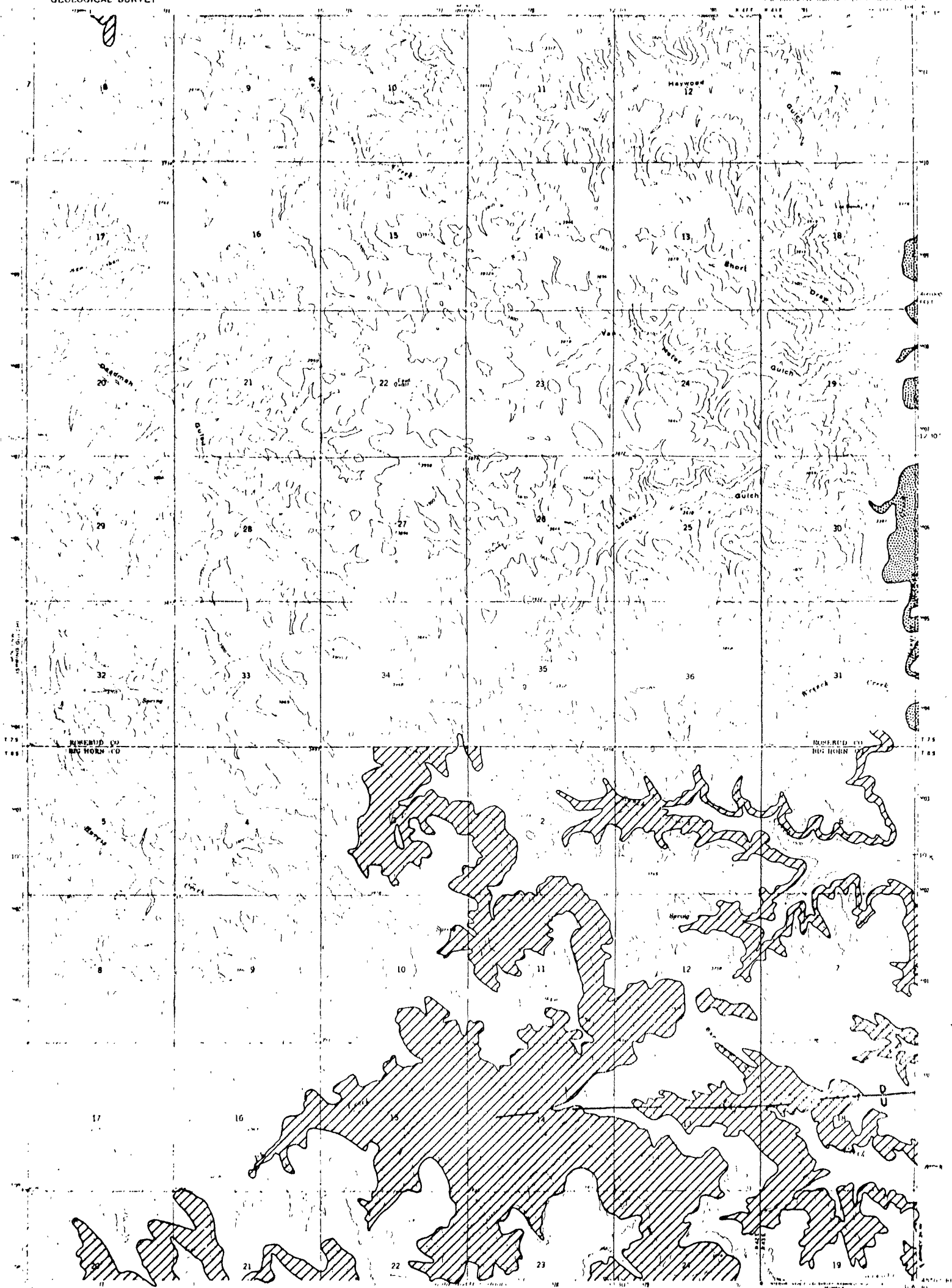


ROAD CLASSIFICATION  
Primary highway, hard surface ——— Light duty road, hard or improved surface ———  
Secondary highway, hard surface ——— Unimproved road ———  
Interstate Route U.S. Route State Route

OTTER, MONT.  
N4607 6-W10607 5/7.5  
1972

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80226, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

NOTE



SCALE 1:80,000

ROAD CLASSIFICATION  
Light duty  
Unimproved dirt



LACEY GULCH, MONT.  
N45075-W100630-75

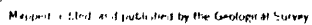
1967

AMS 4874 II 46 SERIES 5884

MAP CORRELATES WITH NATIONAL MAP AND QUADRANGLE NUMBERS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

760.1002



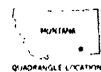
[illegible]

SCALE 1:50 000

[illegible]

ROAD CLASSIFICATION

Medium duty    —    —    —    Light duty  
Unimproved dirt

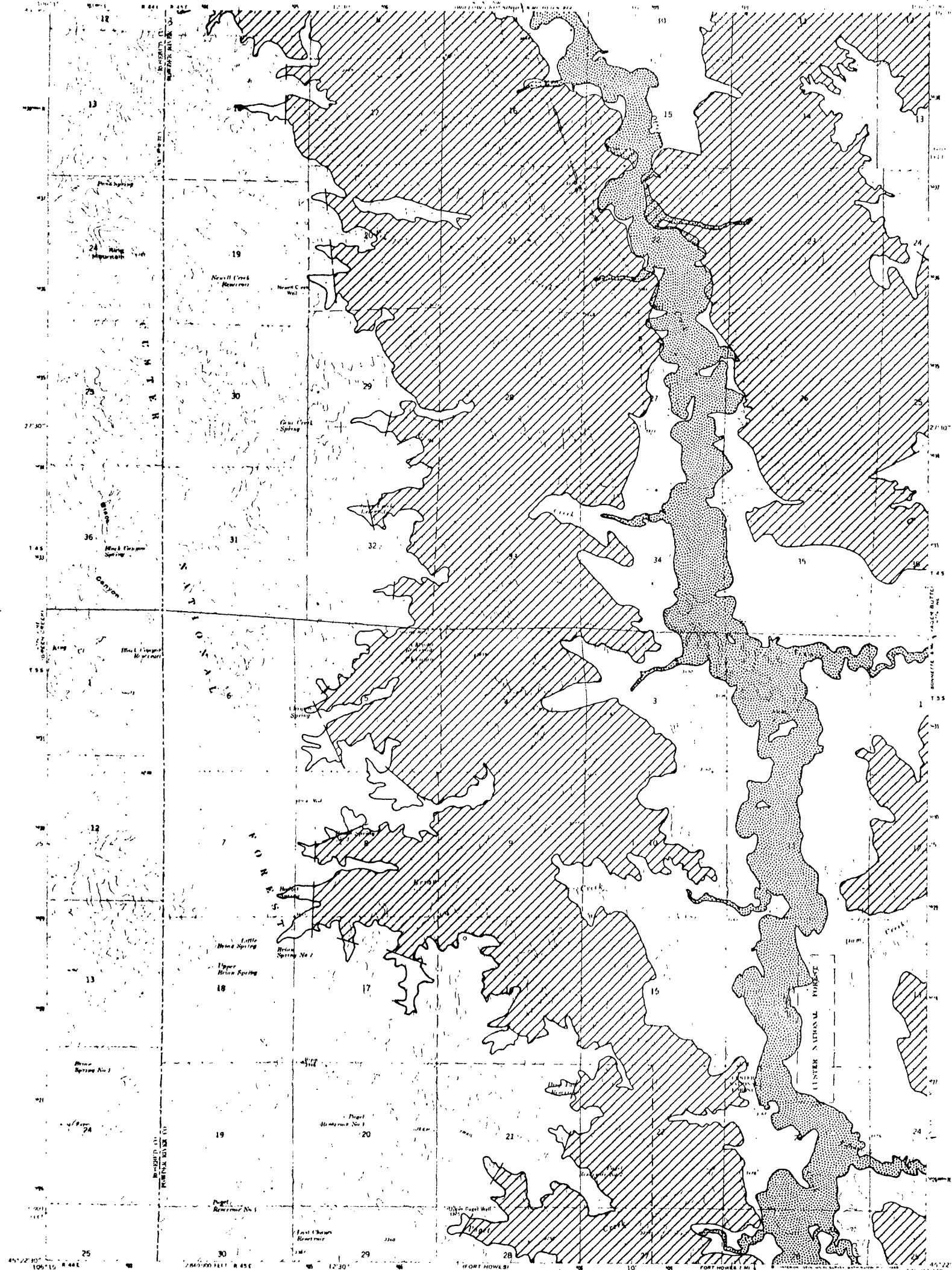


KIRBY, MONT.

1997

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76-102



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Topographic maps are published by the Geological Survey  
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The U.S. Geological Survey is a part of the U.S. Department of the Interior

