QH
91
A1S66
Fishes

Nile Delta Drill Core and Sample Database for 1985–1994: Mediterranean Basin (MEDIBA) Program

DANIEL JEAN STANLEY,
JAMES E. McREA, JR.,
and
JOHN C. WALDRON

SMITHSONIAN CONTRIBUTIONS TO THE MARINE SCIENCES • NUMBER 37

SERIES PUBLICATIONS OF THE SMITHSONIAN INSTITUTION

Emphasis upon publication as a means of "diffusing knowledge" was expressed by the first Secretary of the Smithsonian. In his formal plan for the institution, Joseph Henry outlined a program that included the following statement: "It is proposed to publish a series of reports, giving an account of the new discoveries in science, and of the changes made from year to year in all branches of knowledge." This theme of basic research has been adhered to through the years by thousands of titles issued in series publications under the Smithsonian imprint, commencing with *Smithsonian Contributions to Knowledge* in 1848 and continuing with the following active series:

Smithsonian Contributions to Anthropology
Smithsonian Contributions to Botany
Smithsonian Contributions to the Earth Sciences
Smithsonian Contributions to the Marine Sciences
Smithsonian Contributions to Paleobiology
Smithsonian Contributions to Zoology
Smithsonian Folklife Studies
Smithsonian Studies in Air and Space
Smithsonian Studies in History and Technology

In these series, the Institution publishes small papers and full-scale monographs that report the research and collections of its various museums and bureaux or of professional colleagues in the world of science and scholarship. The publications are distributed by mailing lists to libraries, universities, and similar institutions throughout the world.

Papers or monographs submitted for series publication are received by the Smithsonian Institution Press, subject to its own review for format and style, only through departments of the various Smithsonian museums or bureaux, where the manuscripts are given substantive review. Press requirements for manuscript and art preparation are outlined on the inside back cover.

I. Michael Heyman
Secretary
Smithsonian Institution

Nile Delta Drill Core and
Sample Database for 1985–1994:
Mediterranean Basin
(MEDIBA) Program

*Daniel Jean Stanley, James E. McRea, Jr.,
and John C. Waldron*

ISSUED

DEC 6 1996

SMITHSONIAN INSTITUTION

SMITHSONIAN INSTITUTION PRESS

Washington, D.C.

1996

ABSTRACT

Stanley, Daniel Jean, James E. McRea, Jr., and John C. Waldron. Nile Delta Drill Core and Sample Database for 1985-1994: Mediterranean Basin (MEDIBA) Program. *Smithsonian Contributions to the Marine Sciences*, number 37, 428 pages, 10 figures, 2 tables, 1996.—This document is designed to serve as the catalog for a complete set of lithologic logs of 87 sediment borings drilled in the northern Nile delta of Egypt in the course of the Nile Delta Project, from 1985 to 1994. The project, part of the Mediterranean Basin (MEDIBA) Program, was initiated to interpret the recent geological evolution of this depocenter, from the time of its formation about 8000 years ago to the present. The data set includes the major petrologic attributes of these borings, which range in length from ~20 to 60 m. The results of textural and sand-sized compositional analyses of 2500 core samples are provided, as well as the ages of 358 radiocarbon-dated samples to as old as ~35,000 years before present. These data constitute the foundation of the Nile Delta Project's investigation. A review of the methods employed in the field and laboratory and an inventory of published articles and theses completed through 1994 as part of this multidisciplinary and multinational effort also are presented. This database facilitates the distinction between anthropogenic and natural factors that determine the evolution of the delta. It is intended to provide a comprehensive record of subsurface deposits in the northern delta, accumulating in late Pleistocene to Holocene time, to be used by those agencies and specialists responsible for monitoring the rapidly changing Nile delta depocenter.

The information published in this document is accessible electronically on the Internet from the Smithsonian Institution's National Museum of Natural History Gopher Server at URL "gopher://nmnhgoph.si.edu/11/paleo" or via hypertext document (http) at "http://nmnhwww.si.edu/gopher-menus/." Further information can be obtained from the National Museum of Natural History's Collection and Research Information System (CRIS) Program, Washington, D.C. 20560.

OFFICIAL PUBLICATION DATE is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, *Smithsonian Year*. SERIES COVER DESIGN: Seascape along the Atlantic Coast of eastern North America.

Library of Congress Cataloging-in-Publication Data

Stanley, Daniel J.

Nile Delta drill core and sample database for 1985-1994: Mediterranean Basin (MEDIBA) Program / Daniel Jean Stanley, James E. McRea, Jr., and John C. Waldron.

p. cm. — (Smithsonian contributions to the marine sciences ; no. 37)

Includes bibliographical references (p. 426-428).

1. Borings—Egypt—Nile River Delta—Catalogs. 2. Geology, Stratigraphic—Quaternary—Catalogs.
3. Geology—Egypt—Nile River Delta—Catalogs. I. McRea, James E. II. Waldron, John C.
- III. Title. IV. Series.

QE328.S73 1996 551.7'9'09621-dc20 96-17239

∞ The paper used in this publication meets the minimum requirements of the American National Standard for Permanence of Paper for Printed Library Materials Z39.48—1984.

Contents

	<i>Page</i>
Introduction	1
Acknowledgments	3
Methods	4
Core Collection	4
Laboratory Analyses	7
Radiocarbon Dating	10
Nile Delta Project Data Used in Scientific Literature	11
Studies Listed by Location	11
Studies Listed by Topic and Theme	12
Petrology, Composition, and Texture	12
Faunal Analyses	13
Floral Analyses	13
Geochemical Analyses	13
Neotectonism and Its Effects on the Delta	13
Sea-level and Climatic Factors Affecting the Delta	13
Chrono- and Lithostratigraphic Correlations	18
Provenance, Dispersal, and Paleogeography	18
Archeological Considerations	18
Anthropogenic Factors and Impact	18
Nile Delta Lagoons	19
Comparing the Nile with Other World Deltas	19
Applications for Delta Management	19
Appendix 1: Core Lithological Logs	21
Appendix 2: Core Sample Data Listings	205
Literature Cited	426

Nile Delta Drill Core and Sample Database for 1985–1994: Mediterranean Basin (MEDIBA) Program

*Daniel Jean Stanley, James E. McRea, Jr.,
and John C. Waldron*

Introduction

Modern marine deltas are vital agricultural and aquacultural resources for the world's rapidly growing population. These coastal depocenters are generally low-lying and thus highly vulnerable to natural environmental changes, such as global sea-level oscillations and vertical displacement of land relative to sea level. Most of the world's large deltas are subsiding, largely as an isostatic response to loading by thick depositional sequences and their compaction. Thus, even if global sea level were not to rise in the future, the lower plains and coasts of deltas are particularly prone to incursion by the sea, which will induce land loss and reduce agricultural productivity at a time when it is most needed. The situation will be substantially aggravated if global sea level should rise, as predicted by some for the next century (Wigley and Raper, 1992).

Until recently, surprisingly little research pertaining to deltas has focused on differentiating the effects of global rise in sea level from those of lowering of land by isostasy, tectonism, and sediment compaction. This problem is of considerable concern,

particularly in view of the increased effects of humans on world river and coastal systems. For example, emplacement of dams, diversion and dredging of river channels, intensification of agricultural projects, construction of increasingly complex and dense irrigation systems, and modification of coastlines are producing unexpected and frequently deleterious side-effects in deltaic areas. Coastal management reports on deltas all concur that this interaction of natural and anthropogenic factors is presently inducing accelerated changes in delta plains and coasts (Kay, 1993), and that these environments now require more active monitoring by scientists and engineers. Geologists can play a valuable role in this type of environmental monitoring in that they are trained to map and evaluate changes in time and space. Moreover, they are adept in using a multidisciplinary approach that integrates stratal geometry and petrologic, biological, and chemical information (Broussard, 1975; Coleman, 1982; Posamentier and Vail, 1987; Stanley and Warne, 1993a).

It is recalled that the Nile delta, positioned in a desert environment on the northeastern African margin, was one of the first such depocenters to attract the attention of scholars interested in recording deltaic phenomena. In the mid-fifth century B.C., the Greek historian Herodotus called attention to some general sedimentological aspects of the Nile delta, and to its triangular shape giving rise to the term "delta" to denote this type of geographical feature. Despite this early interest, no systematic, comprehensive geological and environmental study of the Nile delta had been undertaken prior to the end of this century.

A project to define the late Quaternary geological evolution of the lower Nile delta plain of northern Egypt, taking into account both natural and anthropogenic factors, was thus initiated in 1985 at the National Museum of Natural History,

Daniel Jean Stanley, Deltas-Global Change Program, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560. James E. McRea, Jr., Division of Paleobotany, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560. John C. Waldron, Deltas-Global Change Program, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560.

Review Chairman: William A. DiMichele, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution.

Reviewers: Terry A. Nelsen, Atlantic Oceanographic and Meteorological Laboratory, National Oceanic and Atmospheric Administration, 4301 Rickenbacker Causeway, Miami, Florida 33149; and Donald J.P. Swift, Department of Oceanography, Old Dominion University, Norfolk, Virginia 23529.

FIGURE 1.—Northern Nile delta of Egypt, showing positions of the 87 Smithsonian sediment boring sites. Also denoted are the four coastal lagoons (Bu = Burullus; I = Idku; Man = Manzala; Mar = Mariut), two main Nile distributaries (Damietta and Rosetta branches), and their promontories. Northern delta and coastal cities include the following: A, Alexandria; B, Baltim; D, Damietta; G, Gamaasa; PS, Port Said, the Mediterranean port on the Suez Canal in the northeastern delta; and R, Rosetta.

Smithsonian Institution. The Nile delta depocenter was specifically selected for several reasons: (1) this delta is the major breadbasket for Egypt, where the population is now approaching 60 million; (2) Egypt's already limited percapita arable land has declined steadily to about 0.06 ha, now the lowest figure of any country in Africa (Biswas, 1993); (3) the delta's northern sector is near (elevation of little more than 1 m) and in some areas below sea level, and thus it is particularly vulnerable to even small changes of sea level; (4) the delta has long been occupied, cultivated, and modified by humans (Butzer, 1976; Stanley and Warne, 1993b); and (5) its fluvial regime has been completely altered since the beginning of the century by intensified irrigation projects and emplacement of two dams at Aswan and also a series of barrages along the Nile from upper Egypt to near the Mediterranean coast (Waterbury, 1979).

Following closure of the High Aswan Dam in 1964, numerous studies have focused on increased problems related to land reclamation (Waterbury, 1979; Biswas, 1993) and erosion of the Nile delta coast (UNDP/UNESCO, 1976, 1977, 1978; Abdel-Kader, 1982; Frihy, 1988; Smith and Abdel-Kader, 1988). Recent changes offshore (Stanley and Maldonado, 1977; Maldonado and Stanley, 1978; Coleman et al., 1981; Frihy and Lotfy, 1994), including those in the northern sector of the Suez Canal that crosses the northeastern delta (Morcos and Messieh, 1973; Stanley et al., 1982; Gerges and Stanley, 1985), have also been considered. It is of note, however, that as recently as the early 1980s, no systematic analyses had been made of the recent geological history of the landward part of the delta.

In 1983, the senior author was invited to Egypt to assess the possibility of initiating a long-term geological study of the Nile delta and its evolution from latest Pleistocene to Holocene time. The Nile Delta Project was formalized and officially initiated in early 1985, and for ten years it became the major activity of staff and visiting scientists participating in the Mediterranean Basin (MEDIBA) Program. Throughout this period, the project was directed from the United States' National Museum of Natural History, Smithsonian Institution, in Washington, D.C., and involved the cooperation of Egyptian scientists at the Coastal Research Institute in Alexandria, the Ain Shams University in Abassiya, Cairo, and the University of Cairo. More than 40 scientists from North America, Egypt, Europe, and Asia have been part of the Nile Delta Project team.

To interpret the late Pleistocene and Holocene history of the northern Nile delta, including its coastal plain, lagoons, marshes, and strandline, the project emphasized study of a series of radiocarbon-dated sediment cores. A large number of borings were recovered from drill sites established across the northern delta (Figure 1), enabling us to interpret sedimentary facies and evaluate their changes in time and space by study of the petrology, geochemistry, fauna, and flora of approximately 3500 core samples. Remote sensing and archeological data were also used in this project. As a direct result of this joint effort, 52 articles have been published in scientific journals, 7

theses have been completed, and 25 presentations have been made at scientific meetings by the end of 1994.

A synthesis article summarizing the salient aspects of the late Quaternary history (the past ~30,000 years are considered) of the northern Nile delta, based in large part on the study of the numerous core samples, was recently published (Stanley and Warne, 1993a). The present monograph serves as a companion document and detailed data source to this synthesis and also to earlier project publications. Its main purpose is to present a complete set of simplified lithologic logs of the 87 sediment cores (Appendix 1) and the results of textural and sand-size compositional analyses of 2496 core samples (Appendix 2) that constitute the foundation of Nile Delta Project investigations. We also provide herein a brief review of the various methods employed, and an inventory of specific topics and interpretations published in scientific journals and as theses derived from these and other data collected as part of the project during the past 10 years. The present document is thus intended to provide a comprehensive database for the northern Nile delta during the late Pleistocene to Holocene that may be used by those responsible for monitoring changes in the rapidly evolving Nile delta depocenter.

To facilitate data computer exchange and distribution, all the information published in this document (~75 megabytes) is accessible to users of the Internet from the Smithsonian Institution's National Museum of Natural History Gopher Server at URL "gopher://nmnhgoph.si.edu/11/paleo" or via hypertext document (http) at "http://nmnhwww.si.edu/gopher-menus/." Further information can be obtained from the National Museum of Natural History's Collections and Research Information System (CRIS) Program, Washington, D.C. 20560.

ACKNOWLEDGMENTS.—The Nile Delta Project within the Mediterranean Basin (MEDIBA) Program has been a team effort in every sense, involving the valued cooperation of many specialists from diverse organizations. The research has benefited greatly from their collaboration, input, and interaction during the past 10 years. Most came to the Smithsonian Institution, some for extended research visits of up to two years. We are indebted to the following for active contributions to various aspects of the research (listed in alphabetical order): H.S. El D. Abdel Wahab (Ain Shams University, Cairo), M. Abu-Zeid (Ain Shams University, Cairo), D. Arbouille (Petro-Consultants, Geneva), D. Arnold (Metropolitan Museum of Art, New York), M.P. Bernasconi (University of Calabria, Cosenza), Z. Chen (East China Normal University, Shanghai), V. Coutellier (Laboratoire de Géodynamique, Villefranche-sur-Mer), H.R. Davis (Environmental Protection Agency, Washington), J. Dominik (University of Geneva, Versoix), G. Drapeau (University of Quebec, Rimouski), A. Foucault (Muséum National d'Histoire Naturelle, Paris), G.L. Freeland (Freeland and Associates, Miami), O.E. Frihy (Coastal Research Institute, Alexandria), C.D. Gerber (Woodward-Clyde Consultants, Washington), M.A. Gerges (UNDP/UNESCO, Nairobi), H. Goedicke (The Johns Hopkins University, Baltimore), G.A. Goodfriend (Carnegie Geophysical Laboratory, Washington), N. Gupta (Ohio State University, Colum-

bus), H.A. Hamroush (University of Cairo, Cairo), F.H. Hamza (Ain Shams University, Cairo), H.L. Howa (University of Bordeaux, Talence), M. Kontrovitz (Northeast Louisiana University, Monroe), V.A. Kulyk (The George Washington University, Washington), S. Leroy (Université Catholique de Louvain, Louvain-la-Neuve), N. Liyanage (Air Liquide Laboratories, Tsukuba), J.-L. Loizeau (University of Geneva, Versoix), F. Longo (University of Calabria, Cosenza), M. Morsi (Ain Shams University, Cairo), Y. Pan (Wuhan College of Geology, Hubei), A. Pimmel (Texas A & M, College Station), N. Pugliese (University of Trieste, Trieste), G. Randazzo (University of Catania, Catania), J. Schneiderman (Pomona College, Claremont), H. Sheng (National Museum of Natural History, Washington), B.S. Shergill (University of Kentucky, Lexington), F.R. Siegel (The George Washington University, Washington), M.L. Slaboda (The George Washington University, Washington), J.M. Slack (Bossier Parish Community College, Bossier City, Louisiana), B. Thomas (Université Pierre et Marie Curie, Paris), and A.G. Warne (Waterways Experiment Station, Vicksburg).

Our most special appreciation is expressed to our good friend, Dr. Bahay Issawi, Assistant Secretary for State in Cairo, for his strong support of our project. His recognition of the potential value of our research for Egypt, as well as his firm backing and persuasive initiatives to facilitate our field work in the delta, made all the difference. Dr. A. Bassiouni, Chairman of the Department of Geology, Ain Shams University, Cairo, encouraged the Faculty of Science and some of his staff to become involved in Nile delta research. We are indebted to Engineer A. Madi of MISR Raymond International in Cairo for maintaining technical interest in our project, with friendship, flexibility, and good will, and to Mr. M. Hamzawi, MISR Raymond supervisor in Ismailia, for his gentle and even humor, ingenuity, and human qualities that kept the work on schedule during those five drilling expeditions. We will also remember the long hours in the field shared with the drilling teams, which in 1985, 1987, 1988, 1989, and 1990 were so ably led by field supervisors Awad, Saleh, Moustafa, and El Moati.

We express our gratitude to numerous persons who provided valuable assistance at the Smithsonian Institution: W. Boykins, H. Sheng, and J. Wingerath for processing samples in the Sedimentology Laboratory; R.L. Stuckenrath, Radiobiological Laboratory, for radiocarbon analyses made at the beginning of the Project; D.A. Dean, for thin section preparation in the Department of Paleobiology; M. Parrish, for drafting graphs and plates, at the Department of Paleobiology Illustration Laboratory; and V. Krantz, L. Thomas, and M.E. McCaffrey, for assistance at the Smithsonian's Department of Photographic Services.

Funding for the Nile Delta Project during the period 1985–1994 was provided primarily by numerous Smithsonian Institution awards and grants, including those from the Scholarly Studies Program, Office of the Assistant Secretary for Science, Office of Fellowships and Grants, Director of the

National Museum of Natural History, and the Museum's Department of Paleobiology. A large part of the field expenses, including drilling, were generously borne by the Research and Exploration Committee of the National Geographic Society. We also gratefully acknowledge the much needed support to meet field, laboratory, and postdoctoral research expenses given by AMOCO, ARCO, ELF-Aquitaine (Washington), IEOC-Cairo, and TEXACO-USA.

This monograph was kindly reviewed by T.A. Nelsen and D.J.P. Swift, and also by Z. Chen and A.G. Warne.

Methods

CORE COLLECTION.—The northern Nile delta plain is characterized by low gentle relief and dense vegetal cover, and by the general absence of surface exposures of older Holocene and late Pleistocene deposits. These attributes, plus the variable thickness (< 10 m to > 50 m) and gentle inclination of subsurface Holocene strata, thus required that drilling be used to study the late Quaternary geological evolution of the Nile delta. The basis of the drilling strategy was to systematically recover complete sections of Holocene marine, brackish, and alluvial deposits of the modern Nile delta and portions of the underlying late Pleistocene alluvial deposits. Our preliminary surveys indicated that the area of major interest should extend across the entire deltaic arc, from the east at the Gulf of Tineh to the outskirts of Alexandria as far as Burg el Arab in the west (a distance of ~225 km). The study area in the low-lying northern third of the delta also extends as far south as ~30 km from the present Mediterranean coast (Figure 1) to ensure that long drill cores collected in this sector would allow reasonably detailed stratigraphic correlations and paleogeographic interpretations of former interfingering fluvial, deltaic, and marine sections to be made. It was anticipated that the region selected for drilling would help define those areas of the delta most susceptible to rising sea level and land subsidence.

A total of 87 Smithsonian cores (S1–S87) ranging in depth from ~20 to 60 m (lithologic logs in Appendix 1) and relatively evenly spaced (~10 km) across the northern Nile delta were recovered (Figure 1). These were collected during five field seasons: cores S1–S17 in September–October 1985; cores S18–S30 in April–May 1987; cores S31–S46 in August–September 1988; cores S47–S65 in September 1989; and cores S66–S87 in August–September 1990. Drilling of the cores was made progressively from east to west across the northern Nile delta. Positioning of drill sites in the field was determined using recent detailed contour maps (scale 1:50,000) compiled since the 1970s by the U.S. Defense Mapping Agency Hydrographic/Topographic Center in Washington, D.C. (DMA Map Series P 773 and 1501 NH 36), and also diverse sets of satellite images. Core number, total core length, date of core recovery, latitude and longitude, and approximate geographic position of each of the 87 core sites is listed in Table 1. Accuracy of core site positions in most cases is to

TABLE 1.—Data pertaining to Smithsonian boring sites S1–S87 collected as a primary base for the Nile Delta Project in 1985, 1987, 1988, 1989, and 1990. General information lists the total length of core, date of recovery, latitude, longitude, and approximate location of the drill site (see Figure 1). U.S. Defense Mapping Agency chart series P 773 and 1501 NH 36 served as a control for latitude and longitude, which provides accuracy to within 6 seconds, or ~200 m.

