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WILLIAM AUBREY COBBAN
(1916 -)

NOTES, CORRESPONDENCE, PAPERS

1929 - 1985

(5.7 linear ft and 31 Map folders)

William Cobban was born in Great Falls, Montana, in 1916. He earned a B.A. degree from the University of Montana in 1940 and a Ph.D. from Johns Hopkins University in 1949. Cobban worked as a petroleum geologist from 1939 to 1945 before joining the U.S. Geological Survey in 1948, where he served the agency with distinction as a paleontologist and stratigrapher until his retirement in 1992. He is a fellow of the Society of Economic Paleontologists and Mineralogists, the Paleontological Society, the American Association of Petroleum Geologists, and the Geological Society of America. Honors bestowed on him by his peers include the Meritorious Service Award from the U.S. Department of the Interior in 1974 and the Paleontological Society Medal in 1985.

INVENTORY

By

Carol A. Edwards
U.S. Geological Survey Field Records Collection
MS 914, Box 25046, Federal Center
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April 2002

Location of Field Notebooks: CS 18-7 through 9

**STRATIGRAPHY OF THE MEMBERS OF THE BLACKLEAF AND
MARIAS RIVER FORMATIONS, MONTANA. 1929-1970.**

<u>Item Number</u>	<u>Description</u>
NO-05255	Erdmann, C.E. Book 1. 1929. Field notes. Sweetgrass Hills, Liberty and Toole Counties, Montana.
NO-05256	Erdmann, C.E. Book 2. 1929. Field notes. Sweetgrass Hills, Liberty and Toole Counties, Montana.
NO-05257	Erdmann, C.E. . Book 1. 1930. Summary of structural data in Montana township reports. General files T. 1-37 N., R. 1-16 E., pages 1-71
NO-05258	Erdmann, C.E. Book 2. 1930. Summary of structural data in Montana township reports. General files T. 1-37 N., R. 17-42 E., pages 72-144.
NO-05259	Erdmann, C.E. Book 3 1930. Summary of structural data in Montana township reports. General files T. 1-37 N., R. 43-62 E., pages 145-210.
NO-05260	Erdmann, C.E. Book 4. 1930. Summary of structural data in Montana township reports. General files T. 1-9 S., R. 6-62 E., T. 1-37 N., R. 1-15 W., pages 211-281.
NO-05261	Erdmann, C.E. 1930. Summary of structural data and index to general notes, Montana gas fields.
NO-05262	Erdmann, C.E. 1931. Miscellaneous notes on oil and gas fields in Sweetgrass Arch area and Alberta, Canada.
NO-05263	Erdmann, C.E. Book 1. 1930. Montana – General notes, including Sweetgrass Arch.
NO-05264	Erdmann, C.E. Book 2. 1930. Montana – General notes, including Sweetgrass Arch.
NO-05265	Erdmann, C.E. Book 3. 1930-1932. Montana – General notes, including Sweetgrass Arch.
NO-05266	Erdmann, C.E. 1929-1930. Sweetgrass Arch area, Liberty and Toole Counties, Montana.
NO-05267	Erdmann, C.E. 1929-1930. Notes in Pinhorn area, Liberty County, Sweetgrass Hills, Montana. T. 37 N., R. 6 E.

- NO-05268 Erdmann, C.E. 1929-1930. Traverse notes on Sweetgrass Hills, T. 36 N., R. 5 E., Liberty County; Gold Butte area, T. 36 N., R. 3 E., Liberty County; field notes on Sweetgrass Hills, T. 35 N., R. 2 E., Toole County, Montana.
- NO-05269 Erdmann, C.E. 1932. Traverse notes, Sweetgrass Hills area, T. 36 N., R. 1 E., Toole County; West Butte, Sweetgrass Hills area, T. 37 N., R. 1 E., Toole County, Montana.
- NO-05270 Erdmann, C.E. 1935, 1938-1942, 1944, 1946. Sweetgrass Hills area, Liberty and Toole Counties, and East Butte fluorite investigation, T. 36 N., R. 5 E., Liberty County, Montana.
- NO-05271 Erdmann, C.E. 1956. Review of type section of Kevin Shale (Niobrara). Most notes are in T. 34 N., R. 1 W., Toole County, Montana.
- NO-05272 Erdmann, C.E. 1957-1958. Kevin-Sunburst Dome; field check and remeasurement of Rohrer's Ferdig section in secs. 18-19, T. 33 N., R. 1 E., Toole County, Montana.
- NO-05273 Erdmann, C.E. 1958-1959. Notes on Holter Sandstone, Bed "N" east of Square Butte. Includes notes in Cascade, Chouteau, Lewis and Clark, Meagher, and Teton Counties, Montana.
- NO-05274 Erdmann, C.E. 1959. Holter Sandstone, T. 6 N., R. 1 E., Broadwater County, Montana.
- NO-05275 Erdmann, C.E. 1958. Notes on revision of Kevin-Ferdig boundary in sec. 15, T. 21 N, R. 4.W., Cascade County, Montana.
- NO-05276 Erdmann, C.E. Stratigraphic measurements of Kevin and Ferdig Members of Marias River Shale in Marias River Valley, Toole County, Montana. 1958.
- NO-05277 Erdmann, C.E. 1958. Miscellaneous remarks on correlations in the Kevin Shale between the Marias River and Kevin-Sunburst Dome, Toole County, Montana.
- NO-05278 Erdmann, C.E. 1959. Stratigraphic measurement of the Ferdig Member of Marias River Shale on the George Faller Ranch, sec. 23, T. 19 N., R. 1 W., Cascade County, Montana.
- NO-05279 Erdmann, C.E. 1959. Stratigraphic measurement of Ferdig Member of Marias River Shale near Power, sec. 34, T. 23 N., R. 1 W., Teton County, Montana.
- NO-05280 Erdmann, C.E. Notebook 1. 1962-1963. Taft Hill sections, Cascade County, Montana.
- NO-05281 Erdmann, C.E. Notebook 2. 1964. Field notes on the revisions of the upper part

of the Taft Hill Member of the Colorado Group, Cascade County, Montana.

