

Tom and Melissa Campbell Collection 5029

Finding aid prepared by Hannah Marshall Bawden

This finding aid was produced using the Archivists' Toolkit

November 17, 2020

Describing Archives: A Content Standard

Homestake Adams Research and Cultural Center
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Summary Information

Repository	Homestake Adams Research and Cultural Center
Creator	Campbell, Melissa
Creator	Campbell, Tom
Creator	Homestake Mining Company
Title	Tom and Melissa Campbell Collection
Date [bulk]	Bulk, 1975-2000
Date [inclusive]	1924-2005
Extent	21.5 Linear feet
Language	English
Abstract	The Tom and Melissa Campbell Collection consists of published and technical reports, survey worksheets, drill logs, thin sections, maps, and electronic records. The materials were gathered while the Campbells worked on the creation of the Homestake Data Archive and the Homestake Core Archive.

Historical Note

Tom and Melissa Campbell worked part-time for three years on the creation of the Homestake Data Archives and the Homestake Core Archives after the 2000 closure of the Homestake Mining Operations in Lead, South Dakota. The data was to be used by the Sanford Underground Lab.

The initial work on the Data Archives consisted of gathering all Homestake exploration data, which had been kept at several different properties in both Central City and Lead. The Campbells then organized the data geographically according to mining district. After the geographical organization, inventories were made in Microsoft Excel.

The Core Archives began with the analysis of maps and cross-sections from Homestake exploration drilling projects, which led to the decision of what cores to retain and which to throw away. Retained cores were transported to core sheds. The core sheds were then mapped by Melissa Campbell to make locating a specific core relatively easy. Melissa Campbell carried out this work as part of an independent study that was not funded by the State of South Dakota or Homestake.

The Campbells were unable to complete either project due to the termination of funding in 2004.

Scope and Contents Note

This collection includes materials compiled by Tom and Melissa Campbell for scientific and educational purposes. The collection has both published and internal reports for Homestake Mining Company, drill logs, several dozen thin sections, survey worksheets, several maps, and geological specimens and core samples, including some identified as being from Noble. Also found in this collection is a cd, which holds three years' worth of work by both Campbells on the Homestake Core Archive and Homestake Date Archive.

Arrangement Note

Documents originally housed in binders have been rehoused for preservation purposes but retain their original labels. Please see box list for more information.

Geological samples that are identified as Noble specimens retain their original labels and have been boxed together. Unidentified core and geological samples have been kept in the boxes and bins they were donated in and are housed separately from the Noble specimens.

Administrative Information

Publication Information

Homestake Adams Research and Cultural Center

Revision Description

The discovery of several LF of geological specimens and cores samples required additional processing and an update to the finding aid. 11/17/2020

Conditions Governing Access

This collection is housed at the Homestake Adams Research and Cultural Center with no restrictions to access. The collection may be utilized during normal operating hours or by appointment. Access to geological specimens stored separately requires 24-hour advance notice.

Immediate Source of Acquisition

These materials were transferred as one donation, accession number ARC.2004.322, from Tom and Melissa Campbell, in 2004.

Processing Information

This collection was processed January 2020 -March 2020 by Hannah Marshall Bawden. Additional processing was completed in November 2020 with the assistance of Jim Peterson.

Related Materials

Related Materials

Additional archival materials related to the Tom and Melissa Campbell Collection can be found in the Homestake Mining Company Collection including the following: Homestake Map Collection, 5019 Homestake Survey Records, 5001 Homestake Mine Engineer Files, 5026 Homestake Thesis Collection,

5018 Bureau of Mines Publications, Diamond Drill Records, 5030 Homestake Ore Assay Records, Homestake Exploration Office Records, 5025 Periodicals and Published Works Collection, 5027 USGS Publications, and James A. Noble maps.

Separated Materials

Materials in a format too large to fit in boxes 1-5 have been permanently separated to Box 6 and are described by separation notes.

Geological samples that are not identified have been maintained in the boxes or 5-gallon bins they were donated in and are stored in a separate room from the rest of the collection.

Collection Inventory

	Box	Folder
Petrography and Trace Element Distribution Across a Gold Ore Body in the Homestake Mine, Lead, South Dakota by Thomas W. Bidgood, 1977	1	1
The Mineral Chemistry of Amphiboles from Amphibole-Schist and Intrusive Amphibolite from the Homestake Mine: A Preliminary Study by Thomas J. Campbell, 1984	1	2
Fluid Inclusion Characteristics of a Lower Proterozoic Metamorphic-Hydrothermal Vein System: The Homestake Gold Mine, South Dakota by Edward F. Duke, 1992	1	3
Geochemistry and Petrology of the Carbonate Iron-formations and Ferruginous Cherts of the Northeastern, Black Hills, South Dakota by Kenneth Scott Fantone, 1983	1	4
Geology of Archean Gold-bearing Metasediments near Jardine, Montana by William Sherman Hallager, 1977	1	5
Overview of Exploration Possibilities Geology and Related Operations the Homestake Mine August, 1987 by Gale A. Hansen, 1987	1	6
Petrographic Study of the Homestake Mine by Russell M. Honea, 1981	1	7
Geochemical Exploration Campaign 1966 Follow-Up Northern Black Hills, South Dakota by Wolfgang W. Mahrholz, 1967	1	8

