



**U.S. GEOLOGICAL SURVEY LIBRARY
FIELD RECORDS COLLECTION
DENVER, COLORADO**

MAX D. CRITTENDEN
(1917 - 1982)

NOTES, CORRESPONDENCE, PAPERS

1941 - 1978

(4.2 linear ft.)

Max Crittenden was born in Seattle, Washington, in 1917. He earned his B.A. degree in geology from San Jose State University in 1939. Crittenden worked intermittently for the USGS as a field assistant from 1942 to 1949, and upon earning his Ph.D. from the University of California, Berkeley, joined the staff fulltime, remaining with the agency until his death in 1982. His areas of research included the economic geology of manganese deposits and the structural geology of the Idaho-Wyoming-Utah thrust belt. During his career Crittenden served as USGS manganese commodity specialist, as a member of the Geologic Names Committee, and as Chairman of the Federal Interdepartmental Geothermal Environmental Advisory Panel. In 1979 he was awarded the Department of the Interior's Meritorious Service Medal.

INVENTORY

By

Carol A. Edwards and Clay M. Martin
U.S. Geological Survey Field Records Collection
MS 914, Box 25046, Federal Center
Denver, CO 80225-0046
May 2002/August 2010

Location of Field Notebooks: CS-8: 7-9

MANGANESE IN THE CONTINENTAL UNITED STATES. 1941-1953.

<u>Item Number</u>	<u>Description</u>
NO-06864	M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigations of manganese deposits in California. Locales include: Van Glan Property; Downy Estate; Little Falls Mine; Rainbow Ledge; Summit Mine; Rose Ranch; Crandall Property; Aho Mine; O'Connell Prospect; Salinger Prospect; Salvador Prospect; Boyer Mine; White-O Ranch; Manganese King Mine; Manganese Queen Mine; Lucky Sunday Property; Hawkins Mine; Briggs Mine; Hendricks Mine; Fries Ranch; Gravelly Valley Claims; Mendocino National Forest; Hillstead Claims; Emma Claims. 1942.
NO-06865	M.D. Crittenden. Field notebook with geologic notes and drill core logs related to investigations of manganese deposits in the Drum Mountains, Juab and Millard Counties, Utah. 1941.
NO-06866	M.D. Crittenden. Field notebook pages with specimen register for manganese samples taken in California, Montana, and Nevada. 1944-1945.
NO-06867	M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigations of manganese deposits in Beaver, Iron, and Rich Counties, Utah. 1946.
NO-06868	M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigations of manganese deposits in the Drum Mountains and Big Cottonwood-American Fork areas, Utah and near Socorro, New Mexico. 1957.
NO-06869	M.D. Crittenden. Field notebook with geologic and fossil notes and sketches related to investigations of manganese deposits in Utah, Massachusetts, South Carolina, Georgia, Tennessee, and Pennsylvania. 1951-1953.
NO-03488	M.W. Cox and M.D. Crittenden. Field notebook with geologic notes and sketches related to investigations of manganese deposits in the Drum Mountains, Juab and Millard Counties, Utah. Also included are notes on the Sonoma Range 1-degree quadrangle and the Antler Peak 15' quadrangle, Lander and Pershing Counties, Nevada. 1941.
NO-03489	M.W. Cox and M.D. Crittenden. Field notebook with geologic notes and sketches related to investigations of manganese deposits in the Drum Mountains, Juab and Millard Counties, Utah. Also included are notes on the Bottle Creek-Happy Creek area, Humboldt County, Nevada. 1941.
NO-03490	M.D. Crittenden. Field notebook 1 with geologic notes and sketches related to

investigations of manganese deposits in the Drum Mountains, Juab and Millard Counties, Utah. Also included are notes on the Pioche area, Lincoln County, Nevada. 1941.

- NO-03491 M.D. Crittenden. Field notebook 2 with geologic notes and sketches related to investigations of manganese deposits in the Drum Mountains, Juab County, Utah. 1941.
- NO-03492 M.D. Crittenden. Field notebook 3 with geologic notes and sketches related to investigations of manganese deposits in the Drum Mountains, Juab County, Utah. 1941.
- NO-03493 M.D. Crittenden. Field notebook 4 with geologic notes and sketches related to investigations of manganese deposits in the Drum Mountains, Juab County, Utah. 1941.
- NO-03494 M.D. Crittenden. Field notebook 4 with vertical angle traverse records related to survey work in the Drum Mountains, Juab County, Utah, and at the Braito Mine, Plumas County, California. 1941.
- NO-03495 M.D. Crittenden. Expandable envelope with 50 microscopic thin section slides from samples taken in the Drum Mountains, Juab County, Utah.

