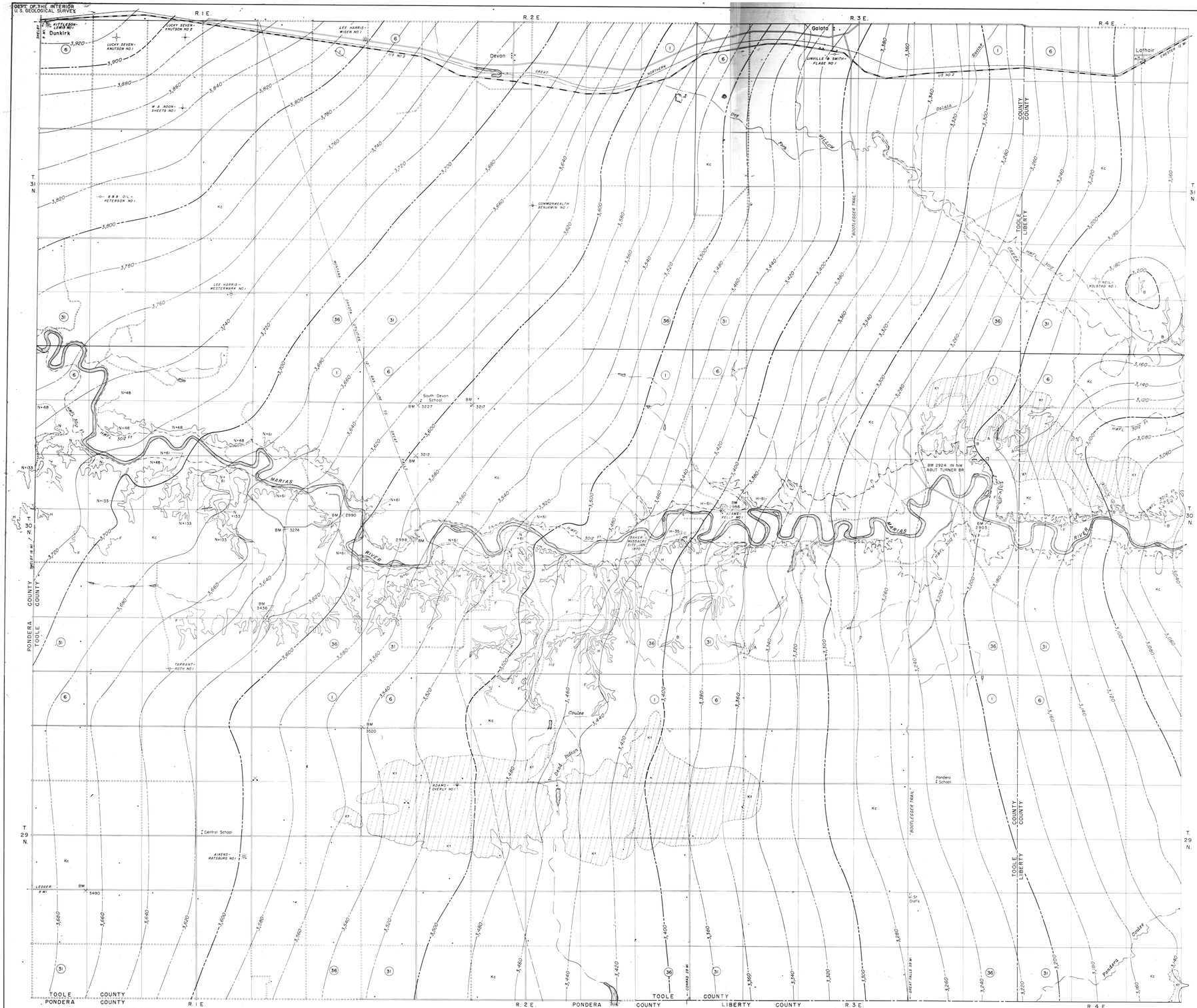
DEPT. OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN FILE REPORT 78-1047



