Grind each mixture together with the mortar and pestle, and carefully mix again. Then transfer a sample of each of these to test tubes, measuring the samples by volume by dipping the measuring spoon into the powder and sweep away the excess with a finger. Pour vanadomolybdate reagent into each tube to the 15 ml. mark. Stopper the tube with a cork and invert two or three times. After five minutes, the color is at a maximum and remains stable for several days. Permanent standards may then be made by diluting an aqueous solution of potassium dichromate in test tubes until there is a match between each dichromate solution and previously prepared standards. Fifteen ml. of each of the dichromate solutions is then sealed permanently in the test tubes, these will last indefinitely.

Test for Apatite

Crush a small quantity of the rock to an impalpable powder. Then shake a measured volume of the powder in a test tube with 15 ml. of vanadomolybdate reagent and compare with the permanent standards representing 5, 15 and 30 per cent P_2O_5.

Testing Samples Containing Wavellite and Pseudowavellite

Wavellite and pseudowavellite do not dissolve readily in cold dilute nitric acid and must first be boiled with concentrated sulfuric and nitric acids before testing. Apatite may thus easily be distinguished from wavellite and pseudowavellite.

Dip the measuring spoon into the sample, ground to an impalpable powder, to fill the hole in the measuring spoon; sweep away the excess with a finger, and transfer the contents of the spoon to a test tube. Add 10 drops of the mixed acid and heat over the alcohol burner for about a minute. Stop heating before the contents of the test tube go to dryness. Cool and add the vanadomolybdate reagent to the 15 ml. mark. Stopper the tube with a cork, shake, and compare with standards after 5 minutes.

REFERENCE

MISSION, G., Colorimetric estimation of phosphorus in steels: *Chem. Ztg.*, **32**, 633 (1908).

NEW LOCALITY OF SHORTITE

MAX P. ERICKSON, *University of Utah, Salt Lake City, Utah*

Introduction

The mineral shortite has been identified in the drill core of the Sun Oil Company's Ouray Well located in Uintah County, Utah. It is believed

to be the second known recorded occurrence of this mineral.

Shortite was originally described by Fahey (1) in 1939 from material found in a drill core from a well near Green River, Wyoming, about ninety miles due north of the Utah locality. It occurred in the Green River formation of Eocene age. The crystals are orthorhombic hemimorphic exhibiting forms $\{00\bar{1}\}$, $\{100\}$, and $\{011\}$, and have an axial ratio $a:b:c=0.455:1:0.648$. They are clear and colorless to pale yellow in color with conchoidal fracture and vitreous luster. Hardness is 3 and specific gravity 2.629.

Optical properties are recorded as $\alpha=1.531$, $\beta=1.555$, $\gamma=1.570$; $2V=75°$ (optically negative). Chemical analyses yielded the formula $Na_2CO_3 \cdot 2CaCO_3$.

The x-ray data were published by Richmond (2) in 1941.

Utah Occurrence

The Ouray Well is located in Sec. 22 T. 9 S., R. 20 E., Salt Lake Base and Meridian, approximately seven miles southeast of Ouray, Uintah County, Utah. The shortite is found in the Green River formation between the depths of 1975 feet and 2056 feet.

The mineral is found as individual crystals concentrated in bands varying from a fraction of an inch to several inches in thickness. It is associated occasionally with minor amounts of pyrite. The separate crystals are euhedral and exhibit forms apparently identical to those described by Fahey (3). The crystals are up to 15 millimeters in length and are colorless with a vitreous luster; their hardness is about 3. Maximum and minimum indices of refraction were determined by the immersion method as $\alpha=1.530$ and $\gamma=1.570$. The mineral is biaxial (−) with a moderately large axial angle.

The mineral effervesces vigorously with dilute hydrochloric acid and the resulting solutions contain abundant sodium and calcium as determined by microchemical tests.

On the outside of the core, sections of the crystals cut in various crystallographic directions are quite conspicuous. The exposed surfaces of these crystals consist of a fine aggregate of pink colored calcite. This is apparently a result of the solution and removal of sodium carbonate by the water in the drilling mud and recrystallization of the residual calcium carbonate to form a fine aggregate of calcite. This effect penetrates less than one millimeter into the crystals. The crystals in the interior of the core are clear and unaffected.

REFERENCES

1. FAHEY, JOSEPH J., Shortite, a new carbonate of sodium and calcium: *Am. Mineral.*, **24**, 514–518 (1939).

2. RICHMOND, W. E., *X*-ray crystallography of shortite: *Am. Mineral.*, **26**, 288–289, 629–630 (1941).
3. FAHEY, JOSEPH J., *op. cit.*, 515–516.