Published as: U.S. Geological Survey. Bulletin 979-A. 1951.

Published as: U.S. Geological Survey. Open-file report 61-39. 1961.

Published as: U.S. Geological Survey. Mineral investigations resource map MR-23. 1962.

GEOLOGIC AND MINERAL INVESTIGATIONS IN NORTH-CENTRAL UTAH. 1953-1978.

- NO-06845 M.D. Crittenden. Field notebook with geologic notes related to field investigations in the Cottonwood-American Fork area, Utah. Locales include: Type locality of Morgan, north of Round Valley, Utah; Alta-Hellena Mine; Tank Canyon area; Drum Mountains; Swinging Bridge Creek area; Wadsworth Canyon area; north of Alpine; Neff Canyon, and Bells Canyon. Also included are notes on fossils and photographs taken. 1953.
- NO-06846 M.D. Crittenden. Field notebook with geologic notes related to field investigations in the Cottonwood Alpine area, Utah. Locales include: Uinta Mountains; Naildriver Mine; New Park Mine-Mayflower vein; Star tunnel; Drum Mountains; Alpine area-Wadsworth Canyon; Box Elder Peak; Newton Canyon area; Crittenden and C.G. Tillman measured section, Box Elder Canyon; Box Elder Draw measured section; Tibble Fork. 1954.

- NO-06847 M.D. Crittenden. Field notebook pages with geologic notes related to Defense Minerals Exploration Administration (DMEA) investigations in north-central Utah. Localities include: Duke Page property, House Range, Millard County; notes on New Klondike Mine, Granite Canyon, House Range; Yuba Dike Mines, Inc., Pioche district, Lincoln County, Nevada; Yellow Hammer Mine, Gold Hill, Utah; K. & Andrew Hunt workings; Willden and Petty tungsten mine, House Range. Also included are notes on the Cox and Ross claims, Mohave County, Arizona, and the Bacon tungsten claims, White Pine County, Nevada. 1954.
- NO-06848 M.D. Crittenden. Field notebook with geologic and fossil notes and sketches related to field investigations in the Cottonwood-American Fork area, Utah. Locales include: Farmington Canyon; Baers Canyon; Neff Canyon area; Parley's Canyon; Box Elder Canyon; City Creek area; Staats Mine in Drum Mountains; northeast side of Thomas Range; Big Cottonwood Canyon; Porter Fork; Maxfield Mine and area; Bells Canyon. 1955.
- NO-06851 M.D. Crittenden. Field notebook with specimen register and geologic and mining notes and sketches related to field investigations in north-central Utah. Locales include: Mill Creek area; Lambs Canyon area; Kessler Peak; Phillips Mine; Fort Seward Mine; Linser Mine; Trout Creek area mine; Braitto Mine; Mt. Hough Mine; Little Willow Canyon; west of Cardiff Mine; Maybud Gulch; Bonanza Flat area; Little Diamond Creek; Wanrhodes Creek. 1956.
- NO-06853 M.D. Crittenden. Field notebook with hand sample and drill-cutting notes related to field investigations in north-central Utah. 1959-1965.
- NO-06854 M.D. Crittenden. Field notebook with geologic and fossil notes and sketches related to field investigations in north-central Utah. Locales include: Marjum Pass; Reed and Benson Ridge; City Creek; Logan Mine; Lee Yim Mine; Mt. Raymond; Neff Canyon. 1958.
- NO-06855 M.D. Crittenden. Field notebook with geologic and fossil notes and sketches related to field investigations in north-central Utah. Locales include: highway observations between Ely, Nevada and Wendover, Utah; Cornu Canyon; Draper area; Traverse Range; Mayflower Mine; Parley Canyon; Delta. Also included are brief notes on American Smelting and Refining Company drilling. 1959.
- NO-06856 M.D. Crittenden. Field notebook with four pages of geologic notes related to field investigations in north-central Utah, including measured sections on the east side of the Weber River just north of Peoa Junction and in Emigrant Canyon. 1960.
- NO-06857 M.D. Crittenden. Field notebook pages with notes on a Friends of the Pleistocene field trip and conference in Bonneville. Includes road log and notes. 1961.
- NO-06858 M.D. Crittenden. Field notebook pages with notes on a visit with the chief

geologist for Hecla Mining Company in Seattle, Washington. Also included are geologic notes related to field investigations in north-central Utah at locales including Little Cottonwood Canyon, Cardiff Fork, Neff Canyon, Reed and Benson Ridge area, west of Desolation Lake, Valeo Mine hill, Little Valley. 1962.

