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**RAY EVERETT WILCOX**  
(1912 - )

NOTES, CORRESPONDENCE, PAPERS

1939 - 1987

(1.6 linear ft. and 1 map folder)

INVENTORY

By

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U.S. Geological Survey Field Records Collection  
MS 914, Box 25046, Federal Center  
Denver, CO 80225-0046  
December 1997

Location of Field Notebooks: CS 15-10

**REPORTS OF ACTIVITY AND PETROLOGIC STUDIES OF THE  
PARICUTIN AND JORULLO VOLCANOES, MEXICO, AND THE  
SANTIAGO AND CERRO NEGRO VOLCANOES, NICARAGUA.  
1939-1987.**

<u>Item Number</u>	<u>Description</u>
NO-07109	Wilcox, R.E. Field notebook with geologic notes and sketches on the Paricutin volcano, Mexico. Book 1. September-October 1946.
NO-07110	Wilcox, R.E. Field notebook with geologic notes on the Paricutin volcano, Mexico. Book 2. October-November 1946.
NO-07111	Wilcox, R.E. Envelope with group of geologic field notes including alidade and elevation information, sample data, maps and sketches for the Paricutin and Jorullo volcanoes, Mexico, and the Cerro Negro volcano, Nicaragua. Book 3. December 1946 - December 1947.
NO-07112	Wilcox, R.E. Envelope with group of geologic field notes including some chemical analyses, specimen lists, and sketches for the Cerro Negro and Santiago volcanoes, Nicaragua, and the Paricutin volcano, Mexico. Book 4. January - August 1948, April 1951.
NO-07113	Wilcox, R.E. Field notebook containing alidade notes - "Determinations of elevations of selected points at Paricutin volcano." November 1946 - November 1948.
NO-07114	Jones, A.E. Envelope with notebook labeled "Paricutin Volcano Diary, Feb. 18-Aug. 25, 1945". On front page, "Diary Paricutin Volcano, Michoacán, Mexico. Feb. 18, to Aug. 25, 1945. Austin E. Jones, Project Chief, U.S. Coast and Geodetic Survey." Jones, with the assistance of Fred Keller, Jr., established the magnetic and seismic project of the U.S. Coast and Geodetic Survey in February 1945, making a weekly record of observations at a series of magnetic stations. This diary contains extensive descriptions, along with sketches and maps, related to Jones' experiences and the eruptions of Paricutin, as well as information on the magnetic and seismic project. See NO-8567 (description below) for information on the U.S. Committee for the Study of the Paricutin Volcano, under whose auspices this project operated.
NO-07115	One folder with a small group of correspondence (1986, 1987) and lists of specimens and thin sections that Wilcox deposited at the National Museum of Natural History, Smithsonian Institution, Washington, D.C.; also, specimen locality map for 1946-1948.
NO-08567	Three document boxes with 29 folders:

Folder 1. Field notebooks - Paricutin Volcano, Mexico. October 1945-February 1946, by Luis Garcia G.(Gutierrez). Materials are in Spanish. Two notebooks with field notes; third notebook contains diagrams. Also, map showing lava flows; carbon copy of typed text, "Informe Sobre El Volcan de Paricuti" [Report on the Volcano Paricutin], dated February 1946, with maps; copy of sketch map showing lava flows and thickness of ash to May 1945.

Folder 2. Paricutin notes - Celedonio Gutierrez. August 1943 - May 1946. Material is in Spanish. Typed copy of notes, "Datos del Volcan Paricutin por Celedonio Gutierrez."

Folder 3. Field notes on Paricutin Volcano, October 29, 1945 - February 27, 1946. Typed copy ("Copy #1") of notes by K.B. Krauskopf; includes sketches.

Folder 4. Field notes, Paricutin Volcano, 1947. Typed copy (1/2-page) with additional handwritten notes, by Jean Verhoogen.

Folder 5. Notes on Paricutin: the new Mexican volcano, 1943-1944, by Donald E. White. Copy of typed notes, as well as correspondence, 1952-1953.

Folder 6. Paricutin field notes by Howel Williams, November 26, 1944 - May 13, 1945 and July 15 - August 6, 1947. Photocopy (white on black) of Williams' notes; copy of 1954 letter from Wilcox to Williams returning the original notes; copy of map showing lava flows and ash depth to May 1945, with annotations.

Folder 7. Paricutin - Chemical Analyses. 1949-1973. Notes, correspondence, reports of chemical and spectrographic analyses, relating to specimens of lava and other rocks.

Folder 8. Paricutin - Hernandez graphic. "Carateristicas Eruptivas del Volcan Paricutin." One chart for each month, June 1946 - March 1947.