CONDENSED INTERIM REPORT OF THE AMERICAN GEOLOGICAL INSTITUTE

The annual meeting of the American Geological Institute was held in Detroit, Michigan, on November 6 and 7. Officers elected for the coming year are:

President.....Carey Croneis
Vice-President.....Joseph L. Gillson
Secretary-Treasurer.....Harry S. Ladd

A number of useful reports and publications are currently planned for the near future. Some of these will be new; others will be re-issues of previous reports which are now outdated. They are:

(*a*) A directory, "Departments of Geological Science in Educational Institutions of the United States and Canada." Previously issued by A.A.P.G. in 1949. It is proposed to issue this Directory on an annual basis hereafter.
(*b*) "Guide to Societies of Geological Science in the United States and Canada." This directory is planned for early in 1952. It will contain the names of officers and councilors, major publications and other pertinent information concerning each society.
(*c*) Geological Guide to U. S. Highway 75 from Galveston, Texas, to the Red River. This report, being prepared by F. W. Rolshausen of Houston, Texas, will provide not only geological but also tourist information, geological maps, type sections and other information of use to the traveling geologist. To be issued in the spring of 1952. This is intended to be a "type specimen" for a number of others planned, or under discussion.
(*d*) A "career booklet" on geological science is being planned for issuance in the spring of 1952. No booklet of this type is currently available, so that vocational advisors lack information concerning the profession. Statistics from the National Scientific Register concerning the structure of the profession will be included.
(*e*) The directory of "Summer Geology Field Courses," first issued in the spring of 1950, will be re-issued in February or early March of 1952. Information for this report is being requested from departments during December.
(*f*) Non-Industrial Research in the Geological Sciences, first compiled in early 1950, will be brought up-to-date and re-issued in May or June of 1952.
(*g*) A new and up-to-date edition of the Catalogue of Geological Guide Books and Road Logs, issued in 1950, is now in preparation and should be available in February, 1952.

The Committee on a Glossary of Geological Terminology is proceeding vigorously to compile its material and is making good progress under the leadership of J. V. Howell of Tulsa, Okla. Investigation has revealed the existence of not less than fifteen unpublished specialized glossaries which are available to the Committee. This will greatly reduce the work of the Committee and speed the final compilation of the volume.

JOHN PUTNAM MARBLE
Director from the Mineralogical Society of America

John J. Forbes, a long-time employee of the Bureau, was named Director of the U. S. Bureau of Mines, succeeding James Boyd who resigned to become vice-president of the Kennecott Copper Co. Mr. Forbes holds a degree in mining engineering from Pennsylvania State College and has been with the Bureau since 1915.

Paul Zinner, formerly regional director of Region V at Minneapolis, has been appointed to the post of Chief of the Minerals Division in Washington, D. C., and Paul T. Allsman, who has been with the Denver office of the Bureau, will fill the regional directorship at Minneapolis, vacated by Mr. Zinner.

Three geologists received awards for outstanding work during the 64th annual meeting of the Geological Society of America and associated societies in November 1951. Recipient of the Penrose medal of the Geological Society was Pentti Eskola, petrologist from the Geological Institute of Finland; Martin J. Buerger, professor of mineralogy and petrography at the Mass. Institute of Technology, received the Geological Society's Arthur L. Day medal; and Orville F. Tuttle of the Geophysical Laboratory, Carnegie Institution of Washington, was the first recipient of a new award of the Mineralogical Society of America.

A bibliography of loess containing some 280 citations has been prepared by the staff of the Iowa Engineering Experiment Station in connection with a research project on the loess and glacial till materials of Iowa. Copies of the bibliography may be secured without charge by writing to the Director, Iowa Engineering Experiment Station, Ames, Iowa.

Tentative Program for a National Conference on Clays and Clay Technology, University of California, Berkeley, California July 21–25, 1952

Monday, July 21st, 9–12 A.M. Session

Introduction

1. Introduction—Definitions—Objectives
2. Mineralogy
3. Origin, Occurrence and Fabric of Clays

Monday, July 21st, 2–5 P.M. Session

Panel Discussion

Tuesday, July 22nd, 9–12 A.M. Session

Properties

4. Electrokinetic and Electrochemical
5. Ion Exchange
6. Adsorptive and Swelling Properties—Water Systems
7. Adsorptive and Swelling Properties—Organic Systems

Tuesday, July 22nd, 2–5 P.M. Session

Panel Discussion

Evening

Conference Dinner

Wednesday, July 23rd, 9–12 A.M. Session

Identification Methods and Their Interpretation

8. Particle-Size Distribution
9. Chemical Analysis
10. Petrography
11. Dye Adsorption
12. Infrared Absorption

Wednesday, July 23rd, 2–5 P.M. Session

Identification (Continued)

13. *X*-Ray Diffraction Analysis
14. Electron Microscopy
15. Differential Thermal Analysis

Panel Discussion

Evening

Panel Discussion (Continued)

Thursday, July 24th, 9–12 A.M. Session

Clay Technology in

16. Soil Science
    a. Physical aspects
    b. Chemical aspects
17. Soil Mechanics
    a. Physical aspects
    b. Chemical aspects
18. Ceramics

Thursday, July 24th, 2–5 P.M. Session

Panel Discussion

Evening

Visits to Laboratories

Friday, July 25th, 9–12 A.M. Session

Clay Technology in (Continued)

19. Fillers
20. Bleaching and Filter Clays
21. Petroleum Industry
    a. Drilling fluids
    b. Reservoir problems
    c. Refining

Friday, July 25th, 2–5 P.M. Session

Panel Discussion

Further information can be obtained from Professor J. E. Pask, Division of Mineral Technology, University of California, Berkeley 4, California.