Borehole number	Total length (m)	Date recovered	Latitude	Longitude	Approximate location
S1	28.96	9/25/1985	31°26'54"N	31°46'42"E	In Abbas Zahir
S2	19.81	9/29/1985	31°18'18"N	31°36'18"E	1.2 km ENE Abu Hammuda
S3	29.87	9/23/1985	31°17'48"N	31°43'24"E	0.9 km SW El Ghuneimiya
S4	32.46	9/30/1985	31°13'42"N	31°30'54"E	1.5 km NNW El Hisas
S5	27.43	9/19/1985	31°11'36"N	31°39'30"E	1 km NW Nasl Ez. Hasan Shakir
S6	26.37	9/16/1985	31° 6'30"N	31°42'36"E	1.5 km E El Gineina
S7	24.38	9/12/1985	31° 7'48"N	31°52'18"E	6.5 km SW Manزالah
S8	41.30	9/8/1985	31°12'48"N	32° 2'18"E	2.5 km N El Matariya
S9	15.70	9/4/1985	30°58'42"N	31°52'42"E	1 km E San El Hagar El Qibliya
S10	24.38	9/2/1985	30°51'24"N	32° 1'12"E	2 km NNE El Munagat El Kubra
S11	29.87	9/8/1985	30°55'12"N	32°18'24"E	3.5 km SE Ez. El Cop
S12	23.77	9/12/1985	31° 3'48"N	32°33'18"E	2.5 km NE Tel El Farama
S13	30.48	9/15/1985	31° 4'42"N	32°23'36"E	Israeli Rd. 7.8 km E of Suez Canal
S14	23.16	9/18/1985	30°59'54"N	32°28'12"E	7.5 km WSW Baluza
S15	35.36	9/22/1985	31° 7'30"N	32°30'18"E	9 km NW Tel El Farama
S16	28.04	9/30/1985	31°21'36"N	32° 3'48"E	1 km WSW Ez. Shalabi El Rudi
S17	43.28	10/1/1985	31°22'42"N	31°57'54"E	0.7 km NE Geziret Umm Abdalla
S18	53.19	4/26/1987	31° 4'42"N	32°20'30"E	11.5 km WNW Tel Farama
S19	12.19	5/2/1987	31° 2'54"N	32°33' 0"E	At Tel Farama
S20	50.29	5/4/1987	31° 6'36"N	32°18' 6"E	1 km W Suez Canal NE Extension
S21	49.38	5/17/1987	31°13'48"N	32°20'30"E	3 km SE Port Fouad
S22	37.80	5/12/1987	31° 1'18"N	32°12'30"E	2 km W Ushash Arab Zeidan
S23	13.72	5/10/1987	30°49'48"N	32°15'12"E	In Alawi Umm El Rish
S24	10.97	5/9/1987	30°51' 6"N	32°10'18"E	5.5 km SW Ushash Ibrahim Abu Muh
S25	14.33	5/13/1987	30°57'42"N	32°10'48"E	4 km SW Ushash Arab El Gadadia
S26	13.72	5/12/1987	30°54'24"N	32° 1'48"E	0.2 km SE Minshat Abu Omar
S27	15.24	5/16/1987	31° 0'24"N	32° 1'54"E	3 km S Ubash Mallaha
S28	36.58	5/24/1987	31°26'30"N	31°33'18"E	0.7 km SSW Ez. El Gamasa El Shardy
S29	39.62	5/25/1987	31°21'42"N	31°27' 6"E	0.5 km W Ez. El Mazia
S30	42.67	5/22/1987	31°24'30"N	32° 0'42"E	4 km NW Ez. Shalabi Rudi
S31	45.72	8/21/1988	31°22' 6"N	31°36' 0"E	2.5 km E Kafr Wastani
S32	21.34	9/1/1988	31°16'48"N	31°24'30"E	0.3 km SW Hagg Shirbin Ez. Bahr El Ish
S33	25.91	8/27/1988	31°24'42"N	31°21'48"E	0.5 km N Ez. El Gezira
S34	39.62	8/29/1988	31°27'12"N	31°23'18"E	2 km N Abu Madi
S35	35.05	8/24/1988	31°31'42"N	31°18'30"E	1 km SE Qabr Sidi Durrngnam
S36	45.72	9/5/1988	31°27'48"N	31°15'24"E	0.5 km W ruins Kom Niqueza
S37	21.34	8/31/1988	31°22'12"N	31°16'48"E	3.3 km SE Kabira Gazireyet El Darfil
S38	27.43	9/8/1988	31°25'18"N	31°10'24"E	In Ez. El Baralsa
S39	18.29	8/29/1988	31°25'12"N	31° 4'24"E	0.75 km SE Kom El Masura
S40	28.19	8/24/1988	31°30'48"N	31° 8'30"E	1.7 km NNE Hammad Mahattet El Kasha
S41	51.82	9/14/1988	31°34'30"N	31°12'18"E	In Hammad Mahattet El Kasha
S42	45.72	9/13/1988	31°35'54"N	31° 5'48"E	0.7 km E Baltim Resort Center
S43	42.67	8/25/1988	31°35'12"N	30°58'42"E	In El Burg
S44	21.34	9/4/1988	31°26'12"N	30°59'30"E	1.8 km SE Geziret El Isbiryas
S45	30.48	8/30/1988	31°30'30"N	31° 1'54"E	In Rsa El Bar
S46	45.72	9/10/1988	31°24' 0"N	30° 8'54"E	3.5 NNE Kom El Nashwein
S47	42.67	9/3/1989	31°32'24"N	30°50'12"E	In Arab El Hanafi
S48	43.28	9/6/1989	31°30'12"N	30°46'30"E	4.5 km SW Kiman El Saiyar
S49	41.15	9/4/1989	31°28'30"N	30°41' 6"E	1 km SW Kom Mastaroh
S50	41.15	9/5/1989	31°26' 6"N	30°34'54"E	3.5 km SSW Kom Mishiil
S51	41.15	9/6/1989	31°22'12"N	30°29'42"E	0.4 km S Ez. El Sakara
S52	41.15	9/7/1989	31°24'24"N	30°46'12"E	2 km NE Ras El Husan
S53	27.43	9/8/1989	31°23'42"N	30°40'36"E	0.4 km SW Atlet El Baqar
S54	19.51	9/9/1989	31°19'36"N	30°47'30"E	0.4 km N El Haddadi
S55	19.81	9/9/1989	31°18'54"N	30°40'18"E	In Ez. El Saiyid Mansur
S56	19.81	9/10/1989	31°19'30"N	30°31'24"E	1 km SW Minyet El Murshid

Borehole number	Total length (m)	Date recovered	Latitude	Longitude	Approximate location
S57	19.81	9/10/1989	31°22'24"N	30°35'42"E	Fish market 1 km SE Gazayir El Minsirib
S58	22.86	9/11/1989	31°23' 6"N	30°25'48"E	0.7 km N Giddiya
S59	41.15	9/12/1989	31°27'42"N	30°26'30"E	3 km NE Abu Khashaba
S60	30.48	9/12/1989	31°19'42"N	30°24'36"E	0.4 km SE El Buseili Station
S61	41.15	9/13/1989	31°13'36"N	30°22'18"E	6 km WSW Hamad Dumeih
S62	24.38	9/14/1989	31°16'30"N	30°19'42"E	3.3 km SE Idku
S63	22.25	9/14/1989	31°21' 0"N	30°18'54"E	1.6 km NE El Nawa Fort
S64	41.15	9/16/1989	31°24'30"N	30°20'42"E	0.2 km SW El Farash Fort
S65	48.62	9/15/1989	31°28'36"N	30°21'30"E	0.6 km SSE Sidi Mansur
S66	20.12	8/29/1990	31°16' 6"N	30°27'24"E	2.2 km W El Faiza
S67	19.81	9/1/1990	31°10'30"N	30°19'54"E	1.5 km S Ibr Zaiyat Ez. Kom Aziza
S68	44.20	8/30/1990	31°16'30"N	30°13'54"E	1.5 km NNE Gazayir El Tawila
S69	19.81	10/1/1990	31°11'36"N	30°16'30"E	1 km NNE Barsig Pumping Station
S70	19.81	9/2/1990	31°10'54"N	30°10'24"E	0.5 km SE Minshat Bulin
S71	44.20	9/2/1990	31°15'54"N	30°10'24"E	0.5 km SW El Miaddiya Outlet
S72	19.81	9/3/1990	31°13'54"N	30° 8' 0"E	In Kom Tarfa
S73	44.20	9/3/1990	31°16'36"N	30° 5' 0"E	0.6 km N Ez. Hod #4
S74	18.29	9/4/1990	31°13'24"N	30° 4'42"E	0.8 km NNE El Akhdar
S75	24.38	9/4/1990	31°16'24"N	30° 2'48"E	In Ez. Maqnas
S76	19.81	10/4/1990	31°13'48"N	30° 0'48"E	3 km SSE Ez. Farqon
S77	40.54	10/6/1990	31°10'48"N	29°55'54"E	1 km SW Fouad I Airport
S78	19.81	10/8/1990	31° 9' 0"N	30° 2'24"E	1.5 km NE Kom Lunsan
S79	42.67	9/5/1990	31° 6'12"N	29°56'54"E	3 km SW Prince Omar Tusan's kiosks
S80	45.72	9/7/1990	31° 6' 6"N	29°51'12"E	1.8 km NW Kom El Shuran
S81	21.34	10/10/1990	31° 3'12"N	29°59'30"E	1.8 km NE Prince Omar Tusan's house
S82	30.48	9/8/1990	31° 3' 0"N	29°52'24"E	2 km E Kom Mitauwh
S83	45.72	9/9/1990	31° 3'24"N	29°46'12"E	5.5 km NW El Gamiriya
S84	22.86	9/11/1990	30°59'36"N	29°37' 6"E	0.8 km SSW Manaret fish market
S85	10.21	9/10/1990	30°55'24"N	29°31'36"E	1.5 km NW Burg El Arab
S86	41.15	10/11/1990	30°51'18"N	30°47'48"E	3 km Kafr El Zaiyat
S87	41.15	9/12/1990	30°44'24"N	31° 1'54"E	0.7 km S El Malwani Mosque

within 200 m. More detailed notations made during the course of drilling, including more exact position of boring sites (to within 50 m), are recorded in a series of 12 field books permanently archived at the National Museum of Natural History.

Two ACKER II trailer-mounted rigs were used concurrently by two drilling teams during each of the five expeditions (Figure 2). Casing was used at sites where thick subsurface sections of sand or soft mud prevailed (Figure 3). Sediment recovery at each drill site was continuous, by progressively connecting iron core tube barrels of either 5 foot (1.52 m) or 10 foot (3.05 m) lengths. Sediment core diameter ranged from 8 to 10 cm. Recovery of moderate to well-indurated mud-rich sections was good to excellent, preserving original physical and biogenic structures. Extrusion of very stiff mud, usually highly consolidated clayey silts of late Pleistocene age, was usually accomplished by high-pressure pumping of circulated water (Figure 4). Collection of very soft (undersaturated) mud and thick sand mud sequences proved more difficult. Where sections were comprised essentially of sand, washings from pumped circulated water (rather than cores) were obtained from core tubes (Figure 5), usually at 1 to 2 m depth intervals. Original structures are not preserved in these washings. In the

western part of the study area, between Alexandria and Burg el Arab, semiconsolidated to indurated carbonate sections were recovered (Figure 6) beneath thin Holocene sections.

Upon extrusion from the drill barrel, sediment core sections were cut into ~1.5 m lengths (Figure 7), laid in plastic liners, described, photographed, and then wrapped and sealed with plastic sheeting and placed in specially prepared 1.5 m-long wooden boxes (Figure 8). Washings were collected in plastic jars. Cores were assigned consecutive roman numerals, whereas washings received consecutive arabic numerals, down-boring. Cores and washings were then transported by air to the Smithsonian Institution in Washington, D.C., where they were stored in a refrigerated room prior to study. Upon recovery, representative core and washing samples (30–40 per core) were also selected from each boring and provided to our Egyptian counterpart organizations: cores S1–S17, to Dr. M. Khafagy at the Coastal Research Institute, Alexandria, in 1985; and cores S18–S87, to Dr. A. Bassiouni at the Department of Geology at Ain Shams University in Abbassia, Cairo, in 1987, 1988, 1989, and 1990.

Descriptions recorded in the field for each recovered core section include depth, length of drill barrel used, length of sediment section recovered, sediment color, gross texture and

obvious sedimentary structures, biogenic features (such as shell and peat), and sediment density (hardness, consistency) using a pocket penetrometer. Color, texture, and unusual features were also recorded for sands collected as washings. Upon recovery, 35 mm color slide photographs were made of every core section at approximately 50 cm length intervals, with some overlap, and these include a metric scale to determine core length. These photographs and data notations in field books are maintained at the National Museum of Natural History.

In addition to the above, lithologic logs and representative samples from nine long drill cores collected earlier in the Manzala Lagoon area were provided by the Coastal Research Institute in Alexandria to the Nile Delta Project team for additional study in Washington (Stanley and Liyanage, 1986). We also consulted lithologic logs of northern Nile delta drill borings from various unpublished sources, such as engineering consulting firms, the Egyptian Ministry of Irrigation and Agriculture departments, the Suez Canal authority, and U.S. AID reports, and in publications including those of Attia (1954) and UNDP/UNESCO (1978). These valuable documents supplemented information from the five Smithsonian drilling surveys (published in, respectively, from east to west: Coutellier and Stanley, 1987; Stanley, Warne et al., 1992; Arbouille and Stanley, 1991; Chen et al., 1992; Warne and Stanley, 1993b). Two Smithsonian cores collected in the central delta near Kafr El-Zaiyat and Tanta (S86 and S87) are described by Chen and Stanley (1993).

In addition to the long drill cores cited above, a suite of about 100 short cores, for the most part less than 1 m in length (Figure 9), along with approximately 200 surficial samples, were also collected for more specific study of the Nile delta lagoons (Manzala, Burullus, and Idku), former Abu Qir Lagoon, and Lake Mariut. These sediment samples are not presented in this monograph, but they are described in archival field books and detailed in publications by Randazzo (1992), Loizeau and Stanley (1993), Bernasconi and Stanley (1994), Loizeau and Stanley (1994), and Siegel et al. (1994). Also described elsewhere in a series of publications are data on short cores and surficial samples collected seaward of the delta on the shelf and Nile Cone (Stanley and Maldonado, 1983; Anastasakis and Stanley, 1984, 1985; Stanley, 1985, 1988a; Frihy et al., 1995), in the Suez Canal (Stanley et al., 1982), and in the River Nile (Schneiderman, 1995).

LABORATORY ANALYSES.—Extensive petrological, geochemical, faunal, and floral studies of the 87 long drill cores (S1–S87) were made so as to define the major late Pleistocene and Holocene (to modern) lithofacies in the northern Nile delta and to more precisely distinguish among prodelta, delta-front, strandline, lagoon, and floodplain deposits. This information was then used to make lithostratigraphic correlations and paleogeographic maps of the northern delta, to calculate land subsidence rates, and to interpret sea-level and climate changes through time.

FIGURE 2.—Trailer-mounted ACKER II equipment of the type used during the five Nile delta drilling surveys described in this study. Photograph taken at site S69 in September 1990.

The core sections were placed in a high humidity refrigerated room, with the temperature maintained at 4° C, until they were ready for study. After the cores were split, all sections were x-radiographed using 14 × 17 inch (35.6 × 43.2 cm) industrial film, and positive prints (1:1 scale) were made from the x-radiographs. Split core sections, while still moist, were then photographed, using 35 mm color slide film, at about 40 cm length intervals, with some overlap. A detailed lithological log was made of each Smithsonian core on the basis of visual observations, including color, details of sedimentary and biogenic structures in the strata, subtle features noted in x-radiographs, and penetrometer sediment hardness readings of the split cores. These notations were compiled and recorded during the period 1985 to 1992 in laboratory books presently archived, along with the complete set of x-radiographs and

FIGURE 3.—Large-diameter pipes in foreground are used for casing, particularly when drilling in thick sections of sand and/or soft mud. Note 10-foot (3.05 m) lengths of drill pipe assembled near the drilling equipment. Photograph taken at site S11 in September 1985.

FIGURE 4.—Extrusion from drill pipe of stiff clayey silt of late Pleistocene age, using high pressure pumping of circulated water. Photograph taken at site S55 in September 1989.

FIGURE 5.—Recovery of sediment from washings of circulated water in a thick sand sequence. Photograph taken at site S77 in September 1990.

FIGURE 6.—Drilling through consolidated carbonate section of late Pleistocene age in the region west of Alexandria. Pumped water is typically white when circulated through drilled carbonate sequences. Photograph taken at site S85 in September 1990.

color slides of split cores, at the National Museum of Natural History. Petrologic attributes for core sections and washings derived from these documents were used to draft detailed lithologic logs of the 87 borings. Simplified logs are presented in Appendix 1.

To obtain more detailed petrologic information, samples were collected down-boring at every change of lithology, or in the case of homogenous sections at a minimum of 50 cm intervals (except in the case of washings) along the entire length of the boring. More than 2500 samples were selected from the 87 borings, or an overall average of ~30 samples per core, for standard textural and compositional analyses (data listed in Appendix 2). Core and washing sample numbers and depths in this listing correspond to those shown on the lithologic logs in Appendix 1.

The proportions of sand ($> 63 \mu\text{m}$), silt ($2\text{--}63 \mu\text{m}$), and clay ($< 2 \mu\text{m}$) fractions were determined by sieve and pipette analyses. A separate study of the relative percentages of components forming the sand-sized fraction in all samples was made using a binocular microscope, following the petrographic method of Coutellier and Stanley (1987), Frihy and Stanley (1988), and Stanley and Chen (1991). Relative percentages of major sand-sized components were calculated from point counts of > 300 grains for all samples. The 16 components counted include 8 mineralogical (light and heavy minerals, mica, glauconite/verdine, pyrite, evaporite/gypsum, lithic fragments, aggregate), 6 faunal (indeterminate shell fragments, foraminifera, ostracod, gastropod, pelecypod, sponge), and 2 floral (plant fragments, including seed and fiber, and diatom).

FIGURE 7.—Mud-rich sediment core of Holocene age placed in a plastic liner after extrusion from the drill barrel. Photograph taken at site S18 in April 1987.

Proportions of the various sand-sized compositional components and their positions along the core length (data in Appendix 2) are graphically depicted on each of the core lithologic logs (Appendix 1). All this information has been used in a series of geological studies of the northern delta, including the five regional surveys by Coutellier and Stanley (1987), Arbouille and Stanley (1991), Stanley, Warne et al. (1992), Chen et al. (1992), and Warne and Stanley (1993b).

In addition to the 2500 samples taken from the 87 long cores cited above, another ~1000 core samples were selected for separate, more specific, petrographic and faunal study. These include those of the sand-sized fraction examined for glauconite/verdine (Pimmel and Stanley, 1989), surface features of quartz (Frihy and Stanley, 1987; Stanley and Chen, 1991), heavy minerals (Stanley et al., 1988; Foucault and Stanley, 1989; Stanley, 1989), and carbonates (Stanley and Hamza,

1992). Biogenic fractions of sand-sized material in numerous core samples also were examined: foraminifera (Kulyk, 1987); ostracods (Pugliese and Stanley, 1991); molluscs (Bernasconi et al., 1991; Longo, 1992; Bernasconi and Stanley, 1994); and plant matter (Howa and Stanley, 1991). Volcanic shards (Stanley and Sheng, 1986) and pollen (Leroy, 1992) were detailed in the silt-size fraction of some long core samples in the Manzala Lagoon area. Analyses of clay minerals also were made (Stanley and Liyanage, 1986; Abu-Zeid and Stanley, 1990; Abdel Wahab and Stanley, 1991). Geochemical analyses of long core samples were made in the northeastern Nile delta using either the sand fraction (Hamroush and Stanley, 1991; Allen et al., 1993), the silt and clay fractions (Dominik and Stanley, 1993), or primarily the clay fraction (Gerber, 1988; Gupta, 1989; Shergill, 1990; Siegel et al., 1995).

The petrology, including structures, petrography, and texture, of short core sections and surficial grab samples in different localities was also examined, using methods comparable to those employed for study of the long cores. These areas include the following: the Nile delta shelf and Nile Cone (Stanley and Maldonado, 1983; Anastasakis and Stanley, 1984, 1985; Stanley, 1985, 1988a, 1989; Frihy et al., 1995); Suez Canal (Stanley et al., 1982); delta lagoons (Randazzo, 1992; Longo, 1992; Loizeau and Stanley, 1993, 1994; Siegel et al., 1994); and the River Nile between Aswan and the Mediterranean coast (Schneiderman, 1995).

RADIOCARBON DATING.—An essential part of the Nile delta core study was to clearly distinguish subsurface Holocene from late Pleistocene sections and to subdivide Holocene sections into viable mappable stratigraphic sequences. It was anticipated that by obtaining a large set of radiocarbon dates we could establish a chronostratigraphic framework that would enhance regional litho- and biostratigraphic correlations. A total of 412 samples in 86 of the borings (all except core S65) were submitted for radiocarbon dating (Table 2); of these samples, 358 provided radiocarbon ages, and 54 had insufficient carbon for reliable dates. This constitutes a base of approximately four dates per boring. Sample positions and depth in the borings are shown in the lithologic logs in Appendix 1. Material selected for dating was obtained from split core sections 10–12 cm in length. Most of these dates were obtained using total carbon in dark olive organic-rich layers (for the most part lagoonal deposits) and peats (marsh deposits); shell matter was also used in a few instances. Most analyses were made by Beta Analytic Inc.© of Miami, Florida; an additional 19 samples, selected from borings S7 and S8, were treated by the Smithsonian Institution's Radiobiology Laboratory. The dates are shown in Table 2 and in Appendices 1 and 2, and the permanent radiocarbon record numbers are also listed in Table 2. Chronostratigraphic correlations based on these data are depicted in a series of published studies made across the northern delta, from east to west: Coutellier and Stanley (1987); Stanley, Warne et al. (1992); Arbouille and Stanley (1991); Chen et al. (1992); and Warne and Stanley (1993b).

FIGURE 8.—After extraction from the drill barrel, mud-rich sediment cores are cut into 5-foot (1.5 m) lengths, placed in plastic liners, and described prior to storage in boxes. Photograph taken at site S55 in September 1989.

Short cores in other sectors have also been radiocarbon dated, and this information is available in several publications: in the northern Suez Canal (Stanley et al., 1982); and in the Nile delta shelf and Nile Cone (Stanley and Maldonado, 1983; Anastasakis and Stanley, 1984, 1985; Stanley, 1985, 1988a).

Identified archeological material preserved in cores (Stanley et al., 1992; Warne and Stanley, 1993a) and a dating study emphasizing the amino acid racemization methodology on several long cores (Goodfriend and Stanley, 1996) provide additional age information on the Holocene delta sections.

Nile Delta Project Data Used in Scientific Literature

STUDIES LISTED BY LOCATION

A recent bibliographic listing of all known publications through 1993 that pertain to the geology and geography of the Nile delta proper and its immediate vicinity, on land and offshore, recently has been compiled (Stanley et al., 1994). It is of note that during the past decade there have been over 50 articles published in the scientific literature and seven theses have been completed as a direct result of research undertaken in Egypt as sponsored by the Nile Delta Project. These describe in considerable detail the various methods used in the study of the

Nile materials cited above. Most of these documents include at least some of the S1–S87 core data referred to in the previous section and presented in Appendices 1 and 2.

A series of publications that draw upon the Smithsonian Institution's borings and core sample data focus on the late Pleistocene to Recent paleogeographic evolution of the northern delta plain. Many of these emphasize petrologic descriptions, lithofacies interpretations, chrono- and lithostratigraphic core-to-core correlations of late Quaternary sections, and the effects of sea-level change, climate, neotectonism, and sediment transport processes on Nile delta deposits. These investigations include studies of the northeastern delta (Coutellier and Stanley, 1987; cores S1–S17; Stanley, 1988b; cores S1–S36); the northern delta (Stanley, Warne et al., 1992; cores S1–S16, S28–S46); the north-northwestern delta (Arbouille and Stanley, 1991; cores S38–S59); and the northwestern delta (Chen et al., 1992; cores S51–S78; Stanley and Hamza, 1992; cores S74–S85; Warne and Stanley, 1993b; cores S72–S85). A study using selected borings in the central delta (cores S86 and S87) was made by Chen and Stanley (1993).

Other Nile Delta Project studies of the lower plain region, focusing on the late Holocene to present time, have primarily used short cores (< 1 m length) and surficial sediment grab samples, rather than the long S-cores. Study areas include

FIGURE 9.—Recovery of a short core (~1 m) in Manzala Lagoon. Photograph taken at short core site Man-IV and collected in September 1989.

Manzala Lagoon (Randazzo, 1992; Slaboda, 1993; Bernasconi and Stanley, 1994; Siegel et al., 1994), Burullus Lagoon (Bernasconi and Stanley, 1994), Idu Lagoon (Loizeau and Stanley, 1993; Bernasconi and Stanley, 1994), and Mariut Lake (Bernasconi and Stanley, 1994; Loizeau and Stanley, 1994). Analyses were also made on Suez Canal sediments, including those in its northern sector, positioned in the northeastern Nile delta (Stanley et al., 1982; Gerges and Stanley, 1985; Bernasconi and Stanley, in press). A petrologic investigation of lower Nile River deposits, between the Egypt-Sudan border and Cairo, has been initiated with a first study on heavy minerals completed by Schneiderman (1995). Studies of late Quaternary deposits seaward of the Nile delta include those on Abu Qir Bay (Frihy et al., 1995) and several on the Nile delta shelf and Nile Cone (Stanley and Maldonado, 1983; Anastasakis and Stanley, 1984, 1985; Stanley, 1985, 1988a, 1989).

STUDIES LISTED BY TOPIC AND THEME

In addition to geographic attribution, most of the studies listed above, along with other published scientific articles and theses completed during the course of the Nile Delta Project, can be listed by specific topic or theme. We recognize 12 major categories in which we can incorporate data collected as part of the project. As would be expected, most published articles and theses can be assigned to at least two or three of these. Each category comprises contributions listed chronologically, including year, last name of author(s), and abbreviated topic notation. For complete reference citations, the reader is directed to the Literature Cited in this publication.

PETROLOGY, COMPOSITION, AND TEXTURE.—Most studies made during the course of the project consider lithologic attributes, such as sedimentary and biogenic structures, grain size, and composition of sand- and clay-size fractions. It is primarily on this basis that Nile delta facies of late Pleistocene and Holocene age are defined and interpreted, and their distribution mapped in time and space.

1982	Stanley, Freeland, and Sheng: Suez Canal sediments
1983	Stanley and Maldonado: Nile Cone sedimentation
1984	Anastasakis and Stanley: Sapropels on the Nile Cone
1985	Stanley: Mud redeposition on the Nile Cone
1985	Anastasakis and Stanley: Sapropels on the Nile Cone
1986	Stanley and Sheng: Volcanic shards in the delta
1986	Stanley and Liyanage: Clay minerals in the northeastern delta
1987	Frihy and Stanley: Quartz grain surface textures
1987	Coutellier and Stanley: Petrology and lithofacies, northeastern delta
1988	Frihy and Stanley: Texture and composition of delta deposits
1988	Stanley, Sheng, and Pan: Heavy minerals, northeastern delta
1988	Gerber: Clays and geochemistry, northeastern delta cores
1988a	Stanley: Sedimentation on the Nile delta shelf
1989	Pimmel and Stanley: Verdinized fecal pellets in Holocene deposits
1989	Foucault and Stanley: Heavy minerals, northeastern delta
1989	Gupta: Clays and geochemistry, northeastern delta
1989	Stanley: Heavy minerals between the delta and Israeli margin
1990	Abu-Zeid and Stanley: Clay minerals, northeastern delta
1990	Shergill: Clays and geochemistry, northeastern delta
1991	Abdel Wahab and Stanley: Clay minerals, northern delta

- 1991 Arbouille and Stanley: Petrology and lithofacies, northern delta
- 1991 Howa and Stanley: Petrology and plant matter across the delta
- 1991 Stanley and Chen: Stain-grained and sand-size composition of diverse modern delta facies
- 1992 Stanley and Hamza: Carbonate sediments, northwestern delta
- 1992 Stanley, Warne et al.: Petrology and lithofacies, northern delta
- 1992 Randazzo: Petrology of Manzala Lagoon sediments
- 1992 Chen, Warne, and Stanley: Petrology and lithofacies, northwestern delta
- 1993 Chen and Stanley: Alluvial stiff muds, late Pleistocene
- 1993b Warne and Stanley: Petrology and lithofacies, northwestern delta
- 1993 Loizeau and Stanley: Lithofacies, Idku Lagoon
- 1994 Loizeau and Stanley: Lithofacies, Mariut Lake
- 1995 Frihy, Moussa, and Stanley: Abu Qir Bay sediments
- 1995 Schneiderman: River Nile sands between Aswan and the delta

FAUNAL ANALYSES.—Studies in this category include micro- and macro-fossil analyses in long cores in the northern Nile delta, and also short core and grab samples collected in delta lagoons. These investigations provide ecological information on depositional environments.