BASE COMPILED FROM G.L.O. TOWNSHIP PLATS, AERIAL PHOTOGRAPHS, AND AUTHORS' PLANE TABLE FIELD SHEETS

GEOLOGY BY K.H. HOLMES ASSISTED BY T.E. BRETZ, APRIL-NOVEMBER, 1949, APRIL-MAY, 1950

PRELIMINARY UNEVALUATED GEOLOGIC MAP OF THE MARIAS RIVER VALLEY AREA

TOOLE AND LIBERTY COUNTIES, MONTANA

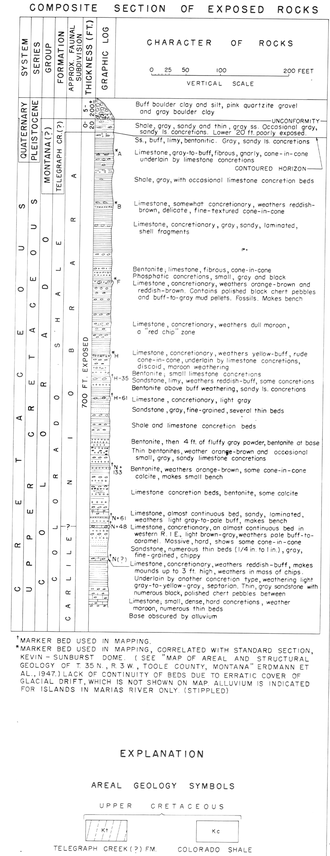
By K.H. Holmes and T.E. Bretz

SCALE 1:31 680

0 1 2 3 4 MILES

STRUCTURE CONTOURS DRAWN ON OR RESTORED TO TOP OF COLORADO GROUP
INTERVAL 20 FT. DATUM MEAN SEA LEVEL

COMPOSITE SECTION OF EXPOSED ROCKS



†MARKER BED USED IN MAPPING.
*MARKER BED USED IN MAPPING, CORRELATED WITH STANDARD SECTION, KEVIN - SUNBURST DOME (SEE "MAP OF AREAL AND STRUCTURAL GEOLOGY OF T. 35 N., R. 3 W., TOOLE COUNTY, MONTANA" ERDMANN ET AL., 1947.). LACK OF CONTINUITY OF BEDS DUE TO ERRATIC COVER OF GLACIAL DRIFT, WHICH IS NOT SHOWN ON MAP. ALLUVIUM IS INDICATED FOR ISLANDS IN MARIAS RIVER ONLY (STIPPLED)

EXPLANATION

AREAL GEOLOGY SYMBOLS

UPPER CRETACEOUS

K1 — TELEGRAPH CREEK (?) FM.

Kc — COLORADO SHALE

STRUCTURE CONTOUR AND STRUCTURAL SYMBOLS

CONTROL BY SURFACE MAPPING

CONTROL BY INTERPOLATION OR SUBSURFACE DATA FROM WELLS

CONTROL INADEQUATE, POSITION OF CONTOUR INFERRED

AXIS OF SMALL ANTICLINAL FOLD

WELL SYMBOLS

SHOW OF OIL AND GAS, ABD.

SHOW OF OIL, ABANDONED

SHOW OF GAS, ABANDONED

GAS WELL

INADEQUATE TEST

DRY HOLE, ABANDONED

MISCELLANEOUS SYMBOLS

HOUSE

SCHOOLHOUSE

CHURCH

CEMETERY

FOUND CORNER

SECTION NUMBER

GRAVEL PIT

BITUMINOUS SURFACED ROAD

GRADED GRAVEL ROAD

UNIMPROVED ROAD OR TRAIL

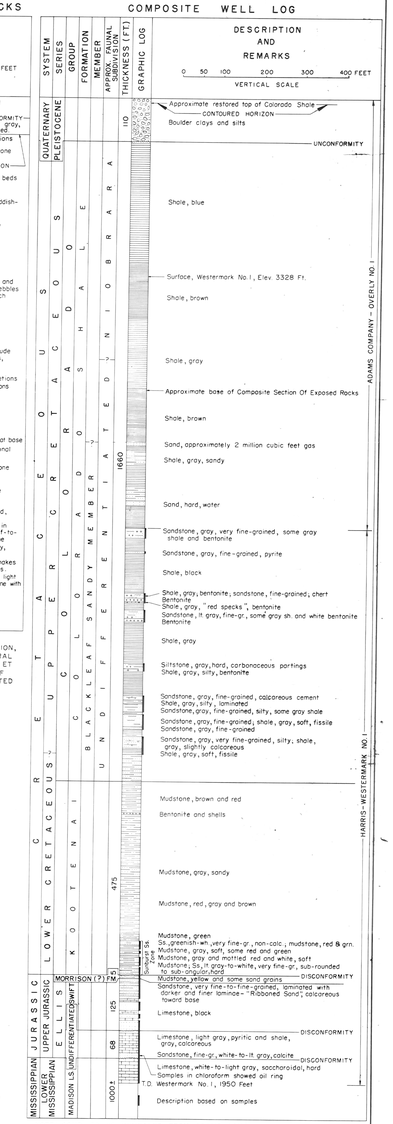
POND OR RESERVOIR

INTERMITTENT STREAM

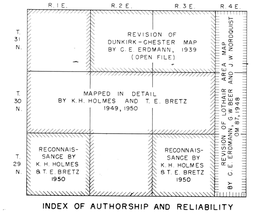
BM 2956 — BENCH MARK WITH ELEVATION (U.S.B.R. CORRECTION FACTOR OF 8.5 FT. HAS BEEN ADDED TO BM's IN SECS. 18 AND 24, T 30 N., R. 3 E.)

HWFL 3012 FT — HIGH WATER FLOW LINE OF PROPOSED TIBER DAM RESERVOIR, ELEVATION 3012 FEET (READJUSTED, 1949)

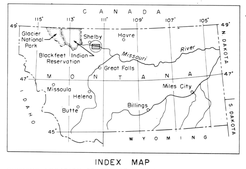
COMPOSITE WELL LOG



NOTE COMPILED AS INDICATED FROM ADAMS COMPANY - OVERLY WELL NO. 1, N NE SEC. 17, T. 29 N., R. 2 E., (DRILLED 1927) AND HARRIS-WESTERMARK WELL NO. 1, NW NW NE SEC. 34, T. 31 N., R. 1 E., (DRILLED 1950)



INDEX OF AUTHORSHIP AND RELIABILITY



INDEX MAP
SHOWING LOCATION OF STRUCTURE CONTOUR MAP (CIRCLED)

This map has not been edited for conformity with Geological Survey editorial standards or stratigraphic nomenclature

This map has not been updated since its original compilation