SCALE 1:50,000  
CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL

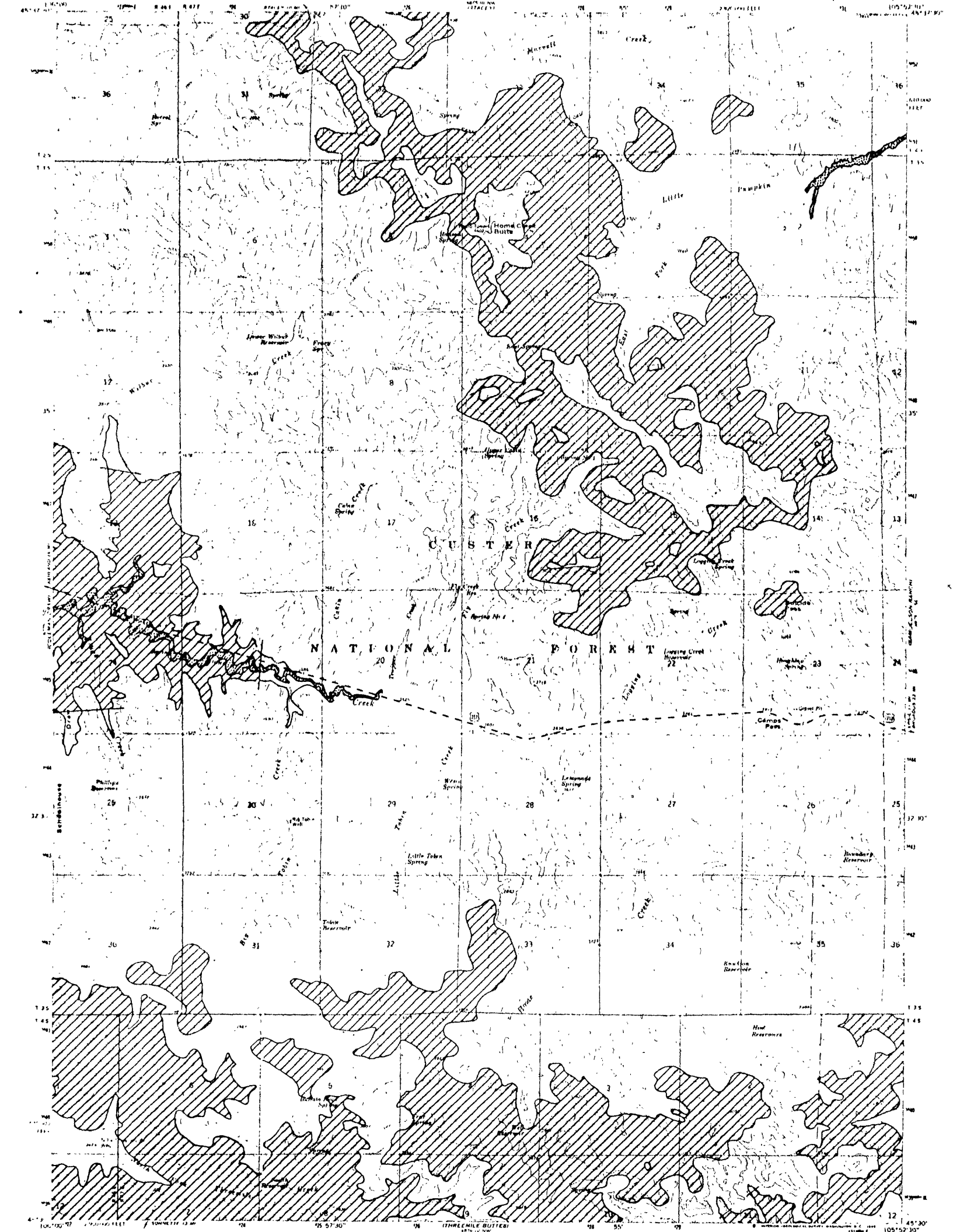


ROAD CLASSIFICATION  
Light duty  
(Unimproved) dirt

KING MOUNTAIN, MONT.  
N45°22'5" W106°07'5" E  
1956  
AMS 474 I NW - SERIES 5899

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76-167



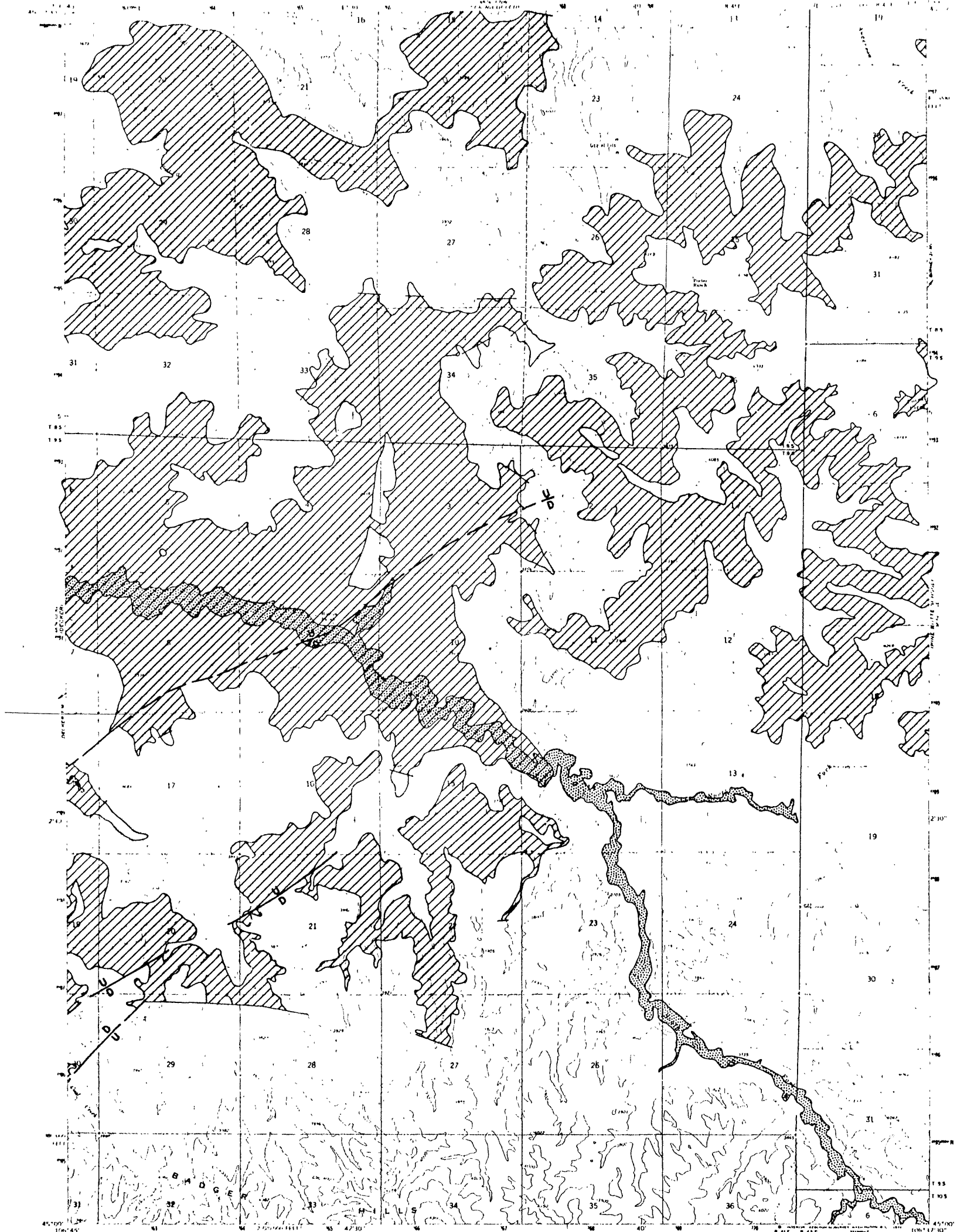
Map made, edited and published by the Geological Survey  
Control by U.S. Coast and Geodetic Survey  
Topography by photogrammetric methods from aerial  
photographs taken 1952-53. Field check and 1955  
revision. Contour interval 20 feet. Base map is  
U.S. Geological Survey 1:250,000 scale map of  
Montana, 1907-1910. Revision of 1955.  
U.S. Geological Survey, Washington, D.C. 20542

THIS MAP COMPLEES WITH NATIONAL MAP ACCURACY STANDARDS  
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION  
Medium-duty ——— Light-duty  
Unimproved dirt  
U.S. Route

HOME CREEK BUTTE, MONT.  
N45.10°-W105.52° S 7.5  
1966  
AMS 4875 III SW-SERIES V684

76-162



Maped, edited and published by the Geological Survey  
Control by 1950's and 1960's  
Topography by photogrammetric methods from aerial  
photos taken 1960's. Field checked 1967  
Elevation by 1960's North American datum  
1983. Horizontal datum Montana coordinate system  
1983. Zone 14  
Elevation by 1960's North American datum  
1983. Zone 14  
Elevation by 1960's North American datum  
1983. Zone 14

SCALE 1:50,000

CONTOUR INTERVAL 20 FEET  
ELEVATION IN FEET

ROAD CLASSIFICATION  
Light duty road all weather  
improved surface  
Unimproved road fair or dry  
weather



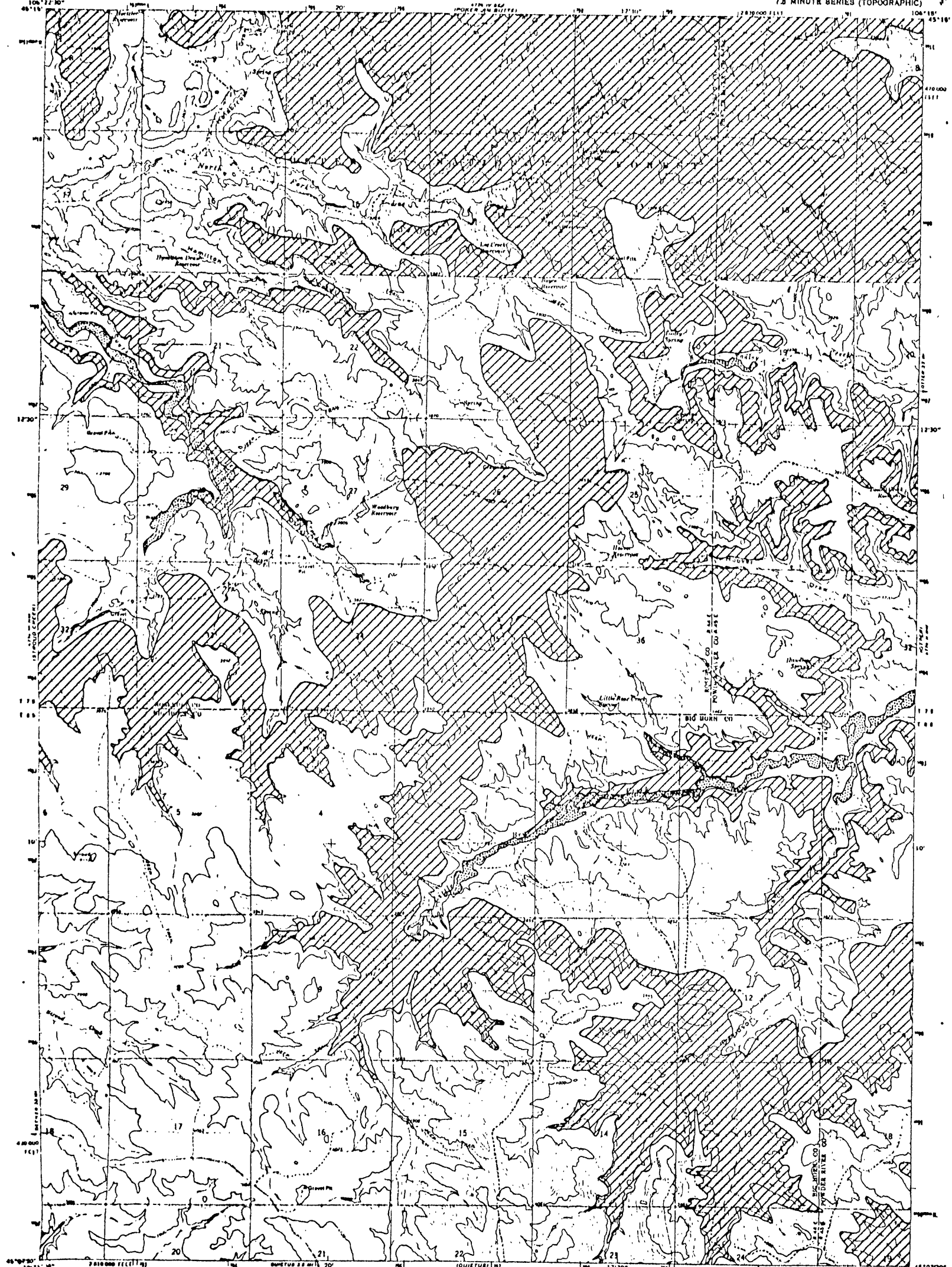
HOLMES RANCH, MONT.  
N44°00' W106°15' 7.5

1967

AMS 4674 II SW 31 R15 1894

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Revised, edited, and published by the Geological Survey

Topographic Survey  
Photographic taken 1970. Field checked 1972.