- 1987 Kulyk: Foraminifera in the northeastern delta
- 1991 Bernasconi, Stanley, and DiGeronimo: Molluscan faunas in the northeastern delta
- 1991 Pugliese and Stanley: Ostracodes in the northeastern delta
- 1992 Longo: Molluscan faunas and palaeoecology in delta lagoons
- 1994 Bernasconi and Stanley: Molluscan biofacies in delta lagoons

FLORAL ANALYSES.—To date, only two floral studies in Nile delta sediments have been completed within the framework of this project. Plant matter of sand size and pollen in long cores provide information on paleoclimatological and paleoecological changes with time in the study area.

- 1991 Howa and Stanley: Plant matter distribution across the northern delta
- 1992 Leroy: Palynological assemblages, northeastern delta

GEOCHEMICAL ANALYSES.—Included in this category are investigations of trace and rare earth elements, which provide information on environmental and paleoclimatic changes through time, provenance, and dispersal, and the means to

gauge increased pollution in northern delta sectors, including lagoons.

- 1988 Gerber: Trace elements, northeastern delta
- 1989 Gupta: Trace elements, northeastern delta
- 1990 Shergill: Trace elements, northeastern delta
- 1991 Hamroush and Stanley: Rare earth elements and paleoclimate oscillations
- 1993 Allen, Hamroush, and Stanley: Trace elements and archaeological implications
- 1993 Dominik and Stanley: Trace elements and peats
- 1993 Slaboda: Trace elements in recent Manzala Lagoon
- 1994 Siegel, Slaboda, and Stanley: Trace elements and pollution in Manzala Lagoon
- 1995 Siegel et al.: Trace elements in cores of the northeastern delta

NEOTECTONISM AND ITS EFFECTS ON THE DELTA.—Studies listed below emphasize the vertical motion of land, rates of subsidence, and evidence of tilting to the northeast of the Nile delta during the late Quaternary. Measurements involve displacement of radiocarbon-dated lithofacies, which were originally deposited at or near sea level and are now buried below the delta plain surface.

- 1985 Stanley and Wetzel: Structural displacement in the southeastern Mediterranean
- 1988b Stanley: Subsidence rates in the northeastern delta
- 1990 Stanley: Subsidence and tilting of the delta plain
- 1991 Arbouille and Stanley: Subsidence in the northern delta
- 1992 Stanley, Warne et al.: Subsidence in the northern delta
- 1992 Chen, Warne, and Stanley: Subsidence in the northwestern delta
- 1992 Stanley: Subsidence rates of the northern delta plain
- 1992 Stanley, Arnold, and Warne: Subsidence and burial of a Predynastic site
- 1993a Stanley and Warne: Synthesis of delta subsidence
- 1993a Warne and Stanley: Measuring subsidence rates using archeological data
- 1993b Warne and Stanley: Subsidence in the northwestern delta

SEA-LEVEL AND CLIMATIC FACTORS AFFECTING THE DELTA.—Investigations in this category emphasize the influences of global (eustatic) sea-level oscillations, excluding land motion, and effects of climate change, which controlled fluvial and sediment input and delta aggradation during the late Quaternary.

- 1987 Coutellier and Stanley: Northeastern delta
- 1991 Arbouille and Stanley: North-central delta
- 1991 Hamroush and Stanley: Paleoclimatic oscillations
- 1992 Stanley, Warne et al.: North-central delta

TABLE 2.—Radiocarbon dates for samples from boreholes S1–S87, in uncorrected years before present (BP). Data listing includes depth from top of boring, Smithsonian sample letter code, and number code assigned by Beta Analytic Inc.®; the 19 samples analyzed by the Smithsonian's Radiobiology Laboratory are designated by the SI letter code prefix.

Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)	Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)
S1	2	A	19414	2930 ± 90	S8	12.5	J	SI7050A	14030 ± 240
	8	B	19415	3230 ± 160		15.5	K	SI7051A	Insufficient C
	9.5	C	19416	2360 ± 100		16	D	17246	32910 ± 1740
	15.5	D	19417	6410 ± 180		18	L	SI7052A	26800 ± 560
	23	E	19418	7590 ± 130		19	M	SI7053A	38220 ± 800
	28	F	19419	7440 ± 90		1	A	17248	4170 ± 120
S2	1.5	A	18554	1830 ± 70	S9	3	A'	SI7106	4025 ± 180
	3.5	B	18555	3800 ± 90		5	B	17249	4230 ± 90
	7.5	C	18556	5110 ± 80		9.5	B	SI7107	4695 ± 115
	9.5	D	18557	6580 ± 100		16	C	SI7108	5110 ± 90
	12.5	E	18558	7110 ± 70		20	D	SI7109	6965 ± 110
	19	F	18559	14000 ± 280		25	E	17110	Insufficient C
S3	3	A	20255	3030 ± 80	S10	26	F	17111	Insufficient C
	8.5	B	20256	4200 ± 100		27	E	17250	6760 ± 140
	11	C	20257	5950 ± 100		36	F	17251	7300 ± 110
	15.5	D	20258	7510 ± 110		40	G	SI7112	9060 ± 90
	21.5	E	20259	7180 ± 110		2	A	17252	3740 ± 150
	26	F	20260	7480 ± 90		4.5	B	17253	5140 ± 80
S4	1	A	18905	2990 ± 90	S11	12	C	17254	Insufficient C
	2.5	B	18906	2150 ± 100		7	A	17255	21880 ± 970
	5.5	C	18907	4080 ± 130		8	B	17256	Insufficient C
	7.5	D	18908	5330 ± 120		2	A	16686	2550 ± 80
	10	E	18909	5510 ± 150		5.5	B	16687	4570 ± 170
	12.5	F	18910	6880 ± 100		8.5	C	16688	5190 ± 100
S5	14	G	18911	7020 ± 120	S12	11	D	16689	6110 ± 120
	16	H	18912	7020 ± 140		14.5	E	16690	6475 ± 90
	2	A	20544	1450 ± 80		23	F	16691	9820 ± 400
	4.5	B	20545	2450 ± 80		2	A	18115	Insufficient C
	7.5	C	20546	4340 ± 120		5.5	B	18116	1500 ± 80
	13	D	20547	6390 ± 110		9.5	C	18117	3550 ± 100
S6	17	E	20548	7010 ± 140	S13	13.5	D	18118	7280 ± 490
	21.5	F	20549	7620 ± 110		18	E	18119	Insufficient C
	28.5	G	20550	7500 ± 110		24	F	–	Insufficient C
	29	H	20551	11290 ± 160		5	A	16534	3760 ± 70
	1.5	A	16340	1910 ± 70		8	B	16535	3640 ± 120
	5.5	B	16341	3750 ± 60	S14	11.5	C	16536	4050 ± 110
S7	10.5	C	16342	6930 ± 110		16	D	16537	3000 ± 110
	18	D	16343	7790 ± 110		21	E	16538	5130 ± 90
	20.5	E	16344	24820 ± 400		1.5	A	18120	Insufficient C
	1.5	A	SI7041A	2340 ± 90		5	B	18121	Insufficient C
	2	A	17243	4230 ± 100		6.5	E	18125	Insufficient C
	2.5	B	SI7042B	3805 ± 40	S15	7.5	C	18123	> 23210
S87	3.5	C	SI7043B	2110 ± 100		8.5	D	18124	26270 ± 3850
	5	B	17244	6300 ± 100		13	F	18126	7440 ± 370
	5.5	E	17247	Insufficient C		16	G	18127	Insufficient C
	6	E	SI7045B	6325 ± 120		22	H	18128	Insufficient C
	7	F	SI7046B	5720 ± 70		3.5	A	17831	1620 ± 70
	8	C	17245	6500 ± 100		7	B	17832	4370 ± 160
S87	8	G	SI7047A	8215 ± 155	S15	10.5	C	17833	2620 ± 80
	8	G	SI7047B	7610 ± 90		14.5	D	17834	3870 ± 80
	9.5	H	SI7048A	Insufficient C		20	E	17835	4170 ± 90
	10	H	SI7048B	5285 ± 155		25.5	F	17836	6760 ± 90
	11	I	SI7049A	12870 ± 180					

Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)	Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)
S16	35	H	17838	7420 ± 90	S25	3.5	A	25463	3860 ± 90
	3	A	16345	2360 ± 90		8	B	25464	6630 ± 110
	9	B	16346	1940 ± 90		12.5	C	25465	6760 ± 100
	14	C	16347	4500 ± 90		14	D	25466	6210 ± 100
	18	D	16348	4820 ± 80	S26	1	K	24895	2500 ± 170
S17	23	E	16349	7700 ± 110		2.5	L	24896	2820 ± 120
	27.5	F	16350	7340 ± 90		5	M	24897	4370 ± 170
	2	A	20079	1420 ± 80		5.5	N	24898	4210 ± 90
	8	B	20080	4200 ± 120		6.5	O	24899	Insufficient C
S18	12.5	C	20081	4480 ± 110	S27	2	A	25537	3160 ± 120
	19	D	20082	4890 ± 110		6	B	25538	2520 ± 90
	30	E	20083	7980 ± 90		6.5	C	25539	2980 ± 70
	35	F	20084	7850 ± 100		9	D	25540	3330 ± 90
	42.5	G	20085	8940 ± 120		10.5	E	25541	6560 ± 90
	30	F	16539	7150 ± 110	S28	5	F	26381	4500 ± 120
	1.5	A	24004	1400 ± 80		18	G	26382	8640 ± 110
	6.5	B	24005	4650 ± 120		23.5	H	26383	7230 ± 80
	11	C	24006	4100 ± 70		26	I	26384	Insufficient C
	17.5	D	24007	4480 ± 110		28	J	26385	10950 ± 90
S19	26	E	24008	7400 ± 80		35	K	26386	Insufficient C
	27.5	F	24009	4040 ± 100	S29	4	A	26387	3460 ± 100
	41	G	24010	11530 ± 80		6	B	26388	4580 ± 100
	52.5	H	24011	12070 ± 370		7	C	26389	5190 ± 90
	1	F	24890	Insufficient C		9	D	26390	4910 ± 90
	4	G	24891	3070 ± 110		18	E	26391	8870 ± 170
	6.5	H	24892	3960 ± 100	S30	18.5	A	26910	5270 ± 90
S20	8.5	I	24893	4080 ± 90		22.5	B	26911	5020 ± 110
	11.5	J	24894	Insufficient C		26.5	C	26912	8090 ± 120
	2	A	25256	2890 ± 130		27.5	D	26913	8040 ± 250
	11	B	25257	4190 ± 90		28.5	E	26914	Insufficient C
	22	C	25258	5110 ± 110		34	F	26915	10770 ± 120
	27.5	D	25259	7460 ± 80	S31	4.5	A	32455	3260 ± 90
	34	E	25260	7260 ± 90		10.5	B	32456	5840 ± 140
S21	40	F	25261	7630 ± 90		15	C	32457	6590 ± 110
	42	G	25262	7360 ± 90		19.5	D	32458	7650 ± 150
	45	H	25263	15110 ± 640		25	E	32459	7850 ± 140
	1	A	25937	3400 ± 140		27	F	32460	6880 ± 80
	9.5	B	25938	3530 ± 90		28	G	32461	Insufficient C
	16	C	25939	3870 ± 100		28.5	H	33115	> 25670
	25	D	25940	4520 ± 110	S32	7.5	A	33116	5880 ± 170
S22	34	E	25941	5780 ± 130		11.5	B	33117	7100 ± 130
	40.5	F	25942	7140 ± 110		12	C	33118	7960 ± 150
	46	G	25943	8190 ± 110		19	D	33119	Insufficient C
	48	H	25944	8140 ± 130	S33	12	A	30599	5500 ± 190
	0.5	A	23672	3630 ± 110		12.5	B	30600	3560 ± 150
	3	B	23673	3770 ± 90		21	C	30601	Insufficient C
	8	C	23674	4670 ± 80		21.5	D	30602	34380 ± 1740
S23	14	D	23675	6630 ± 150	S34	13	A	30603	8370 ± 180
	21.5	E	23676	7910 ± 150		13.5	B	30604	6710 ± 190
	22	F	23677	7540 ± 70		24	C	30605	19450 ± 840
	31	G	23678	32920 ± 930		25	D	30606	21050 ± 920
	37	H	23679	24320 ± 2030	S35	10	F	31486	6160 ± 80
	1.5	A	24885	2490 ± 80		17.5	E	31485	7730 ± 120
	5	B	24886	Insufficient C		21	A	30607	7260 ± 110
S24	0.5	C	24887A	4130 ± 180		22.5	B	30608	4770 ± 110
	7.5	D	24887B	9200 ± 110		30	C	30609	Insufficient C
	10	E	24889	24240 ± 1510					

Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)	Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)
S36	14	A	30610	7080 ± 120	S46	8	A	34478	7130 ± 80
	14.5	B	30611	Insufficient C		10.5	B	34479	6620 ± 70
	25	C	30612	27720 ± 670		12	C	34480	12940 ± 240
	34.5	D	30613	25570 ± 720		18	D	34481	Insufficient C
S37	5	A	33120	3260 ± 80	S47	5.5	A	36764	4270 ± 110
	12.5	B	33121	6870 ± 170		15	B	36765	8050 ± 140
S38	12	G	31487	7240 ± 90		23	C	36767	Insufficient C
	13	A	30117	7210 ± 130		30	D	36766	Insufficient C
	14	B	30118	3380 ± 200		37	E	36768	26820 ± 1340
	18	C	30119	21090 ± 600	S48	3	A	37298	1610 ± 60
	23	D	30120	Insufficient C		4.5	B	37299	1670 ± 50
	29.5	E	30121	Insufficient C		7.5	C	37300	4480 ± 80
	31	F	30122	> 29260		14	D	37301	6340 ± 100
S39	1.5	D	33122	3840 ± 100	S49	6	A	36769	3190 ± 90
	2.5	A	29858	4540 ± 290		11	B	36770	5410 ± 100
	4	C	29860	Insufficient C		15	C	36771	7170 ± 180
	13.5	E	33123	21700 ± 2460		26	D	36772	Insufficient C
	13.5	B	29859	11320 ± 290	S50	4.5	A	37302	2870 ± 80
S40	3	E	33124	3430 ± 110		16	B	37303	6600 ± 80
	15.5	A	29861	7450 ± 120		24	C	37304	7950 ± 90
	16.5	C	29863	3540 ± 150		25.5	D	37305	11040 ± 330
	25.5	D	29864	6050 ± 140	S51	5.5	A	37747	3800 ± 60
	27.5	F	33125	19350 ± 950		8	B	37748	5930 ± 130
	26.5	B	29862	Insufficient C		11.5	C	37749	6580 ± 110
S41	8.5	D	29867	Insufficient C	S52	2	A	37750	1670 ± 60
	9	F	31489	3060 ± 70		6	B	37751	3250 ± 100
	18	A	31488	6630 ± 250		7.5	C	37752	4790 ± 70
	20	B	29865	6330 ± 100		11.5	D	37753	6550 ± 80
	20.5	E	29868	3490 ± 100		12	E	37754	10510 ± 130
	24	C	29866	Insufficient C	S53	4	A	37755	2470 ± 60
	25	D	29867	Insufficient C		10	B	37756	5820 ± 100
	25.5	G	33126	Insufficient C		11	C	37757	11930 ± 170
	14.5	G	31490	3870 ± 110		14.5	D	37758	Insufficient C
S42	5	E	31492	3610 ± 110	S54	5	A	38098	3080 ± 70
	11	F	31493	4890 ± 100		9.5	B	38099	5990 ± 100
	21	D	31491	7410 ± 100		10	C	38100	12310 ± 120
	23	A	29869	8290 ± 120		14.5	D	38101	22820 ± 770
	24	B	29870	6730 ± 150	S55	3.5	A	37759	2420 ± 110
	28	C	29871	7860 ± 90		6	B	37760	3400 ± 100
S43	4	E	31494	4620 ± 130		7	C	37761	4170 ± 90
	7	F	31495	5610 ± 110		9.5	D	37762	14120 ± 160
	14	A	29872	6970 ± 110	S56	8.5	A	37763	1490 ± 80
	14.5	D	29875	Insufficient C		6	A	38102	3630 ± 70
	18	B	29873	Insufficient C	S57	12	B	38103	6310 ± 90
	18.5	E	33127	Insufficient C		13.5	C	38104	13630 ± 100
	25	F	33128	Insufficient C	S58	3	A	38091	3020 ± 80
S44	24.5	C	29874	Insufficient C		5.5	B	38092	3770 ± 80
	2	A	46010	2570 ± 70		11.5	C	38093	4890 ± 80
	5	B	46011	3980 ± 80		16	D	38094	7500 ± 70
	6.5	C	46012	3260 ± 90	S59	11.5	A	37306	3140 ± 100
	10.5	A	30123	6370 ± 180		17	B	37307	3560 ± 80
	14	B	30124	Insufficient C		27.5	C	37308	9110 ± 120
S45	14.5	C	33129	15600 ± 290	S60	8.5	A	36773	4760 ± 110
	12.5	A	30125	7100 ± 160		11	C	36774	5020 ± 90
	13	B	30126	Insufficient C					
	19	C	30127	24320 ± 1080					
	24	D	30128	29000 ± 1380					

Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)	Borehole number	Depth (m)	Smithsonian sample number	Beta sample number	Age (years BP)
S61	1.5	A	37309	2990 ± 80	S77	8	B	45642	6680 ± 100
	6	B	37310	4220 ± 100		5.5	A	46283	6430 ± 90
	13	C	37311	3430 ± 110		8.5	B	46284	6170 ± 110
	16.5	D	37312	7310 ± 100		10.5	E	48367	> 28000
S62	6	A	38095	3660 ± 70	S78	11.5	C	46285	Insufficient C
	13	B	38096	6220 ± 100		17	D	46286	Insufficient C
	17.5	C	38097	7160 ± 70	S79	4.5	A	46287	3250 ± 60
S63	19	A	36775	6590 ± 110		6.5	B	46288	6730 ± 70
S64	13.5	A	37313	2250 ± 100		7.5	C	46289	15920 ± 140
	19.5	B	37314	3780 ± 120	S80	4	D	48368	3850 ± 80
S65	-	-	None	-		4.5	A	47331	4480 ± 70
S66	6.5	A	45078	4020 ± 100		5	B	47332	17900 ± 220
	9	B	45079	3950 ± 70		6.5	C	47333	Insufficient C
	12	C	45080	5480 ± 80		3	A	46290	Insufficient C
	14.5	D	45081	7230 ± 70	S81	3.5	C	48369	3530 ± 60
S67	5	A	45633	11890 ± 380		7.5	D	48370	23070 ± 1880
S68	5	A	45082	2730 ± 80		8	B	46291	Insufficient C
	6.5	B	45083	4980 ± 70	S82	1.5	A	48371	1350 ± 80
	13.5	C	45084	6830 ± 80		2.5	D	48372	19630 ± 140
	14	D	45085	7170 ± 70		3	B	47334	28200 ± 460
S69	3.5	A	45634	4410 ± 80		5.5	E	48373	29480 ± 330
	7.5	C	46282	23670 ± 370		11	F	48374	> 38000
	12.5	B	45635	35260 ± 610	S83	12.5	C'	47335	Insufficient C
S70	2.5	A	45086	3220 ± 120		3	C	48375	5050 ± 70
	4	B	45087	3690 ± 140		3.5	A	46292	5850 ± 150
S71	2	C	48364	3030 ± 90		4	D	48376	16540 ± 220
	5.5	A	45636	4660 ± 80		4.5	B	46293	Insufficient C
	12	D	48365	6860 ± 50	S84	3	E	58280	5410 ± 120
	12.5	B	45637	7250 ± 100		3.5	D	48379	8350 ± 140
S72	4.5	A	46014	2900 ± 70		4	A	47336	8860 ± 130
	8.5	B	46015	6420 ± 80		4.5	B	48377	14990 ± 100
S73	4.5	A	45638	3990 ± 90	S85	5	C	48378	24770 ± 240
	12.5	B	45639	7590 ± 90		1	C	48380	2890 ± 60
	12	D	48366	12760 ± 110		2	A	46294	16760 ± 120
	14.5	C	45640	Insufficient C		2.5	D	48381	23510 ± 260
S74	3.5	A	45088	6290 ± 140		5.5	B	46295	39350 ± 800
	8.5	B	45089	6420 ± 90	S86	2.5	B	48382	20330 ± 270
S75	2.5	A	46016	2900 ± 60		6.5	A	46296	> 39730
	7	B	46017	5830 ± 90		1.5	A	51454	1690 ± 80
	13.5	C	46018	6960 ± 110	S87	7	B	51455	4910 ± 100
S76	5	A	45641	4950 ± 130		16.5	C	51456	6430 ± 110
						0.5	A	51457	1720 ± 80
						9	B	51458	7030 ± 130

- 1992 Chen, Warne, and Stanley: Northwestern delta
- 1992 Leroy: Palynology and climate change
- 1993 Dominik and Stanley: Trace elements and climate change
- 1993a Stanley and Warne: Synthesis of effects on the delta
- 1993b Stanley and Warne: Sea-level effects and archeology
- 1993 Stanley: Severe climatic effects in winter of 1992
- 1993b Warne and Stanley: Northwestern delta
- 1994 Stanley and Warne: Sea level and its role in Holocene delta initiation
- 1995 Warne and Stanley: World deltas concurrently affected by sea level

CHRONO- AND LITHOSTRATIGRAPHIC CORRELATIONS.—Many of the project studies depict core-to-core correlations, most involving well-defined radiocarbon-dated lithofacies in the delta proper and sectors seaward of the coast to the Nile Cone.

- 1983 Stanley and Maldonado: Outer Nile shelf and Nile Cone
- 1985 Stanley and Wetzel: Nile Cone and southeastern Mediterranean
- 1985 Anastasakis and Stanley: Nile Cone
- 1987 Coutellier and Stanley: Northeastern delta
- 1987 Kulyk: Using foraminifera, northeastern delta
- 1988 Frihy and Stanley: Methods using petrology
- 1988a Stanley: Nile delta shelf
- 1988 Gerber: Using geochemistry, northeastern delta
- 1989 Pimmel and Stanley: Delta-front and prodelta facies
- 1989 Gupta: Using trace elements, northeastern delta
- 1990 Stanley: Correlations to measure subsidence of the delta plain
- 1990 Shergill: Using geochemistry, northeastern delta
- 1991 Arbouille and Stanley: North-central delta
- 1991 Howa and Stanley: Using plant biofacies, across the northern delta
- 1991 Pugliese and Stanley: Biofacies correlations, northeastern delta
- 1992 Stanley, Warne et al.: North-central delta
- 1992 Chen, Warne, and Stanley: Northwestern delta
- 1993b Warne and Stanley: Northwestern delta
- 1993a Stanley and Warne: Synthesis of delta correlations

PROVENANCE, DISPERSAL, AND PALEOGEOGRAPHY.—This group of investigations includes topics pertaining to the origin and dispersal of sediments, displacement of depositional environments, and paleogeographic changes through time in the Nile delta. This category is based on correlation of well-defined, radiocarbon-dated lithofacies of late Pleistocene to Holocene age.