Folder 9. Paricutin - Petrography. Notes on petrography of various specimens. Also, petrographic descriptions of eight slides (thin sections?) which are not included here.

Folder 10. Mexico Seismic Data. September 1946 - November 1947. Data was provided by the Universidad Nacional de Mexico.

Folder 11. Paricutin - Tidal Force - U.S. C. & G.S. Data from U.S. Coast and Geodetic Survey. Charts showing "Vertical Components of Tide-Producing Forces, Vicinity Paricutin Volcano..." for each day, February 1946 - July 1949.

Folder 12. Paricutin - Weather Data. July 19446 - August 1948. Daily recordings and monthly summaries, including temperature, rainfall, ash fall, humidity, average upper wind direction. Scattered data for September-December 1948.

Folder 13. Paricutin - Weather Data - Barograph charts. Weekly charts, May 1947 - January 1949.

Folder 14. Paricutin - Weather - Miscellaneous. Typed weather data including temperature, rain, ash fall; weather data from the Zumpimito Electric plant, October 1946 -August 1948; additional rainfall data; additional weather data in monthly summaries, 1939-1948; diagrams showing upper wind direction, by month, January 1947 - September 1948.

Folder 15. Paricutin - Miscellaneous information. Includes petrographic notes on thin sections by R.C. Emmons; Wilcox sample locality map; Paricutin Volcano elevation and triangulation data; bibliography on Paricutin (1947); text of song, "Corrido del Paricutin" by Miguel Esquivel; brief notes on gas sampling; copies

of typed letter, in Spanish, from Samuel Oropeza, Secretaria de Recursor Hidraulicos, to Alfonso de la C. Carreno, of the same agency, regarding observations made at Paricutin Volcano.

Folder 16. Paricutin - USGS Correspondence. June 1946 - December 31, 1946.

This correspondence begins with the USGS hiring Wilcox in 1946, and continues with discussions of the logistics and related activities of Wilcox going to Mexico and getting set up with equipment, housing, etc. Correspondents include Carl Fries, Jr., and W.D. Johnston, Jr.

Folder 17. Paricutin - USGS Correspondence. January 1, 1947 - December 31,

1947. This correspondence reflects ongoing scientific activities, requests for equipment and supplies, plans for an aeromagnetic survey of the Paricutin Volcano area, periodic "round-robin" letters from members of the USGS Foreign Geology Section. Correspondents include Carl Fries, Jr. and W.D. Johnston, Jr.

Folder 18. Paricutin - USGS Correspondence. January 1, 1948 - December 31,

1948. This correspondence continues discussions of scientific activities, equipment and supplies needs, the Foreign Geology Section's periodic "round-robin" letters, and also includes correspondence related to Wilcox's transfer to USGS offices in Denver, Colorado. Correspondents include G.D. Robinson, George Schoechle, W.D. Johnston, Jr., Carl Fries, Jr., and Ivan Wilson.

Folder 19. Paricutin - USGS Correspondence. January 1, 1949 - December 31,

1950. This correspondence continues discussions of scientific activities, supplies and equipment needs, the Foreign Geology Section's periodic "round-robin" letters, and preparation of reports. Correspondents include Carl Fries, Jr., W.D. Johnston, Jr., and George Schoechle.

Folder 20. Paricutin - USGS Correspondence. January 1, 1951 - March 16, 1964.

Correspondence continues discussions of scientific activities and the preparation of reports. Correspondents include Carl Fries, Jr., Celedonio Gutierrez, W.D. Johnston, Jr., Howard A. Powers, and Francis G. Wells. A few letters are in Spanish. Also, typed copy of paper by Wilcox to be read at April-May 1951 meeting of the American Geophysical Union, Washington, D.C., on "Progressive Chemical Changes in the Lavas of Paricutin Volcano" (does not include slides described in text), and typed copy of 'Origin of the Compositional Variation of the Lavas of Paricutin Volcano,' also by Wilcox.

Folder 21. Paricutin - Committee. January 14, 1946 - December 31, 1947.

Correspondence related to activities of, and activities undertaken in conjunction with, the U.S. Committee for the Study of the Paricutin Volcano of the National Research Council. The Committee was formed in 1944 to integrate, facilitate, and stimulate the study of the eruption and its effect in various fields of science, in cooperation with a corresponding Mexican committee. See "A Report on the United States Committee for the Study of the Paricutin Volcano" by Richard E. Fuller, in Transactions of the American Geophysical Union, v. 26, Pt. I (1945), p. 131-133, for more background information (copy in this folder). This correspondence is mainly with Charles E. Fuller, Chairman of the Committee, and concerns practical logistics of scientific operations, as well as the various scientific investigations being undertaken. Other correspondents include W.F.