Projection and 10,000 foot grid (inches). Montana  
coordinate system, south zone (Lambert) conformal cone.  
10000 meter Universal Transverse Mercator grid (inches,  
zone 13, shown in blue. 1927 North American datum.

1 mile red dashed lines indicate selected fence lines.

1978 GDS and 1973 MAGNETIC NORTH  
1:50,000 scale of 1:50,000

CONTOUR INTERVAL 20 FEET  
NATIONAL GEODESIC VERTICAL DATUM OF 1929

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ROAD CLASSIFICATION  
Primary highway: Light duty road, hard or  
hard surface: improved surface  
Secondary highway: Unimproved road  
hard surface: Interstate Route, U.S. Route, State Route



HAMILTON DRAW, MONT.  
H4807.5-W10615/7.5

1012

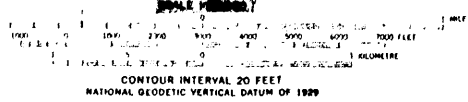
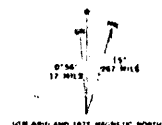
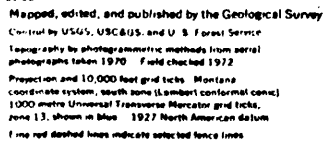
AMERICAN MAP COMPANY, INC., ANN ARBOR, MICHIGAN

25

76-162



HAMILTON DRAW QUADRANGLE  
MONTANA  
7.5 MINUTE SERIES (TOPOGRAPHIC)



**ROAD CLASSIFICATION**

Primary highway, hard surface	_____	light duty road, hard or improved surface	_____
Secondary highway, hard surface	_____	Unimproved road	_____

( ) Interstate Route    ( ) U.S. Route    ( ) State Route

HAMILTON DRAW, MONT.  
H4607.5-W10615/7.5  
1972

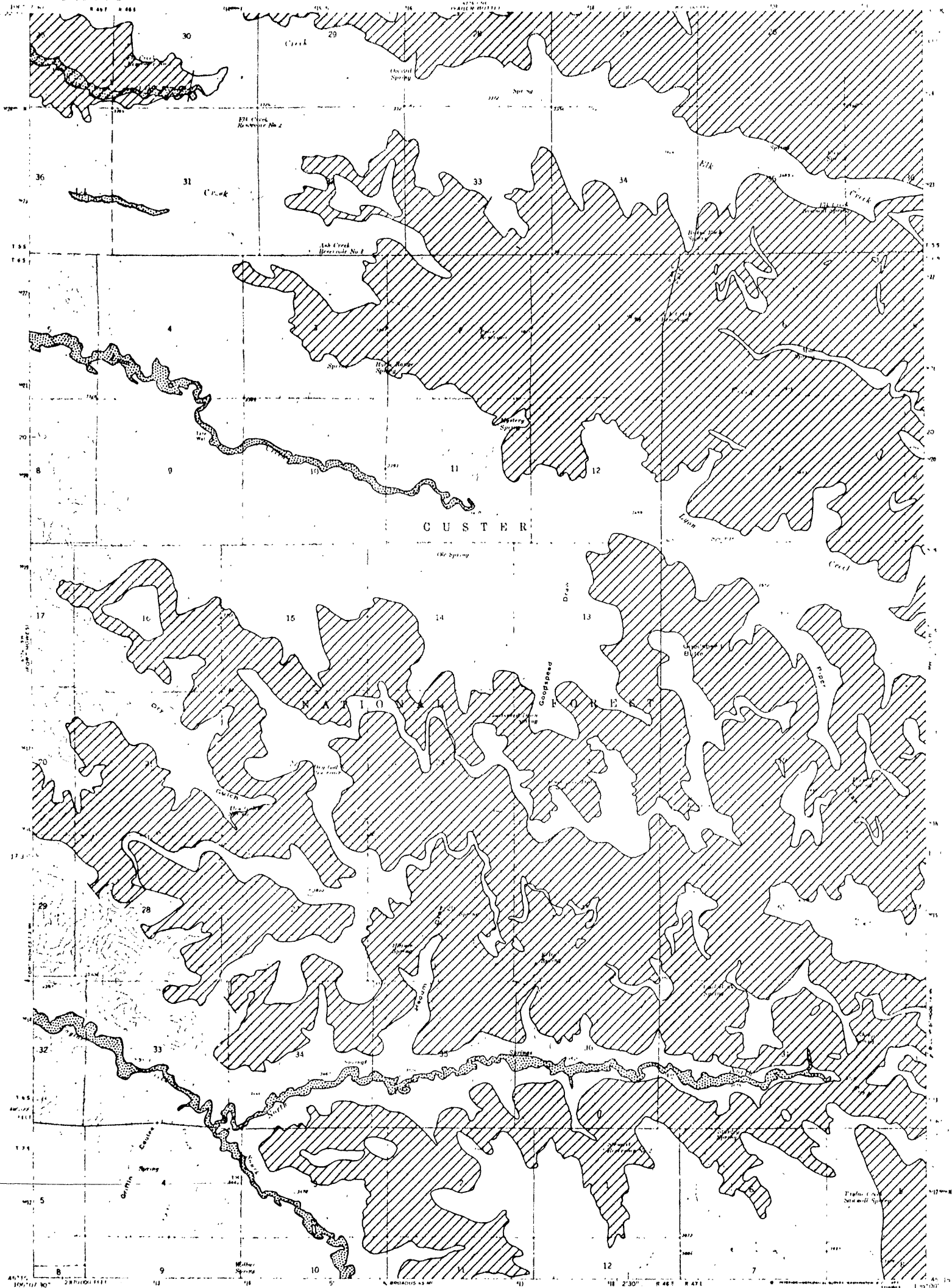
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80226, OR RESTON VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Bureau of the  
 Federal Reserve  
 12 14 1964  
 (5)

76-102







Map compiled and published by the Geological Survey

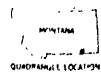
Control by U.S. and U.S.G.S.  
Topography by photogrammetry, U.S.G.S.  
Photography by photogrammetry, U.S.G.S.  
Base map by U.S.G.S., 1:50,000 scale, 1950  
1950 base map by U.S.G.S., 1:50,000 scale, 1950  
1950 base map by U.S.G.S., 1:50,000 scale, 1950  
1950 base map by U.S.G.S., 1:50,000 scale, 1950

SCALE 1:50,000

CONTOUR INTERVAL 20 FEET  
LATITUDE IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Light duty  
Heavy duty

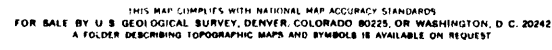


GOODSPEED BUTTE, MONT.

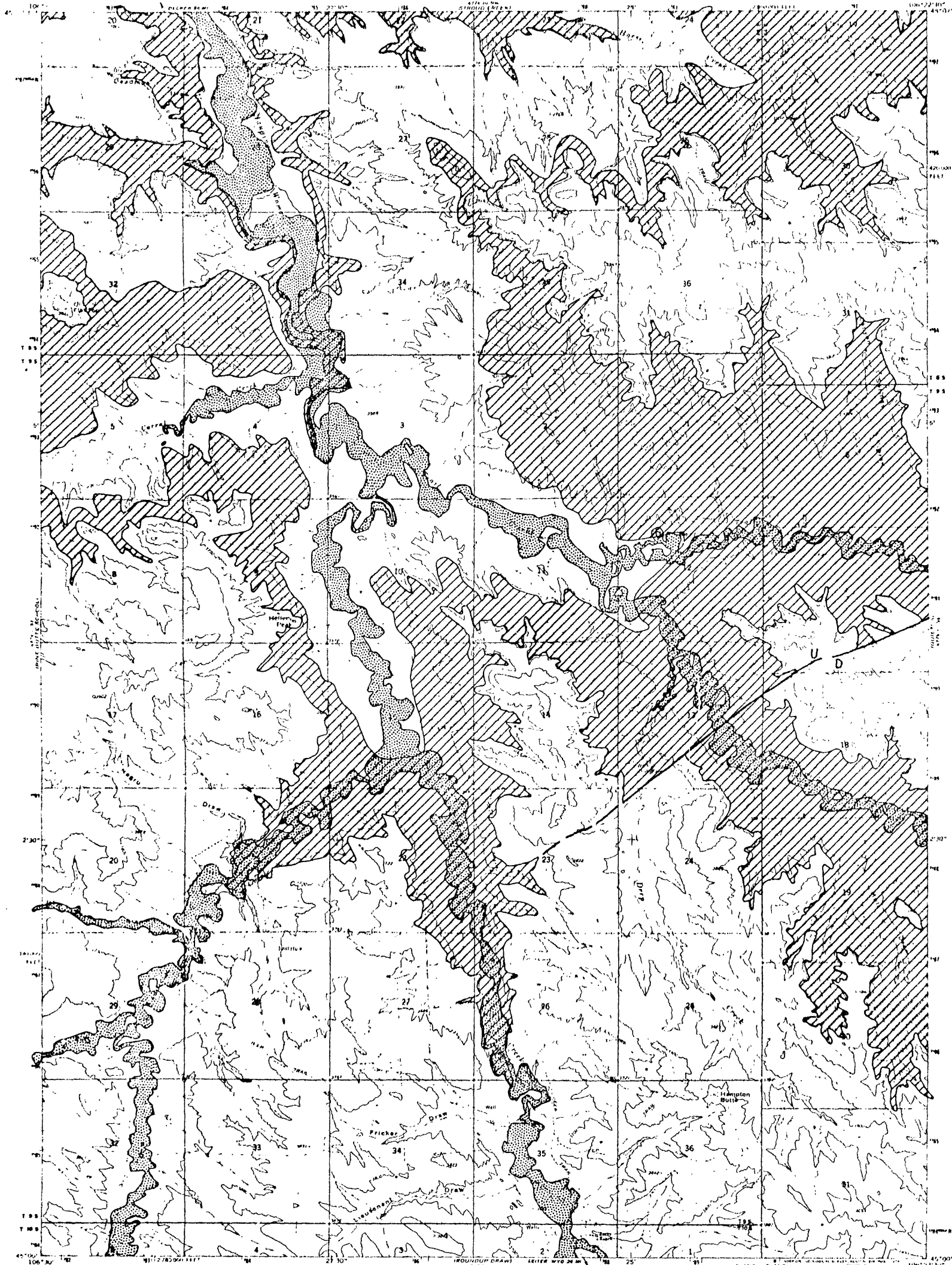
NAD 83 WGS 84  
1986

AMS 474 156, 30 15 15 15

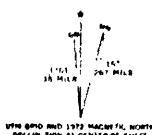
THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225 OR WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST







Mapped, edited, and published by the Geological Survey  
Control by U.S.G.S. and U.S. Forest Service  
Topography by photogrammetric methods from aerial  
photographs taken 1970. Field check 1972  
Projection and 10,000 foot grid lines, Montana  
contour interval 20 feet (contour interval 20 feet)  
1000 foot vertical Transverse Mercator grid ticks,  
zone 12, shown in blue, 1927 North American datum  
Fine red dashed lines indicate selected fence lines



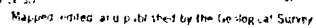
SCALE 1:50,000  
1 inch = 1.25 miles  
1 inch = 2,000 feet  
1 centimeter = 0.3937 inches  
1 kilometer = 0.6214 miles  
CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929



ROAD CLASSIFICATION  
Primary highway, light duty road, hard or  
hewn surface, improved surface  
Secondary highway, hard surface, Unimproved road  
Interstate Route U.S. Route State Route

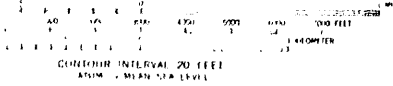
FORKS RANCH, MONT.  
N4500-W10622 5/7 5  
1972

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[illegible]

For a more detailed description of the model, see the Appendix.