- 1983 Stanley and Maldonado: Outer Nile shelf and Nile Cone
- 1985 Gerges and Stanley: Northern Suez Canal
- 1985 Stanley and Wetzel: Nile Cone and southeastern Mediterranean
- 1985 Anastasakis and Stanley: Outer Nile shelf and Nile Cone
- 1987 Coutellier and Stanley: Northeastern delta
- 1989 Foucault and Stanley: Upper River Nile system to the northern delta
- 1989 Stanley: Nile delta to Israeli margin, based on heavy minerals
- 1990 Abu-Zeid and Stanley: Northeast delta, based on clays
- 1991 Abdel Wahab and Stanley: North-central delta, based on clays
- 1991 Arbouille and Stanley: North-central delta
- 1992 Stanley, Warne et al.: North-central delta
- 1992 Chen, Warne, and Stanley: Northwestern delta
- 1993 Chen and Stanley: Central delta plain
- 1993b Warne and Stanley: Northwestern delta
- 1993a Stanley and Warne: Synthesis of lower delta plain
- 1993 Slaboda: Trace elements in Manzala Lagoon
- 1995 Frihy, Moussa, and Stanley: Abu Qir Bay
- 1995 Schneiderman: Lower River Nile system, based on mineralogy

ARCHEOLOGICAL CONSIDERATIONS.—Publications in this category involve the results of petrological, sedimentological, and stratigraphic analyses in archaeological investigations.

- 1986 Stanley and Sheng: Santorini volcanic shards, Manzala Lagoon region, and possible Biblical exodus
- 1992 Stanley, Arnold, and Warne: Discovery of oldest Pharaonic site in the northern delta
- 1993 Allen, Hamroush, and Stanley: Egyptian civilization, environmental change, and geochemistry
- 1993b Stanley and Warne: Predynastic culture as related to sea level
- 1993a Warne and Stanley: Northern delta archaeological site and subsidence rates

ANTHROPOGENIC FACTORS AND IMPACT.—A series of studies takes into account the growing influence of humans on the Nile delta, including the much altered River Nile system and pollution.

- 1985 Gerges and Stanley: Human influence on the northern Suez Canal
- 1993 Loizeau and Stanley: Altered Idku Lagoon environment
- 1993a Stanley and Warne: Effects of altered River Nile system and predictions for the future

- 1993 Stanley: Some recent anthropogenic effects and responses in the Alexandria region
- 1994 Loizeau and Stanley: Altered Mariut Lagoon subenvironment
- 1994 Siegel, Slaboda, and Stanley: Recent increased pollution in Manzala Lagoon

NILE DELTA LAGOONS.—Increased attention is being paid to the recent evolution of the shallow Manzala, Burullus, Idku, and Mariut water bodies in the northern Nile delta and the sedimentary and faunal facies therein.

- 1992 Randazzo: Petrology of recent Manzala Lagoon deposits
- 1992 Longo: Molluscan faunas and palaeoecology in modern lagoons
- 1993 Loizeau and Stanley: Changing lithofacies, Idku Lagoon
- 1994 Loizeau and Stanley: Changing lithofacies, Mariut Lagoon
- 1994 Bernasconi and Stanley: Changes in molluscan biofacies
- 1994 Siegel, Slaboda, and Stanley: Recently increased pollution in Manzala Lagoon

COMPARING THE NILE WITH OTHER WORLD DELTAS.—A more recent research effort considers attributes of the Holocene Nile delta, which enable it to be compared with other such depocenters elsewhere in the world. Of special consideration are the timing and factors responsible for initiation of modern world deltas.

- 1986 Stanley: Mediterranean deltas, fans, and cones
- 1994 Stanley and Warne: Timing of delta initiation and the role of sea level
- 1995 Warne and Stanley: Comparing factors controlling the development of world deltas

Applications For Delta Management

The northern Nile delta is presently undergoing rapid environmental deformation and ecological decline. Most serious are the combined effects of natural factors, such as land subsidence and rising sea level, with anthropogenic factors, such as irrigation and damming. This results in, among other changes, seawater incursion into the delta's water table and coastal erosion (Stanley and Warne, 1993a). Salination has increased substantially since closure of the Aswan High Dam in 1964, reducing agricultural productivity (Biswas, 1993) and altering the chemistry of the delta's lagoon and lake waters (Kerambrun, 1986). The dam now controls the flood cycle, which previously flushed the delta plain and prevented substantial accumulation of salts in this evaporitic setting. Also significant is the trapping of sediments at Lake Nasser behind

the dam, reducing nutrients formerly carried downstream in the flow to the delta and offshore. At the same time, the rapidly increasing population has necessitated intensified agricultural development, unprecedented municipal expansion, accelerated diversion of Nile waters through a dense and complex irrigation system, and land reclamation of vital delta water bodies, such as lagoons and marshes. These activities, particularly the much-reduced sediment discharge, have also contributed to heightened coastal erosion by Mediterranean nearshore currents (Figure 10).

It is our hope that the information collected in this document can be of assistance to geologists, ecologists, agronomists, and engineers having the responsibility of maintaining and improving environmental conditions in the lower Nile delta plain. With the available database, specialists will be able to distinguish and measure changes, both natural- and human-induced, over time. Our work, focusing on dated subsurface sedimentary sections, serves this purpose for the lower Nile delta from the time of its initiation in the early Holocene (~8000 years ago) to the 1990s. Of primary value are the data serving to compile paleogeographic reconstructions of the northern delta, including positions of earlier Nile channels, strandplains, lagoons, and marshes, prior to and during the early phases of human settlement.

Data gathered from the borings provide a means to distinguish the effects of natural from anthropogenic factors. In essence, we have compiled a temporal and spatial record of change from the time when human impact was minimal, prior to ~7000 years ago (Stanley and Warne, 1993b), when sea-level and climate oscillations, neotectonism, and effects of fluvial and coastal processes were dominant in controlling the configuration of the lower Nile delta plain. Although our data indicate that fluctuations of these natural factors continue to modify the delta, the record shows that the escalating role of people began to overtake the influence of natural factors as early as the Dynastic period (Butzer, 1976). Since the beginning of Egypt's industrialization, and particularly since the latter part of the nineteenth and the beginning of the twentieth century (when the first dam at Aswan was completed, along with a series of barrages and River Nile channelization projects), our records show that human influence on the delta has expanded by several orders of magnitude. The dated borings thus serve as a gauge against which present changes can be compared. For example, rates and amounts of land subsidence and delta tilting (Stanley, 1990) and recent increases in pollutants in lagoon and marsh areas can be measured accurately against the long-term record (Siegel et al., 1994).

As in the case of many of the world's major deltas, the Nile is low-lying and highly vulnerable to even minor changes in sea level and subsidence. Inasmuch as the sediment supply has now been artificially curtailed, this depocenter has become increasingly subject to marine incursion, which further reduces its

FIGURE 10.—Section of the town of Ras El-Barr at the Damietta promontory (north of Damietta, D on Figure 1), recently abandoned and undergoing destruction by intense coastal current erosion. Relatively rapid incursion of the sea in this region is due to concurrent subsidence of land and rise in sea level as indicated by analyses of radiocarbon-dated drill cores. Photograph taken in October 1992. (Courtesy of G. Drapeau.)

ability to sustain a dense and burgeoning population. Given this rapidly changing dynamic of interplay among human and natural factors, the availability of a comprehensive database

becomes essential for the implementation of effective protection measures in a region where dependency on agricultural production has reached a critical stage.

Appendix 1: Core Lithological Logs

Legend for core logs S1-S87

Plant Fossil
Root
Shell Fragments
Potsherd
Gypsum
Whole Shell
Organic Matter
Mica
Nodule
Pebbles
Sand Pocket
Clay Pocket
Limestone Pocket
Limestone

I	Core
W ₁	Washing
3	Sample
Spoon Sample
Radiocarbon Sample

Lithologic Patterns

Sand

Clay

Silt/Mud

Peat

Structural Patterns

Planar
Laminae

Non-
Planar
Beds

Cross-
Bedded

Bio-
turbated

Peat

Textural Patterns

Silt

Sand

Clay

CORE NUMBER S1 I

CORE NUMBER S1 II

[illegible]

CORE NUMBER S2

APPENDIX 1.—Continued.

CORE NUMBER S5 I

CORE NUMBER S5 II[illegible]

CORE NUMBER S6 I

APPENDIX 1.—Continued.

CORE NUMBER S8 II

CORE NUMBER S8 III[illegible]

CORE NUMBER S101

CORE NUMBER S111

[illegible]

CORE NUMBER S121

CORE NUMBER S12 II[illegible]

CORE NUMBER S14 II

L. PLEISTOCENE						GEOLOGIC AGE
						RADIOCARBON DATE
						DEPTH (METERS)
						LITHOLOGY
						FIELD
						LABORATORY CARBON 14
						STRUCTURE
						COLOR
						HARDNESS
						TEXTURE (RELATIVE %)
						LIGHT MINERALS
						HEAVY MINERALS
						MICAS
						GLAUCONITE / VERDINE
						PYRITE
						GYPSUM (EVAPORITES)
						SHELL FRAGMENTS
						SHELL WHOLE
						FORAMINIFERA BENTHIC
						OSTRACODES
						CALCIC CEMENT
						LITHIC FRAGMENTS
						PLANT FRAGMENTS
						AGGREGATE
						SILICIFIED WOOD
						OTHER
						INSUF
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

APPENDIX 1.—Continued.

CORE NUMBER S17 II

CORE NUMBER S17 III

[illegible]

CORE NUMBER S18 II

[illegible]

APPENDIX 1.—Continued.

[illegible]

CORE NUMBER S19[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S20 I

CORE NUMBER S21 III

APPENDIX 1.—Continued.

CORE NUMBER S22 I

CORE NUMBER S26[illegible]

CORE NUMBER S27

[illegible]

CORE NUMBER S29 II

[illegible]

CORE NUMBER S30 I

APPENDIX 1.—Continued.

CORE NUMBER S30 II

CORE NUMBER S30 III[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S31 I

APPENDIX 1.—Continued.

CORE NUMBER S31 II

APPENDIX 1.—Continued.

CORE NUMBER **S33 I**

CORE NUMBER S33 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S34 I

APPENDIX 1.—Continued.

CORE NUMBER S34 II

GEOLOGIC AGE	RADIOCARBON DATE	DEPTH (METERS)	LITHOLOGY	FIELD	LABORATORY CARBON 14	STRUCTURE	COLOR	HARDNESS	TEXTURE (RELATIVE %)	LIGHT MINERALS	HEAVY MINERALS	MICAS	GLAUCONITE / VERDINE	PYRITE	GYPSUM (EVAPORITES)	SHELL FRAGMENTS	PELECYPODS	FORAMINIFERA	OSTRACODES	SPONGE SPICULES	LITHIC FRAGMENTS	PLANT FRAGMENTS	AGGREGATE	FE / HEMATITE CEMENTS	CALCIC NODULES
L. PLEISTOCENE	19450 ± 840 21050 ± 920	20		W ₁₃	22		5Y5/6																		
		21		W ₁₄	23		5Y5/6																		
		22		V	6		10YR4/2	> 5																	
		23		VI	7		10YR4/2																		
		24		VII	8		10YR2/2	> 5																	
		25		VIII	9		10YR4/2	> 5																	
		26		IX	24		10YR4/2																		
		27		W ₁₅	25		10YR4/2																		
		28		W ₁₆	26		10YR4/2																		
		29		W ₁₇	27		10YR4/2																		
		30		W ₁₈	28		10YR4/2																		
		31		W ₁₉	29		10YR4/2																		
		32		W ₂₀	30		10YR4/2																		
		33		W ₂₁	31		10YR4/2																		
		34		W ₂₂	32		10YR4/2																		
		35		W ₂₃	33		10YR4/2																		
		36		W ₂₄	33		10YR4/2																		
		37																							
		38																							
		39																							
		40																							

BRYOZOANS

CORE NUMBER S35 I

CORE NUMBER S36 I

APPENDIX 1.—Continued.

CORE NUMBER S36 II

CORE NUMBER S36 III

[illegible]

CORE NUMBER S37 I

CORE NUMBER S37 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S38 I

APPENDIX 1.—Continued.

CORE NUMBER S38 II

CORE NUMBER S 40 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S41 I

CORE NUMBER S41 II

[illegible]

CORE NUMBER S42 II

[illegible]

CORE NUMBER S42 III

L. PLEISTOCENE						GEOLOGIC AGE	
							RADIOCARBON DATE
							DEPTH (METERS)
							LITHOLOGY
							SAMPLES
							FIELD LABORATORY CARBON 14
							STRUCTURE
							COLOR
							HARDNESS
							TEXTURE (RELATIVE %)
							LIGHT MINERALS
							HEAVY MINERALS
							MICAS
							GLAUCONITE / VERDINE
							GYPSUM (EVAPORITES)
							PELECYPODS
							SHELL FRAGMENTS
							GSTROPODS
							FORAMINIFERA BENTHIC
							OSTRACODES
							SPONGE SPICULES
							LITHIC FRAGMENTS
							PLANT FRAGMENTS
							AGGREGATE
							BRYOZOANS
							FE OXIDES
40						W ₂₇ 29	5Y5/2 5YR3/4
41							
42						W ₂₈ 30	5Y5/2 5YR3/4
43							
44						W ₃₀ 31	5Y5/2
45						W ₃₁ 32	5Y5/2
46							
47							
48							
49							
50							
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							

APPENDIX 1.—Continued.

CORE NUMBER S43 I

CORE NUMBER S43 II

APPENDIX 1.—Continued.

CORE NUMBER S43 III

[illegible]

CORE NUMBER S44 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S45 I

CORE NUMBER S45 II

APPENDIX 1.—Continued.

CORE NUMBER S46 I

APPENDIX 1.—Continued.

CORE NUMBER S46 II

[illegible]

CORE NUMBER S46 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S47 I

APPENDIX 1.—Continued.

CORE NUMBER S47 II

CORE NUMBER S47 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S48 I

CORE NUMBER S48 II

[illegible]

CORE NUMBER S48 III[illegible]

CORE NUMBER S49 I

CORE NUMBER S49 II

[illegible]

CORE NUMBER S49 III

[illegible]

CORE NUMBER S50 II

[illegible]

CORE NUMBER S50 III[illegible]

CORE NUMBER S51 I

CORE NUMBER S51 II

[illegible]

APPENDIX 1.—Continued.

[illegible]

CORE NUMBER S52 II

L. PLEISTOCENE										GEOLOGIC AGE	RADIOCARBON DATE	DEPTH (METERS)	LITHOLOGY	SAMPLES		STRUCTURE	COLOR	HARDNESS	TEXTURE (RELATIVE %)	LIGHT MINERALS	HEAVY MINERALS	MICAS	GLAUCONITE / VERDINE	PYRITE	ECHINOIDS	SHELL FRAGMENTS	DIATOMS	FORAMINIFERA BENTHIC	OSTRACODES	SPONGE SPICULES	LITHIC FRAGMENTS	PLANT FRAGMENTS	AGGREGATE	NODULES	FE OXIDES		
											20		W ₆	15		5Y3/2																					
											21		W ₇	16		5Y3/2																					
											22		W ₈	17		5Y3/2																					
											23		W ₉	18		5Y3/2																					
											24		W ₁₀	19		5Y3/2																					
											25		W ₁₁	20		5Y3/2																					
											26		W ₁₂	21		5Y3/2																					
											27		W ₁₃	22		5Y3/2																					
											28		W ₁₄	23		5Y3/2																					
											29		W ₁₅	24		5Y3/2																					
											30	W ₁₆	25		5Y3/2																						
											31	W ₁₇	26		5Y3/2																						
											32	W ₁₈	27		5Y3/2																						
											33																										
											34																										
											35																										
											36																										
											37																										
											38																										
											39																										
											40																										

APPENDIX 1.—Continued.

CORE NUMBER S53 I

CORE NUMBER S53 II

[illegible]

CORE NUMBER S54

CORE NUMBER S57

APPENDIX 1.—Continued.

CORE NUMBER S59 I

CORE NUMBER S59 III[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S60 I

APPENDIX 1.—Continued.

CORE NUMBER S60 II

[illegible]

CORE NUMBER S61 III

L. PLEISTOCENE		CORE NUMBER 56T III																						
GEOLOGIC AGE	RADIOCARBON DATE	DEPTH (METERS)	LITHOLOGY	SAMPLES		COLOR	HARDNESS	TEXTURE (RELATIVE %)	LIGHT MINERALS	HEAVY MINERALS	MICAS	GLAUCONITE / VERDINE	PYRITE	GYPSUM (EVAPORITES)	SHELL FRAGMENTS	DIATOMS	FORAMINIFERA	OSTRACODES	SPONGE SPICULES	LITHIC FRAGMENTS	PLANT FRAGMENTS	AGGREGATE	GASTROPODS	CARBONATE PARTICLES
		40		W ₁₇	28																			
		41																						
		42																						
		43																						
		44																						
		45																						
		46																						
		47																						
		48																						
		49																						
		50																						
		51																						
		52																						
		53																						
		54																						
		55																						
		56																						
		57																						
		58																						
		59																						
		60																						

APPENDIX 1.—Continued.

CORE NUMBER S62 I

APPENDIX 1.—Continued.

L. PLEISTOCENE

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S63 I

[illegible]

CORE NUMBER S63 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S64 I

CORE NUMBER S64 II

[illegible]

CORE NUMBER S64 III[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S65 I

CORE NUMBER S65 III[illegible]

CORE NUMBER S67

[illegible]

CORE NUMBER S68 II

CORE NUMBER S68 III

[illegible]

OTHER

CORE NUMBER S71 I

CORE NUMBER S71 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S73 II

[illegible]

CORE NUMBER S73 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S74

GEOLOGIC AGE	PERMIAN
RADIOCARBON DATING	10000 ± 1000 BP
DEPTH (METERS)	1500 ± 50
LITHOLOGY	SANDSTONE
FIELD	WYOMING
LABORATORY	GEOLAB
CARBON 14	10000 ± 1000 BP
STRUCTURE	CLAY
COLOR	BROWN
HARDNESS	3.5
TEXTURE	CLAY
(RELATIVE %)	100
LIGHT MINERALS	QUARTZ
HEAVY MINERALS	IRON
MICAS	ILLITE
GLAUCONITE /	VERDINE
PYRITE	VERDINE
GYPSSUM	VERDINE
(EVAPORITES)	VERDINE
SHELL FRAGMENT	VERDINE
PELECYPODS	VERDINE
FORAMINIFERA	VERDINE
OSTRACODES	VERDINE
SPONGE SPICULE	VERDINE
LITHIC FRAGMENT	VERDINE
PLANT FRAGMENT	VERDINE
AGGREGATE	VERDINE
GASTROPODS	VERDINE
CARBONATE PART	VERDINE

[illegible]

CORE NUMBER S76

[illegible]

CORE NUMBER S77 I

CORE NUMBER S77 II

[illegible]

CORE NUMBER S77 III

CORE NUMBER		S77 III	
GEOLOGIC AGE		RADIOCARBON DATE	
DEPTH (METERS)		LITHOLOGY	
SAMPLES		FIELD	
LABORATORY		CARBON 14	
STRUCTURE		COLOR	
HARDNESS		TEXTURE (RELATIVE %)	
LIGHT MINERALS		HEAVY MINERALS	
MICAS		GLAUCONITE / VERDINE	
PYRITE		GYPSUM (EVAPORITES)	
SHELL FRAGMENTS		GASTROPODS	
FORAMINIFERA		OSTRACODES	
SPONGE SPICULES		LITHIC FRAGMENTS	
PLANT FRAGMENTS		AGGREGATE	
CARBONATE PARTICLES		PELECYPODS	
L. PLEISTOCENE	40	W ₂₀	28
	41		
	42		
	43		
	44		
	45		
	46		
	47		
	48		
	49		
	50		
	51		
	52		
	53		
	54		
	55		
	56		
	57		
	58		
	59		
	60		

CORE NUMBER S79 II

[illegible]

CORE NUMBER S79 III[illegible]

CORE NUMBER S80 I

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S80 II

CORE NUMBER		380 ft		GEOLOGIC AGE		RADIOCARBON DATE		DEPTH (METERS)		LITHOLOGY		SAMPLES		STRUCTURE		COLOR		HARDNESS		TEXTURE (RELATIVE %)		LIGHT MINERALS		HEAVY MINERALS		MICAS		GLAUCONITE / VERDINE		PYRITE		GYPSUM (EVAPORITES)		SHELL FRAGMENTS		PELECYPODS		FORAMINIFERA BENTHIC		OSTRACODES		SPONGE SPICULES		LITHIC FRAGMENTS		PLANT FRAGMENTS		AGGREGATE		GASTROPODS		CARBONATE PARTICLES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
										L. PLEISTOCENE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

CORE NUMBER S80 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S81 I

CORE NUMBER S81 II

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S82 I

CORE NUMBER S82 II

[illegible]

CORE NUMBER S83 I

[illegible]

CORE NUMBER S84 II

[illegible]

CORE NUMBER S85

GEOLOGIC AGE		RADIOCARBON DATE		DEPTH (METERS)		LITHOLOGY		FIELD LABORATORY CARBON 14		STRUCTURE		COLOR		HARDNESS		TEXTURE (RELATIVE %)		LIGHT MINERALS		HEAVY MINERALS		MICAS		GLAUCONITE / VERDINE		PYRITE		GYPSUM (EVAPORITES)		SHELL FRAGMENTS		SHELL WHOLE		FORAMINIFERA		GASTROPODS		PELECYPDS		LITHIC FRAGMENTS		PLANT FRAGMENTS		AGGREGATE		CARBONATE PARTICLES		OTHER			
L. PLEISTOCENE		20330 ± 270		0		W ₁		1 2				5YR8/1																																							
				1		W ₂		3				10YR8/2																																							
				2		W ₃		4				10YR8/2 10YR7/4																																							
				3		W ₄		5		B		10YR8/2																																							
				4		W ₅		6				10YR8/2																																							
				5		W ₆		7				10YR8/2																																							
				6				11 12 13 14 15 16 17 18 19 20		A		10YR8/2																																							
				7		I		21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36				10YR8/2																																							
				8		II						10YR8/2																																							
				9		III						10YR8/2																																							
				10																																															
				11																																															
				12																																															
				13																																															
				14																																															
				15																																															
				16																																															
				17																																															
				18																																															
				19																																															
				20																																															

CORE NUMBER S86 I

APPENDIX 1.—Continued.

[illegible]

CORE NUMBER S86 III

[illegible]

APPENDIX 1.—Continued.

CORE NUMBER S87 I

CORE NUMBER S87 II

[illegible]

CORE NUMBER S87 III[illegible]

Appendix 2: Core Sample Data Listings

Legend

<u>TEXTURAL ANALYSIS</u>	
SAND	Sand
SILT	Silt
CLAY	Clay
TOTAL = 100%	

<u>POINT COUNT ANALYSIS</u>	
Abbreviation	Composition
LT	Light mineral
HVY	Heavy mineral
MICA	Mica
GLAU	Glaucinite/Verdine
PYRT	Pyrite
EVAP	Evaporite
GYP	Gypsum
LITH	Lithic fragment
AGG	Aggregate
PLTM	Plant material
FORB	Foraminifera, Benthic
FORP	Foraminifera, Planktonic
GSHW	Gastropod shell, Whole
GSHF	Gastropod shell, Fragment
PSHW	Pelecypod shell, Whole
PSHF	Pelecypod shell, Fragment
SHLW	Shell, Whole
SHLF	Shell, Fragment
OSTR	Ostracode
SPNG	Sponge spicule
ECHIN	Echinoderm
BRYO	Bryozoa
WRMT	Worm tube
PTER	Pteropod
DIAT	Diatom
INSCT	Insect
RADIO	Radiolaria
OTH	Other
Fe OXIDE	Iron Oxide
WHITE	White calcareous carbonite
CARBT	Carbonate

TOTAL = 100%

CARBON-14 Radiocarbon date

APPENDIX 2.—Continued.