- NO-05282 Erdmann, C.E. Notebook 1. 1961-1963. Flood Member sections. Most notes in T. 21 N., R. 3 E., Cascade County, Montana.
- NO-05283 Erdmann, C.E. Notebook 2. 1965-1966, 1968, 1970. Supplementary field notes on the reference section of the Flood Member of the Blackleaf Formation north of Emerson Junction, Cascade County, Montana.
- NO-05284 Erdmann, C.E. 1964. Field notes on the revision of the upper and lower boundaries of the Floweree Member of the Marias River Shale of the Colorado Group, Chouteau County, Montana.
- NO-05285 Erdmann, C.E. 1964-1966, 1968. Field notes on revision of Vaughn Member of the Blackleaf Member of the Colorado Group, Cascade County, Montana.
- NO-05286 Erdmann, C.E. 1967. Field notes on boundary between Flood and Taft Hill Members of the Blackleaf Formation of the Colorado Group: a nonerident disconformity. Cascade County, Montana.
- NO-05287 Rohrer, W.L. 1953. Field notes for T. 33 N., R. 1 W., Toole County, Montana.
- NO-05288 Rohrer, W.L. 1954. Field notes for T. 33 N., R. 1 E., Toole County, Montana.
- NO-05289 Rohrer, W.L. and C.E. Erdmann. 1954, 1958. Geologic notes on T. 32 N., R. 1 E., and notes on Cone-Ferdig boundary problem. Toole County, Montana.
- NO-05290 Rohrer, W.L. and K. Soward. 1954. Notebook with 2 vertical angle books and notes on Chalk Butte Nose, T. 37 N., R. 8 W., Glacier County, Montana.
- NO-05291 Holmes, Kenneth H. and Thomas E. Betz. Ca. 1950, 1952. Expandable envelope with notes, 1 vertical angle book, 2 partial measured sections, plus manuscript *Memorandum on the Oil and Gas Prospects of T. 29 N., R. 1 W., Pondera County, Montana* (1952).
- NO-05292 Holmes, Kenneth H. and Edward S. Bauer. Expandable envelope with notes, 1 vertical angle book, 2 partial measured sections, 1 map, and manuscript *Memorandum on the Oil and Gas Prospects of T. 29 N., R. 2 W. Pondera County, Montana*. 1950.
- NO-05293 Envelope with 1 vertical angle book with one page of notes by V.K. Koskinen, on T. 29 N., R. 3 W. Pondera County, Montana. May 2, 1952.
- NO-05294 Holmes, Kenneth H. and Thomas E. Bretz. Ca. 1950. Expandable folder with 2 groups of notes, 4 vertical angle books, 8 partial measured sections, 1 measured section of Kcs, 2 cross-sections of the Marias River Formation, 1 map, and

manuscript *Memorandum on the Oil and Gas Prospects of T. 30 N., R. 1 W. Pondera and Toole Counties, Montana* (1950).

- NO-05295 Holmes, Kenneth H. and Edward Bauer. 1950. Expandable envelope with notes, 2 vertical angle books, 3 partial measured sections, and a manuscript *Memorandum on Oil and Gas Prospects of T. 30 N., R. 2 W. Pondera County, Montana* (1952).
- NO-05296 Rohrer, W.L. and Kenneth H. Holmes. 1951. Expandable envelope with notes, 2 vertical angle books, 1 map, and a manuscript *Memorandum on Oil and Gas Prospects of T. 30 N., R. 3 W. Pondera County, Montana* (1952).
- NO-05297 Rohrer, W.L. and Kenneth H. Holmes. 1951. Expandable envelope with notes, 1 vertical angle book, 1 map and a manuscript *Memorandum on Oil and Gas Prospects of T. 30 N., R. 4 W. Pondera County, Montana* (1952).
- NO-05298 Bretz, Thomas E. and Kenneth H. Holmes. 1950. Expandable envelope with notes, 1 vertical angle book, 1 map, and a manuscript *Memorandum on Oil and Gas Prospects of T. 31 N., R. 1 W. Toole County, Montana* (1952).
- NO-05299 Bretz, Thomas E. and Kenneth H. Holmes. 1950. Expandable envelope with notes, 2 vertical angle books, 2 partial measured sections, 1 map, and a manuscript *Memorandum on Oil and Gas Prospects of T. 31 N., R. 2 W. Toole County, Montana* (1952).
- NO-05300 Holmes, Kenneth H. and W.L. Rohrer. 1951. Expandable envelope with notes, 3 vertical angle books, 1 sketch of observations made at south side of Valier Road, group of fossil reports, and group of 24 measured sections on T. 31 N., R. 3 W. Pondera and Toole Counties, Montana.
- NO-05301 Holmes, Kenneth H. and W.L. Rohrer. 1951. Expandable envelope with notes, 3 vertical angle books, 2 maps, and a manuscript *Memorandum on Oil and Gas Prospects of T. 31 N., R. 4 W. Pondera and Toole Counties, Montana* (1952).
- NO-05302 Rohrer, W.L. and J.S. Bader. 1955. Expandable envelope with notes, 1 vertical angle book, and 4 measured sections on T. 31-32 N., R. 5 W. Glacier and Pondera Counties, Montana.
- NO-05303 Johnson, D.M. and W.L. Rohrer. 1953. Expandable envelope with notes, 1 vertical angle book, 1 map, and a group of notes on T. 32 N., R. 1 W. Toole County, Montana.
- NO-05304 Koskinen, Victor K., D.M. Johnson, W.L. Rohrer, and R.A.M. Schmidt. 1953. Expandable envelope with notes, 4 vertical angle books, and 1 map on T. 32 N., R. 2 W. Toole County, Montana.

- NO-05305 Koskinen, Victor K. 1952. Expandable envelope with notes, 4 vertical angle books, and group of stratigraphic sections on T. 32 N., R. 3 W. Toole County, Montana.
- NO-05306 Rohrer, W.L. and J.S. Bader. 1955. Expandable envelope with notes, measured sections, and 3 vertical angle books on T. 32 N., R. 4 W. Toole County, Montana.
- NO-05307 Rohrer, W.L. and D.M. Johnson. 1953, 1954, 1958. Expandable envelope with 1 vertical angle book, group of well information, and a group of notes on composite section on T. 33 N., R. 1 W. Toole County, Montana.
- NO-05308 Koskinen, V.K., K.S. Soward, and D.M. Johnson. 1953. Expandable envelope with notes, 3 vertical angle books, 1 map, and group of well information on T. 33 N., R. 2 W. Toole County, Montana.
- NO-05309 Koskinen, V.K. and L.G. Nering. 1952. Expandable envelope with notes, 3 vertical angle books, 9 stratigraphic sections with notes attached, and 2 pages of well information on T. 33 N., R. 3 W. Toole County, Montana.
- NO-05310 Holmes, Kenneth and B. Alto. 1948. Expandable envelope with notes, 3 vertical angle books, 1 map, 1 partial section, and a typed *Memorandum on Oil and Gas Prospects in T. 33 N., R. 4 W. Toole County, Montana* (1950).
- NO-05311 Koskinen, V.K. and D.M. Johnson. 1954, 1957, 1959. Expandable envelope with notes, 4 vertical angle books, 2 partial stratigraphic sections, and 1 group of well information on T. 34 N., R. 1 W. Toole County, Montana. Annotations in green ink by CEE (C.E. Erdmann).
- NO-05312 Koskinen, V.K. and D.M. Johnson. 1954. Expandable envelope with geologic and traverse notes, stratigraphic notes and measured sections, 2 vertical angle books, and 1 sheet of well information on T. 34 N., R. 2 W. Toole County, Montana.
- NO-05313 Koskinen, V.K. and E.J. Bauer. 1950, 1952. Expandable envelope with notes, 2 vertical angle books, and 1 group of well information on T. 34 N., R. 3 W. Toole County, Montana.
- NO-05314 Erdman, C.E., B.R. Alto, A.F. Bateman, Jr., G.W. Beer, J.W. Nordquist, W.L. Rohrer, K.H. Holmes, and John Bader. 1945-1946, 1949, 1950, 1955, 1963. Expandable envelope with notes, 5 vertical angle books, correspondence, 2 maps, and typed *Memorandum on Oil and Gas Prospects of T. 34 N., R. 4 W. Toole County, Montana* (1951).
- NO-05315 Koskinen, V.K., D.M. Johnson, E.J. Bauer, and B.R. Alto. 1949, 1950, 1954. Expandable envelope with notes, and 5 vertical angle books on T. 35 N., R. 1 W. Toole County, Montana.