SCALE 1:80 000



CONTOUR INTERVAL 20 FEET  
AT 500' + MEAN SEA LEVEL

ATSIK 100 100 100 100 100 100

ROAD CLASSIFICATION

Secondary highway, all weather, light duty road, all weather  
hard surface      — — — improved surface  
Unimproved road, fair or dry  
weather

Unimproved road, fair or dry weather

DECKER, MONT

N4508 W11240 75

1967

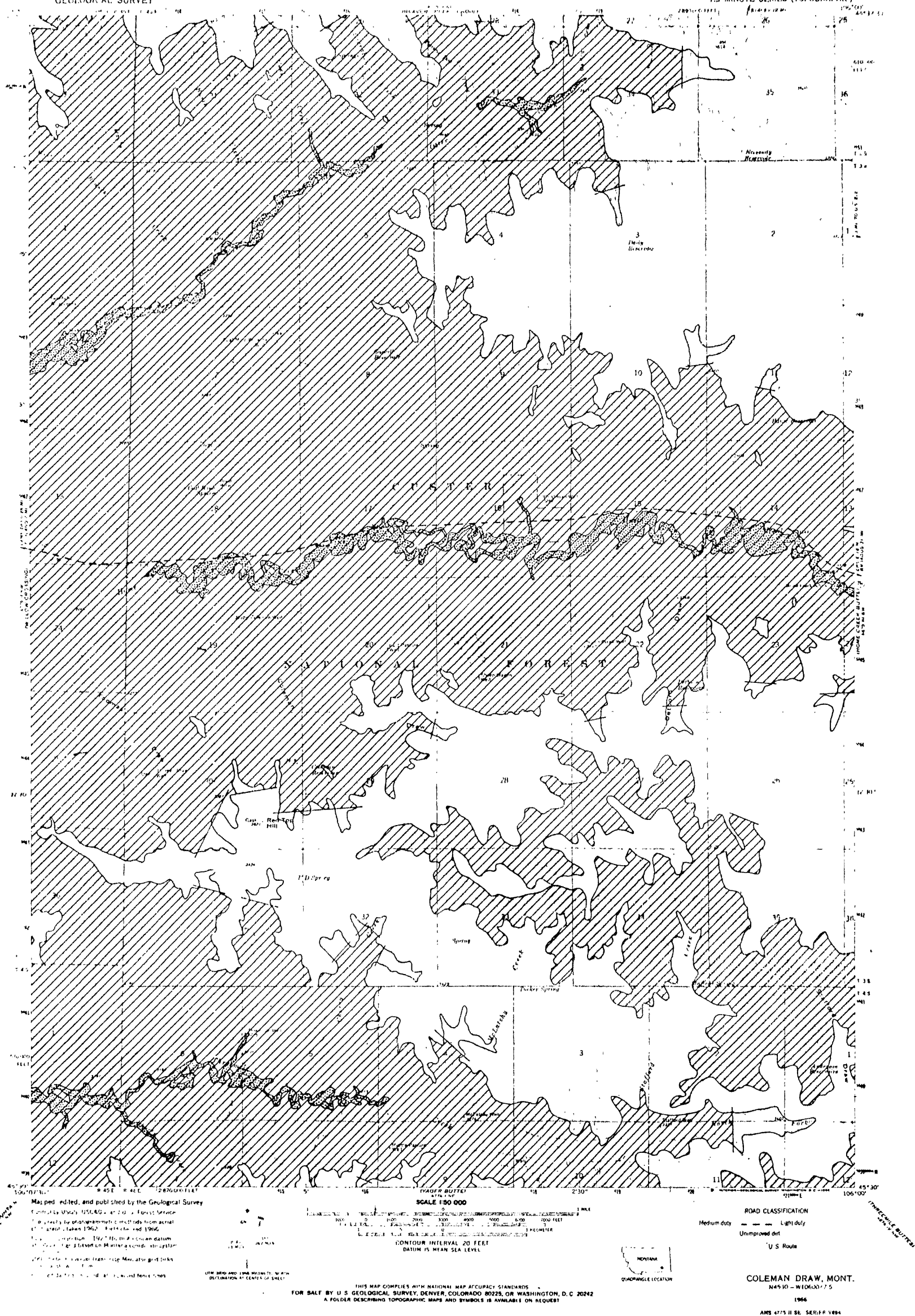
AMS 4674 III SE 61 JUL 26 1994

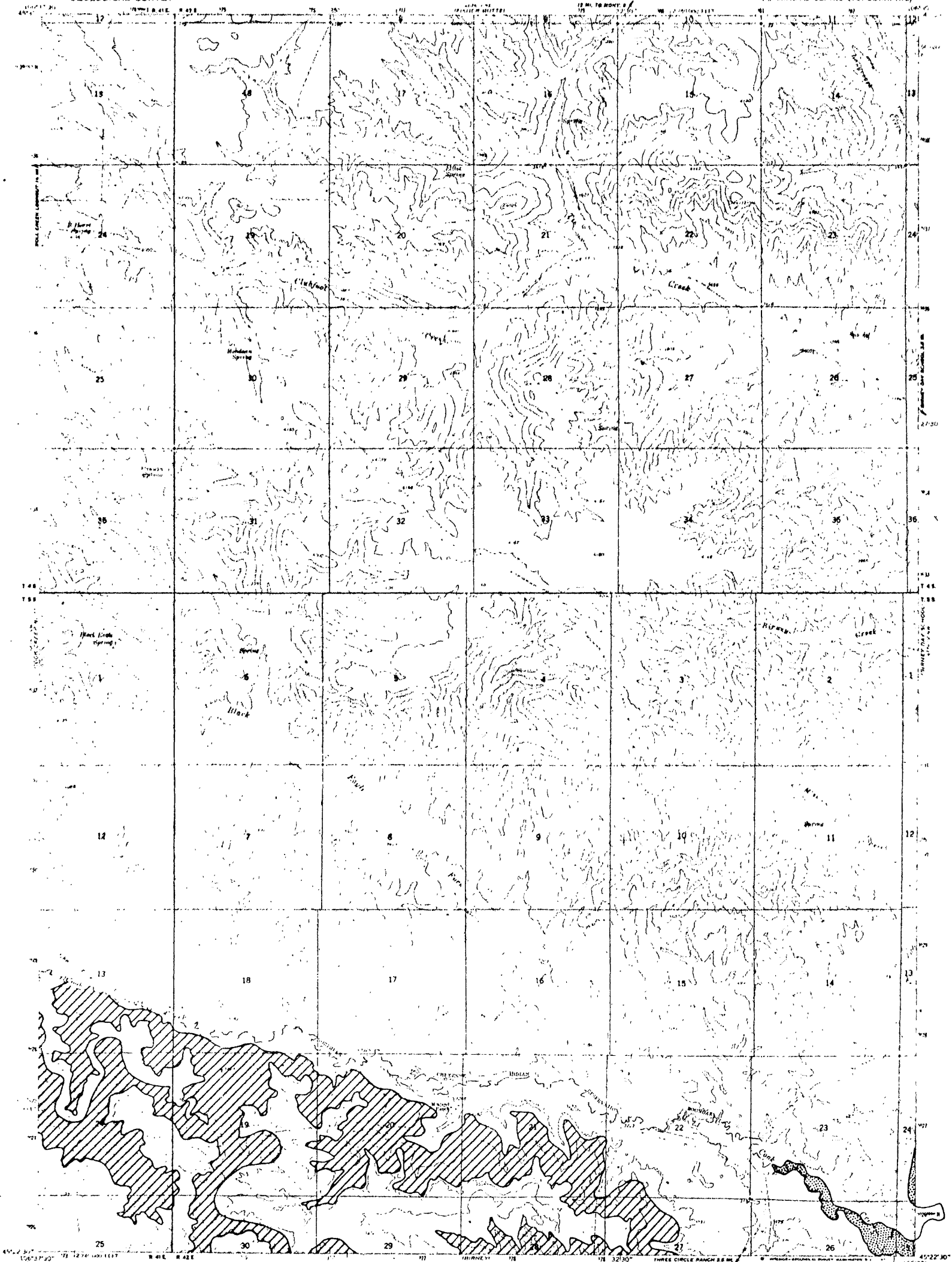
THIS MAP COMPLETES WITH NATIONAL MAP ACTIVITY STANDARDS,  
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

A GUIDE TO AIRCRAFT TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE, ON REQUEST

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1962





Map compiled and published by the Geological Survey  
under the direction of the Chief of the Survey  
Topographic features are shown by the method of contour  
lines, as in the 1967 edition of the 1967  
Topographic Series, 1:250,000 scale, as shown  
by the legend and based on the Montana coordinate system  
with zone 13, shown on the  
1967 edition of the 1967  
Topographic Series, 1:250,000 scale, as shown  
by the legend and based on the Montana coordinate system  
with zone 13, shown on the

1967 edition of the 1967  
Topographic Series, 1:250,000 scale, as shown  
by the legend and based on the Montana coordinate system  
with zone 13, shown on the

1967 edition of the 1967  
Topographic Series, 1:250,000 scale, as shown  
by the legend and based on the Montana coordinate system  
with zone 13, shown on the