CORE S1		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.0	1	98.88	0.25	0.87	82.2	7.5	0.0	6.6	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
2.2	2	98.30	0.53	1.17	82.6	7.8	0.0	5.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0
3.2	3	87.03	7.60	5.37	75.9	11.1	0.0	9.6	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0
4.0	4	96.81	2.25	0.94	81.5	7.2	0.5	7.2	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0
5.2	5	95.90	2.33	1.77	76.9	9.8	0.1	9.8	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
6.2	6	59.69	31.78	8.53	76.9	13.2	0.1	6.3	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
7.0	7	95.24	2.73	2.03	75.6	12.4	0.0	7.9	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0
8.3	8	94.30	2.76	2.94	70.9	9.0	1.1	14.6	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.2	0.0
9.8	9	5.45	50.29	44.26	70.3	4.0	4.3	12.6	0.0	0.0	0.0	0.0	2.2	0.0	6.0	0.0	0.0
10.1	10	44.25	41.42	14.33	68.5	3.9	2.5	19.4	0.0	0.0	0.0	0.0	4.6	0.0	0.0	0.2	0.0
11.4	11	0.64	46.85	52.51	10.9	0.2	3.9	2.1	33.9	0.0	0.0	0.0	0.0	33.9	14.4	0.0	0.0
10.7	12	13.25	64.43	22.32	43.5	2.2	7.0	27.8	0.7	0.0	0.0	0.0	0.0	15.8	1.9	0.0	0.0
12.7	13	1.15	55.91	42.94	27.7	0.2	27.0	24.4	0.0	0.0	0.0	0.0	0.0	12.3	5.3	0.2	0.0
13.0	14	20.55	59.36	20.09	66.3	3.8	5.6	18.8	0.0	0.0	0.0	0.0	5.1	0.0	0.2	0.0	0.0
13.7	15	0.16	27.53	72.31	66.1	0.5	3.4	12.0	0.2	0.0	0.0	0.0	0.0	1.0	13.6	2.1	0.2
14.3	16	38.82	48.46	12.72	80.5	2.9	1.8	11.9	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.1	0.0
15.3	17	39.25	25.08	35.67	87.4	2.7	0.0	7.1	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0
16.2	18	0.19	37.31	62.50	27.6	0.4	18.4	9.2	0.0	0.0	0.0	0.0	0.0	23.4	12.4	5.2	0.0
17.0	19	30.51	30.83	38.66	76.9	3.1	0.1	14.6	0.0	0.0	0.0	0.0	3.1	0.0	1.1	0.2	0.0
17.6	20	0.91	43.88	55.21	11.6	0.0	14.5	2.4	0.0	0.0	0.0	0.0	0.0	5.5	62.0	0.4	0.0
18.4	21	4.41	60.17	35.42	29.4	0.2	18.6	7.8	0.0	0.0	0.0	0.0	0.0	0.2	42.5	0.5	0.0
19.3	22	0.06	31.58	68.86	69.8	0.4	3.8	6.2	0.4	0.0	0.4	0.0	0.4	0.1	17.2	1.4	0.0
21.0	23	37.09	32.23	30.68	72.2	4.7	4.2	8.6	0.5	0.0	0.5	0.0	1.1	0.0	2.2	2.5	0.0
22.0	24	0.98	36.64	62.38	23.1	0.0	8.2	22.6	12.8	0.0	12.8	0.0	0.0	0.7	9.4	9.0	0.0
23.4	25	0.83	39.01	60.16	17.0	0.0	12.1	10.2	18.3	0.0	18.3	0.0	0.0	0.8	18.9	4.8	0.0
23.8	26	0.49	33.43	66.08	19.8	0.5	8.6	6.0	9.7	0.0	9.7	0.0	0.0	6.6	23.2	11.7	0.0
24.2	27	75.28	9.11	15.61	90.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
25.2	28	74.81	21.59	3.60	20.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
28.0	29	81.53	7.35	11.12	72.1	5.6	0.5	0.2	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S3		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
2.3	1	1.73	23.91	74.35	43.70	0.84	4.20	1.96	0.0	0.0	0.0	0.0	0.0	3.64	45.38	0.28	0.0
3.3	2	4.44	56.72	38.85	59.89	2.51	1.67	1.11	0.0	0.0	1.67	0.0	0.0	1.95	15.32	5.02	0.0
4.3	3	73.66	13.82	12.52	78.62	10.53	0.33	6.25	0.0	0.0	0.0	0.0	3.95	0.0	0.33	0.0	0.0
4.9	4	56.86	26.52	16.64	76.61	12.90	1.34	2.15	0.0	0.0	0.0	0.0	2.15	0.27	4.57	0.0	0.0
8.5	5	0.30	59.84	39.87	53.94	0.58	14.58	25.66	0.0	0.0	0.0	0.0	0.29	0.29	3.50	0.29	0.0
9.8	6	2.87	58.57	38.61	39.75	0.75	24.00	15.00	0.0	0.0	0.0	0.0	0.0	2.75	15.50	0.25	0.0
11.1	7	4.88	66.71	28.41	51.25	2.22	8.59	22.99	0.0	0.0	0.0	0.0	0.83	1.11	13.02	0.10	0.0
12.7	8	0.13	47.56	52.31	9.32	0.0	12.54	0.0	0.0	0.0	0.0	0.0	0.0	10.29	65.27	0.32	0.0
14.1	9	0.08	32.71	67.21	31.31	0.0	10.05	3.04	0.0	0.0	1.64	0.0	0.0	0.47	39.02	8.41	0.0
15.7	10	39.42	42.07	18.51	85.80	0.91	0.0	10.88	0.0	0.30	0.0	0.0	0.30	0.30	0.91	0.30	0.0
17.2	11	0.31	35.44	64.25	56.82	0.85	8.24	16.48	0.28	0.0	0.0	0.0	0.0	7.67	4.55	2.56	0.0
19.0	12	0.20	32.15	67.64	8.07	0.0	21.43	0.0	0.0	0.0	0.0	0.0	0.0	26.09	40.06	4.22	0.0
20.0	13	0.15	27.93	71.92	8.76	0.0	4.38	0.0	0.0	0.0	0.0	0.0	0.0	1.55	77.32	2.06	0.0
21.6	14	0.80	34.32	64.89	41.84	0.51	9.95	5.36	1.02	0.0	1.02	0.0	0.0	8.16	23.98	5.36	0.0
23.5	15	0.09	25.36	74.55	36.29	0.51	1.78	0.0	0.25	0.0	0.25	0.0	0.0	32.23	7.11	16.75	0.0
25.0	16	0.48	20.98	78.54	33.50	0.0	0.51	0.0	1.52	0.0	1.52	0.0	0.0	0.0	3.55	18.02	0.0
26.8	18	70.67	15.68	13.65	97.11	2.89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26.1	17	42.87	12.15	44.98	42.22	1.94	1.11	5.56	0.0	0.0	0.0	0.0	1.11	3.33	0.0	0.17	0.0
27.1	19	86.15	8.44	5.41	84.17	8.04	1.76	5.03	0.0	0.0	0.0	0.0	1.01	0.0	0.0	0.0	0.0
29.0	20	90.36	4.19	5.45	86.79	4.58	0.81	6.47	0.0	0.0	0.0	0.0	1.35	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S4		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LJTH	AGG	PLTM	FORB	FORP
12	1			0.32	55.10	44.58	16.3	0.6	3.0	0.0	0.0	0.0	0.0	27.7	52.2	0.0	0.0
21	2			0.95	60.82	38.23	5.9	0.0	8.7	0.0	0.0	0.0	0.0	66.3	16.5	0.0	0.0
27	3			0.71	32.23	67.05	86.1	2.0	0.0	0.0	0.0	0.0	0.0	2.0	9.5	0.0	0.0
31	4			0.84	60.46	38.70	53.7	0.7	25.2	11.4	0.0	0.0	0.0	1.3	4.5	0.0	0.0
38	5			0.67	21.64	77.69	45.2	1.0	0.1	1.3	0.0	0.0	0.0	50.9	1.2	0.0	0.0
42	6			2.33	48.80	48.87	65.8	1.9	9.6	5.2	0.0	0.0	0.6	5.9	10.7	0.0	0.0
49	7			73.11	11.83	15.06	80.6	10.6	0.0	5.1	0.0	0.0	1.6	0.0	0.0	0.0	0.0
55	8			0.38	6.72	92.90	19.2	0.0	1.4	0.0	0.0	0.0	0.0	6.7	72.2	0.0	0.0
58	9			34.86	38.03	27.11	47.9	3.0	8.0	28.4	0.3	0.0	0.0	0.6	8.9	0.0	0.0
67	10			34.17	33.52	32.31	79.9	2.2	0.9	15.4	0.0	0.0	0.7	0.0	0.7	0.0	0.0
71	11			57.26	21.70	21.04	79.1	4.9	2.7	12.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0
78	12			0.45	69.70	29.85	12.7	0.0	18.5	0.0	5.6	0.0	0.0	3.2	54.7	1.4	0.0
80	13			0.75	65.74	33.51	8.3	0.6	28.5	0.0	0.6	0.0	0.0	2.5	57.3	0.6	0.0
89	14			0.51	61.00	38.49	12.1	0.0	31.7	3.0	1.2	0.0	0.0	3.2	46.1	0.1	0.0
92	15			1.14	60.90	37.95	15.0	0.0	30.7	0.9	1.1	0.0	0.0	1.3	46.0	0.9	0.0
101	16			0.61	41.20	58.19	9.0	0.0	25.4	0.5	0.8	0.0	0.0	14.8	41.6	0.8	0.0
108	17			3.53	33.88	62.59	6.9	0.2	3.0	0.0	1.3	0.0	0.0	10.3	24.5	11.7	0.0
122	18			1.87	36.35	61.78	7.0	0.1	16.2	1.9	2.2	0.0	0.0	4.7	39.0	4.4	0.0
137	19			0.67	33.19	66.14	14.5	0.0	17.1	0.0	0.2	0.0	0.0	3.4	41.7	0.9	0.0
140	20			1.94	41.34	56.72	17.8	0.0	31.8	3.4	1.1	0.0	0.0	0.9	38.9	0.4	0.0
143	21			78.97	6.12	14.91	67.3	7.4	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
147	22			80.41	9.06	10.53	65.0	7.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.4	0.0
149	23			87.01	8.33	4.66	75.8	6.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
152	24			90.97	4.77	4.26	80.0	6.0	0.8	1.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0
160	25			96.10	1.06	2.84	86.4	6.6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
185	26			69.99	16.01	14.00	73.6	19.4	1.6	4.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S5

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.3	1	0.16	62.15	37.69	23.53	0.0	69.52	1.34	0.0	0.0	0.0	0.0	5.35	0.0	0.0
2.0	2	35.80	50.92	13.26	74.06	4.24	2.99	15.96	0.0	0.0	2.74	0.0	0.0	0.0	0.0
2.3	5	4.72	21.07	74.19	4.89	0.0	0.0	0.0	0.0	0.0	0.0	91.21	3.58	0.0	0.0
3.5	4	0.23	17.73	82.03	31.56	0.0	1.06	0.0	0.0	0.0	0.0	24.93	36.87	0.0	0.0
5.0	5	44.18	33.34	22.46	3.99	0.0	0.0	0.0	0.0	0.0	0.0	3.99	83.48	0.0	0.0
5.7	6	7.09	16.54	76.36	4.64	0.0	0.93	0.0	0.0	0.0	0.0	0.0	94.12	0.34	0.0
6.3	7	0.13	58.55	41.31	8.22	0.0	3.18	0.0	23.08	0.0	0.0	17.51	49.36	0.0	0.0
7.3	8	9.69	65.32	24.98	43.56	0.27	19.45	0.0	0.0	17.81	0.0	0.0	18.36	0.0	0.0
8.0	9	0.98	52.74	46.27	13.74	0.0	15.93	2.20	1.65	0.0	0.0	4.40	55.6	2.47	0.0
9.4	10	2.44	73.07	24.67	1.52	0.0	45.2	0.0	0.0	1.52	0.0	2.02	41.16	1.01	0.0
12.0	11	1.05	58.78	40.15	12.63	0.0	19.37	3.16	0.42	0.0	0.0	2.11	55.58	0.63	0.0
13.0	12	3.05	38.78	58.15	7.71	0.0	28.00	0.86	1.14	0.0	0.0	5.14	36.29	10.00	0.0
14.2	13	0.90	34.52	64.50	6.83	0.0	24.84	0.0	0.0	0.62	0.0	0.31	45.03	8.70	0.0
15.3	14	0.87	61.83	37.28	3.63	0.0	21.55	0.0	0.0	0.0	0.0	5.57	61.26	0.24	0.0
16.4	15	0.34	41.64	58.00	4.44	0.0	11.6	0.0	0.0	0.0	0.0	38.77	38.27	3.70	0.0
16.8	16	1.33	43.54	55.11	30.52	0.0	28.07	5.99	0.82	0.0	0.0	1.09	23.71	1.91	0.0
18.5	17	0.24	52.07	47.67	2.46	0.0	16.94	0.0	0.0	0.55	0.0	24.32	51.91	2.73	0.0
19.9	18	0.13	34.52	65.33	1.09	0.0	7.65	0.0	0.0	0.55	0.0	5.74	70.77	7.11	0.0
21.2	19	0.02	43.67	56.29	7.46	0.0	0.34	0.0	0.68	0.0	0.0	67.12	6.10	18.30	0.0
21.9	20	0.69	26.05	73.24	1.14	0.0	0.0	0.0	1.43	0.0	0.0	72.0	10.57	12.00	0.0
23.5	21	0.04	25.47	74.48	11.16	0.0	0.0	0.0	0.45	1.79	0.0	50.00	1.79	23.66	0.0
25.0	22	0.14	24.88	74.96	8.96	0.0	0.0	0.0	0.0	4.48	0.0	20.90	6.87	30.45	0.0
26.5	23	0.05	24.21	75.73	17.24	0.0	1.72	0.0	1.23	1.72	0.0	15.27	9.36	35.98	0.0
28.7	24	1.57	42.38	56.03	15.02	0.0	0.0	6.39	0.32	0.0	0.0	5.11	3.51	12.46	0.0
29.3	25	60.96	25.58	13.44	76.63	7.54	2.26	0.0	0.0	9.30	0.5	0.0	0.0	0.0	0.0
29.8	26	95.02	4.02	0.95	81.48	8.55	1.42	0.0	0.0	5.70	1.99	0.85	0.0	0.0	0.0
32.2	27	84.24	9.58	6.16	82.79	9.84	0.27	0.0	0.0	7.10	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S6											
DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON- 14
1.0	1	0.0	0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
2.0	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,910 +/- 70
3.2	3	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
4.0	4	0.0	0.6	0.1	0.3	0.0	0.0	0.0	0.0	0.0	
4.5	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.0	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.5	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.8	8	0.0	0.0	0.0	3.5	0.0	0.0	0.0	3.3	0.0	3,750 +/- 60
6.2	9	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.7	0.0	
7.0	10	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	
7.5	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	
7.8	15	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
9.5	16	0.0	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	
10.5	17	0.0	3.9	1.0	0.3	0.0	0.0	0.0	0.0	0.0	6,930 +/- 110
15.5	28	0.0	3.8	9.9	0.4	0.0	0.0	0.0	0.0	0.0	
17.0	29	0.0	18.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	
18.5	18	4.6	67.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	7,790 +/- 110
19.0	12	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.2	13	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.5	19	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.8	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21.0	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24,820 +/- 400
21.4	21	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
21.6	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22.5	23	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24.5	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24.7	25	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.0	26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.3	27	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S7		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.0	1	0.12	13.89	85.99	58.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.6	0.0	0.0
1.5	2	7.30	10.62	82.08	18.2	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.5	78.6	1.7	0.0	0.0
2.0	3	0.50	21.60	77.90	51.5	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	43.9	3.5	0.0	0.0
2.7	4	1.17	23.66	75.17	64.9	0.0	0.9	0.0	0.0	0.0	2.0	0.0	0.0	12.6	19.6	0.0	0.0
3.0	5	1.06	23.73	75.21	58.2	1.3	0.0	0.0	0.0	0.0	3.6	0.0	0.0	25.0	10.8	0.0	0.0
3.4	6	36.45	34.20	29.35	84.7	1.4	1.6	0.0	0.0	0.0	0.8	0.0	0.0	5.7	5.2	0.0	0.0
3.5	7	83.91	8.25	7.84	86.6	3.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	4.5	5.6	0.0	0.0
3.7	8	29.32	47.70	22.98	64.7	1.8	1.3	0.5	0.0	0.0	0.1	0.0	0.0	26.3	5.0	0.0	0.0
4.0	31	96.68	1.59	1.73	95.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
4.5	32	91.77	3.47	4.26	90.7	6.2	1.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
5.0	9	17.24	48.54	34.22	74.0	2.8	11.2	8.9	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.3	0.0
5.5	10	45.44	33.68	20.88	81.3	7.8	3.1	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0
5.8	11	1.78	67.24	30.98	52.7	1.6	15.1	28.3	0.0	0.0	0.0	0.0	0.0	1.1	0.6	0.0	0.0
6.0	12	3.79	52.49	43.72	69.4	1.8	10.6	15.5	0.0	0.0	0.0	0.0	0.0	3.8	0.9	0.1	0.0
6.2	13	4.48	63.87	31.65	54.8	1.7	21.3	10.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5	4.6	0.0
6.4	14	13.04	70.69	16.27	57.2	0.9	8.5	29.7	0.0	0.0	0.0	0.0	0.0	1.4	0.4	0.5	0.0
6.5	15	3.15	82.38	14.47	69.4	1.5	8.6	19.1	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.2	0.0
6.8	16	3.20	61.73	35.07	56.3	1.0	11.0	12.0	0.0	0.0	0.0	0.0	0.0	17.6	0.8	0.5	0.0
7.0	17	1.04	65.03	33.93	19.3	0.9	21.5	0.1	0.0	0.0	0.0	0.0	0.0	53.2	3.6	0.1	0.0
7.6	18	0.37	86.78	12.85	12.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	85.9	1.2	0.0	0.0
7.9	19	17.03	43.66	39.31	54.4	2.7	3.2	37.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0
8.5	20	41.07	30.27	28.66	49.0	1.3	11.2	5.5	0.0	0.0	0.0	0.0	0.0	20.9	1.3	5.1	0.0
9.1	21	14.83	53.59	31.58	37.9	2.6	16.1	0.1	0.0	0.0	0.0	0.0	0.0	21.7	0.9	4.9	0.0
10.0	22	16.16	45.89	37.95	54.4	0.9	14.8	22.7	0.0	0.0	0.0	0.0	0.0	2.9	1.2	0.5	0.0
10.3	23	89.80	6.57	3.63	95.6	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
11.0	33	97.10	1.49	1.41	95.1	3.5	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.3	0.0
13.0	34	87.73	7.36	4.91	90.5	7.0	0.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
14.3	35	96.80	1.41	1.79	97.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
15.5	24	0.44	2.74	96.82	95.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0
15.7	25	0.14	64.61	35.25	59.3	0.7	2.2	0.0	0.0	0.0	0.0	0.0	0.0	35.9	1.1	0.4	0.0
16.0	26	31.72	2.92	65.36	41.0	1.6	0.0	0.0	0.0	0.0	0.0	23.8	0.0	33.6	0.1	0.0	0.0
16.8	27	7.00	37.70	55.30	73.3	2.2	2.8	0.0	0.0	0.0	0.0	4.9	0.2	16.4	0.2	0.0	0.0
18.0	28	0.66	46.43	52.91	62.3	0.5	2.1	0.0	0.0	0.0	0.0	0.0	0.3	34.3	0.5	0.0	0.0
18.5	29	7.13	41.87	51.00	9.3	0.8	1.8	0.0	0.0	0.0	9.3	1.3	0.0	77.5	0.0	0.0	0.0

CORE S7

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
19.0	30	2.05	50.53	47.42	13.9	3.5	8.6	0.0	0.0	0.5	0.0	70.0	2.0	0.0	0.0
19.5	36	96.30	1.44	2.26	95.6	4.1	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.0
20.5	37	98.04	0.81	1.15	93.9	5.8	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.0
21.0	38	97.41	1.00	1.59	97.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.0	39	98.37	0.54	1.09	92.0	7.3	0.7	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0

APPENDIX 2.—Continued.

[illegible]

APPENDIX 2.—Continued.

CORE S8

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.5	31	23.64	47.23	29.13	72.2	1.2	13.6	7.9	0.0	0.0	0.0	3.0	1.3	0.9	0.0
1.0	1	31.62	47.17	21.21	71.0	2.6	6.3	16.1	0.0	0.0	0.0	1.0	0.2	0.1	0.0
1.5	2	8.80	60.54	30.66	77.4	1.8	8.6	11.3	0.0	0.0	0.0	0.9	0.2	0.1	0.0
2.5	3	0.10	34.81	65.09	69.5	0.5	1.8	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
3.5	4	1.35	54.55	44.10	23.9	0.0	22.6	0.0	7.6	0.0	0.0	0.0	44.9	0.0	0.0
4.0	5	9.10	63.99	26.91	78.0	2.3	7.9	7.3	0.3	0.0	0.0	0.0	2.3	0.1	0.0
5.5	6	0.42	49.38	50.20	64.4	0.8	6.2	2.0	2.0	0.0	0.0	2.0	9.1	8.8	0.0
6.7	7	0.75	53.97	45.28	8.8	0.6	14.1	0.0	21.7	0.0	0.0	0.0	27.3	7.4	0.0
10.0	8	9.96	59.45	30.59	54.1	1.4	9.9	34.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0
11.5	9	0.40	43.40	56.20	71.0	0.8	11.9	9.1	0.3	0.0	0.0	0.0	0.8	4.2	0.0
13.0	10	0.18	29.67	70.15	45.6	1.1	2.5	0.5	0.3	0.0	0.0	10.1	27.6	8.5	0.0
14.0	11	0.17	30.77	69.06	54.4	0.0	0.0	3.2	0.8	0.0	0.0	4.8	3.2	16.8	0.0
15.5	12	0.41	30.71	68.88	41.1	0.4	0.0	0.0	0.0	0.0	0.0	10.8	9.3	27.6	0.0
17.0	13	0.62	35.22	64.16	35.3	0.3	6.0	4.9	1.4	0.0	0.0	0.8	19.3	26.0	0.0
18.5	14	1.34	42.10	56.56	29.6	0.8	14.7	4.0	4.6	0.0	0.0	0.0	21.3	21.6	0.0
20.5	15	0.19	19.90	79.91	50.1	0.5	1.7	3.4	1.2	0.0	0.0	0.0	4.8	35.5	0.0
22.0	16	0.34	28.80	70.86	34.8	0.3	3.8	0.0	2.8	0.0	0.0	0.0	35.8	19.7	0.0
23.5	17	0.61	50.36	49.03	45.4	0.3	11.7	10.9	0.5	0.0	0.0	0.0	4.4	24.7	0.0
25.5	18	0.55	36.03	63.42	57.6	1.0	3.1	13.3	0.5	0.0	0.0	0.0	5.3	15.0	0.0
27.0	19	0.45	21.00	78.55	54.5	0.3	3.1	4.2	1.6	0.0	0.0	0.0	3.8	29.7	0.0
28.5	21	0.77	30.43	68.80	52.0	0.9	0.9	0.9	5.8	0.0	0.0	1.4	2.6	27.3	0.0
30.0	20	0.75	28.94	70.31	49.4	0.9	2.1	4.7	2.1	0.0	0.0	0.7	3.2	26.2	0.0
31.0	22	1.33	33.52	65.15	34.8	1.1	9.9	7.3	2.9	0.0	0.0	0.0	11.7	23.2	0.0
32.5	23	0.80	38.75	60.45	29.7	0.8	7.4	6.9	0.4	0.0	0.0	1.4	6.3	34.3	0.0
33.5	24	0.28	15.38	84.34	41.5	1.5	2.6	0.0	0.4	0.0	0.0	16.5	0.5	28.1	0.0
34.5	25	0.44	27.11	72.45	55.7	2.0	0.4	0.0	1.5	0.0	0.0	5.7	2.4	21.9	0.0
36.0	26	0.91	30.83	68.26	31.2	0.5	1.7	1.2	3.9	0.0	0.0	15.6	8.7	15.8	0.0
37.5	27	0.61	20.10	79.29	58.5	0.3	2.5	1.1	1.1	0.0	0.0	2.2	0.1	30.4	0.0
38.0	28	2.38	15.96	81.66	30.4	0.0	0.9	0.0	10.9	0.0	0.0	34.2	0.6	14.7	0.0
39.0	29	0.48	14.06	85.46	41.0	0.6	0.0	0.0	5.2	0.0	0.0	16.6	0.1	12.8	0.0
39.5	30	21.95	63.94	14.11	18.5	1.1	0.8	0.0	0.0	0.0	0.0	41.5	3.0	11.8	0.0
40.0	32	69.83	21.64	8.53	30.6	0.0	0.7	0.0	0.0	0.0	0.0	0.0	67.1	0.0	0.0
41.0	33	93.70	2.42	3.88	93.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0

APPENDIX 2.—Continued.