On the Origin and Distribution of the Metals in the Major Ore Deposits of the Globe by James A. Noble, 1983	1	9
Geology and Geochemistry of Precambrian Amphibolites and Associated Gold Mineralization, Tinton District, Lawrence County, South Dakota and Crook County, Wyoming by John W. Norby, 1984	1	10
Subsurface Gravity in the Homestake Mine, Lead, South Dakota by Robert D. Nutsch, 1989	1	11
O. Hart Research, Undated	1	12
Ore Shoots at the Homestake Mine, Lead, South Dakota by Rolland R. Reid, 1984	1	13
Petrography and Petrofabric Analysis of the Rocks of the Homestake Mine and Vicinity, Lead, South Dakota by Rolland R. Reid, 1983	1	14
Geology of a Portion of 17 Ledge, Homestake Mine, Lead, South Dakota by John Hiram Rogers JR., 1984	1	15
The Use of Silicate and Carbonate Mineralogy as Signatures of Gold Mineralization in the Homestake Mine, Lead, South Dakota by Catherine L. Samaniego, 1988	1	16
Wall Rock Alteration and the Localization of Gold in the Homestake Mine, Lead, South Dakota by Diane Wolgram, 1977	1	17

Economic Geology Journal Important Historic Iron Formation Articles, 1954-1980	1	18
Economic Geology Journal Deposit Articles, 1964-1979	1	19
Miscellaneous Journal Articles, 1966-1987	1	20
State of Montana Bureau of Mines & Geology Memoir No. 23, Gold, Arsenic, and Tungsten Deposits of the Jardine-Crevasse, Mountain District Park County, Montana by George F. Seager, 1944	1	21
USGS Geological Survey Circulars, 1924,1964	1	22
USGS Geophysical Investigations Map # 903, 1975	1	23
Unidentified Report, Undated	1	24
External Report #7, The Flagrock Formation, 1981	2	1
External Report #14, Structural Geology of the Homestake Mine, 1982	2	2-3
Miscellaneous Report #15, Stable Isotope Study of the Annabelle, Bernadette and Jardine Orebodies, 1982	2	4-5
Technical Report #1 Homestake Exploration Services, Introduction to Homestake Research, 1980	2	6

Technical Report #2 Homestake Exploration Services, Geology and Geochemistry of a Homestake Ore Horizon (Annabelle), 1980	2	7
Technical Report #4 Homestake Exploration Services, Geochemical Controls on the Solubility of Gold-Sulfur Complexes, 1980	2	8
Lead Exploration Annual Report Volumes 2A and 2B Tertiary/Cambrian Age Gold, 1987	2	9-10
Lead Exploration Annual Report Volumes 2A Tertiary/Cambrian Age Gold, 1988	2	11-12
Bald Mountain Partnership Progress Report and Ore Target Evaluation Justification and Recommendation with AFE Request, 1981	2	13
Unfolding of the Homestake Mine Ore System, Exploration Ore Guides, and In-Mine Ore Targets, 1984	2	14-15
Preliminary Report on Infill Gravity Survey Zone A1, West Rim Area, 1992	2	16
Homestake Data and Core Archives, 2005	2	17
University of Akron Probe Data, 1988	2	18
Homestake Coordinates Overlays, 1989	2	19

Map of the Black Hills of South Dakota Showing Locations of Mine Examinations, 1936	2	20
Early Homestake Drilling, Undated	2	21
Exploration Criteria Correspondence, 1990-1992	2	22
Metamorphic P-T-t Paths Program Manual and Computer Exercises, 1990	2	23
Sulphur and LOI in Whole Rock Analysis from Chemez, 1994	3	1
Petrographic Data, 1979	3	2
Polished Section Examination Results, 1988	3	3
4700 & 4850 17 Ledge Survey Worksheets, 1994-1995	3	4
5900 Survey Worksheets, 1994-1998	3	5
6050 Survey Worksheets, 1993-1998	3	6
6200 Survey Worksheets, 1993-1999	3	7-8
6350 Survey Worksheets, 1993-2000	3	9-11
6500 Survey Worksheets, 1993-2000	3	12-13

Geochemical Data by Project, 1979-1982	3	14-15
2814 Assays Bottom, 2000	3	16
Est. 2814 N111-115B Advance Maps, Undated	3	17
Est. 2814 N111-11513 1400 7 Level, 1999-2000	3	18
LMU 38-20 Scales, 2000	3	19
N111-115B Davy Drill Assays Bottom, Undated	3	20
Screen Fire Assays, 2000	3	21
Reno Core Dispersion, 1994	3	22
Underground Drill Hole Index on Coreshed Computer, 2005	3	23
Collar Coordinates & Miscellaneous Surface Diamond Drill Hole Information, 1994	3	24
Collar Coordinates for Diamond Drill Holes (Mine Holes), 1990s	3	35
4850 Level Maps & Rock Descriptions, Undated	4	1
Western Mine 25 Ledge 7500 Yates Member, 1984-1988	4	2-3

Project Sample Book, 1998	4	4-5
7 Ledge Program 3050 Level, 1999	4	6
13 Ledge Program, 1998-1999	4	7
North Lead, 1981-1987	4	8-9
West Mine Corridor Program, 1997-1998	4	10
8000 Level 25/27 Ledge Drill Logs, 1990-1991	4	11-12
Blacktail/Deep Blacktail & Sheeptail/Tetro Rock Drill Logs, 1987-1988	4	13-14
Exploration Division Logs, 1987	4	15-16
Diamond Drill Holes 18014A-18853, 1988	5	1-2
Diamond Drill Holes 18561-18995, 1989	5	3-4
Diamond Drill Holes 19000-19325, 1989	5	5-6
Diamond Drill Holes 19335-19998 N, 1990-1991	5	7-9
Diamond Drill Holes 20005B -20496, 1991	5	10-11
Diamond Drill Holes 21000-21585, 1992-1993	5	12-13

Box

Thin Sections

6

Geological Sample Labels

7

Geological Samples

8-17

Bin

Geological Samples

1-5