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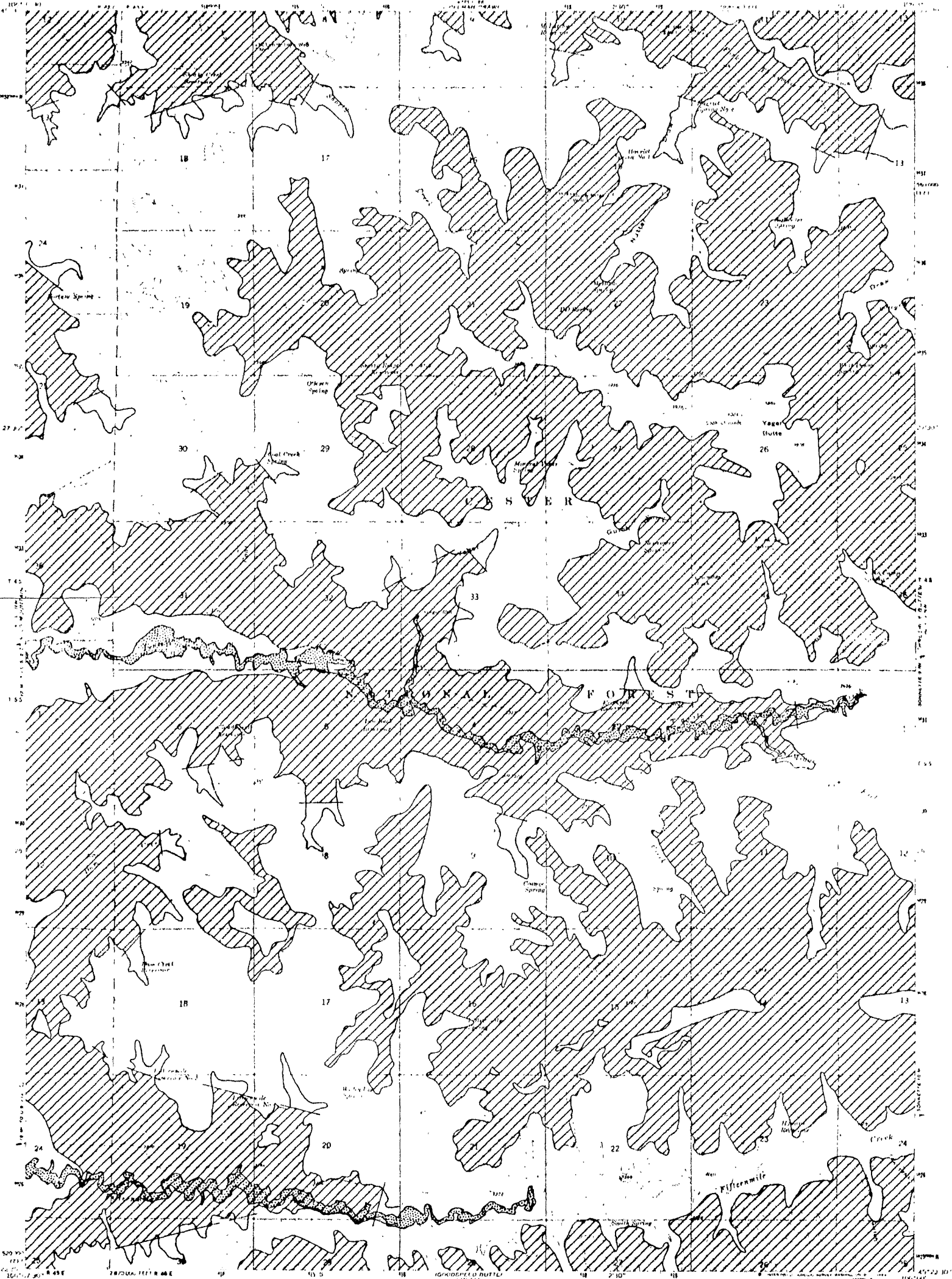


ROAD CLASSIFICATION  
Light duty  
Unimproved dirt

CLUBFOOT CREEK, MONT.  
N4522.5-W10630.75  
1967

AMB 4874 1 NE, SERIES 1964





Map compiled and published by the Geological Survey  
under authority of the U.S. Army  
by photoreduction from aerial  
photographs taken 1962-64. No ground  
survey was made by the American datum  
system and the map is not a true  
representation of the actual terrain.  
The map is based on the U.S. Army  
datum and the map is not a true  
representation of the actual terrain.

UTM GRID AND 1967 MAGNETIC NORTH  
DECLINATION AT CENTER OF SHEET

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SCALE 1:50,000

CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL



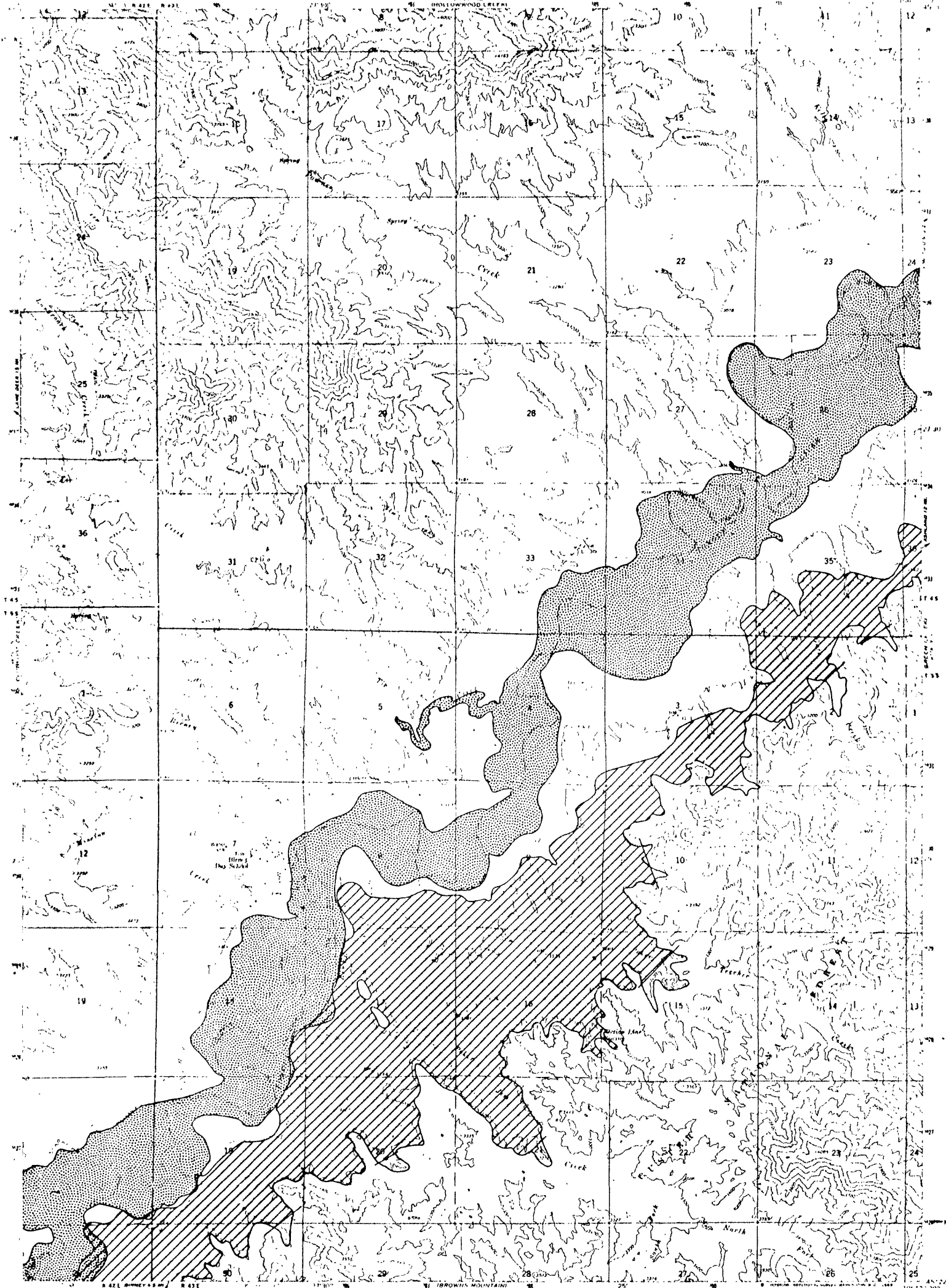
QUADRANGLE LOCATION

ROAD CLASSIFICATION  
Light duty  
Unimproved dirt

YAGER BUTTE, MONT.

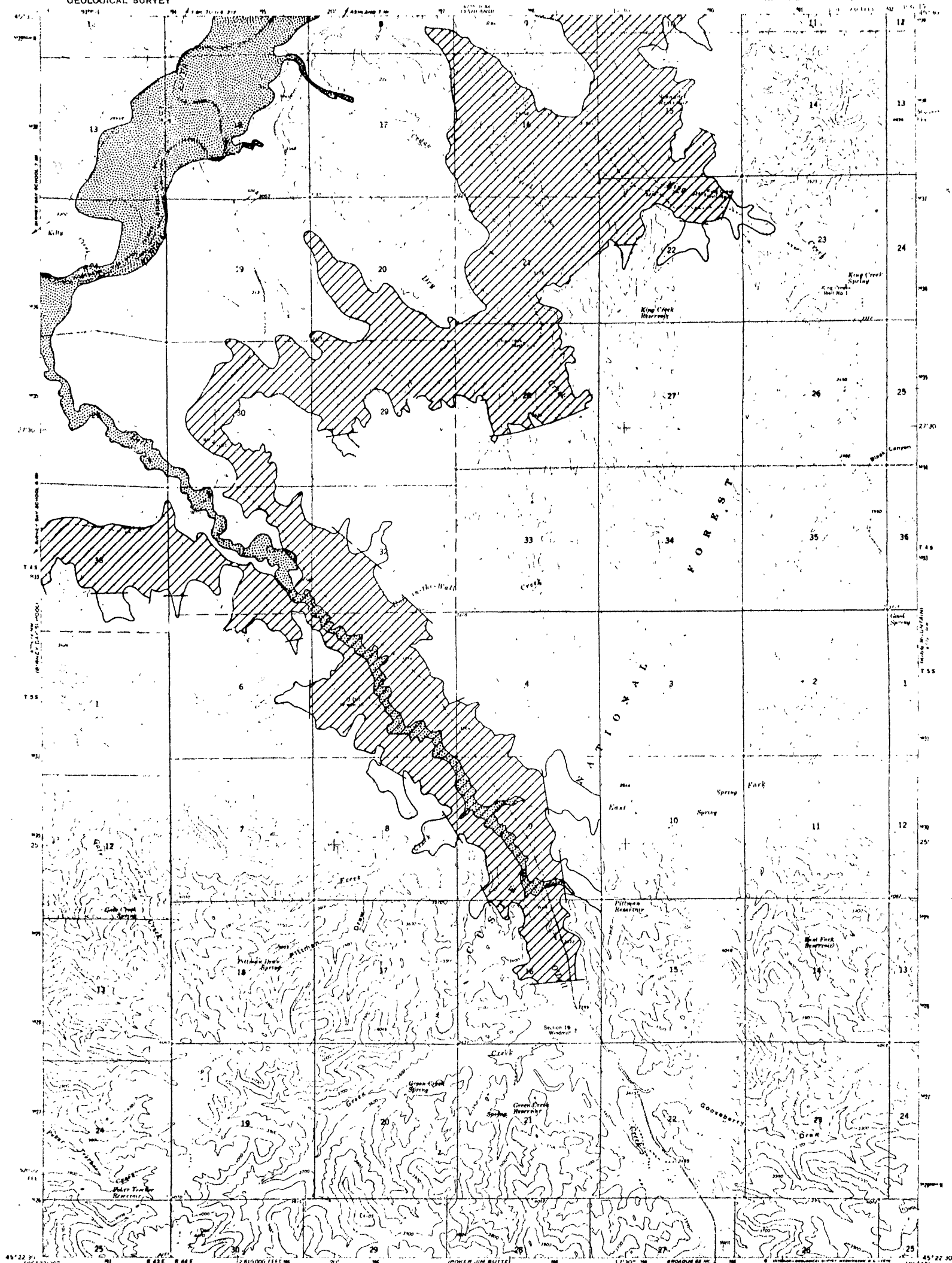
1967  
AND 4274 1:50,000 SERIES 1000





SCALE 1:50,000  
CONTOUR INTERVAL 20 FEET  
ELEVATION IN MEAN SEA LEVEL  
ROAD CLASSIFICATION  
Light duty  
Unimproved Rd.  
BIRNEY DAY SCHOOL, MONT.  
N45°22' W 1:50,000  
1960  
AND 4776 IV NW SERIES V894