CORE S10

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.0	1	99.3	0.1	0.6	98.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.0	2	98.9	0.3	0.8	96.9	2.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
4.0	3	99.2	0.1	0.7	97.4	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.0	4	99.4	0.1	0.5	96.1	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.8	5	31.4	37.3	31.3	87.7	2.3	3.6	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0
7.5	6	7.3	35.3	57.4	80.5	1.2	4.7	0.0	0.0	0.0	0.0	12.1	0.0	0.0	0.0
7.8	7	20.2	40.4	39.4	78.4	1.4	2.7	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0
8.4	8	53.3	19.8	26.9	87.6	3.7	2.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0
9.0	9	97.7	0.7	1.6	96.9	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.0	10	96.6	1.1	2.3	82.3	2.5	1.0	0.0	0.0	0.0	0.0	12.8	0.0	0.0	0.0
10.8	11	89.3	4.8	5.9	95.6	3.0	0.3	0.0	0.0	0.0	0.1	1.0	0.0	0.0	0.0
12.0	12	95.4	1.4	3.2	96.3	2.0	0.6	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0
14.0	13	97.3	0.5	2.2	95.2	4.2	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
16.5	14	98.9	0.1	1.0	97.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.0	15	97.6	0.5	1.9	92.1	4.3	0.0	0.0	0.0	0.0	0.3	3.0	0.0	0.0	0.0
21.0	16	98.9	0.3	0.8	96.0	3.1	0.1	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
22.0	17	53.3	22.9	23.8	90.0	3.2	1.7	0.0	0.0	0.0	4.3	0.8	0.1	0.0	0.0

CORE S11

[illegible]

APPENDIX 2.—Continued.

CORE S11

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
0.6	1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.0	2	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
1.2	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
1.6	4	0.0	1.5	50.3	0.0	0.0	0.0	0.0	0.0	0.1	2,550 +/- 80
2.2	5	0.0	0.1	3.7	0.0	0.0	0.0	0.0	0.1	46.1	
3.0	16	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.5	17	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
5.5	18	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4,570 +/- 170
8.5	19	0.0	2.2	1.1	0.0	0.0	0.0	0.0	0.3	0.0	5,190 +/- 100
9.0	6	0.0	10.4	19.5	0.3	0.0	0.0	0.0	0.0	0.0	
9.5	7	0.0	1.6	20.7	0.1	0.0	0.0	0.0	0.0	0.0	
10.3	8	0.0	2.4	5.1	0.0	0.0	0.0	0.0	0.0	0.0	
10.5	9	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
11.0	10	0.0	2.6	6.8	0.0	0.0	0.0	0.0	0.0	0.0	
11.3	11	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6,110 +/- 120
12.0	12	0.0	22.2	1.6	0.0	0.0	0.0	0.0	0.1	0.0	
13.0	13	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.4	14	0.1	1.8	0.1	0.1	0.2	0.0	0.0	0.0	0.1	6,475 +/- 90
14.7	15	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15.0	20	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17.0	21	0.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.0	22	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
20.5	23	0.0	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
21.5	24	0.1	1.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	9,820 +/- 400
23.0	25	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S12

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.5	1	99.23	0.15	0.62	93.2	5.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0
2.0	2	95.64	1.73	2.63	89.7	2.2	2.2	4.2	0.0	0.0	0.0	0.0	0.3	0.9	0.0
4.0	3	71.07	20.11	8.82	90.1	1.4	3.1	3.8	0.0	0.0	0.0	0.0	0.3	0.3	0.0
5.0	4	26.95	53.71	19.34	81.8	2.2	7.1	6.6	0.0	0.0	0.0	0.0	0.3	0.3	0.0
5.7	5	41.26	40.12	18.62	86.3	1.7	2.0	6.1	0.0	0.0	0.0	0.0	0.8	0.3	0.0
7.0	6	7.66	62.15	30.19	75.7	1.0	10.7	8.7	0.0	0.0	0.0	0.0	1.6	1.2	0.0
8.0	7	1.89	42.09	56.02	36.6	0.4	21.3	4.7	0.4	0.0	0.0	0.0	29.8	5.1	0.0
8.7	8	0.38	52.35	47.27	15.4	0.0	35.9	5.8	9.3	0.0	0.0	0.0	20.3	11.0	0.0
9.4	9	1.50	64.97	33.53	37.1	0.6	40.3	10.4	1.4	0.0	0.0	0.0	4.9	2.6	0.0
11.0	10	0.18	35.38	64.44	9.3	0.0	2.7	0.0	1.6	0.0	0.0	0.0	57.1	28.1	0.0
12.0	11	0.05	50.29	49.66	18.8	0.0	1.8	0.0	3.6	0.0	0.0	0.0	6.5	68.8	0.0
12.8	12	0.24	29.23	70.53	30.5	0.0	0.7	0.0	3.7	0.0	0.0	0.0	5.6	46.5	0.0
13.0	13	1.57	41.27	57.16	77.3	0.6	1.4	0.0	1.2	0.0	0.0	0.0	4.9	9.8	0.0
13.7	14	99.14	0.07	0.79	98.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.2	15	90.56	1.74	7.70	96.8	2.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0
16.0	16	95.64	2.00	2.36	99.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18.5	17	87.30	6.82	5.88	91.1	5.2	2.3	0.0	0.0	0.1	0.0	0.0	0.6	0.1	0.0
19.5	18	86.20	8.19	7.61	96.0	0.7	1.7	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0
21.0	19	87.39	6.55	6.06	93.3	3.1	0.8	0.8	0.0	0.1	0.0	0.0	0.6	0.3	0.0
23.0	20	92.80	3.32	3.88	92.7	5.9	0.3	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.0
24.0	21	93.62	2.75	3.63	92.0	4.3	2.0	0.0	0.3	0.0	0.0	0.0	0.1	0.7	0.0

APPENDIX 2.—Continued.

CORE S12

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
0.5	1	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.0	2	0.0	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	
4.0	3	0.1	0.7	0.1	0.0	0.1	0.0	0.0	0.0	0.0	
5.0	4	0.2	1.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	
5.7	5	0.2	2.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	1,500 +/- 80
7.0	6	0.0	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
8.0	7	0.0	1.3	0.0	0.4	0.0	0.0	0.0	0.0	0.0	
8.7	8	0.0	0.9	0.1	1.4	0.0	0.0	0.0	0.0	0.0	
9.4	9	0.0	0.6	0.3	1.7	0.0	0.0	0.0	0.0	0.0	3,550 +/- 100
11.0	10	0.0	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	
12.0	11	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	
12.8	12	0.0	11.2	0.4	0.0	1.5	0.0	0.0	0.0	0.0	
13.0	13	0.0	4.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	
13.7	14	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,280 +/- 490
14.2	15	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16.0	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18.5	17	0.0	0.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0	
19.5	18	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21.0	19	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
23.0	20	0.1	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
24.0	21	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S13

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LTTH	AGG	PLTM	FORB	FORP
1.0	25	2.0	32.1	65.9	14.4	0.0	0.1	1.5	0.0	77.4	0.0	5.2	1.1	0.0	0.0
1.5	1	10.2	32.6	57.2	20.6	0.0	1.1	0.0	0.0	29.0	0.0	0.0	1.9	9.8	0.0
2.0	2	0.3	10.9	88.8	61.6	0.0	3.3	0.0	1.1	3.6	0.0	1.4	24.2	0.0	0.0
3.0	3	3.0	26.3	70.7	10.5	0.0	1.1	0.0	2.6	0.0	0.0	0.0	82.4	1.4	0.0
4.0	26	2.8	39.1	58.1	44.3	0.3	19.1	3.2	0.6	0.0	0.0	0.0	24.1	3.5	0.0
5.5	27	2.6	61.4	36.0	49.0	0.2	19.8	6.0	0.2	0.0	0.0	0.0	5.7	15.9	0.0
7.0	28	3.5	58.4	38.1	50.0	0.7	17.2	8.3	0.1	0.0	0.0	0.0	11.7	8.0	0.0
7.5	29	1.8	45.8	52.4	48.2	0.0	10.4	1.6	0.3	0.0	0.0	3.2	17.2	13.7	0.0
8.0	30	2.5	39.9	57.6	72.8	0.6	5.3	12.7	0.0	0.0	0.0	0.0	1.9	5.3	0.0
9.5	31	2.6	60.5	36.9	56.7	0.6	19.0	3.4	0.0	0.0	0.0	0.6	7.2	9.5	0.0
10.0	32	2.0	50.4	47.6	44.9	0.0	25.6	1.9	0.0	0.0	0.0	0.0	19.1	7.7	0.0
10.5	33	0.5	34.7	64.8	58.7	0.4	13.2	5.2	1.2	0.0	0.0	1.0	9.2	9.3	0.0
11.0	34	0.7	58.1	41.2	52.8	0.0	20.3	2.4	0.2	0.0	0.0	0.0	5.8	15.0	0.0
11.5	35	1.2	47.8	51.0	55.3	0.0	14.8	7.9	1.6	0.0	0.0	0.0	6.1	10.7	0.0
12.5	36	1.3	50.2	48.5	57.5	0.0	22.1	3.7	0.0	0.0	0.0	1.2	4.8	8.5	0.0
13.0	37	0.7	74.8	24.5	19.7	0.0	42.7	0.0	0.0	0.0	0.0	0.0	33.1	2.7	0.0
14.5	4	0.1	56.2	43.7	20.6	0.0	25.2	0.0	0.5	0.0	0.0	0.0	33.8	18.2	0.0
14.7	5	14.1	60.1	25.8	21.6	0.0	24.9	8.4	0.0	0.0	0.0	4.7	24.1	19.4	0.0
15.5	6	0.2	30.4	69.4	17.2	0.0	0.1	0.0	0.8	0.0	0.0	0.0	1.2	75.1	0.0
16.0	7	0.3	42.9	56.8	1.3	0.0	0.6	0.0	0.0	0.0	0.0	73.3	6.7	15.9	0.0
16.5	8	0.6	32.6	66.8	71.9	0.0	6.6	6.3	0.2	0.0	0.0	0.0	7.4	6.8	0.0
17.0	9	0.6	76.3	23.1	50.5	0.2	29.1	8.2	0.0	0.0	0.0	0.0	2.5	6.3	0.0
18.0	10	0.1	30.2	69.7	21.5	0.0	7.9	0.0	0.0	0.0	0.0	0.0	21.8	43.5	0.3
18.5	11	21.3	31.6	47.1	8.7	0.0	0.1	0.0	0.0	0.0	0.0	70.0	15.2	3.6	0.0
19.0	12	0.2	43.2	56.6	23.9	0.4	3.7	0.0	0.0	0.0	0.0	0.0	36.1	35.2	0.0
20.0	13	0.2	21.5	78.3	67.0	0.0	0.3	1.6	1.3	0.0	0.0	0.0	5.1	20.3	0.0
21.0	14	13.4	27.3	59.3	8.7	0.0	0.7	0.0	5.5	0.0	0.0	0.0	1.7	46.3	0.0
21.3	15	0.3	26.4	73.3	2.2	0.0	0.0	0.0	0.0	0.0	0.0	74.5	1.0	21.0	0.0
23.0	16	0.2	37.7	62.1	58.4	0.0	1.9	1.0	2.3	0.0	0.0	0.0	10.4	16.5	0.9
24.0	17	0.1	43.2	56.7	27.5	0.2	4.9	0.0	0.2	0.0	0.0	8.5	8.2	42.8	0.0
25.0	18	0.2	26.5	73.3	32.8	0.0	0.5	1.0	1.5	0.0	0.0	4.5	29.7	10.1	0.0
26.0	19	0.2	35.2	64.6	19.6	0.0	1.4	0.0	0.3	0.0	0.0	37.3	6.3	30.2	0.0
26.3	20	0.3	29.4	70.3	61.9	0.0	2.1	3.7	0.0	0.0	0.0	0.0	3.0	25.7	0.0
27.0	21	0.2	26.3	73.5	56.2	0.0	2.0	1.5	1.5	0.0	0.0	0.0	2.5	31.8	0.5
27.5	22	0.2	30.2	69.6	21.0	0.2	0.8	1.0	0.5	0.0	0.2	0.8	2.0	56.9	0.0
30.5	24	0.2	27.9	71.9	52.0	0.4	5.3	1.3	0.0	0.0	0.0	0.4	12.7	24.4	0.0

APPENDIX 2.—Continued.

CORE S13

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
1.0	25	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.5	1	0.0	10.2	27.1	0.0	0.0	0.0	0.0	0.0	0.0	
2.0	2	0.0	1.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	
3.0	3	0.0	0.6	1.1	0.3	0.0	0.0	0.0	0.0	0.0	
4.0	26	0.0	2.3	2.3	0.3	0.0	0.0	0.0	0.0	0.0	
5.5	27	0.0	2.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	3,760 +/- 70
7.0	28	0.0	2.4	1.2	0.1	0.0	0.0	0.0	0.2	0.0	
7.5	29	0.0	3.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.0	30	0.0	1.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	3,640 +/- 120
9.5	31	0.0	0.6	0.3	0.6	1.4	0.0	0.0	0.0	0.0	
10.0	32	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	
10.5	33	0.0	0.4	0.4	0.2	0.4	0.0	0.0	0.0	0.0	
11.0	34	0.0	0.0	0.2	1.0	2.1	0.0	0.0	0.0	0.0	
11.5	35	0.0	0.3	0.1	0.1	3.1	0.0	0.0	0.0	0.0	4,050 +/- 110
12.5	36	0.0	1.4	0.1	0.9	0.0	0.0	0.0	0.0	0.0	
13.0	37	0.0	0.0	0.1	2.0	0.0	0.0	0.0	0.0	0.0	
14.5	4	0.0	0.3	0.1	0.8	0.0	0.0	0.0	0.3	0.0	
14.7	5	0.0	0.3	0.1	1.1	0.0	0.0	0.0	0.1	0.0	
15.5	6	0.0	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	
16.0	7	0.0	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	3,000 +/- 110
16.5	8	0.0	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	
17.0	9	0.0	0.7	0.1	2.4	0.0	0.0	0.0	0.0	0.0	
18.0	10	0.0	4.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	
18.5	11	0.0	0.0	2.2	0.3	0.0	0.0	0.0	0.1	0.0	
19.0	12	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	
20.0	13	0.0	4.1	0.3	0.0	0.1	0.0	0.0	0.0	0.0	
21.0	14	0.0	12.9	9.0	0.3	13.9	0.0	0.0	0.0	0.0	5,130 +/- 90
21.3	15	0.0	0.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	
23.0	16	0.0	4.2	0.0	0.1	4.5	0.0	0.0	0.0	0.0	
24.0	17	0.0	7.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	
25.0	18	0.0	19.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.0	19	0.0	4.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	
26.3	20	0.0	1.5	0.1	0.0	1.9	0.0	0.0	0.1	0.0	
27.0	21	0.0	1.5	0.1	0.1	2.5	0.0	0.0	0.0	0.0	
27.5	22	0.0	11.1	0.2	0.0	4.8	0.0	0.0	0.0	0.0	
30.5	24	0.0	2.5	0.0	0.0	0.4	0.0	0.0	0.4	0.0	

APPENDIX 2.—Continued.

CORE S14

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.3	1	93.43	1.62	4.95	91.1	6.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
1.8	2	91.40	2.64	5.96	95.8	2.2	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3.2	3	91.88	2.22	5.90	95.2	3.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
5.0	4	80.30	5.68	14.02	95.2	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.5	5	91.88	3.32	4.98	94.7	5.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
6.2	6	19.39	46.14	34.47	97.0	0.6	1.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
6.5	7	78.39	9.83	11.78	93.6	4.5	1.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
7.0	8	1.64	51.52	46.84	86.9	1.1	4.7	0.0	0.0	0.0	0.0	4.7	2.5	0.0	0.0
7.5	9	32.47	42.19	25.34	98.0	1.5	0.3	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
8.0	10	6.63	57.50	35.87	96.5	0.9	2.5	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
8.5	11	1.58	32.62	65.80	67.2	0.3	0.0	0.0	0.0	0.1	0.0	12.1	20.3	0.0	0.0
9.5	12	32.32	25.94	41.74	40.9	0.7	0.0	0.0	0.0	47.9	0.0	6.4	4.1	0.0	0.0
10.5	13	10.51	17.35	72.14	75.9	0.9	0.3	0.0	0.0	3.8	0.0	13.8	5.3	0.0	0.0
11.3	14	19.79	13.52	66.69	86.4	0.9	0.0	0.0	0.0	0.6	0.0	12.1	0.0	0.0	0.0
12.8	15	6.88	26.07	67.05	93.3	2.9	0.0	0.0	0.0	0.0	0.0	0.9	2.9	0.0	0.0
13.3	16	2.11	18.84	79.05	98.6	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
14.0	17	96.00	1.10	2.90	97.7	1.6	0.0	0.0	0.0	0.1	0.0	0.6	0.0	0.0	0.0
15.2	18	80.30	6.89	12.81	98.6	0.9	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
16.0	19	95.56	1.06	3.38	95.0	4.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
17.0	20	94.98	1.12	3.90	96.1	2.9	0.0	0.0	0.0	0.1	0.1	0.6	0.0	0.0	0.0
20.0	21	93.60	1.51	4.89	97.4	2.4	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
22.0	22	95.62	1.34	3.04	94.5	4.9	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.0
23.0	23	94.98	1.57	3.84	96.8	2.6	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S15

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.5	1	99.2	0.1	0.7	91.7	7.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
2.0	2	98.7	0.2	1.1	94.6	4.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
4.0	3	97.9	0.5	1.6	93.0	5.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
5.5	4	82.3	11.0	6.7	88.1	3.1	1.6	1.6	0.0	0.0	0.0	0.0	3.6	0.1	0.0
7.2	5	22.1	62.5	15.4	87.6	0.3	2.1	9.0	0.0	0.0	0.0	0.0	0.6	0.1	0.0
8.8	6	21.7	58.5	19.8	88.4	0.9	1.8	7.7	0.0	0.0	0.0	0.0	0.6	0.1	0.0
10.0	7	19.3	60.9	19.8	87.5	0.7	3.4	7.4	0.0	0.0	0.0	0.0	0.7	0.1	0.0
10.5	8	2.6	59.0	38.4	50.6	0.9	19.9	11.3	0.1	0.0	0.0	0.0	15.1	1.2	0.0
10.8	9	12.0	62.7	25.3	68.0	0.0	8.5	11.6	0.3	0.0	0.0	0.0	7.3	2.4	0.0
11.2	10	4.3	78.8	16.9	72.6	0.3	4.8	18.2	0.0	0.0	0.0	0.0	2.6	0.1	0.0
11.4	11	9.5	64.9	25.3	77.3	0.6	6.6	13.3	0.0	0.0	0.0	0.0	0.6	0.3	0.0
11.9	12	0.1	28.4	71.5	19.1	0.0	0.0	0.7	2.5	0.0	0.0	0.0	28.1	47.2	0.0
12.7	13	0.8	40.0	59.2	1.2	0.0	5.3	0.0	0.6	0.0	0.0	0.0	89.2	4.0	0.0
14.0	14	0.1	23.4	76.5	19.1	2.0	4.1	2.0	0.0	0.0	0.0	12.3	22.0	33.5	0.0
14.8	15	0.1	35.8	64.1	9.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	9.3	78.1	0.0
16.0	16	0.2	24.1	75.7	34.2	0.0	1.1	1.1	0.3	0.0	0.0	0.0	23.1	25.3	0.0
17.5	17	0.1	27.7	72.2	8.7	0.3	0.0	0.0	17.8	0.0	0.0	0.0	1.7	66.7	0.0
19.0	18	0.1	35.1	64.8	6.5	0.0	5.0	0.0	0.3	0.0	0.0	0.0	30.5	48.4	0.0
20.0	19	0.2	24.4	75.4	12.2	0.0	0.3	0.3	0.3	0.0	0.0	3.5	0.6	74.2	0.0
21.3	20	1.5	28.3	70.2	58.2	1.7	0.7	0.0	0.3	0.0	0.0	0.0	7.2	26.8	0.0
22.5	21	3.7	21.9	74.4	4.1	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.7	41.1	0.0
25.0	22	0.2	26.3	73.5	28.7	0.0	0.0	1.1	11.7	0.0	0.0	0.0	2.5	30.5	0.1
26.0	23	0.1	28.3	71.6	25.7	0.0	2.2	0.0	4.5	0.0	0.0	0.0	6.7	17.4	0.0
27.5	24	0.1	31.7	68.2	18.0	0.3	2.6	0.0	0.6	0.0	0.0	1.6	2.0	40.6	0.0
28.6	25	0.1	31.4	68.5	38.4	0.0	2.5	9.2	5.3	0.0	0.0	0.0	3.9	14.2	0.0
30.0	26	0.1	25.3	74.6	14.4	0.0	0.0	0.0	5.8	0.0	0.0	0.0	1.4	34.7	0.0
30.8	27	0.2	18.2	81.6	44.8	1.1	0.0	0.0	8.2	0.0	0.0	0.0	0.0	22.8	0.0
31.7	28	63.4	3.9	32.7	79.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	0.0
32.7	29	90.2	3.1	6.7	92.4	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
34.0	30	95.3	2.0	2.7	91.0	6.5	0.6	0.6	0.0	0.1	0.0	0.0	0.0	0.6	0.0
35.0	31	89.0	2.4	8.6	95.8	1.2	0.9	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0

APPENDIX 2.—Continued.

CORE S15

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
0.5	1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.0	2	0.1	0.7	0.1	0.0	0.1	0.0	0.0	0.0	0.0	
4.0	3	0.2	0.7	0.1	0.0	0.1	0.0	0.0	0.0	0.0	1,620 +/- 70
5.5	4	0.2	1.6	0.1	0.0	0.0	0.0	0.0	0.1	0.0	
7.2	5	0.0	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	4,370 +/- 160
8.8	6	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
10.0	7	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
10.5	8	0.0	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	
10.8	9	0.4	1.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	2,620 +/- 80
11.2	10	0.0	0.9	0.1	0.3	0.0	0.0	0.0	0.0	0.0	
11.4	11	0.0	0.3	0.6	0.3	0.1	0.0	0.0	0.0	0.0	
11.9	12	0.0	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
12.7	13	0.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
14.0	14	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.8	15	0.0	2.1	0.7	0.0	0.3	0.0	0.0	0.0	0.0	3,870 +/- 80
16.0	16	0.0	6.2	0.7	0.0	7.8	0.0	0.0	0.0	0.0	
17.5	17	0.0	2.8	0.7	0.0	1.0	0.0	0.0	0.0	0.0	
19.0	18	0.0	2.4	1.8	0.1	4.7	0.0	0.0	0.0	0.0	
20.0	19	0.0	6.0	0.9	0.0	1.5	0.0	0.0	0.0	0.0	4,170 +/- 90
21.3	20	0.0	1.4	0.1	0.0	3.4	0.0	0.0	0.0	0.0	
22.5	21	0.0	24.8	0.7	0.0	28.1	0.0	0.0	0.0	0.0	
25.0	22	0.0	1.8	0.3	0.0	23.1	0.0	0.0	0.0	0.0	6,670 +/- 90
26.0	23	0.0	1.9	0.0	0.0	41.4	0.0	0.0	0.0	0.0	
27.5	24	0.0	10.6	0.0	0.0	23.3	0.0	0.0	0.0	0.0	
28.6	25	0.0	2.5	0.0	0.1	23.9	0.0	0.0	0.0	0.0	
30.0	26	0.0	36.3	0.1	0.0	7.2	0.0	0.0	0.0	0.0	
30.8	27	0.0	10.3	0.0	0.3	12.4	0.0	0.0	0.0	0.0	7,420 +/- 90
31.7	28	0.4	12.4	0.4	0.0	5.0	0.0	0.0	0.0	0.0	
32.7	29	0.2	3.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	
34.0	30	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35.0	31	0.0	1.4	0.0	0.0	0.3	0.0	0.0	0.1	0.0	

APPENDIX 2.—Continued.