- NO-05316 1947, 1950, 1951. Erdmann, C.E., J.W. Nordquist, V.K. Koskinen, and E.J. Bauer. Expandable envelope with notes and 4 vertical angle books on T. 35 N., R. 2 W. Toole County, Montana.
- NO-05317 Cozzens, A.B., J.T. Gist, G.W. Beer, C.E. Erdmann, Walter C. Strauch, and J.W. Nordquist. 1943-1945. Expandable envelope with notes, 13 vertical angle books, water analysis reports, elevation data, and correspondence related to T. 35 N., R. 3 W. Toole County, Montana.
- NO-05318 Cozzens, A.B., C.E. Erdmann, J.W. Nordquist, and G.W. Beer. 1944-1947. Expandable envelope with notes, 1 vertical angle book, correspondence, 1 newspaper article, and draft and revised versions of *Memorandum on Oil and Gas Prospects of T. 35 N., R. 4 W. Toole County, Montana*. Also, text to accompany Preliminary Map of T. 35 N., F. 4 W.
- NO-05319 Koskinen, V.K., E.J. Bauer, B.R. Alto, J.T. Gist, C.E. Erdmann, J.W. Nordquist, and ___ O'Riley. 1944, 1947, 1950, 1951. Expandable envelope with notes and measured sections, 3 vertical angle books, 1 map, 4 partial sections, and 9 groups of notes and correspondence on T. 36 N., R. 1 W. Toole County, Montana.
- NO-05320 Gist, J.T. and J.W. Nordquist. 1944, 1947. Expandable envelope with well elevation data and other well information, 1 vertical angle book, correspondence, press release regarding maps of Kevin-Sunburst oil field, and production data related to T. 36 N., R. 2 W. Toole County, Montana.
- NO-05321 Gist, J.T., G.W. Beer, J.W. Nordquist, Walter C. Strauch, and C.E. Erdmann. 1944, 1946. Expandable envelope with notes, 7 vertical angle books, correspondence, draft of press notice for newly released maps, group of well data, and 1 map on T. 36 N., R. 3 W. Toole County, Montana.
- NO-05322 Alto, B.R. and Kenneth H. Holmes. 1948, 1951. Expandable envelope with notes, 4 sections, 1 group of well data, correspondence, and *Memorandum on Oil and Gas Prospects of T. 37 N., R. 1 W. Toole County, Montana*.
- NO-05323 Koskinen, V.K., B.R. Alto, C.E. Erdmann, LG. Nering, K.S. Soward and J.W. Nordquist. 1946, 1948-1949, 1952-1954, 1958. Expandable envelope with: traverse notes, geologic and stratigraphic notes and sections, compilation of well data, correspondence, core analysis reports, 6 vertical angle books, all relating to T. 37 N., R. 3-5 W., Toole County, Montana. Also, copy of "Preliminary geological report North Darling Pool."
- NO-05324 Erdmann, C.E. and J.R. Schwabrow. 1930. Expandable envelope with geologic and stratigraphic notes and sections, and section of the Virgelle Sandstone Member of the Eagle Sandstone, in T. 37 N., R. 4 W. Toole County, Montana.

- NO-05325 Holmes, Kenneth H. and Thomas E. Bretz. 1949, 1951. Expandable envelope with geologic and stratigraphic notes and sections, measured sections, elevation data, correspondence, and *Memorandum on Oil and Gas Prospects in T. 29 N., R. 2 E. Toole County, Montana* (1951).
- NO-05326 Bretz, Thomas E. and Kenneth H. Holmes. 1929, 1951. Expandable envelope with geologic and stratigraphic notes and sections, measured sections, elevation data, sample descriptions, correspondence, and *Memorandum on Oil and Gas Prospects in T. 30 N., R. 1 E. Toole County, Montana*.
- NO-05327 Holmes, Kenneth H. and Thomas E. Bretz. Expandable envelope with geologic and stratigraphic notes and sections, measured sections, elevation data, correspondence, 4 vertical angle books, and *Memorandum on Oil and Gas Prospects in T. 30 N., R. 2 E. Toole County, Montana*.
- NO-05328 Holmes, Kenneth H., Thomas E. Bretz, and William Beer. Expandable envelope with notes, elevation data, 4 vertical angle books, large group of measured partial sections, 1 composite section, correspondence, and *Memorandum on Oil and Gas Prospects of T. 30 N., R. 3 E. Toole County, Montana*.
- NO-05329 Expandable envelope with 1 vertical angle book on T. 32 N, R. 1 E. Toole County, Montana. n.d.
- NO-05330 Rohrer, W.L. and E.Zimmerman. 1954. Expandable envelope with notes, and 1 vertical angle book on T. 32 N., R. 2 E. Toole County, Montana.
- NO-05331 Rohrer, W.L. and E. Zimmerman. 1954. Expandable envelope with notes and 3 vertical angle books on T. 33 N., R. 1-2 E. Toole County, Montana.
- NO-05332 Koskinen, V.K. and D.M. Johnson. 1954. Expandable envelope with notes, 1 vertical angle book, 1 partial stratigraphic section, and list of well and locations for T. 34 N., R. 1 E. Toole County, Montana.
- NO-05333 Rohrer, W.L., E. Zimmerman, and D. Johnson. 1954. Expandable envelope with notes, 1 vertical angle book, and 1 map mounted on cardboard, on T. 34 N., R. 2 E. Toole County, Montana.
- NO-05334 Expandable envelope with 12 notebooks of aneroid elevations in the Sweetgrass Arch area. Montana. n.d.
- NO-05335 Expandable envelope with 18 groups of notes and well data in the Sweetgrass Arch area. Montana. 1950, 1951.
- NO-05336 Expandable envelope with:
 - 1 each, typed original and carbon copy of Fort Shaw section, Cascade County, Montana, by W.A. Cobban, July 1942;