76-162



Maped, edited, and published by the Geological Survey  
Control by U.S.G.S. and U.S.G.S.  
Topography by photogrammetric methods from aerial  
photographs taken 1962-64 and checked 1964.  
Horizontal datum: 1927 North American datum  
to (NAD 83) but based on Montana coordinate system  
vertical datum  
1929 Mean Sea Level (M.S.L.) and tide  
gauge 11, station 11, Blue



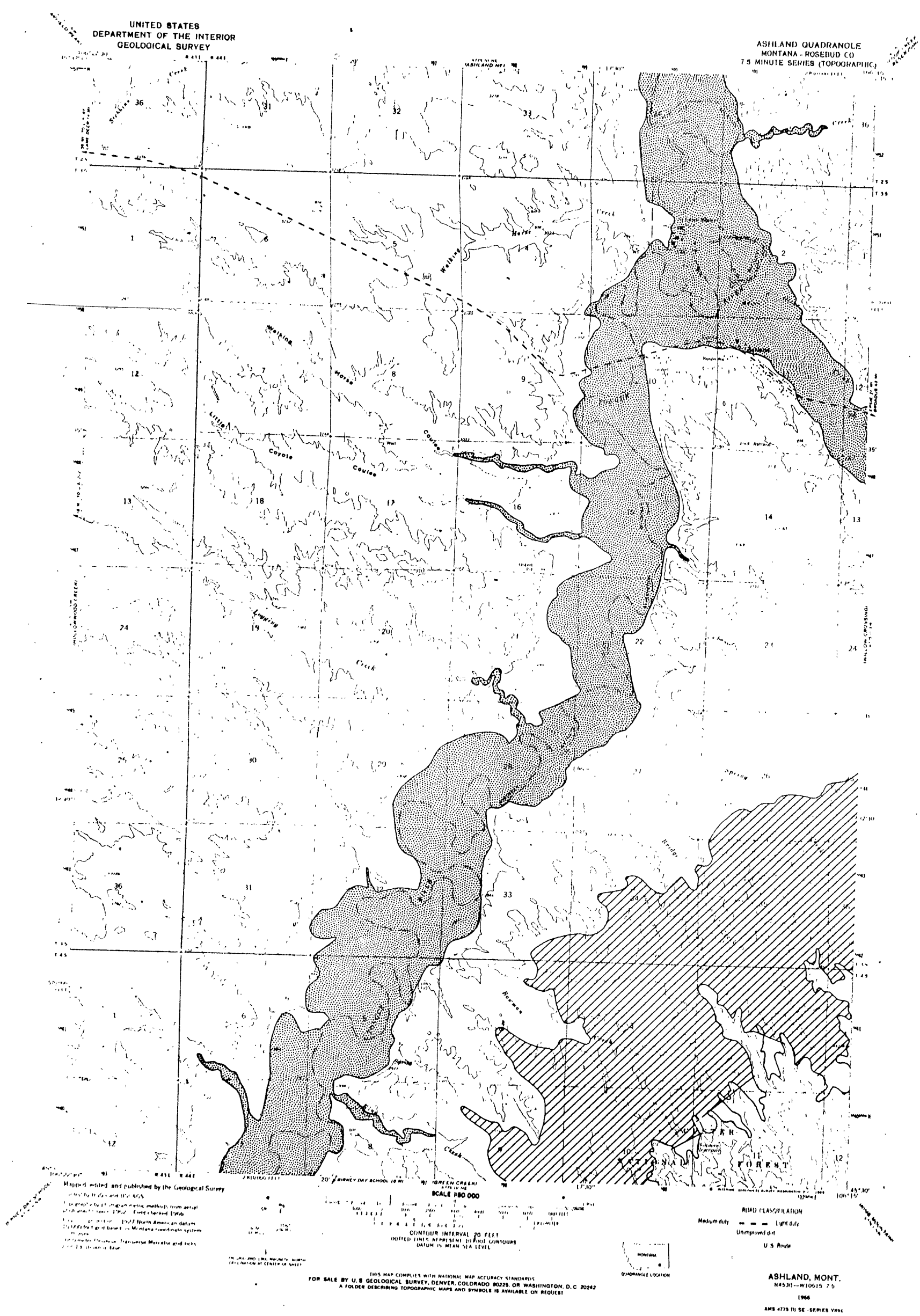
1:50,000  
Scale  
CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL



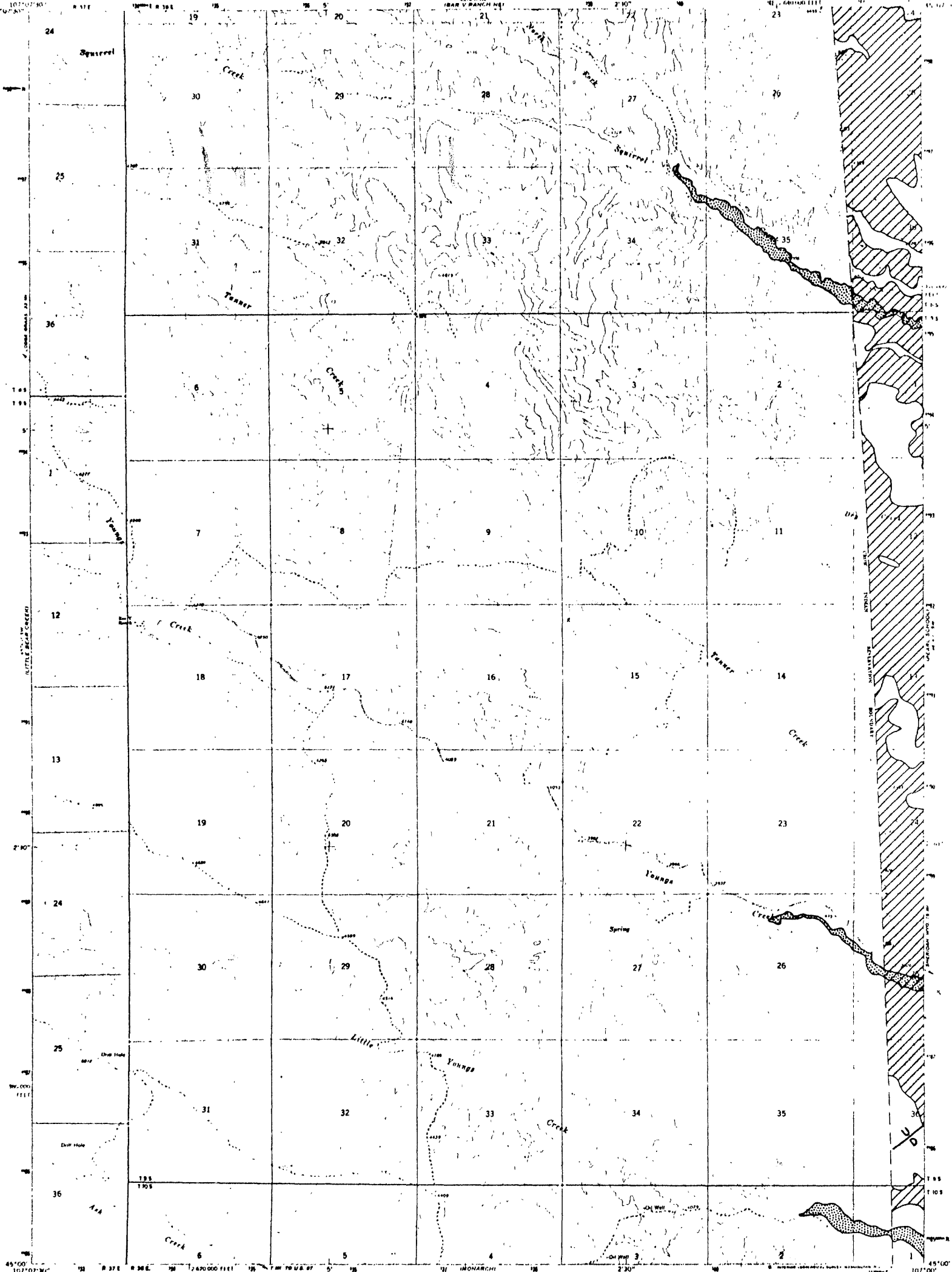
ROAD CLASSIFICATION  
Light duty Unimproved dirt

GREEN CREEK, MONT.  
N4522 S - N10G15 W 5  
1966  
AMB 4774 IV NE, SERIES 1966

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Maped, edited, and published by the Geological Survey

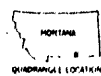
Control by U.S.G. and U.S.C.G.S.  
Topography by photogrammetric methods from aerial  
photographs taken 1966. Field checked 1967.  
Polygonal projection. 1927 North American datum.  
10,000-foot grid based on Montana coordinate system.  
1500-meter Universal Transverse Mercator grid ticks,  
zone 13, shown in blue.  
Fine red dashed lines indicate selected fence lines.