Foshag and Jean Verhoogen. Also, typed copy of "Report on Visit to Paricutin Volcano, July-August 1947" by Jean Verhoogen.

Folder 22. Paricutin - Committee. January 1, 1948 - December 17, 1954. On front of original folder: "Files. Right hand: Fuller. Left hand side: Other Committee Members." Correspondence relates to various scientific investigations underway, reports on volcanic activity, and reports on work of the Committee itself.

Correspondents include Henry R. Aldrich, W.F. Foshag, Celedonio Gutierrez (in Spanish), Francis G. Wells, and E.G. Zeiss.

Folder 23. Paricutin - Miscellaneous Correspondence. 1945-1977.

Correspondence with a variety of people relates to various scientific investigations underway, scientists visiting Paricutin, reports, presentations at meetings, equipment, and supplies. Correspondents include Fred M. Bullard, R.C. Emmons, Konrad B. Krauskopf, Ezequiel Ordonez, Elbert F. Osborn, Kenneth Segerstrom, Nicholas M. Short, and Howel Williams. A few letters are in Spanish. Also, Spanish text (with English translation by Kenneth Segerstrom) of brief description of effects of Paricutin eruptions on plant and animal life, by Celedonio Gutierrez, November 15, 1965; letter from T. Minakami of Tokyo University including photos of new Volcano Usu.

Folder 24. Paricutin. Photographs taken February 20, 1948 by F.H. Pough of the American Museum of Natural History, New York. The eleven (11) black and white prints show geologists at work and volcanic activity, but do not have any descriptive information.

Folder 25. Paricutin. Photographs by Geo. E. Holton, 1946, 1948. Six (6) black and white prints showing lava flows, ash fall, erosion, volcanic cone. Brief description and date taken are written on back of each print.

Folder 26. Paricutin volcano photos - Photographer unknown. Black and white prints. Ten (10) picture postcards; two (2) photos of northeast lava vent, dated April 10, 1947, with description on back; one (1) aerial view of eruption and crater(?) dated February 25, 1947; one (1) photo dated November 1946, showing Jesus Saldana, Ken Segerstrom, Celedonio Gutierrez, Ray Wilcox, Ariel Hernandez Velasco, and Antonio Saldana; three photos with no identification.

Folder 27. Paricutin. Divergences of graphic trends. 1972. Letter, work sheets, and table showing "Average Divergences of Test Trends From Actual Trends of the Paricutin Silica-variation Diagram..."

Folder 28. Wilcox, R.E. Petrology of Paricutin Volcano, Mexico. Bulletin 965-C. Correspondence (1952-1954) and several figures related to this U.S. Geological Survey publication.

Folder 29. Paricutin papers - Segerstrom and Williams. 1949. Correspondence concerning publications by Kenneth Segerstrom and Howel Williams, including review comments and suggestions about manuscripts, list of geographic names in Paricutin area. Correspondents include Carl Fries, Jr., W.D. Johnston, Jr., Kenneth Segerstrom, and Howel Williams.

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Map folder with 23 items:

- "Sketch Map of the Lavas of Paricutin to May 1945..." by Howel Williams

and Adan Perez Pena, which also shows Thickness of Paricutin Ash to May 1945.

- 2 maps on mylar(?) - "Total Intensity Aeromagnetic Map of Paricutin Area, Mexico" - one focuses on Paricutin area, the other covers a larger geographic area.
- blueprint map by Instituto de Geologia, "Carta de la Republica Mexicana Mostrando los Epicentros de Temblores Registrados Desde Septiembre de 1946 hasta Abril de 1947".
- printed map prepared by Kenneth Segerstrom, USGS, "Topographic Map of Cerro de Jaratiro, near Paricutin volcano...Showing Extent of Lava Field on March 16, 1943, April 13, 1945, and August 26, 1946".
- 13 paper maps showing changing extent of lava flows, February 1943 – December 1946, also as of the end of 1944 (Krauskopf & Williams, 1946), also to end of lava movement (March 1952)(after Fries & Gutierrez).
- 3 maps showing extent of lava fields with additional annotations.
- map showing lava fields as well as Wilcox specimen localities and Wilcox station localities.
- "Planimetric Map of Region Around Paricutin Volcano... Showing Thickness of Ash Cover and Area Occupied by New Lava", Prepared by Kenneth Segerstrom, October 1946.

Published as: Various articles, Transactions of the American Geophysical Union. Vols. 27-28, 31-35. 1946-1954.

Published as: U.S. Geological Survey. Bulletin 965-C. 1965.