- manuscript, typed original and carbon copy of: *Southeast Corner of Square Butte, Partial measurement of middle part, Kevin Member, Marias River Shale, Cascade County, Montana*, by C.E. Erdmann, Dec. 3, 1958.
- NO-05337 Expandable envelope with materials dated 1948, 1950-1951, 1954:
- correspondence regarding Koskinen's thesis on "Marker Bed F in the Colorado Shale, Kevin-Sunburst dome area, Toole County, Montana" (1951);
 - chemical analysis reports regarding concretionary bed F;
 - typewritten copy of "Marker Bed F in the Colorado Shale, Kevin-Sunburst Dome area, Toole County, Montana," by V.K. Koskinen.
- NO-05338 Expandable envelope with:
- large group of correspondence on naming of Niobrara equivalent (Kevin Shale Member) – 1956-1958;
 - 9 groups of sections of Colorado Shale including Niobrara (Kevin Shale) – 1943-1944, 1946, 1956.
- NO-05339 Expandable envelope with:
- notes and sketches: Review of Base of Carlile at Cone station, in connection with description of type section of Carlile on Kevin-Sunburst dome, 1956;
 - 1 page of notes on thickness of the Ferdig Shale;
 - partial composite section, Colorado Shale, SE1/4 sec. 1, sec. 12, and sec. 13, T. 35 N., R. 2 W.;
 - correspondence, 1952, 1956;
 - Type sections for the Flood Member, Taft Hill glauconitic member, Vaughn bentonitic member, Bootlegger Member, Floweree Member, and Cone calcareous member – Colorado Shale;
 - Composite section of the Ferdig Shale Member of the Marias River Shale (1947, 1956);
 - Partial composite section of Colorado Shale below Bed "N" (1947);
 - Type section of Carlile, Kevin-Sunburst Dome, Fossil Collections September-November 1956.
- NO-05340 Expandable envelope with large group of miscellaneous notes, including stratigraphic notes, notes from publications, and notes possibly related to writing a report. n.d.
- NO-05341 Expandable envelope with draft copy of manuscript. n.d.
- NO-05342 Expandable envelope with:
- 1 each, typewritten and manuscript copy of composite measurement of Ferdig Member of the Marias River Shale, 1959;
 - notes on Ferdig-Kevin boundary problem;
 - stratigraphic section across boundary between Kevin and Ferdig Shale Members (1958);

- 1 each typewritten original and manuscript copy of partial composite measurement of the Ferdig Member of the Marias River Shale, Faller Ranch section (1959);
 - notes on field check and remeasurement of W.L. Rohrer's partial Ferdig section, plus Rohrer's original section (1957, 1958);
 - 8 stratigraphic sections, including partial measured sections and composite sections, of the Kevin and Ferdig shells;
 - composite section, Ferdig-Kevin Sunburst Dome;
 - Power section – complete composite measurement of Ferdig Member of the Marias River Shale.group of partial measurement (7) sections, and 1 section each of Ferdig-Kevin Sunburst Dome, and Ferdig at Power. ?????
- NO-05343 Expandable envelope with Miscellaneous notes and draft text for chapter on the Vaughn Member of the Blackleaf Formation. n.d.
- NO-05344 Expandable envelope with:
- notes on “red specks” in wells;
 - comments on draft text of Colorado Shale Group paper;
 - typed copy, Preliminary Composite Section, Basal Cone (Greenhorn)(?), Floweree, and Upper Bootlegger Members of the Colorado Group (1954, 1958)
- NO-05345 Expandable envelope with:
- 5 stratigraphic sections of Vaughn Member, Blackleaf Formation, Cascade County, Montana (1968);
 - typed copy, Stratigraphic measurement of Vaughn Member of Blackleaf Formation of Colorado Group (1968-1969), used in publication;
 - original, typed, Partial stratigraphic measurement of Vaughn Member of Blackleaf Formation of Colorado Group – Type locality of “nonmarine”(?) chamosite (1968, 1969) – not used in publication;
- NO-05346 Expandable envelope with fossil list, and Partial section of lower part of Blackleaf Formation of Colorado Group, and upper part of Kootenai Formation. Glacier County, Montana. 1956.
- NO-05347 Expandable envelope with carbon copy of draft text for Flood Member of the Blackleaf Formation of the Colorado Group. n.d.
- NO-05348 Expandable envelope with:
- stratigraphic section, Flood Member of Blackleaf Formation, Glacier National Park, Montana (1956);
 - stratigraphic notes on Vaughn Member (1969, 1970);
 - Geologic road log, U.S. Highway No. 2, East Glacier to Summit, Montana (Erdmann and Cobban, 1938, 1955);
 - Section showing the Kootenai Formation.

- NO-05349 Expandable envelope with:
- notes on protoquartzite;
 - correspondence (1968) and *Petrographic Report on Clastic Rocks from Montana*;
 - sample labels with notes;
 - correspondence regarding lithologic nomenclature (1968).
- NO-05350 Expandable envelope with:
- information on samples written on sample labels;
 - correspondence, with notes on samples, regarding mineral and rock identification (1967, 1968).
- NO-05351 Expandable envelope with group of notes, correspondence (1970) on chamosite mineral content in Blackleaf Formation of Montana.
- NO-05352 Expandable envelope with notes on fossils, correspondence (1958, 1960), stratigraphic sections, including:
- Type sections, Cone calcareous Member;
 - Type section of Carlile equivalent (Ferdig Shale);
 - Sections through boundary (M), Ferdig – Kevin Shales;
 - Section across boundary, Niobrara – Carlile equivalents;
 - Niobrara;
 - Partial sections of upper part of Kevin Shale Member of Marias River Shale showing relationship of *Scaphites depressus* zone to higher fossil zones, and probable hiatus in *Clioscapites vermiformis* zone;
 - Partial section of Ferdig Shale below bed N;
 - Partial composite section of Colorado Shale;
 - Section at McCracken Hill, Southeast of Shelby, Toole County, Montana.
- NO-05353 Expandable envelope with:
- partial measurements of middle part of Kevin Shale (Square Butte);
 - partial section of Colorado Shale, Sec. 3, T. 35 N., R. 3 W.;
 - 1 section of lower part of Holmes composite;
 - 1 partial section of basal Kevin and middle Ferdig Member;
 - 1 tracing paper section from base of Eagle Sandstone to top of Madison Limestone, from Northern Pacific Railway Company;
 - 1 partial section of Colorado Shale, Sec. 3, T. 35 N., R. 3 W.;
 - 1 section, lower Kevin, left bank of Marias River at Shelby bridge;
 - 1 section lower Kevin Member, Holter Sandstone Member, and Ferdig Member of Marias River Shale;
 - 1 small section, sec. 8, T. 30 N., R. 1 W.
- NO-05354 Expandable envelope with:
- field notes – measurements of basal Kevin Shale and Holter Sandstone Members, Marias River Shale at Station 166 (1961), as well as related traverse plots;

- correspondence (1961, 1962);
 - measured section and description of the Kevin and upper Ferdig along South Fork of the Sun River;
 - measured section and description of the Holter Sandstone Member of the Marias River Shale;
 - additional stratigraphic notes;
 - report on referred fossils;
 - partial stratigraphic measurement and description of basal part of Kevin Shale member of Marias River Shale, Colorado Group.
- NO-05355 Expandable envelope with:
- copy of section through the Blackleaf Sandy Member of the Colorado Shale near Great Falls, Montana by Cobban;
 - correspondence (1940, 1961);
 - Generalized section of the Blackleaf Sandy Member of the Colorado Shale near Great Falls, Montana.
- NO-05356 Expandable envelope with notes and copy of report on Bootlegger Member of Blackleaf Formation. n.d.
- NO-05357 Expandable envelope with correspondence on chemical analysis data on dolomite sample (1966).
- NO-05358 Expandable envelope with lists of photographs for publication and several photographs.
- NO-05359 Expandable envelope with measured sections, reports on referred fossils, and correspondence (1944-1970) related to the Colorado Group.
- NO-05360 Expandable envelope with measured sections, reports on referred fossils, and correspondence on the Ferdig-Holter Members of the Marias River Shale (1957-1962).
- NO-05361 Expandable envelope with:
- group of sections of Floweree Member of Marias River Shale;
 - group of sections of Flood Member;
 - group of sections of Vaughn Member;
 - group of sections of Taft Hill Member;
 - 1 group of notes on various sections;
 - 4 groups of miscellaneous sections;
 - 1 each section of Kevin Shale lower half, upper half, and type section of Ferdig Member.
- NO-05362 Expandable envelope with:
- manuscript and typed copy of "Reconnaissance Measurement of Holter Sandstone, T. 6 N., R. 1 E., Broadwater County";

- manuscript and typed copy of “Reconnaissance measurement of lower part of Colorado Group, T. 6 N., R. 1 E.”;
- report on referred fossils;
- group of diagrams on computation of thickness, Indian Creek section.