UTM GRID AND 1500-METER GRID  
IN CONFORMANCE WITH U.S. GEOLOGICAL SURVEY

SCALE 1:50,000  
CONTOUR INTERVAL 20 FEET  
DAUM IS MEAN SEA LEVEL

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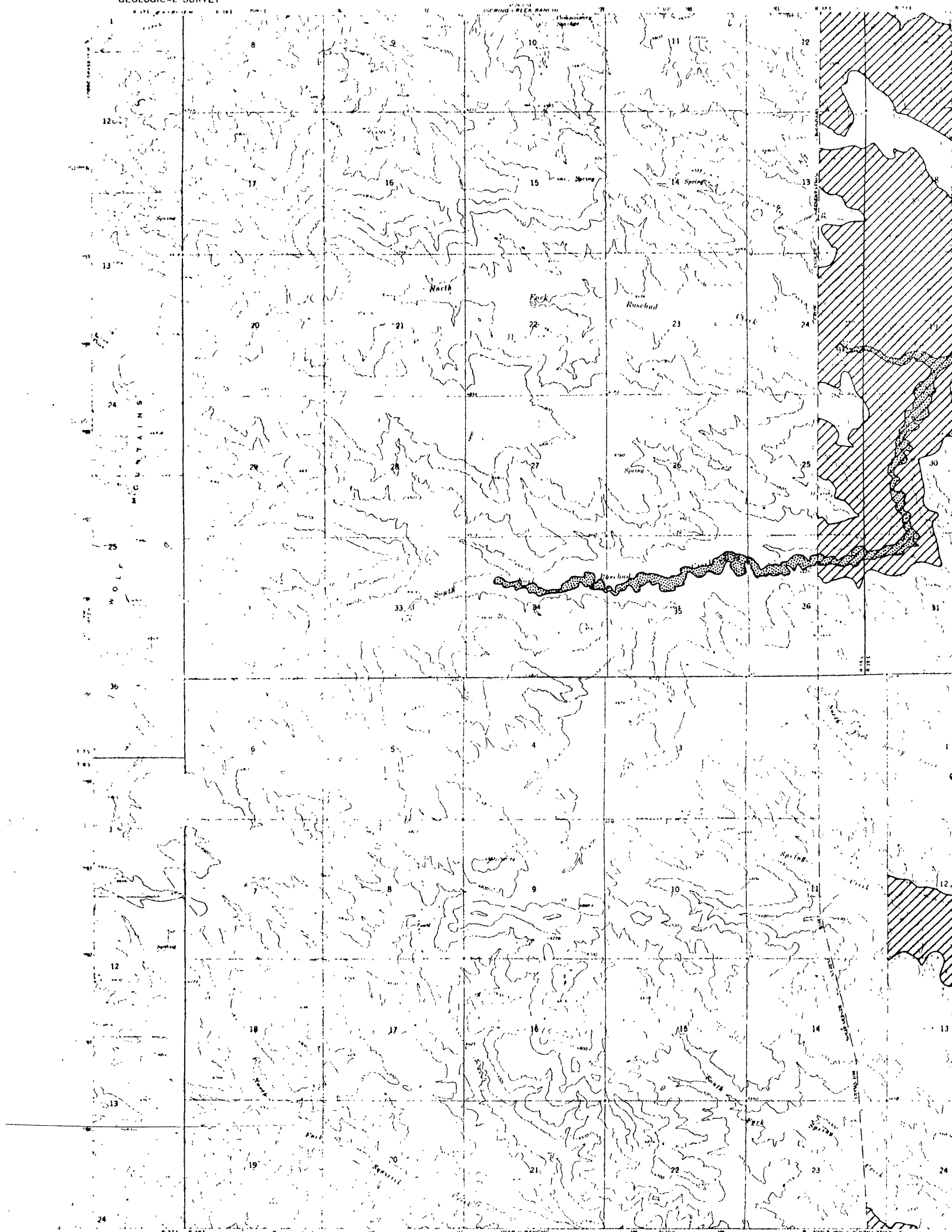
ROAD CLASSIFICATION  
Light duty  
Unimproved dirt



BAR V RANCH, MONT.  
NAD83 WITHIN 7.5

1967

AMS 4474 (1 SE) SPRING 1988



Map is based on data furnished by the Geological Survey.

SCALE 100,000

CONTOUR INTERVAL 20 FEET  
DATUM - MEAN SEA LEVEL

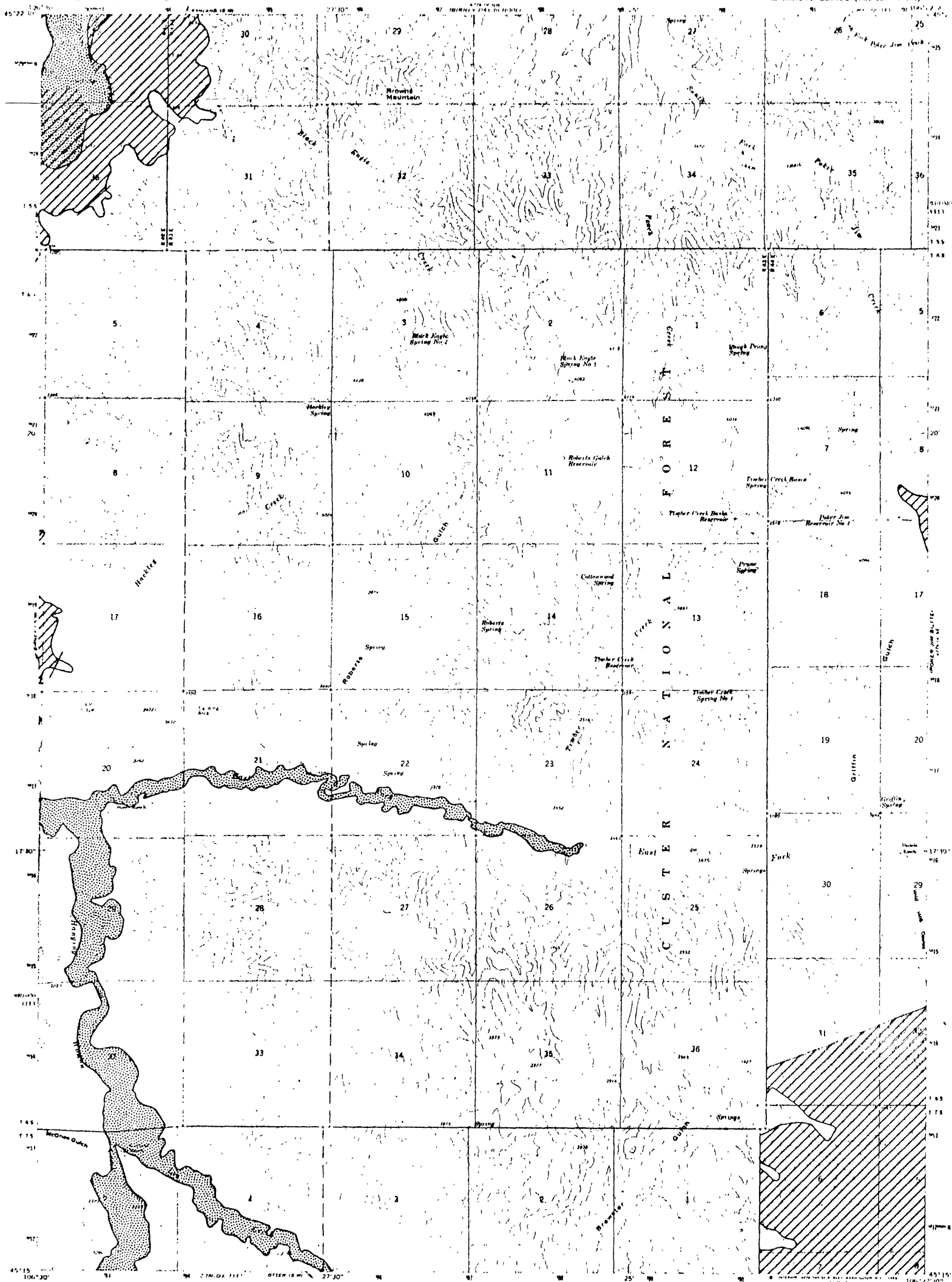


BAR V RANCH NE. MONT.  
NATION - MONTANA 100,000

AMS 4574 H NE. SERIES 5000

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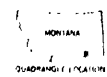


Map prepared and published by the Geological Survey  
under authority of the U.S. G.S.

Topographic maps are prepared from aerial  
photographs taken by the U.S. G.S. (1946)  
and are based on the 1927 North American datum.  
The U.S. G.S. uses the Montana coordinate system  
(1911) and the Montana coordinate system  
(1911) for all maps. The U.S. G.S. uses the  
Montana coordinate system (1911) for all maps.

SCALE 1:50,000

CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL



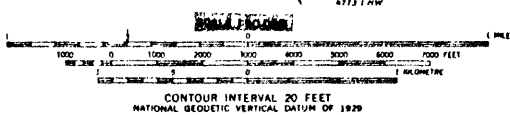
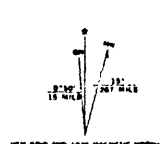
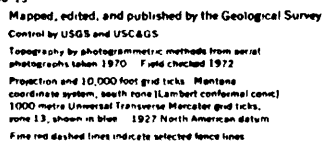
ROAD CLASSIFICATION  
Light duty  
Emergency aid

BROWNS MOUNTAIN, MONT.  
N45°15' W106°22'5" E

1966  
AMS 4724 IV SW SERIES V894




THIS MAP IS COMPATIBLE WITH NATIONAL MAPS OF THE U.S. GEOLOGICAL SURVEY.  
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BEAR CREEK SCHOOL QUADRANGLE  
MONTANA POWDER RIVER CO  
7.5 MINUTE SERIES (TOPOGRAPHIC)



ROAD CLASSIFICATION

Primary highway, hard surface	_____	Light duty road, hard or improved surface	_____
Secondary highway, hard surface	_____	Unimproved road	_____

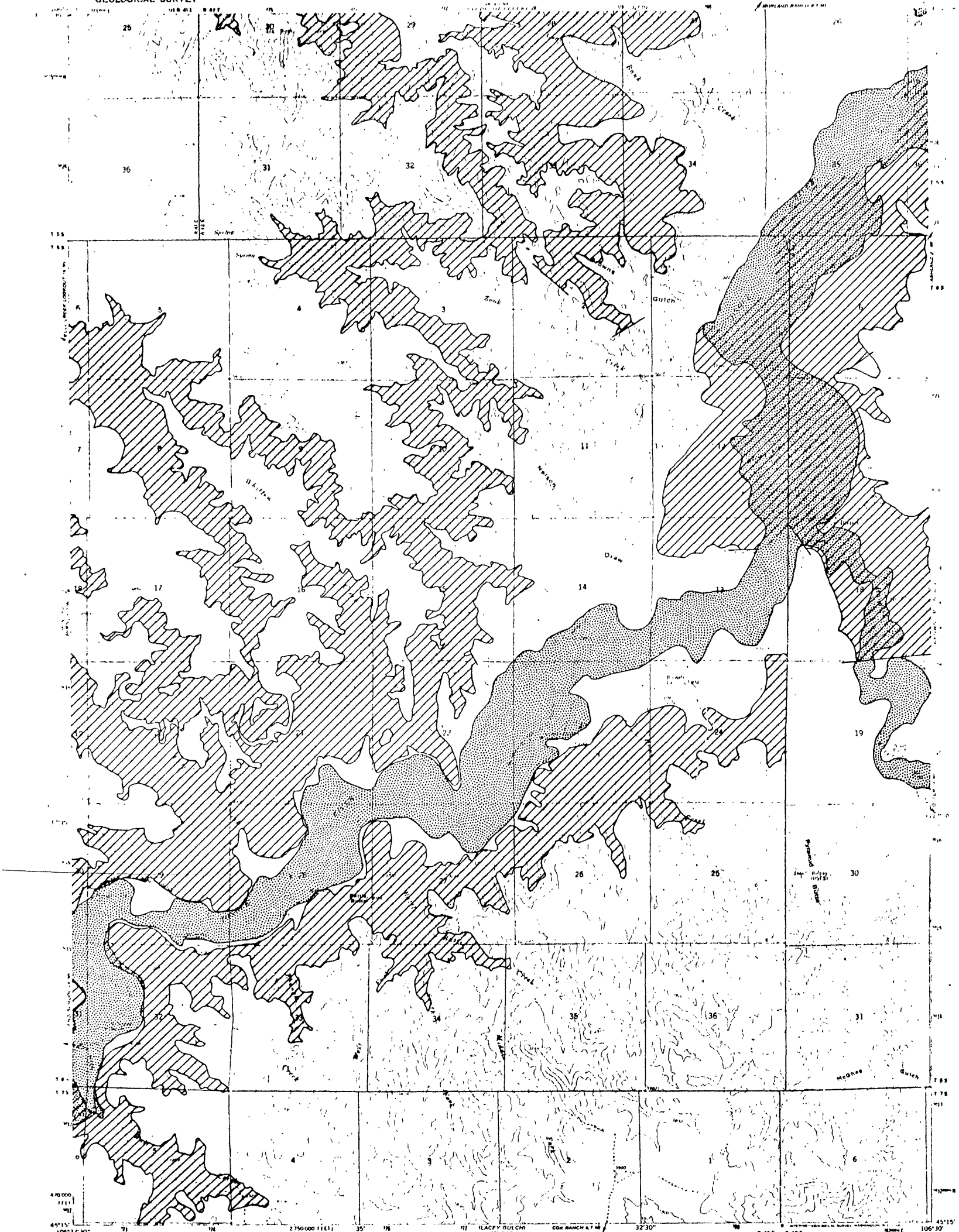
 Interstate Route    U.S. Route    State Route

BEAR CREEK SCHOOL, MONT.  
N4500-W10607.5/7.5  
1972

AMR 4774 II BW - SERIES Y004

Stamp: 1071  
Quinn Fred The  
FM (D) A  
Harbara

100



Map published and published by the Geological Survey  
Control by U.S. and U.S.A.  
Topography by photogrammetric methods from aerial  
photographs taken 1966-1967. Field check 1967.  
Photographic projection: 1927 North American datum  
111,000 feet grid based on Montana coordinate system  
1:50,000 scale  
1:50,000 scale. Universal Transverse Mercator grid ticks,  
zone 13, shown in blue.  
Forward dashed lines indicate selected fence lines.