- NO-06860 M.D. Crittenden. Field notebook pages with geologic and fossil notes and sketches related to field investigations in north-central Utah. Locales include: Bancroft Range; Clifton area; Malad Range just inside Bannock County, Idaho; Wasatch drain tunnel; Little Cottonwood Canyon quarry; Copper Queen area. Also included are specimen lists for boxes 1 through 7 and notes from a 1959 publication related to testing equipment by Bulova Research and Development Laboratories. 1963.
- NO-06861 M.D. Crittenden. Field notebook with geologic and fossil notes and sketches related to field investigations in north-central Utah. Locales include: Scotts Pass; Shadow Lake; Lobe Mary Dam area; Brighton Basin area; Mill B North Fork rail; White Pine Canyon; Rockport Reservoir area; Parley's Park area; Kimball Canyon; Salt Box; Silver Creek #1 well. Also included are notes on a J.C. Wilson thesis related to chemical analysis of the Alta stock. 1964.
- NO-06862 M.D. Crittenden. Field notebook with seven pages of well log notes for Shell No. 2 drill hole. Also included are geologic notes for the well area. 1968.
- NO-06863 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigations in north-central Utah. Locales include: Red Butte Canyon; City Creek area; Salt Lake Salient; James Peak quadrangle; Nip Hollow area; Porcupine Dam area; Davenport Creek and area; Willsville Creek area; Middle Fork of Ogden River. 1978.

Published as: U.S. Geological Survey. Professional paper 424-D. 1961.

Published as: U.S. Geological Survey. Professional paper 475-B. 1963.

Published as: U.S. Geological Survey. Professional paper 1100. 1978.

Published as: U.S. Geological Survey. Bulletin 1230-I. 1967.

Published as: U.S. Geological Survey. Open-file report 74-01. 1974.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-376. 1965.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-864. 1970.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-852. 1971.

Published as: U.S. Geological Survey. Miscellaneous field studies map MF-428. 1972.

Published as: U.S. Geological Survey. Miscellaneous field studies map MF-592. 1974.

THE GEOLOGY OF SOUTHERN NORWAY. 1960.

NO-06881 M.D. Crittenden. Field notebook with geologic notes and sketches taken on a trip to southern Norway sponsored by the International Geological Congress. 1960.

**GEOLOGY OF THE ROME AND MATTINGLY 7.5' QUADRANGLES,
KENTUCKY-INDIANA. 1962.**

NO-05107 M.D. Crittenden. Field notebook pages with geologic and survey notes and sketches related to field investigations in the Kentucky portion of the Rome 7.5' quadrangle, Indiana-Kentucky. Also included are notes on the Mattingly 7.5' quadrangle, Kentucky-Indiana. 1962.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-362. 1965.

**GEOLOGIC INVESTIGATIONS IN THE OGDEN-HUNTSVILLE-
WILLARD AREA, BOX ELDER, CACHE, AND WEBER COUNTIES,
UTAH. 1965-1976.**

NO-11730 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Browns Hole 7.5' quadrangle, Utah. 1965.

NO-11731 R.J. Rigo. Field notebook with geologic notes and sketches related to field investigation of the Browns Hole 7.5' quadrangle, Utah. 1965.

NO-11732 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1966.

NO-11733 B.V. Hansen and M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1966.

NO-11734 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1966.

NO-11735 B.V. Hansen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1966.

NO-11736 S. Cake. Field notebook with geologic notes and sketches related to field

- investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1966.
- NO-11737 S. Cake. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1967.
- NO-11738 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1967.
- NO-11739 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1969.
- NO-11740 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1969.
- NO-11741 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1969.
- NO-11742 L.A. James. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1969.
- NO-11743 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1970.
- NO-11744 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1970.
- NO-11745 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1970.
- NO-11746 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1970.
- NO-11747 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1971.
- NO-11748 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1971.
- NO-11749 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1971.
- NO-11750 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1972.
- NO-11751 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1972.