CORE S17

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.3	1	87.72	9.72	2.56	53.40	46.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.0	2	77.08	13.95	8.98	69.08	26.61	0.1	1.6	0.0	0.0	0.0	0.0	0.26	0.53	0.0
2.7	3	14.39	50.33	35.28	54.45	3.40	4.18	1.83	0.26	0.0	0.0	1.04	20.68	2.88	0.0
3.6	4	65.09	15.94	18.97	83.85	5.66	1.13	5.66	0.0	0.0	1.70	0.1	1.70	0.0	0.0
4.5	5	36.27	31.61	35.12	76.36	5.11	4.15	11.18	0.0	0.0	1.28	0.1	2.88	0.0	0.0
5.7	6	39.53	36.51	23.96	79.64	4.56	1.52	13.07	0.0	0.0	1.22	0.0	0.0	0.0	0.0
6.5	7	24.08	53.47	22.45	88.45	2.43	0.91	7.60	0.0	0.0	0.61	0.0	0.0	0.0	0.0
8.5	8	23.63	57.13	19.24	81.99	3.86	2.25	9.32	0.0	0.0	2.57	0.0	0.0	0.0	0.0
8.8	9	1.23	49.32	49.45	47.73	0.68	21.59	9.55	0.68	0.0	0.0	0.0	18.86	0.0	0.0
10.2	10	9.38	76.89	13.73	80.94	3.96	5.20	7.18	0.0	0.0	2.48	0.0	0.25	0.0	0.0
12.0	11	0.26	34.26	65.48	21.11	0.0	14.07	4.27	0.50	0.0	0.0	0.0	54.77	3.26	0.0
13.0	12	1.03	40.36	58.61	63.29	0.94	7.29	16.24	0.24	0.0	0.0	8.71	2.35	0.94	0.0
14.8	13	20.45	22.01	57.54	71.65	1.29	6.70	18.04	0.0	0.0	0.0	0.26	1.29	0.1	0.0
16.2	14	0.05	34.28	65.67	20.73	0.0	4.57	0.0	0.0	0.0	0.0	0.0	71.95	1.52	0.0
18.0	15	22.39	55.94	21.67	82.20	4.85	1.94	9.71	0.0	0.0	0.97	0.0	0.32	0.0	0.0
19.3	16	3.70	51.86	44.44	65.71	0.95	12.14	11.67	0.0	0.0	0.48	0.0	8.33	0.24	0.0
21.0	17	0.25	37.51	62.24	31.39	0.0	11.00	1.29	0.0	0.0	0.0	7.44	47.9	0.65	0.0
22.6	18	0.30	41.47	58.53	17.20	0.0	43.01	0.0	0.0	0.0	0.27	2.96	34.41	0.27	0.0
24.2	19	5.32	26.22	68.46	30.11	0.0	9.38	1.14	0.0	0.0	0.0	8.52	30.40	12.50	0.0
25.2	20	11.70	48.31	39.99	45.73	1.26	12.31	10.55	0.0	0.0	0.0	0.50	9.30	5.03	0.0
27.2	21	7.03	55.43	37.54	44.97	1.85	8.20	31.48	0.0	0.0	0.0	0.53	3.70	2.91	0.0
28.8	22	2.02	53.52	44.46	40.91	0.91	15.45	17.88	5.15	0.0	0.0	0.91	6.36	7.88	0.0
30.3	23	1.13	41.60	57.27	18.46	0.0	19.28	3.63	0.0	0.0	0.0	17.08	24.52	10.19	0.0
32.3	24	1.15	86.64	12.21	52.74	1.44	7.78	33.72	0.0	0.0	0.0	1.15	0.86	1.15	0.0
33.7	25	0.17	31.81	68.02	4.18	0.0	3.62	0.0	0.0	0.0	0.0	72.42	19.22	0.56	0.0
35.0	26	0.23	33.88	65.89	40.15	2.49	2.24	2.99	0.0	0.0	0.0	47.13	4.74	1.75	0.0
36.4	27	0.14	29.86	70.02	12.76	0.59	3.86	0.0	0.0	0.0	0.0	44.27	22.26	3.86	0.0
37.8	28	0.15	26.03	73.82	8.86	0.28	2.77	0.0	0.55	0.0	0.0	56.79	6.37	7.48	0.28
39.3	29	0.10	24.06	75.84	18.54	0.0	2.25	0.0	7.87	0.0	0.0	32.58	7.87	13.64	0.0
40.8	30	0.92	28.12	70.96	27.62	2.23	3.56	1.11	2.00	0.0	0.0	36.75	2.67	4.01	0.0
42.3	31	0.16	17.48	82.35	52.49	1.10	2.76	0.0	0.0	1.6	0.0	8.84	6.08	7.73	0.0

APPENDIX 2.—Continued.

CORE S17

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	IN SCT	OTH	WHITE	CARBON-14
0.3	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.0	2	0.2	0.13	0.53	0.0	0.0	0.0	0.0	0.0	0.0	1,420 +/- 80
2.7	3	0.2	5.75	5.23	0.26	0.0	0.0	0.0	0.0	0.0	
3.6	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.28	0.0	
4.5	5	0.0	0.0	0.1	0.1	0.32	0.0	0.0	0.0	0.0	
5.7	6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6.5	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.5	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,200 +/- 120
8.8	9	0.0	0.0	0.1	0.68	0.23	0.0	0.0	0.0	0.0	
10.2	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.0	11	0.0	0.0	0.50	1.01	0.25	0.0	0.0	0.25	0.0	
13.0	12	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,480 +/- 110
14.8	13	0.0	0.77	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
16.2	14	0.0	0.30	0.30	0.30	0.0	0.0	0.0	0.30	0.0	
18.0	15	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
19.3	16	0.0	0.24	0.0	0.24	0.0	0.0	0.0	0.0	0.0	4,890 +/- 110
21.0	17	0.0	0.0	0.0	0.32	0.0	0.0	0.0	0.0	0.0	
22.6	18	0.0	0.0	0.0	1.34	0.27	0.0	0.0	0.54	0.0	
24.2	19	0.0	6.53	0.0	0.0	1.42	0.0	0.0	0.0	0.0	
25.2	20	0.0	5.78	1.76	0.0	7.79	0.0	0.0	0.0	0.0	
27.2	21	0.0	2.91	0.26	0.0	3.17	0.0	0.0	0.26	0.0	
28.8	22	0.0	1.21	0.0	0.61	3.64	0.0	0.0	0.0	0.0	7,150 +/- 110
30.3	23	0.1	3.58	0.1	0.83	3.03	0.0	0.0	0.0	0.0	7,980 +/- 90
32.3	24	0.0	0.0	0.0	0.29	0.86	0.0	0.0	0.0	0.0	
33.7	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35.0	26	0.0	0.25	0.25	0.0	1.00	0.0	0.0	0.0	0.0	7,850 +/- 100
36.4	27	0.3	8.61	0.30	0.0	3.26	0.0	0.0	0.0	0.0	
37.8	28	0.0	6.93	0.10	0.0	9.70	0.0	0.0	0.0	0.0	
39.3	29	0.28	10.11	0.84	0.0	5.62	0.0	0.0	0.0	0.0	
40.8	30	0.44	13.14	0.0	0.0	6.46	0.0	0.0	0.0	0.0	
42.3	31	0.0	10.50	0.0	0.0	8.84	0.0	0.0	0.0	0.0	8,940 +/- 120

APPENDIX 2.—Continued.

CORE S18

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.77	1	3.9	65.0	31.1	0.6	0.0	0.0	0.0	0.0	99.0	0.0	0.0	0.0	0.0	0.0
2.09	2	57.4	12.2	30.4	45.8	3.7	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.5	0.0
2.38	3	2.4	3.9	93.7	53.4	0.3	0.0	0.0	0.9	29.2	5.1	0.6	0.0	0.3	0.0
2.69	4	77.3	8.5	14.2	77.4	3.5	0.0	0.0	2.8	0.0	0.0	0.0	0.0	3.4	0.0
3.60	21	76.2	4.4	28.2	74.3	0.3	0.6	1.3	1.7	0.3	0.0	0.0	0.0	0.6	0.0
5.71	22	68.9	5.3	25.8	57.5	0.0	0.5	1.5	2.4	0.0	0.0	0.5	0.0	1.0	0.0
6.36	5	0.09	72.1	27.81	57.7	1.7	6.7	4.2	12.8	9.8	0.0	0.3	0.0	0.6	0.0
7.45	6	4.2	68.0	27.8	73.7	2.9	5.1	11.7	4.3	0.0	0.3	0.0	0.0	0.0	0.0
8.50	7	6.0	61.6	32.4	77.6	2.4	1.0	9.2	0.0	6.4	0.0	0.5	0.5	0.5	0.0
9.91	23	0.5	71.0	28.5	64.7	0.8	2.9	8.2	11.2	1.2	0.0	2.5	0.3	0.8	0.0
11.48	8	1.4	60.4	38.2	77.6	2.3	14.2	0.0	2.5	0.0	0.9	0.0	0.0	0.9	0.0
12.33	9	0.1	28.8	71.1	52.3	3.4	0.3	0.0	1.9	0.0	0.5	0.0	0.8	31.0	0.0
14.07	10	0.1	36.8	63.1	10.6	0.6	0.0	0.0	2.6	0.0	0.9	0.3	0.0	68.0	0.0
15.24	11	0.5	41.6	57.9	18.9	1.4	4.4	2.7	1.6	0.0	0.0	0.0	4.4	57.8	0.0
16.29	12	0.1	34.9	65.0	3.5	0.8	0.0	0.0	0.9	0.0	0.0	0.6	0.5	85.9	0.0
17.44	13	0.05	42.7	57.25	34.5	1.1	0.8	0.0	7.6	6.2	0.0	0.0	0.3	39.2	0.0
18.84	14	0.09	31.2	68.71	28.7	0.4	0.0	0.0	3.9	0.0	0.0	0.0	0.4	62.7	0.0
20.68	15	0.2	52.6	47.2	5.1	1.6	0.6	0.0	30.4	0.0	0.0	0.0	0.6	56.0	0.0
22.12	16	0.3	10.8	88.0	33.1	1.7	0.0	6.7	0.6	0.0	0.0	14.7	0.3	18.5	0.0
23.50	17	0.2	44.8	55.0	50.9	5.2	0.5	1.5	2.3	0.0	0.0	0.8	1.3	25.7	0.0
25.09	18	0.1	29.5	70.4	9.0	1.2	0.0	0.0	3.8	0.0	0.0	3.5	2.0	38.9	0.0
26.53	19	0.3	18.5	81.4	26.4	0.0	0.0	0.0	4.6	0.0	0.0	1.7	0.3	38.8	0.0
26.92	20	75.9	5.3	18.8	89.8	0.3	0.0	1.5	5.4	0.0	0.0	0.3	0.0	1.5	0.0
27.90	24	98.4	0.04	1.56	98.3	0.3	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.0
31.41	25	98.2	0.4	1.4	93.3	0.3	0.0	0.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
32.93	26	97.7	0.0	1.4	95.4	0.6	0.0	0.6	2.0	0.0	0.0	0.0	0.0	0.0	0.0
34.92	27	98.5	0.04	1.46	95.2	0.0	0.0	0.9	1.2	0.0	0.0	0.0	0.0	0.6	0.0
37.05	28	97.8	1.0	1.2	97.8	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
39.80	29	95.9	1.7	2.4	92.3	0.0	0.0	0.3	1.2	0.0	0.6	0.0	0.0	0.0	0.0
43.15	30	97.5	0.7	1.8	98.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
44.07	31	96.9	0.6	2.5	94.7	3.1	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
48.03	32	96.9	0.7	2.4	98.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.61	33	98.1	0.4	1.5	95.9	0.9	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S18

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
1.77	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1,400 +/- 80
2.09	2	0.3	42.8	5.8	0.0	0.0	0.0	0.0	0.0	0.0	
2.38	3	0.0	9.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
2.69	4	0.0	10.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	
3.60	21	0.3	20.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.71	22	0.0	35.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	
6.36	5	0.0	5.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4,650 +/- 120
7.45	6	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.50	7	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9.91	23	0.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11.48	8	0.0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	4,100 +/- 70
12.33	9	0.0	8.4	1.1	0.0	0.3	0.0	0.0	0.0	0.0	
14.07	10	0.0	13.2	2.0	0.0	0.0	0.0	0.0	1.8	0.0	
15.24	11	0.0	6.3	2.2	0.0	0.0	0.0	0.0	0.3	0.0	
16.29	12	0.0	2.4	2.9	0.0	0.0	0.0	0.0	2.5	0.0	
17.44	13	0.0	4.8	2.2	0.0	0.3	0.0	0.0	3.0	0.0	4,480 +/- 110
18.84	14	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.7	0.0	
20.68	15	0.3	3.6	1.2	0.0	0.0	0.0	0.0	0.6	0.0	
22.12	16	0.0	13.2	1.5	0.0	0.0	0.0	0.0	9.7	0.0	
23.50	17	0.0	6.5	0.3	0.0	0.0	0.0	0.0	5.0	0.0	
25.09	18	0.0	34.8	3.5	0.0	0.0	0.0	0.0	3.3	0.0	
26.53	19	0.0	26.7	0.0	0.0	0.0	0.0	0.0	1.5	0.0	7,400 +/- 80
26.92	20	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
27.90	24	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,040 +/- 100
31.41	25	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
32.93	26	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
34.92	27	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
37.05	28	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
39.80	29	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11,530 +/- 80
43.15	30	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
44.07	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	
48.03	32	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.3	0.0	
52.61	33	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	12,070 +/- 370

APPENDIX 2.—Continued.

CORE S19

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
3.3cm	14	5.2	20.0	74.8	81.5	0.0	0.6	0.0	2.8	0.0	9.4	5.4	0.0	0.0	0.0
14.4cm	15	72.5	12.3	15.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.1cm	16	87.4	4.6	8.0	90.9	0.6	0.0	0.0	1.8	0.0	0.0	0.4	0.0	0.0	0.0
1.45m	17	60.6	21.6	17.8	53.9	0.0	0.0	0.0	1.6	0.0	34.7	3.9	0.0	0.0	0.0
1.90	26	92.5	3.0	4.5	95.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.35	27	91.8	3.1	5.1	87.7	3.9	2.9	0.0	0.0	0.0	0.0	0.0	0.6	1.1	0.0
4.03	18	13.5	55.2	31.3	75.1	1.6	5.2	0.0	11.5	0.0	1.1	3.5	0.9	0.3	0.0
4.05	19	0.4	30.1	69.5	84.5	8.2	1.4	0.0	1.0	0.0	0.0	0.8	0.5	0.0	0.0
4.84	20	83.4	12.8	3.8	86.6	6.2	0.0	0.0	1.3	0.0	0.3	3.2	0.6	0.6	0.0
5.57	21	16.4	56.8	26.8	85.5	2.7	0.8	0.0	4.3	0.0	0.0	6.2	0.5	0.0	0.0
6.90	22	15.5	57.1	27.4	82.8	2.8	4.8	0.0	4.7	0.0	0.3	4.0	0.0	0.6	0.0
8.56	23	0.4	33.9	65.7	80.8	0.9	0.9	0.0	9.4	0.0	1.7	4.4	0.0	2.1	0.0
9.34	24	2.7	50.8	46.5	64.4	3.0	6.6	0.0	9.1	0.0	0.6	0.6	9.4	5.2	0.0
9.71	25	76.3	12.9	10.8	96.8	1.3	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.6	0.0
10.37	28	94.0	3.9	3.1	88.2	5.9	1.4	0.0	1.1	0.0	1.1	0.6	0.0	0.6	0.0
11.94	29	94.9	3.4	1.7	85.1	5.9	0.6	0.0	0.3	0.0	4.3	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S19		SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
DEPTH	NO										
3.3cm	14	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
14.4cm	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
95.1cm	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	
1.45m	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	
1.90	26	0.0	3.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
3.35	27	0.0	2.4	0.6	0.0	0.0	0.0	0.0	0.8	0.0	
4.03	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	
4.05	19	0.0	1.9	0.0	0.0	0.0	0.0	0.0	1.7	0.0	3,070 +/- 110
4.84	20	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.57	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6.90	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,960 +/- 100
8.56	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9.34	24	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	4,080 +/- 90
9.71	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.37	28	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.8	0.0	
11.94	29	0.0	0.3	0.0	0.0	0.0	0.0	0.0	3.2	0.0	

APPENDIX 2.—Continued.

CORE S20	DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
	37.5cm	1	22.74	45.92	31.33	80.5	0.3	0.0	13.4	1.6	0.0	0.0	0.0	0.0	0.3	0.0
	97.5cm	2	12.34	52.52	35.14	83.5	0.3	0.8	10.3	3.1	0.0	1.4	0.0	0.3	0.3	0.0
	1.54m	3	38.14	39.74	22.12	76.3	0.7	0.7	18.2	3.0	0.0	0.2	0.0	0.2	0.0	0.0
	2.26	4	2.66	39.87	57.46	22.8	0.3	0.5	0.3	0.0	0.0	0.0	0.0	0.0	7.8	0.0
	3.15	5	12.90	33.27	53.83	33.9	0.0	0.9	5.4	0.9	0.0	0.3	0.0	0.0	4.7	0.0
	3.77	6	1.60	27.75	70.65	50.9	0.5	1.1	6.2	7.7	0.0	0.3	0.0	3.7	6.0	0.0
	4.93	7	2.97	75.37	21.66	43.8	1.3	31.3	6.2	5.6	0.0	0.0	0.0	1.9	2.7	0.0
	5.85	8	5.05	34.62	60.33	53.9	0.6	2.8	1.8	10.6	0.0	0.0	0.0	28.2	0.6	0.0
	6.86	9	34.41	51.63	13.97	48.6	0.8	22.8	2.8	10.4	0.0	0.0	0.3	11.1	0.3	0.0
	7.98	10	4.68	62.08	33.23	42.2	0.0	29.5	6.5	6.5	0.0	0.0	0.3	1.1	4.1	0.0
	8.95	11	2.98	75.13	21.89	66.9	0.9	9.7	18.9	1.5	0.0	0.0	0.0	0.0	0.9	0.0
	10.09	12	9.08	60.28	30.64	55.9	1.3	22.2	10.9	3.9	0.0	0.0	0.0	0.5	2.1	0.0
	11.75	13	3.52	63.46	33.02	26.3	0.0	16.5	23.0	11.2	0.0	3.7	0.0	0.0	6.4	0.0
	12.85	14	3.98	63.81	32.20	27.4	2.2	14.5	20.6	2.2	0.9	24.9	0.0	0.3	2.7	0.0
	13.62	15	0.18	55.07	44.75	28.8	0.0	33.8	2.8	12.8	0.0	0.0	0.0	7.8	6.6	0.0
	14.82	16	0.92	51.48	47.59	20.4	0.0	35.3	2.6	7.6	0.0	6.0	0.0	15.9	5.0	0.0
	15.85	17	0.26	55.82	43.92	5.0	0.0	21.8	0.3	18.3	0.0	0.0	0.0	16.9	32.4	0.0
	16.92	18	0.14	47.32	52.54	59.0	0.8	0.8	2.8	4.6	0.0	1.2	0.0	3.7	25.4	0.0
	17.97	19	7.84	41.91	50.26	38.8	1.6	0.0	2.6	6.3	0.0	9.8	0.3	1.5	37.2	0.0
	19.12	20	0.04	35.34	64.61	46.9	0.6	3.6	0.0	14.6	0.0	12.8	3.6	2.7	6.8	0.0
	20.08	21	3.52	55.58	40.90	42.4	1.2	12.2	0.0	9.6	0.0	4.9	9.0	0.6	8.2	0.0
	21.10	22	0.42	45.09	54.49	18.0	0.0	1.4	6.2	5.6	0.0	14.5	0.0	2.1	42.4	0.0
	22.10	23	0.88	41.78	57.34	6.6	0.0	2.7	0.0	14.3	0.0	2.5	0.0	3.0	27.9	0.0
	23.11	24	0.32	38.02	61.66	39.5	1.4	0.4	7.8	6.9	0.0	8.3	0.0	0.0	31.2	0.0
	24.06	25	0.29	26.15	73.56	4.9	0.3	0.0	0.3	2.2	0.0	0.0	0.0	0.3	61.4	0.0
	24.48	26	0.54	35.35	64.11	24.3	0.8	0.0	1.6	23.9	0.0	0.0	0.0	0.0	41.4	0.0
	26.77	27	0.63	31.24	68.13	70.7	1.2	0.0	0.0	0.3	9.4	0.0	0.0	16.3	1.2	0.0
	27.73	28	0.25	34.03	65.72	29.0	0.4	0.0	2.1	1.8	0.0	4.5	0.0	0.3	55.5	0.0
	28.82	29	0.25	32.97	66.77	36.2	0.4	0.0	20.6	0.8	0.4	0.0	0.0	0.7	35.8	0.0
	29.93	30	0.24	30.66	69.11	59.7	0.0	0.0	0.0	7.7	0.0	4.2	5.5	0.3	16.9	0.0
	31.10	31	0.23	32.36	67.41	58.5	0.0	0.0	0.0	5.6	0.0	3.4	3.9	0.3	16.7	0.0
	32.07	32	0.23	32.90	66.87	35.9	0.3	0.0	0.0	5.3	0.0	1.9	1.7	0.3	50.4	0.0
	32.90	33	0.18	29.16	70.66	40.4	0.0	0.3	0.0	5.3	0.0	1.4	1.4	0.3	17.1	0.0
	34.20	34	0.08	30.60	69.32	44.8	1.7	0.0	2.3	2.1	0.0	0.9	0.0	0.0	36.7	0.0

APPENDIX 2.—Continued.

CORE S20

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
35.74	35	0.12	30.35	69.52	28.6	1.2	0.0	5.0	4.5	0.0	0.0	0.0	0.0	45.8	0.0
37.00	36	0.19	28.88	70.93	21.9	0.3	0.0	0.6	1.3	0.0	34.7	0.0	0.0	25.9	0.0
37.96	37	0.06	28.01	71.93	25.7	1.6	0.0	1.6	5.8	0.0	6.3	0.0	0.6	37.3	0.0
39.05	38	0.25	25.62	74.13	70.7	0.9	0.0	0.4	2.6	0.0	1.9	0.0	0.0	13.6	0.0
39.93	39	59.89	8.29	31.82	1.8	0.6	0.0	0.0	2.9	0.0	92.3	0.0	0.0	1.2	0.0
40.98	40	0.09	25.13	74.78	18.4	0.4	0.0	0.0	39.4	0.0	11.9	0.0	0.0	17.4	0.0
41.95	41	0.75	26.95	72.30	65.7	0.0	0.0	0.0	3.2	0.0	24.0	0.0	0.0	5.6	0.0
42.86	42	55.36	15.13	29.52	92.1	1.5	0.0	0.0	1.2	0.0	2.1	0.0	0.0	0.0	0.0
43.36	43	95.28	1.50	3.22	98.1	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44.24	44	95.08	1.69	3.22	97.2	0.9	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
46.51	45	94.63	1.99	3.38	96.6	1.9	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.0	0.0
48.03	46	94.65	1.64	3.71	99.8	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
49.51	47	96.87	0.85	2.28	99.4	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S20

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	IN SCT	OTH	WHITE	CARBON-14
37.5cm	1	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
97.5cm	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.54m	3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
2.26	4	0.0	65.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0	2,890 +/- 130
3.15	5	0.0	49.1	4.5	0.0	0.3	0.0	0.0	0.0	0.0	
3.77	6	0.0	21.5	1.8	0.0	0.0	0.0	0.0	0.3	0.0	
4.93	7	0.0	1.3	5.9	0.0	0.0	0.0	0.0	0.0	0.0	
5.85	8	0.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
6.86	9	0.0	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
7.98	10	0.0	8.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	
8.95	11	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
10.09	12	0.0	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	
11.75	13	0.0	12.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	4,190 +/- 90
12.85	14	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.9	0.0	
13.62	15	0.0	4.9	1.1	0.0	0.3	0.0	0.0	1.1	0.0	
14.82	16	0.0	4.2	2.5	0.0	0.0	0.0	0.0	0.5	0.0	
15.85	17	0.0	1.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	
16.92	18	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17.97	19	0.0	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
19.12	20	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	
20.08	21	0.0	11.0	0.3	0.0	0.0	0.0	0.0	0.6	0.0	
21.10	22	0.0	9.7	0.3	0.0	0.0	0.0	0.0	1.1	0.0	
22.10	23	0.0	42.1	0.6	0.0	0.0	0.0	0.0	0.3	0.0	5,110 +/- 110
23.11	24	0.0	2.3	1.9	0.0	0.0	0.0	0.0	0.3	0.0	
24.06	25	0.0	9.6	3.9	0.0	0.0	0.0	0.0	17.1	0.0	
24.48	26	0.0	4.4	0.5	0.0	0.0	0.0	0.0	3.1	0.0	
26.77	27	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
27.73	28	0.0	3.8	1.5	0.0	0.0	0.0	0.0	1.5	0.0	7,460 +/- 80
28.82	29	0.0	3.3	0.0	0.0	0.0	0.0	0.0	1.8	0.0	
29.93	30	0.0	5.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
31.10	31	0.0	10.4	0.0	0.0	0.0	0.0	0.0	1.2	0.0	
32.07	32	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
32.90	33	0.0	26.2	0.0	0.0	0.0	0.0	0.0	7.6	0.0	
34.20	34	0.0	3.6	0.3	0.0	0.3	0.0	0.0	7.3	0.0	7,260 +/- 90

APPENDIX 2.—Continued.