- NO-05363 Expandable envelope with:
- log of well test, Paul R. Rice #1, by Homestake Exploration Corporation, Toole County, Montana;
 - log of test in Kevi-Sunburst field by California Petroleum Company, Toole County, Montana;
 - logs of well in Kevin-Sunburst field by Potlatch Oil and Gas Company;
 - log of well in Gas Ridge Field by Potlatch Oil and Gas Company;
 - notes on Sweetgrass Arch deep tests;
 - log of core from Good & Constad’s Hall No. 1 well, Pondera County, Montana.
- NO-05364 Expandable envelope with 2 well logs and group of notes and report on Anaconda Company, Swan #1, T. 17-18 N., R. 2 W., Cascade County, Montana.
- NO-05365 Expandable envelope with:
- 4 map pieces of Blackfoot 30’ quadrangle, Glacier County, Montana;
 - notes on “Review of Gas Development in Northern Montana” by W.S. Nelson;
 - preliminary composite section, basal Cone (Greenhorn)(?), Floweree, and upper Bootlegger Members of the Colorado Group;
 - miscellaneous stratigraphic notes;
 - partial section of Blackleaf Sandy Member of Colorado Shale;
 - correspondence (1968-1969).
- NO-05366 Expandable envelope with:
- 12 photographs;
 - 1 map of T. 37 N., R. 8 W., Glacier County, Montana;
 - notes, well logs, and core samples by Mountain Chief Oil Company;
 - sample logs by Homestake Oil Company, T. 36 N., R. 12 W., Glacier County, Montana;
 - sample log by Fulton Petroleum Company, T. 36 N., R. 12 W.
- NO-05367 Expandable folder with:
- 5 groups of photocopied file cards on drill holes in Blaine and Hill Counties, Montana;
 - township map for T. 22 N., R. 52 E., Richland County, Montana;
 - township map for T. 25 N., R. 52 E., Richland County, Montana;
 - township map for T. 27 N., R. 50 E., Richland County, Montana;
 - township map for T. 27 N., R. 51 E., Richland County, Montana;
 - township map for T. 27 N., R. 53 E., Richland County, Montana;
 - 3 groups of miscellaneous sample locations;

- 21 vertical angle books.

- MA-02747 Map folder with:
- index map for Colorado Group;
 - notes and correspondence
 - map of Beartooth Uplift
 - map showing areal and structural geology of the Highwood Mountains;
 - structure map showing Crown Butte anticline, by Western Petroleum Exploration;
 - mylar overlay of T. 20-27 N., R. 11-26 E.;
 - tracing paper isopach map and sketch of Colorado Group over Bearpaw Arch;
 - mylar map of eastern Montana;
 - tracing paper map of revision of Blood Creek syncline and Cow Creek syncline;
 - blueprint map of Toole County, Montana;
 - map of northern Montana and Alberta, Canada;
 - generalized stratigraphic correlation chart;
 - sheet with 2 sections showing Colorado Shale in Brush Creek and Kootenai Domes and localities around Highwood Mountains;
 - group of miscellaneous sections;
 - index maps showing location of Holter Sandstone (Fig. 1);
 - group of sections showing Holter Sandstone at type locality (Fig. 2)
 - map showing localities where type sections of Colorado Group were measured (Fig. 2)
 - group of preliminary sketch maps for miscellaneous townships;
 - map mounted on cardboard indexing plane table sheets and contents of folders;

- MA-02748 Map folder with:
- 7 notebooks and 3 vertical angle books on Grassy Butte area, Toole County, Montana, T. 35 N., R. 3 E.;
 - 1 group of notes and correspondence;
 - copy of "Reconnaissance geological report on the Grassy Butte area, Toole County";
 - map showing part of sec. 22;
 - 2 plane-table sheets, T. 35 N., R. 3 E., and T. 36 N., R. 3 E.;
 - miscellaneous cross sections;
 - tracing paper map of T. 35 N., R. 3 E.;
 - tracing paper map of Grassy Butte;
 - structure map of Haystack anticline;
 - structure contour map of Haystack Butte;
 - blueprint map of Haystack Butte;
 - 1 map each of T. 35 T., R. 3 E. and T. 36 N., R. 3 E.

- MA-02749 Map folder with:
- 1 notebook and 1 vertical angle book on T. 131 N., R. 99 W.;

- group of notes on T. 131 N., R. 99 W.;
- 1 plane-table sheet of T. 131 N., R. 99 W.;
- 1 blueprint map of T. 131 N., R. 99 W.
- drill hole record on T. 131 N., Bowman County, North Dakota
- 2 groups of notes on Carter Oil Company well R.W. Lowe #1, T. 28 N., R. 50 E., Roosevelt County, Montana.

MA-02750 Map folder with:

- handwritten and published report on records of wells drilled for oil and gas in Washington;
- group of notes and group of maps showing oil and gas fields;
- charts showing location and operators of oil and gas wells in Washington;
- tracing paper map of oil and gas tests, Whatcom County, Washington;
- one 30' quadrangle map, each, of Eatonville, Mount Aix, Mount St. Helens, Mt. Rainier, and Chehalis quadrangles in Washington.

MA-02751 Map folder with 2 plane table sheets of Neisen anticline, T. 152-153 N., R. 94-95 W., Mountrail County, North Dakota.

MA-02752 Map folder with:

- blueprint map of Haystack Butte, T. 35 N., R. 4 E., Liberty County, Montana;
- mylar map plus 3 copies, East End East Glacier, T. 31-32 N., R. 12-13 W., Glacier County, Montana (2-d);
- mylar map and 3 copies of Lubec sheet, T. 30-31 N., R. 13-14 W., Glacier County (2-3);
- mylar map and 2 copies of Blacktail Hills, T. 29-30 N., R. 14-15 W., Flathead County (2-f);
- mylar map and 3 copies of West End Nimrod (Java), T. 29 N., R. 15 W., Flathead County (2-g);
- mylar map of Three Bears Lake sheet, T. 29-30 N., R. 14-15 W., Flathead County;
- 1 plane table sheet, T. 36 N., R. 5 E., Liberty County (2-c);
- plane-table sheet, T. 28 N., R. 5 W., Pondera County (2-j);
- plane table sheet, T. 27 N., R. 5 W., Teton County (2-k);
- plane table sheet, T. 28 N., R. 4 W., Pondera County (2-k);
- plane table sheet, T. 27 N., R. 3-4 W., Pondera and Teton Counties (2-m);
- plane table sheet, T. 36-37 N., R. 5-6 E., Liberty County;
- plane table sheet, T. 35-37 N., R. 2-5 E., Toole and Liberty Counties;
- 4 plane table sheets by W.A.P. Graham, of Haystack Butte area, Sweetgrass Hills, Montana.