- NO-11752 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1972.
- NO-11753 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville and Mantua 7.5' quadrangles, Utah. 1972.
- NO-11754 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. Also included are notes on the Promontory Point area, Utah, and three loose sheets of related notes. 1973.
- NO-11755 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville and Mantua 7.5' quadrangles, Utah. 1973.
- NO-11756 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. 1974.
- NO-11757 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville, Mantua, and Willard 7.5' quadrangles and vicinity, Utah. 1974.
- NO-11758 M.L. Sorensen. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle and vicinity, Utah. 1974.
- NO-11759 M.D. Crittenden. Field notebook with geologic notes and sketches related to field investigation of the Huntsville 7.5' quadrangle, Utah, and vicinity. An accompanying note states: "Misc. notes, 1975, while visiting other field parties". Also included are three loose sheets of related notes. 1975-1977.
- NO-11760 Document box with 12 folders of black and white aerial photographs, some with geologic annotations, covering the Huntsville 7.5' quadrangle, Utah, and surrounding areas:
- Folder 1. Twelve photographs designated ELK 1. Range: 64-78.
 - Folder 2. Nineteen photographs designated ELK 1. Range: 83-100.
 - Folder 3. Twenty-one photographs designated ELK 4. Range: 262-275; ELK 1. Range 136-142..
 - Folder 4. Fourteen photographs designated ELK 4. Range: 262-271; ELK 1. Range: 139-142.
 - Folder 5. Twenty photographs designated ELK 1. Range: 159-183.
 - Folder 6. Twenty-one photographs designated ELK 1. Range: 159-181.
 - Folder 7. Twenty-seven photographs designated ELK 1. Range: 212-235. ELK 4. Range 249-251.
 - Folder 8. Thirty photographs designated ELK 1. Range: 212-235. ELK 4. Range: 249-253.
 - Folder 9. Twenty-three photographs designated ELK 2. Range: 32-54.

- Folder 10. Twenty-three photographs designated ELK 2. Range: 32-54.
- Folder 11. Thirty-two photographs designated ELK 2. Range: 60-91.
- Folder 12. Fifteen photographs designated ELK 2. Range: 77-91.

NO-11761 Document box with 15 folders of black and white aerial photographs, some with geologic annotations, covering the Huntsville 7.5' quadrangle, Utah, and surrounding areas:

- Folder 1. Nineteen photographs designated ELK 2. Range: 163-181.
- Folder 2. Fourteen photographs designated ELK 2. Range: 163-176.
- Folder 3. Nineteen photographs designated ELK 2. Range: 192-211.
- Folder 4. Twelve photographs designated ELK 2. Range: 200-211.
- Folder 5. Eight photographs designated ELK 3. Range: 52-59.
- Folder 6. Eight photographs designated ELK 3. Range: 52-59.
- Folder 7. Six photographs designated ELK 2. Range: 169-171.
- Folder 8. Nine photographs designated EMD 11. Range: 25-33.
- Folder 9. Twelve photographs designated EMD 11. Range: 56-67.
- Folder 10. Twelve photographs designated EMD 11. Range: 56-67.
- Folder 11. Twelve photographs designated EMD 6. Range: 133-144.
- Folder 12. Twelve photographs designated EMD 6. Range: 133-144.
- Folder 13. Nine photographs designated EMD 11. Range: 28-33.
- Folder 14. Three photographs designated EMD 17. Range: 74-76.
- Folder 15. Three photographs designated EMD 17. Range: 74-76.

NO-11762 Document box with 13 folders of black and white aerial photographs, some with geologic annotations, covering the Huntsville 7.5' quadrangle, Utah, and surrounding areas:

- Folder 1. Eight photographs designated EMD 13. Range: 70-77.
- Folder 2. Ten photographs designated EMD 8. Range: 62-71.
- Folder 3. Ten photographs designated EMD 8. Range: 62-71.
- Folder 4. Six photographs designated EMD 17. Range: 30-35.
- Folder 5. Six photographs designated EMD 17. Range: 30-35.
- Folder 6. Eight photographs designated EMD 13. Range: 70-77.
- Folder 7. Five photographs designated EMD 4. Range: 230-234.
- Folder 8. Five photographs designated EMD 4. Range: 230-234.
- Folder 9. Seven photographs designated GS-VAEX 1. Range: 62-68.
- Folder 10. Eight photographs designated GS-VAEX 1. Range: 119-128.
- Folder 11. Thirteen photographs designated GS-VAEX 1. Range: 82-94.
- Folder 12. Thirteen photographs designated GS-VAEX 1. Range: 95-107.
- Folder 13. Eleven photographs designated GS-VAEX 1. Range: 108-118.

Published as: U.S. Geological Survey. Miscellaneous field studies map MF-428. 1972.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-968. 1972.

Published as: U.S. Geological Survey. Miscellaneous field studies map MF-592. 1974.

Published as: U.S. Geological Survey. Open-file report 74-1. 1974.

Published as: U.S. Geological Survey. Miscellaneous field studies map MF-720. 1976.

Published as: Utah Geology. Vol. 3, No. 2. 1976.

Published as: U.S. Geological Survey. Geologic quadrangle map GQ-1503. 1979.

Published as: U.S. Geological Survey. Bulletin 1482-F. 1980.

Published as: Geological Society of America. Memoir 157. 1983.

Published as: U.S. Geological Survey. Miscellaneous investigations map I-1605. 1985.

Published as: U.S. Geological Survey. Miscellaneous investigations map I-1606. 1985.