UNITED STATES GEOLOGICAL SURVEY  
WASHINGTON, D.C. 20548

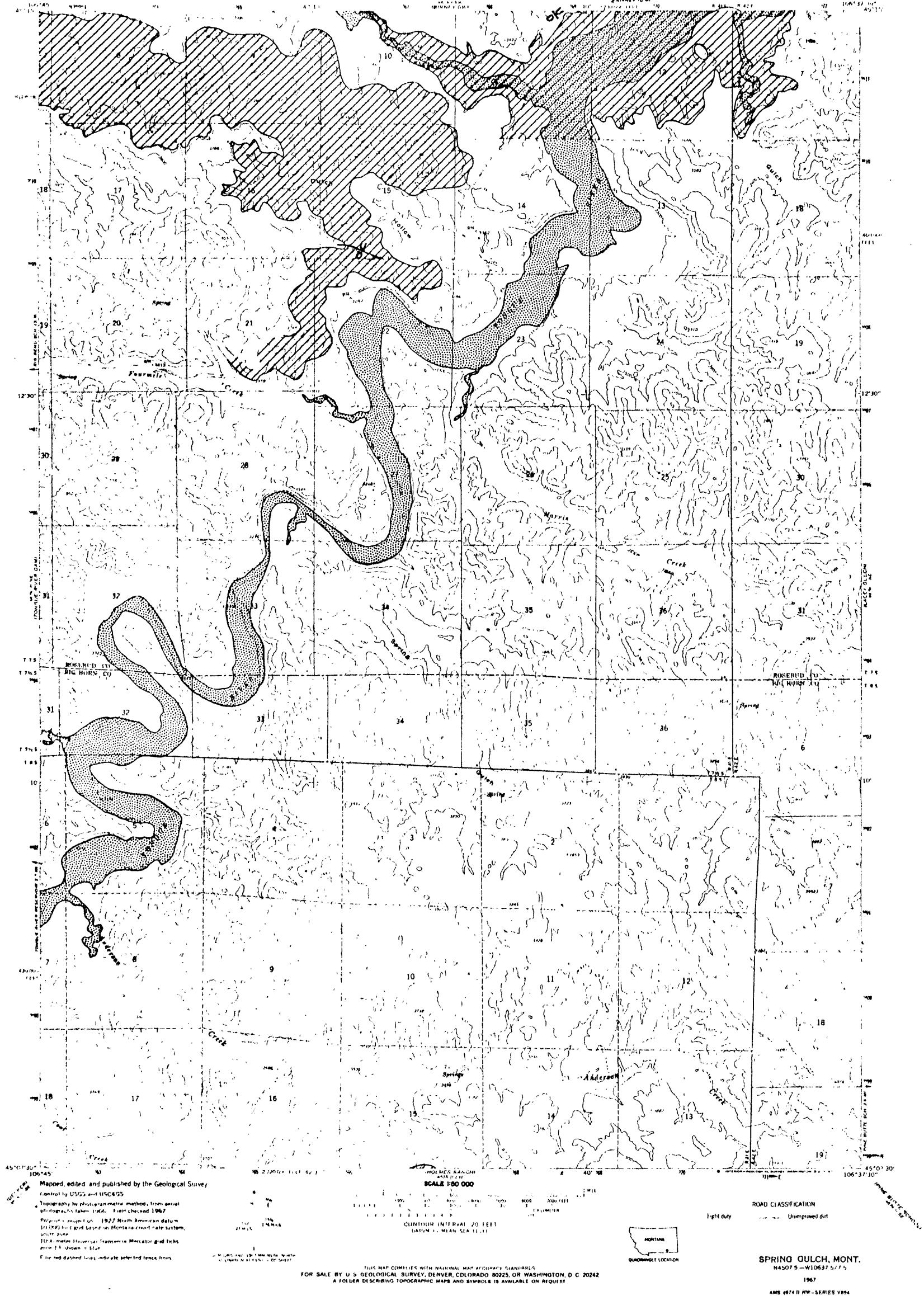
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



ROAD CLASSIFICATION  
Light duty Unimproved dirt

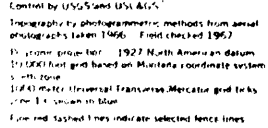
BIRNEY, MONT.  
N.T.S. (1:50,000)

1967  
AMS 4874 I SE. SP. HILLS 1894



76-162





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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

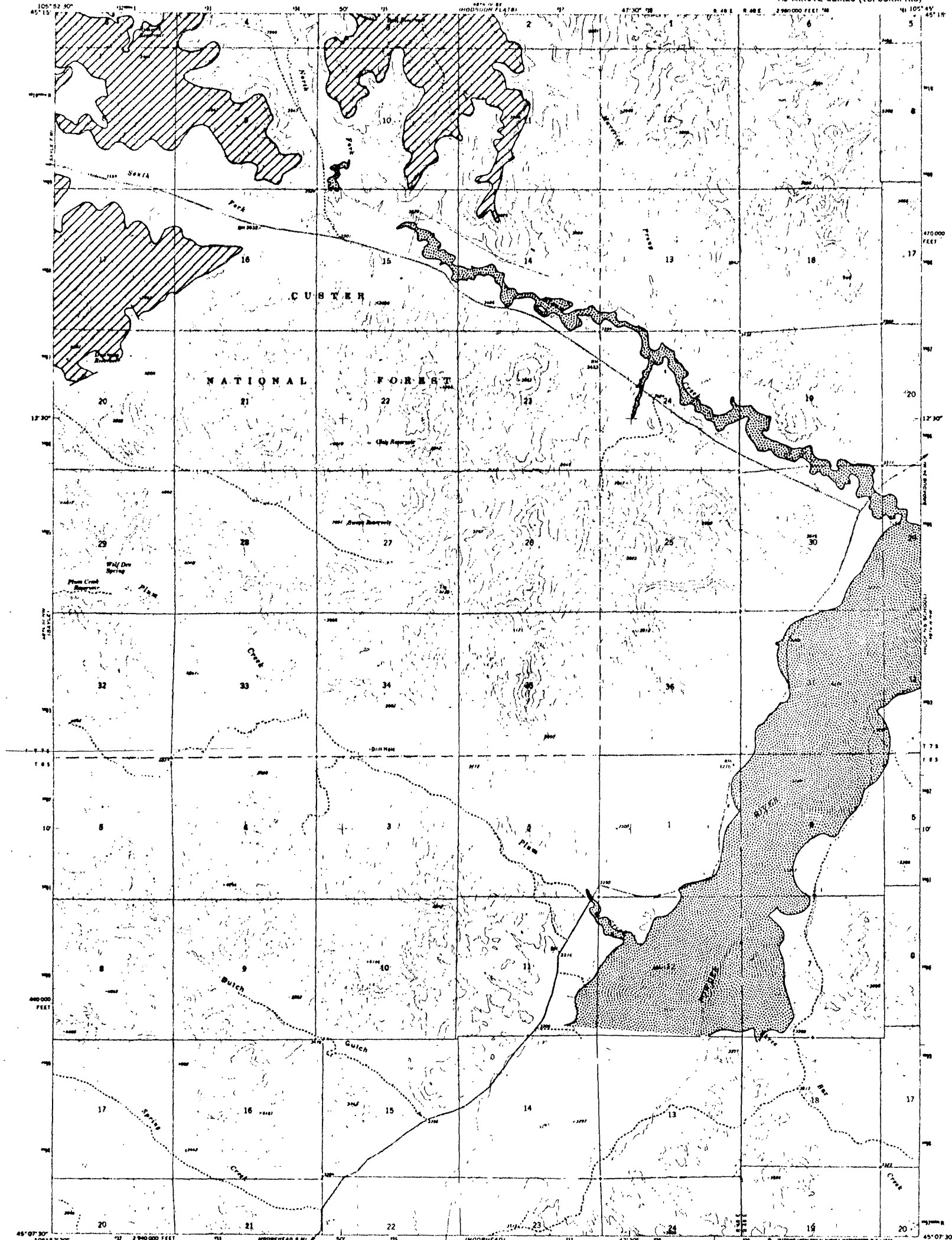
ROAD CLASSIFICATION	
Light duty	Unimproved



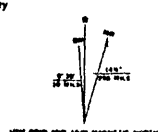
BIRNEY SW, MONT.  
N4515—W10637 5/75  
1967

AMS 4674 ) SW - SERIES V894





Maped, edited, and published by the Geological Survey  
Control by USGS, USC&GS, and U. S. Forest Service  
Topography by photogrammetric methods from aerial  
photographs taken 1969. Field checked 1970  
Polyconic projection. 1927 North American datum.  
10,000 foot grid based on Montana coordinate system,  
south zone.  
1000 meter Universal Transverse Mercator grid ticks,  
zone 13, shown in blue.  
Fine red dashed lines indicate selected fence lines.



CONTOUR INTERVAL 20 FEET  
DOTTED LINES REPRESENT 10 FOOT CONTOURS  
DATUM IS MEAN SEA LEVEL

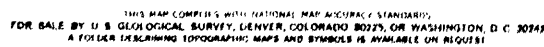


ROAD CLASSIFICATION  
Primary highway, hard surface  
Secondary highway, hard surface  
Unimproved road  
Interstate Route  
U. S. Route  
State Route

BLOOM CREEK, MONT.  
R4507.5-W10545/7.5  
1970  
ANS 4674 RI ME-BERIES 1984

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80226, OR WASHINGTON, D. C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

70-162



45

✓ 6/6/82