MA-02753 Map folder with:

- map of Browning 30' quadrangle;
- 3 paper and 1 paper mounted on cardboard maps of Browning 30' quadrangle (Two Medicine Ridge), Glacier County, Montana;
- plane table sheet of T. 37 N., R. 3-4 W., Toole County, Montana (1-a);

- plane table sheet of T. 37 N., R. 4 W., Toole County, Montana (1-b);
- plane table sheet of T. 37 N., R. 1-2 W., Toole County, Montana (1-c);
- plane table sheet of T. 36-37 N., R. 5-6 W., Glacier County, Montana (1-d);
- plane table sheet of T. 34-36 N., R. 2-4 W., Toole County, Montana (1-e);
- plane table sheet of T. 35-36 N., R. 1 E., 1-2 W., Toole County, Montana (1-f);
- plane table sheet of T. 34 N., R. 3-5 W., Toole and Glacier Counties, Montana (1-g);
- plane table sheet of T. 33 N., R. 4 W., Toole County, Montana (1-h);
- plane table sheet of T. 30 N., R. 3 E., Toole County, Montana (1-I);
- plane table sheet of T. 31-32 N., R. 13 W., Glacier County, Montana (1-j);
- plane table sheet of T. 19 N., R. 2-3 W., Cascade County, Montana (1-k).

MA-02754 Map folder with:

- plane table sheet of T. 37 N., R. 8 W., Glacier County, Montana (1-a);
- plane table sheet of T. 37 N., R. 7 W., Glacier County, Montana (1-B);
- plane table sheet of T. 37 N., R. 4-5 W., Glacier and Toole Counties, Montana (1-c);
- plane table sheet of T. 36-37 N., R., R. 3 W., Toole County, Montana (1-d);
- plane table sheet of T. 36-37 N., R. 1-2 W., Toole County, Montana (1-e);
- plane table sheet of T. 36 N., R. 3 W., Toole County, Montana (1-f);
- plane table sheet of T. 36 N., R. 2 W., Toole County, Montana (1-g);
- plane table sheet of T. 36 N., R. 1 W., Toole County, Montana (1-h);
- plane table sheet of T. 34 N., R. 3 W., Toole County, Montana (1-I);
- plane table sheet of T. 35 N., F. 4-5 W., Toole and Glacier Counties, Montana (1-u);
- plane table sheet of T. 35 N., R. 3-4 W., Toole County, Montana (1-k);
- plane table sheet of T. 35 N., R. 2 W., Toole County, Montana (1-L);
- plane table sheet of T. 34 N., R. 3 W., Toole County, Montana (1-m);
- plane table sheet of T. 34 N., R. 2 W., Toole County, Montana (1-n);
- plane table sheet of T. 34 N., R. 1 W., Toole County, Montana (1-p).

MA-02755 Map folder with:

- plane table sheet of T. 33 N., R. 3 W., Toole County, Montana (2-a);
- plane table sheet of T. 33 N., R. 2 W., Toole County, Montana (2-b);
- plane table sheet of T. 33 N., R. 1 W., Toole County, Montana (2-c);
- plane table sheet of T. 32 N., R. 4 W., Toole County, Montana (2-d);
- plane table sheet of T. 32 N., R. 3 W., Toole County, Montana (2-e);
- plane table sheet of T. 32 N., R. 2 W., Toole County, Montana (2-f);
- plane table sheet of T. 32 N., R. 1 W., Toole County, Montana (2-g);
- plane table sheet of T. 31-32 N., R. 5 W., Pondera County, Montana (2-h);
- plane table sheet of T. 32 N., R. 4 W., Toole County, Montana (2-I);
- plane table sheet of T. 31 N., R. 4 W., Toole and Pondera Counties, Montana (2-j);
- plane table sheet of T. 31 N., R. 3 W., Toole and Pondera Counties, Montana (2-k)

- plane table sheet of T. 31 N., R. 2 W., Toole County, Montana (2-L);
- plane table sheet of T. 31 N., R. 1 W., Toole County, Montana (2-m);
- plane table sheet of T. 30 N., R. 4 W., Pondera County, Montana (2-n);
- plane table sheet of T. 30 N., R. 3 W., Pondera County, Montana (2-p);
- plane table sheet of T. 30 N., R. 2 W., Toole and Pondera Counties, Montana (2-q);
- plane table sheet of T. 30 N., R. 1 W., Toole and Pondera Counties, Montana (2-r);
- plane table sheet of T. 29 N., R. 3 W., Pondera County, Montana (2-s);
- plane table sheet of T. 29 N., R. 2 W., Pondera County, Montana (2-t);
- plane table sheet of T. 29 N., R. 1 W., Pondera County, Montana (2-u);
- plane table sheet of T. 32 N., R. 5-6 W., Glacier County, Montana (2-v).

MA-02756 Map folder with:

- plane table sheet of T. 34 N., R. 1 E., Toole County, Montana (3-a);
- plane table sheet of T. 34 N., R. 2 E., Toole County, Montana (3-b);
- plane table sheet of T. 33 N., R. 1 E., Toole County, Montana (3-c);
- plane table sheet of T. 33 N., R. 2 E., Toole County, Montana (3-d);
- plane table sheet of T. 32 N., R. 1 E., Toole County, Montana (3-e);
- plane table sheet of T. 32 N., R. 2 E., Toole County, Montana (3-f);
- plane table sheet of T. 31 N., R. 4 E., Toole County, Montana (3-g);
- plane table sheet of T. 30 N., R. 1 E., Toole County, Montana (3-h);
- plane table sheet of T. 30 N., R. 4 E., Toole County, Montana (3-I);
- plane table sheet of T. 30 N., R. 5 E., Liberty County, Montana (3-j);
- plane table sheet of T. 29 N., R. 1 E., Toole County, Montana (3-k);
- plane table sheet of T. 29 N., R. 2 E., Toole County, Montana (3-L);
- plane table sheet of T. 29 N., R. 4 E., Liberty County, Montana (3-m);
- plane table sheet of T. 29 N., R. 5 E., Liberty County, Montana (3-n);
- plane table sheet of T. 29 N., R. 6 E., Liberty County, Montana (3-p);
- plane table sheet of T. 30 N., R. 2 E., Toole County, Montana (3-q);
- plane table sheet of T. 31 N., R. 1 E., Toole County, Montana (3-r);
- plane table sheet of T. 33 N., R. 6 E., Liberty County, Montana;
- plane table sheet of T. 31-32 N., R. 3-4 E., Toole County, Montana;
- plane table sheet of T. 33-34 N., R. 3-4 E., Toole and Liberty Counties, Montana;
- plane table sheet of T. 33-34 N., R. 5-6 E., Liberty County, Montana;
- plane table sheet of T. 31-32 N., R. 5-6 E., Liberty County, Montana;
- plane table sheet of T. 31-32 N., R. 1-2 E., Toole County, Montana;
- plane table sheet of T. 33-34 N., R. 1-2 E., Toole County, Montana.