PEACOCK MEMORIAL PRIZE,* 1952

Offered by the

WALKER MINERALOGICAL CLUB

Royal Ontario Museum of Geology and Mineralogy,
100 Queen's Park, Toronto 5

THIS PRIZE of ONE HUNDRED DOLLARS cash is again offered for the best scientific paper on pure or applied mineralogy (including crystallography and petrology) submitted to the Club by a graduate student at any university or similar institution.

Conditions

1. The papers submitted may offer new or refined observations, or a significant synthesis and interpretation of existing data, or some new or improved application of mineralogy to useful ends, or the results of other work of sufficient interest and value.

2. The papers should be typed, double-spaced on letter-size paper and illustrations should be carefully prepared and suitable for reproduction. References to the literature should follow the style in *Contributions to Canadian Mineralogy* as printed in *The American Mineralogist* (May–June issues, 1949–50–51).

3. Each paper must be accompanied by a letter from the student's supervisor stating the nature and extent of the assistance he may have given to the work submitted.

4. The papers are to be sent to the Secretary, Walker Mineralogical Club, 100 Queen's Park, Toronto, *not later than June 30, 1952*. They will be judged by a committee appointed by the Council of the Club who will consider both the value of the papers and their suitability for publication without substantial changes. If no paper of sufficient merit is received, the prize will not be given.

5. The Committee will select one or more of the papers for presentation by the authors, or other designated persons, at a regular meeting of the Club, and the result of the contest will be announced at that time.

6. The prize winning paper, and perhaps others of sufficient merit, will be published in *Contributions to Canadian Mineralogy*.

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* Instituted in 1947 as the Walker Mineralogical Club prize, was renamed the Peacock Memorial Prize in 1950 in honour of the late Professor Martin A. Peacock, President of the Walker Mineralogical Club 1942–43, and Editor of Contributions to Canadian Mineralogy, 1944–50.

Prizes have been awarded to:

A. R. Graham, Queen's University, (1947), "*X*-ray Study of Chalcosiderite and Turquoise": *Univ. Toronto Studies, Geol. Series*, No. **52**, 1948. (Contributions to Canadian Mineralogy, Volume 4, No. 4.)

I. H. Milne, University of Toronto, (1948), "Chloritoid from Megantic County, Quebec": *Am. Mineralogist*, **34**, 1949. (Contributions to Canadian Mineralogy, Volume 5, No. 1).

R. J. Arnott, University of Manitoba, (1950), "*X*-ray Diffraction Data on Some Radioactive Oxide Minerals": *Am. Mineralogist*, **35**, 1950. (Contributions to Canadian Mineralogy, Volume 5, No. 2).

Annual Meeting

The thirty-third annual meeting of the Mineralogical Society of America will be held in Boston, Massachusetts, on November 13–15, 1952, with headquarters at the Hotel Statler.

A series of field trips is being planned for Monday, Tuesday, and Wednesday, November 10th to 12th. Various short excursions to scientific laboratories, industries, and historical sites in the Boston area are planned for the days of the meeting, November 13th–15th.

Abstracts of papers to be presented at the annual meeting must be received by the Secretary on or before *July 15, 1952*. Abstract blanks may be obtained from the Secretary.

C. S. Hurlbut, Jr., *Secretary*

The Geology and Mineralogy Section of the Michigan Academy of Science, Arts and Letters held its annual meeting at the University of Michigan, Ann Arbor, Michigan on Friday, April 11. Papers were presented at two sessions: A morning meeting devoted to varied subjects and an afternoon meeting consisting entirely of papers on the iron deposits of Michigan and allied problems in Michigan pre-Cambrian geology.

Professor J. C. Griffiths has kindly called attention to computation errors in Table 5 of our article, "A Test of the Precision of Thin-Section Analysis by Point-Counter" (this journal, 1951, pp. 704–712). In Table 5 (p. 710) the values for muscovite should be 0.1744 under the column headed "Analysts"; 0.1504 under the column headed "Slides"; and 0.1101 under the column headed "Error (obs.)." The excess of observed over expected error is still highly significant so that the corrections require no change in our interpretation of the table.

Felix Chayes and Harold W. Fairbairn

Corrections

Vol. **37** (1/2) Jan.–Feb. 1952:

Page 104, base; γ in (31′) should be α.

Page 105, lines 10 and 22; *diffraction* should read *precession*

Page 109, Table 6, last line, right column; prime the G_2.