MA-02757 Map folder with:

- 2 copies of plane table sheet T. 36 N., R. 5 E., Liberty County, Montana;
- 4 copies of plane table sheet T. 35-36 N., R. 3-5 E., Toole and Liberty Counties, Montana;
- 24 copies of plane table sheets of T. 35-37 N., R. 3-6 E., Toole and Liberty Counties, Montana;

- plane table sheet of T. 37 N., R. 1 E., Toole County, Montana (4-a);
- plane table sheet of T. 37 N., R. 2 E., Toole County, Montana (4-b);
- plane table sheet of T. 37 N., R. 4 E., Liberty County, Montana (4-c);
- plane table sheet of T. 36 N., R. 1 E., Toole County, Montana (4-d);
- plane table sheet of T. 36 N., R. 2 E., Toole County, Montana (4-e);
- plane table sheet of T. 36 N., R. 5-6 E., Liberty County, Montana (4-g);
- plane table sheet of T. 36 N., R. 5 E., Liberty County, Montana (4-h);
- plane table sheet of T. 34-35 N., R. 1 E., Toole County, Montana (4-I);
- plane table sheet of T. 35 N., R. 2-3 E., Toole County, Montana (4-j);
- plane table sheet of T. 37 N., R. 4 E., Liberty County, Montana (4-L).

MA-00738 Map folder with:

- index and status of mapping for northern Sweetgrass Arch;
- map of Jordan, Montana 2-degree quadrangle;
- map of Great Falls, Montana 1-degree sheet;
- 1 map each of Belt, Bole, Collins, Dent Bridge, Gilman, Gore Hill, Stockett, Timber Coulee, and Vaughn 15' quadrangles, Montana;
- 2 maps, each, of Cascade and Fairfield 15' quadrangles, Montana;
- 3 maps of Great Falls 15' quadrangles, Montana;
- 4 maps of Portage 15' quadrangle, Montana;
- 1 map each of Rice Reservoir and Waltham 7.5' quadrangles, Montana;
- 2 map pieces of Roundup and White Sulphur Springs 2-degree quadrangles, Montana;
- 1 map of Dunkirk-Chester region;
- geologic map index of Montana;
- map of Flathead National Forest.

MA-00739 Map folder with:

- 1 map each of Antelope Coulee, Shelby, and Sunburst 15' quadrangles;
- map showing Shelby, Gas Ridge, Kevin-Sunburst, and Border gas fields, Montana;
- 1 map each of Aloe, North Kevin-Sunburst, Shelby, Thorpe-Border, and West Kevin-Sunburst areas, Montana;
- 2 maps of Kevin-Sunburst area, Montana;
- 1 map, each, of Antelope Coulee, Shelby, Sunburst, and West Butte 15' quadrangles, Montana;
- 1 areal and structural geology map, each, of these areas in Toole County, Montana: T. 33 N., R. 4 W., T. 34 N., R. 4 W., T. 35 N., R. 3 W., T. 35 N., R. 4 W., T. 36 N., R. 2 W., T. 36 N., R. 3 W., T. 37 N., R. 2 W.;
- 1 map, each, showing contours on eroded surface of Madison Limestone, of these areas in Toole County, Montana: T. 33 N., R. 4 W., T. 34 N., R. 4 W., T. 35 N., R. 3 W., T. 36 N., R. 2 W., T. 36 N., R. 3 W., T. 37 N., R. 2 W.

MA-00740 Map folder with:

- map of Grassy Butte 7.5' quadrangle, Toole County, Montana;
- cross section through Grassy Butte;

- correlation of Holter Sandstone Member with Marias River Shale;
- map of T. 34-36 N., R. 3-4 E., Toole and Liberty Counties, Montana;
- map of T. 34-36 N., R. 1-4 E., Toole County, Montana;
- section of upper part of Kevin Shale Member, Montana;
- section of basal part of Kevin Shale Member, Montana;
- 2 paper cross sections of T. 15 N., R. 3 W., Lewis and Clark County, Montana;
- composite section of upper part of Colorado Shale, T. 35 N., R. 3 W., Toole County, Montana;
- cross section of intervals from top of Kc, T. 34 N., R. 1-2 W., Toole County, Montana;
- stratigraphic sections, West Kevin District, Montana;
- map of geology of Ledger-Dunkirk area, Montana;
- preliminary map of the areal and structural geology of the Marias River Valley area, Montana.

- MA-00741 Map folder with:
- 3 paper maps of structure contours on Colorado Shale;
 - 4 paper maps of structure contours on top of Colorado Shale for Marias River Valley, Montana, T. 29-31 N., R. 1-4 E.;
 - 3 paper well logs from Overly Well no. 1;
 - 2 paper composite sections of exposed rocks;
 - 2 paper maps showing well locations;
 - map of part of Marias River Valley showing gravel benches;
 - paper isopach map of interval between Kcs top and Madison top.
- MA-00742 Map folder with paper map and measured sections of T. 30 N., R. 2 W., Pondera County, Montana.
- MA-00743 Map folder with:
- map of T. 31 N., R. 3 W., Toole and Pondera Counties, Montana;
 - map of T. 31-32 N., R. 3-4 W., Toole and Pondera Counties, Montana;
 - measured sections, T. 31 N., R. 3 W., Toole and Pondera Counties, Montana.
- MA-00744 Map folder with:
- 3 copies of map of Cut Bank gas field, Montana;
 - 9 partial sections, T. 33 N., R. 4 W., Toole County, Montana;
 - 3 paper composite sections of exposed rocks, T. 33 N., R. 4 W., Toole County, Montana;
 - paper standard well log;
 - paper simplified cross section along line A-A', T. 33 N., R. 4 W., Toole County, Montana;
 - graph with sections on T. 33 N., R. 4 W., Toole County, Montana;
 - paper culture map of T. 33 N., R. 4 W. Montana;
 - paper subsurface work sheet;
 - paper isopach map;

- linen topographic map;
- 4 paper maps showing contours on eroded surface of Madison Limestone and wells reaching the Madison;
- 2 paper maps of areal and structural geology and pools in the area.

MA-00745 Map folder with:

- 3 sections of T. 34 N., R. 4 W., Toole County, Montana;
- 2 standard well logs;
- composite section of exposed rocks;
- 7 paper maps showing isopach interval, eroded top of Madison, base of Cut Bank, and Colorado contours;
- 9 paper maps showing contours on eroded surface of Madison Limestone and areal and structural geology.

MA-00746 Map folder with:

- partial sections mounted on brown paper of T. 35 N., R. 1 W., Toole County, Montana;
- 1 section (Erdmann's);
- chart showing measured intervals;
- elevation map showing logs plotted;
- 1 contour map, each, of top of Madison and top of Colorado Shale.

MA-00747 Map folder with:

- 7 paper and 1 linen composite sections, T. 35 N., R. 3 W.;
- map showing area north of Kevin;
- 7 maps showing areal and structural geology and contours of eroded surface of Madison Limestone and oil pools in West Kevin district.

MA-00748 Map folder with:

- 2 paper stratigraphic columns, T. 35 N., R. 4-5 W., Glacier and Toole Counties, Montana;
- longitudinal profile of Reentrant Valley;
- composite section of Two Medicine Formation;
- 2 paper well logs;
- cross section of top of Colorado Shale;
- 9 paper maps showing contours on eroded surface of Madison Limestone;
- 10 paper maps of areal and structural geology.

MA-00749 Map folder with:

- paper standard well log, T. 36 T., R. 1 W., Toole County, Montana;
- paper composite section of exposed rocks and 2 paper maps showing contours on eroded surface of Madison Limestone.

MA-00750 Map folder with:

- composite section of the upper part of the Colorado Shale, T. 36 N., R. 2 W., Toole County, Montana;

- group of composite sections mounted on brown paper;
- paper standard well log;
- 5 maps showing contours on eroded surface of Madison Limestone and wells reaching the Madison;
- 2 maps of the areal and structural geology.

- MA-00751 Map folder with:
- paper map of area west of Sunburst, T. 36 N., R. 3 W., Toole County, Montana;
 - paper map of trial contours using Reichkoff Bannister well;
 - 7 paper maps showing contours on eroded surface of Madison Limestone and wells reaching the Madison;
 - 4 maps of areal and structural geology and pools in area.
- MA-00752 Map folder with:
- linen work sheet, T. 37 N., R. 1 W., Toole County, Montana;
 - composite section of exposed rocks;
 - 2 paper copies of standard well log;
 - reconnaissance map of Willshaw Flats Nose;
 - 2 maps of areal and structural geology;
 - preliminary sketch map of geologic boundaries;
 - 8 paper maps showing contours on eroded surface of Madison Limestone and wells in area.
- MA-00753 Map folder with:
- 2 paper well logs, T. 37 N., R. 2 W., Toole County, Montana;
 - paper land net;
 - paper sketch of areal geology;
 - preliminary sketch map of geologic boundaries;
 - 2 paper maps showing contours on eroded surface of Madison Limestone.
- MA-00754 Map folder with:
- composite log, T. 37 N., R. 3-5 W.;
 - composite section of exposed rocks;
 - well log;
 - map showing Border Nose and various pools;
 - 2 maps of the Border-Red Coulee district;
 - map of Border oil field;
 - map of T. 37 N., R. 4 W.;
 - group of 2 blueprints and 1 copy of T. 34-37 N., R. 4-6 W.
- MA-00755 Map folder with miscellaneous and unidentified maps, including 8 paper maps and work sheets, and 12 paper cross sections.

Published as: U.S. Geological Survey. Professional Paper 974. 1976.

**THE PIERRE SHALE PROJECT OF THE GREAT PLAINS, COLORADO.
1960-1985.**

- NO-06677 Glenn R. Scott. Geologic notes and measured sections of Pierre Shale in areas of Colorado and New Mexico, including some notes on fossils.
- NO-06678 Expandable envelope with:
Folder #1 – Notes on Pierre Shale fossils, Fall 1979 and Fall 1983; notes from G.K. Gilbert field notebooks; additional notes on fossils and localities; Pierre Shale fossil collections from Pueblo, Canon City-Colorado Springs areas, and from Pueblo-Colorado Springs area; measured section from Codell Sandstone through Pierre Shale, SE1/4SW1/4 sec. 19, T. 7 S., R. 68 W.; notes on fossils copied from Mather, Gilluly, and Lusk field notes; sketch of measured section at Kremmling; additional notes on fossils and measured sections;
Folder #2 – Geologic notes and measured sections; reports on referred fossils; notes on fossils and fossil localities, including fossil collections from Pierre Shale and Fox Hills Sandstone on the eastern plains of Colorado, fossil collections at Colorado College (Colorado Springs), Pierre Shale fossils in Canon City-Florence Basin; composite section of Pierre Shale north of Pueblo, Colorado; Horse Creek, Wyoming fossil localities in stratigraphic order; photocopy of student paper, “Fossil Mollusks from the Pierre Shale at Pueblo, Colorado” by Larry S. Bowlds, Southern Colorado State College, Dec. 1967.
- NO-06679 Expandable envelope with:
Folder #1 – 4 aerial photomosaic indexes;
Folder #2 – 21 black and white vertical aerial photographs of the Pueblo-Nepesta quadrangles:
VV FS M 57 AMS: 4873-4877, 6235-6237, 6300-6309. 1953.
C.I.D. 1: 93-95. 1939.
- MA-01055 Map folder with: 16 annotated 7.5’ quadrangles with annotations showing geology and Cretaceous fossils from the Pierre Shale in the area between Loveland, Colorado and the Wyoming line: Bracewell; Buckeye (2 copies); Carr SW (2 copies); Carr West, Colorado-Wyoming; Severance; Timnath; Wellington (2 copies); Windsor (2 copies).
- MA-01056 Map folder with:
26 - 7.5’ quadrangles in Colorado, with geologic annotations: Berthoud; Boulder; Bracewell; Elder; Elsmere; Eldorado Springs (2 copies); Erie; Golden (2 copies); Gowanda; Granby; Hygiene; Indian Hills (2 copies); Johnstown; Kaassler (2 copies); Louisville; Loveland SW (Carter Lake Reservoir) (2 copies); Louisville; Loveland SW (Carter Lake Reservoir) (2 copies); Lyons; Milliken; Morrison; Niwot; Ralston Buttes;
3 - 7.5’ quadrangle in Wyoming with geologic annotations: Horse Creek (2 copies); Islay;

8 – 15' quadrangles in Colorado with geologic annotations: Boulder; Como; Fort Collins; Hot Sulphur Springs; Kremmling (3 copies); Longmont; Loveland; Niwot;
2 – 30' quadrangles in Colorado: Eaton; Livermore;
Sherman, Wyoming 30' quadrangle;
Limon, Colorado-Kansas 1:125,000 map;
Pueblo, Colorado 1:125,000 map;
Southwest part of Littleton, Colorado 7.5' quadrangle;
Sheet with correlated stratigraphic columns for Canon City-Wetmore-Pueblo area;
Sheet with stratigraphic columns for Six Mile Creek in Fremont County, Colorado and State Prison Farm, Canon City, Colorado.

Published as: U.S. Geological Survey. Miscellaneous geologic investigations map I-439. 1965.

Published as: U.S. Geological Survey. Miscellaneous geologic investigations map I-937. 1975.

Published as: U.S. Geological Survey. Miscellaneous geologic investigations map I-1627. 1986.

Published as: U.S. Geological Survey. Miscellaneous geologic investigations map I-1700. 1986.

Published as: U.S. Geological Survey. Open-file report 75-129. 1975.