CORE S21

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
22.8cm	1	88.65	4.73	6.62	75.7	3.5	1.3	1.6	1.3	2.4	1.6	0.0	0.3	1.6	0.0
1.18m	2	96.94	2.88	0.18	80.9	5.7	1.7	1.7	0.8	1.1	0.0	0.0	0.3	0.9	0.0
2.28	3	94.53	2.46	3.02	88.1	3.2	1.9	2.8	0.6	0.4	0.0	0.0	0.0	0.3	0.0
3.81	4	98.33	0.25	1.42	84.8	1.7	0.0	9.3	2.1	0.0	0.6	0.0	0.0	0.9	0.0
5.33	5	97.22	0.37	2.41	85.6	1.4	0.3	10.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
7.09	6	90.11	3.93	5.95	86.0	4.8	1.5	6.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0
8.15	7	25.37	45.35	29.28	70.7	5.8	2.8	7.4	4.4	0.0	0.0	0.0	7.4	0.0	0.0
8.50	8	85.71	5.44	8.84	75.9	1.2	6.2	12.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0
8.92	9	74.39	16.02	9.58	67.9	1.1	15.2	8.3	0.0	0.6	2.8	0.0	0.0	0.0	0.0
9.43	10	74.07	15.02	10.91	77.9	2.4	7.6	10.6	0.0	0.0	0.6	0.0	0.0	0.0	0.0
10.20	11	8.16	30.16	61.68	68.8	0.5	8.5	5.7	5.8	0.0	0.0	0.0	5.7	2.1	0.0
11.43	12	82.77	6.27	10.96	88.5	2.6	1.9	3.2	1.3	0.0	0.3	0.0	0.0	0.6	0.0
12.96	13	54.16	12.63	33.21	84.1	1.7	3.0	7.3	2.5	0.0	0.0	0.0	0.0	0.3	0.0
14.97	14	38.59	31.23	30.19	76.4	0.0	5.3	8.8	2.7	0.0	0.0	0.0	1.8	0.0	0.0
15.88	15	11.15	24.70	64.14	61.4	0.6	24.3	3.4	1.5	0.0	4.2	0.0	0.3	1.9	0.0
17.71	16	1.74	45.8	52.46	2.1	0.0	44.8	0.0	2.1	0.0	0.0	0.0	48.9	1.8	0.0
17.96	17	1.05	86.54	12.41	80.1	0.0	0.0	3.6	4.5	0.0	0.3	0.0	1.3	8.3	0.0
19.04	18	1.87	14.05	84.08	68.3	0.0	2.9	10.8	3.9	0.0	0.9	0.0	2.5	7.1	0.0
20.21	19	2.85	37.07	60.08	48.3	0.0	22.9	6.4	2.5	0.0	0.0	0.0	11.6	3.6	0.0
21.02	20	27.29	22.66	50.05	82.3	0.3	3.0	3.6	6.3	0.0	1.2	0.0	0.3	1.8	0.0
22.14	21	0.30	33.28	66.42	71.2	0.3	0.3	3.2	3.2	0.0	1.7	0.0	2.6	5.8	0.0
23.04	22	2.39	56.81	40.80	70.9	0.7	2.9	18.1	2.4	0.0	0.0	0.0	0.7	3.1	0.0
23.95	23	1.19	57.18	41.63	75.2	0.0	1.5	10.3	5.3	0.0	0.0	0.0	2.4	3.2	0.0
25.10	24	0.32	7.34	92.34	27.1	0.6	0.8	3.3	9.7	0.0	0.3	0.0	10.2	37.9	0.0
26.07	25	4.17	42.00	53.83	23.6	0.3	0.0	1.2	11.8	0.0	0.0	0.0	30.2	22.6	0.0
27.08	26	0.45	50.36	49.19	27.5	0.0	3.2	1.8	4.4	0.0	0.0	0.0	29.9	31.7	0.0
28.43	27	1.70	36.20	62.10	10.6	0.0	0.3	0.0	1.8	0.0	0.0	0.0	7.7	1.8	0.0
29.45	28	24.83	31.00	44.17	84.4	0.3	0.3	10.0	2.5	0.0	0.3	0.0	0.0	0.3	0.3
30.21	29	1.40	35.22	63.37	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0
30.82	30	1.02	35.57	63.41	65.9	0.8	0.3	2.1	0.8	0.0	1.6	0.0	0.0	11.8	0.0
31.76	31	0.92	34.53	64.55	28.2	0.3	0.9	0.0	4.8	0.0	0.6	28.9	0.3	8.3	0.0
32.14	32	4.95	27.84	67.21	78.2	1.5	0.6	2.7	1.5	0.0	0.3	0.0	0.0	5.0	0.0
32.96	33	1.00	36.38	62.62	33.8	0.0	0.3	0.3	9.7	0.0	0.0	0.9	0.0	12.7	0.0
34.36	34	1.09	42.24	56.67	30.2	0.2	0.0	0.0	14.4	0.0	0.0	0.0	0.0	39.4	0.0

APPENDIX 2.—Continued.

CORE S21

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	IN SCT	OTH	WHITE	CARBON-14
22.8cm	1	2.4	5.1	3.2	0.0	0.0	0.0	0.0	0.0	0.0	3,400 +/- 140
1.18m	2	0.0	5.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	
2.28	3	0.0	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
3.81	4	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.33	5	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,530 +/- 90
7.09	6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.15	7	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.50	8	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.92	9	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,870 +/- 100
9.43	10	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.20	11	0.0	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
11.43	12	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.96	13	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,520 +/- 110
14.97	14	0.0	4.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
15.88	15	0.0	2.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
17.71	16	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17.96	17	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5,780 +/- 130
19.04	18	0.0	3.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	
20.21	19	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21.02	20	0.0	0.6	0.3	0.0	0.3	0.0	0.0	0.0	0.0	
22.14	21	0.0	0.3	0.0	0.0	11.4	0.0	0.0	0.0	0.0	5,780 +/- 130
23.04	22	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.5	0.0	
23.95	23	0.0	1.2	0.0	0.0	0.9	0.0	0.0	0.0	0.0	
25.10	24	0.0	2.3	0.3	0.0	7.7	0.0	0.0	0.0	0.0	
26.07	25	0.0	6.9	0.6	0.0	2.7	0.0	0.0	0.0	0.0	5,780 +/- 130
27.08	26	0.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
28.43	27	0.0	0.0	0.0	0.0	77.9	0.0	0.0	0.0	0.0	
29.45	28	0.0	1.1	0.0	0.3	0.0	0.3	0.0	0.0	0.0	
30.21	29	0.0	3.1	0.6	0.0	90.1	0.0	0.0	0.0	0.0	5,780 +/- 130
30.82	30	0.0	5.6	0.3	0.3	10.6	0.0	0.0	0.0	0.0	
31.76	31	0.0	3.8	0.0	0.0	23.8	0.0	0.0	0.0	0.0	
32.14	32	0.0	3.2	0.3	0.0	6.2	0.6	0.0	0.0	0.0	
32.96	33	0.0	2.4	0.3	0.0	39.6	0.0	0.0	0.0	0.0	5,780 +/- 130
34.36	34	0.0	2.8	0.0	0.0	12.8	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S21

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
35.40	35	0.0	2.2	0.3	0.0	12.8	0.0	0.0	0.0	0.0	
36.30	36	0.0	1.9	0.3	0.3	12.7	0.0	0.0	0.0	0.0	
37.00	37	0.0	10.0	0.6	0.0	17.9	0.0	0.0	0.0	0.0	
37.90	38	0.0	1.6	0.0	0.0	44.6	0.0	0.0	0.0	0.0	
38.81	39	0.0	0.6	0.0	0.0	1.2	0.0	0.0	0.0	0.0	
39.42	40	0.0	10.1	0.0	0.0	7.1	0.0	0.0	0.0	0.0	
40.12	41	0.0	2.8	0.0	0.3	23.5	0.0	0.0	0.0	0.0	7,140 +/- 110
40.91	42	0.0	3.1	0.0	0.0	1.6	0.0	0.0	0.0	0.0	
41.84	43	0.0	2.8	0.3	0.0	0.6	0.0	0.0	0.0	0.0	
43.02	44	0.3	9.8	0.0	0.0	2.9	0.0	0.0	0.6	0.0	
43.82	45	0.3	11.4	0.0	10.2	12.3	0.0	0.0	1.6	0.0	
44.47	46	1.9	14.1	0.3	3.8	19.7	0.0	0.0	3.5	0.0	
45.38	47	1.8	17.4	2.1	0.0	6.9	0.0	0.0	3.6	0.0	
46.03	48	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	8,190 +/- 110
46.93	49	0.3	5.7	0.3	0.0	2.5	0.0	0.0	0.0	0.0	
47.93	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
48.00	51	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	8,140 +/- 130
49.00	52	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S22

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
10cm	1	0.8	27.0	72.2	6.6	5.0	0.0	7.5	4.6	0.0	0.5	0.0	67.9	2.5	0.0
59.7cm	2	0.3	28.0	71.7	83.6	7.7	0.0	0.0	0.9	0.0	0.0	0.0	2.1	0.7	0.0
90.7cm	3	1.3	39.4	59.3	73.0	4.8	0.0	0.3	0.0	0.0	0.9	0.0	6.6	0.9	0.0
1.75m	4	2.4	32.8	64.8	23.2	6.2	0.3	1.6	0.9	0.0	0.0	0.0	52.7	0.9	0.0
2.74	5	3.3	32.5	64.2	97.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
3.13	6	40.2	30.3	29.5	89.9	5.7	0.3	0.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0
3.27	7	76.2	13.3	9.8	89.5	5.5	0.3	0.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0
4.11	8	88.7	3.6	7.7	93.3	1.2	0.5	0.8	2.5	0.0	0.0	0.0	0.0	1.1	0.0
5.05	9	20.9	47.1	32.0	83.1	3.9	2.0	3.9	2.4	0.0	0.3	0.0	0.3	1.5	0.3
5.94	10	0.5	74.7	24.8	69.4	2.4	1.3	1.5	6.9	0.0	0.7	0.0	3.0	0.9	0.0
6.93	11	8.0	55.4	36.6	14.5	12.5	18.5	0.0	0.0	0.4	0.0	0.0	6.3	18.5	0.4
8.28	12	31.9	20.7	47.4	93.5	1.6	0.0	0.0	2.2	0.0	0.4	0.0	0.0	1.3	0.0
8.34	13	0.2	12.9	86.9	12.9	0.0	0.0	0.3	2.9	0.0	0.0	0.0	0.0	80.0	0.0
9.41	14	15.7	41.7	42.6	96.3	1.7	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.3	0.0
10.00	15	0.2	38.7	61.1	25.5	0.7	3.9	30.6	12.9	0.0	0.0	0.0	1.2	9.2	0.0
11.52	16	6.6	29.2	64.2	87.2	1.7	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.9	0.0
12.58	17	2.1	23.6	74.3	34.4	1.9	0.3	0.3	0.6	0.0	0.0	0.0	0.0	37.2	0.0
14.00	18	1.4	34.7	63.9	29.6	6.3	0.9	10.8	5.8	0.0	0.0	0.0	0.3	31.9	0.0
15.66	19	0.2	31.4	68.4	17.5	6.8	1.9	6.3	0.6	0.0	0.0	0.0	5.8	26.2	0.0
17.16	20	0.06	58.4	41.54	28.9	1.9	3.2	4.0	13.9	0.0	0.3	0.0	4.7	21.7	0.0
18.68	21	0.1	25.3	74.6	20.4	3.9	0.0	16.9	3.2	0.0	0.0	0.0	0.0	41.1	0.0
20.51	22	0.2	27.6	72.2	21.2	0.3	0.0	1.4	0.6	0.0	0.0	0.0	0.0	32.8	0.0
21.78	23	0.8	15.1	84.1	76.1	1.3	0.3	0.0	1.3	0.0	0.0	0.0	1.6	3.7	0.0
22.28	24	80.9	9.8	9.3	20.4	1.9	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.5	0.0
22.97	25	89.8	1.8	8.4	88.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.86	26	90.3	2.9	6.8	96.1	1.5	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
25.16	27	89.7	2.6	8.3	92.9	2.5	0.0	0.6	1.6	0.0	0.0	0.0	0.0	0.6	0.0
26.68	28	93.2	1.4	5.4	95.6	3.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
28.21	29	90.0	2.5	7.5	95.9	1.9	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0
29.73	30	91.6	2.4	6.0	94.2	2.5	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.72	31	89.2	3.8	7.8	90.9	3.9	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.0
31.17	36	33.9	45.2	20.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31.38	37	65.3	5.5	29.2	97.7	1.3	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
31.75	38	63.4	28.1	8.5	88.4	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S22

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
10cm	1	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
59.7cm	2	0.0	4.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	3,630 +/- 110
90.7cm	3	0.0	10.6	0.9	0.0	0.0	0.0	0.0	2.0	0.0	
1.75m	4	0.0	12.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	
2.74	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.13	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.27	7	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,770 +/- 90
4.11	8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
5.05	9	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.5	0.0	
5.94	10	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	
6.93	11	0.0	26.9	1.1	0.0	0.0	0.0	0.0	0.9	0.0	
8.28	12	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.6	0.0	4,670 +/- 80
8.34	13	0.0	2.4	1.5	0.0	0.0	0.0	0.0	0.0	0.0	
9.41	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.00	15	0.0	13.6	0.0	0.0	0.0	0.0	0.0	2.4	0.0	
11.52	16	0.3	7.8	0.0	0.0	0.0	0.0	0.0	0.9	0.0	
12.58	17	0.0	24.2	0.8	0.0	0.0	0.0	0.0	0.3	0.0	
14.00	18	0.0	13.5	0.6	0.0	0.0	0.0	0.0	0.3	0.0	6,630 +/- 150
15.66	19	0.3	30.3	2.4	0.0	0.0	0.0	0.0	1.9	0.0	
17.16	20	0.0	17.4	0.0	0.0	0.0	0.0	0.0	4.0	0.0	
18.68	21	0.0	11.9	0.3	0.0	0.0	0.0	0.0	2.3	0.0	
20.51	22	0.0	41.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	
21.78	23	0.0	4.7	0.0	0.0	0.0	0.0	0.0	11.0	0.0	7,910 +/- 150
22.28	24	0.0	72.4	0.6	0.0	0.0	0.0	0.0	1.4	0.0	7,540 +/- 70
22.97	25	1.7	7.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
23.86	26	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25.16	27	0.0	1.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
26.68	28	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28.21	29	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0	
29.73	30	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30.72	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31.17	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31.38	37	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32,920 +/- 930
31.75	38	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.3	0.0	

APPENDIX 2.—Continued.

CORE S22

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
32.17	32	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
33.55	33	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
34.77	34	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35.99	35	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
36.92	39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
37.10	40	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.3	0.0	24,320 +/- 2030

APPENDIX 2.—Continued.

CORE S23		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
	41.6cm	1	60	21.5	72.5	89.4	0.9	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.01m	2	44.0	13.0	43.0	67.5	0.5	0.0	0.0	1.4	0.0	0.0	30.6	0.0	0.0	0.0	0.0
	1.46	3	87.7	3.0	9.3	91.6	1.2	0.0	0.0	4.8	0.0	0.0	2.4	0.0	0.0	0.0	0.0
	2.05	4	98.7	0.4	0.9	96.1	0.3	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.72	5	96.5	1.5	2.0	94.4	0.0	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	7.47	6	97.7	0.7	1.6	98.4	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8.54	7	97.6	0.6	1.8	93.2	0.9	0.0	0.0	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12.96	8	86.9	3.2	9.9	92.9	4.6	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S24

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
36.3cm	9	12.9	40.8	46.3	99.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.8cm	10	47.8	13.4	38.8	97.3	0.6	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
1.37m	46	97.6	1.0	1.4	97.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.11	47	98.5	0.5	1.0	99.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.86	48	94.6	2.7	2.7	99.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
7.39	11	0.6	42.2	57.2	98.1	0.0	0.0	0.0	1.6	0.0	0.0	0.3	0.0	0.0	0.0
8.93	12	0.4	22.0	77.6	89.0	3.6	0.0	0.0	5.8	0.0	0.0	1.6	0.0	0.0	0.0
10.25	13	3.8	34.4	61.8	87.6	1.4	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S24

[illegible]

APPENDIX 2.—Continued.

CORE S25

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
75.5cm	1	0.23	31.15	68.62	55.6	2.0	0.0	0.0	7.2	0.0	16.6	18.6	0.0	0.0	0.0
2.24m	2	0.32	52.23	47.46	11.6	0.0	0.0	0.0	0.0	0.0	88.4	0.0	0.0	0.0	0.0
3.16	3	23.40	42.75	33.85	54.5	1.5	4.3	0.0	7.4	0.0	0.0	0.0	32.3	0.0	0.0
3.49	4	34.15	40.80	25.05	76.7	4.5	11.9	3.4	1.3	0.0	0.5	0.0	0.26	0.0	0.0
3.77	5	0.62	46.78	52.59	86.3	3.6	0.0	0.0	0.0	0.0	5.9	2.3	0.0	0.0	0.0
5.05	6	1.35	68.32	30.33	77.9	1.1	4.6	3.0	4.3	0.0	0.3	0.0	8.3	0.0	0.0
5.55	7	7.44	61.46	31.09	56.5	0.3	10.4	13.1	6.6	0.0	0.0	0.0	1.9	2.6	0.0
6.47	8	14.07	68.91	17.02	62.4	7.4	0.0	19.5	1.2	0.0	0.0	0.0	2.1	1.8	0.0
6.92	9	16.29	51.70	32.00	42.7	0.9	14.0	29.3	7.9	0.0	0.61	0.0	1.5	0.6	0.0
7.57	10	5.33	64.95	29.72	36.5	0.33	16.1	20.4	16.8	0.0	0.66	0.0	0.66	1.33	0.0
8.51	11	0.54	63.96	35.50	50.9	0.6	6.1	21.4	9.2	0.0	0.0	0.0	2.6	4.0	0.0
9.56	12	3.22	57.24	39.54	6.3	0.26	13.2	1.8	11.6	0.0	26.8	0.0	2.63	0.79	0.0
10.49	13	0.26	43.55	56.20	55.3	0.0	0.0	0.0	7.6	0.0	0.0	0.0	1.5	20.6	0.0
11.49	14	0.73	29.74	69.52	73.7	0.7	0.0	2.5	16.2	0.0	0.0	0.0	0.0	3.9	0.0
12.02	15	73.52	7.92	18.55	95.8	0.3	0.0	0.0	0.6	0.0	0.3	0.0	0.0	0.0	0.0
13.37	16	95.03	1.21	3.77	94.2	0.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
14.12	17	16.60	17.06	66.34	65.3	2.8	0.0	0.0	4.1	0.0	0.0	0.0	0.0	17.2	0.0

APPENDIX 2.—Continued.

CORE S25

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
75.5cm	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.24m	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.16	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.49	4	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,860 +/- 90
3.77	5	0.0	1.95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.05	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	
5.55	7	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6.47	8	0.0	3.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
6.92	9	0.0	2.13	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
7.57	10	0.0	6.9	0.33	0.0	0.0	0.0	0.0	0.0	0.0	6,630 +/- 110
8.51	11	0.0	2.0	2.9	0.0	0.3	0.0	0.0	0.0	0.0	
9.56	12	0.0	7.1	29.2	0.0	0.26	0.0	0.0	0.0	0.0	
10.49	13	0.0	13.8	0.0	0.0	0.6	0.0	0.0	0.6	0.0	
11.49	14	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.02	15	0.6	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,760 +/- 100
13.37	16	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.12	17	0.3	8.8	0.9	0.0	0.0	0.0	0.0	0.6	0.0	6,210 +/- 100

APPENDIX 2.—Continued.

CORE S27

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
99cm	1	0.0	2.0	0.6	0.0	0.0	0.0	0.0	4.0	0.0	
1.16m	2	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.6	0.0	
2.41	3	0.0	3.3	4.9	0.0	0.0	0.0	0.0	1.2	0.0	3,160 +/- 120
2.69	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3	0.0	
3.45	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.24	6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.99	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.72	8	0.3	2.2	19.6	0.0	0.0	0.0	0.0	1.2	0.0	2,520 +/- 90
6.50	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,980 +/- 70
7.01	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.42	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.12	12	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.47	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9.03	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,330 +/- 90
9.24	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9.41	16	0.0	1.1	0.3	0.0	0.0	0.0	0.0	0.3	0.0	
10.52	17	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6,560 +/- 90
11.43	18	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.96	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.50	20	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S28		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
	1.11m		1	99.22	0.18	0.61	97.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.28		2	99.07	0.02	0.91	98.4	1.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
	3.81		3	69.91	3.92	26.17	97.2	0.3	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
	4.78		4	59.64	27.87	12.48	65.7	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	3.4	0.0
	5.02		5	16.50	22.21	61.28	91.6	0.3	0.0	1.2	0.0	0.0	6.9	0.0	0.0	0.0	0.0
	5.64		6	96.48	0.82	2.70	85.6	1.1	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8.38		7	96.20	1.07	2.73	88.5	0.3	0.9	6.5	0.0	0.0	0.0	0.0	0.0	0.6	0.0
	9.91		8	67.00	17.09	15.91	77.1	0.6	0.9	16.1	0.6	0.0	0.0	0.0	3.6	0.0	0.0
	11.30		9	79.19	8.57	12.23	81.1	0.9	0.3	9.8	0.0	0.0	0.0	0.0	5.2	0.0	0.0
	12.78		10	71.97	14.32	13.71	75.9	0.6	0.9	22.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	14.04		11	4.05	37.64	58.31	59.1	0.8	6.8	0.0	1.3	0.0	0.0	21.3	10.4	0.3	0.0
	15.96		12	39.77	19.21	41.02	76.2	0.8	2.4	15.5	0.0	0.0	0.0	0.0	2.4	0.6	0.0
	16.93		13	77.94	9.44	12.62	90.4	3.4	0.0	2.9	0.0	0.0	0.0	0.0	0.6	0.8	0.0
	18.10		14	1.82	34.26	63.92	19.3	0.3	6.7	0.0	13.5	0.0	0.0	7.3	7.9	6.7	0.0
	18.85		15	3.67	42.58	53.75	16.8	0.0	0.6	0.0	3.3	0.0	47.2	0.6	2.7	20.8	0.0
	19.38		16	1.24	61.91	36.86	21.1	0.0	19.5	10.4	13.6	0.0	22.2	0.0	0.6	8.0	0.0
	20.45		17	0.24	43.39	56.36	45.9	0.3	0.7	6.3	4.5	0.0	0.0	0.0	1.3	34.6	0.0
	21.92		18	0.06	36.69	63.25	65.3	0.0	0.0	4.8	4.4	0.0	0.0	0.0	0.6	3.2	0.0
	23.63		19	8.46	32.60	58.93	42.2	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	4.9	0.0
	23.74		20	78.02	9.57	12.41	68.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
	24.54		21	94.55	1.99	3.46	96.1	0.3	0.0	0.0	0.3	0.0	0.0	1.5	0.3	0.0	0.0
	26.07		22	91.11	4.39	4.51	92.1	0.6	0.0	0.0	0.3	0.0	0.0	5.5	0.0	0.0	0.0
	27.27		23	78.13	6.77	15.10	96.3	0.9	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	27.97		24	1.01	45.34	53.65	55.1	0.0	6.4	0.0	0.0	0.0	21.3	0.0	4.4	8.8	0.0
	28.43		25	12.35	30.53	57.12	82.2	3.2	0.0	0.0	0.6	0.0	0.0	0.3	1.8	0.0	0.0
	28.63		26	60.66	22.57	16.77	91.6	3.3	1.2	0.6	1.8	0.0	1.2	0.0	0.0	0.0	0.0
	31.11		27	92.61	2.68	4.71	94.4	1.6	0.6	0.0	1.9	0.0	0.6	0.6	0.0	0.0	0.0
	35.20		28	5.53	21.74	72.73	71.3	0.3	0.0	0.0	0.6	2.3	25.5	0.0	0.0	0.0	0.0
	35.99		29	88.83	4.65	6.52	90.9	3.3	0.3	0.3	4.4	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S28

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
1.11m	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.28	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.81	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.78	4	0.3	21.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.02	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,500 +/- 120
5.64	6	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.38	7	0.0	3.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
9.91	8	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11.30	9	0.0	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
12.78	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.04	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15.96	12	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16.93	13	0.0	1.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	
18.10	14	0.0	38.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8,640 +/- 110
18.85	15	0.0	6.4	1.0	0.0	0.6	0.0	0.0	0.0	0.0	
19.38	16	0.0	3.5	0.8	0.3	0.0	0.0	0.0	0.0	0.0	
20.45	17	0.0	4.7	0.7	0.0	1.0	0.0	0.0	0.0	0.0	
21.92	18	0.0	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23.63	19	2.2	38.3	0.0	0.0	0.0	0.3	0.0	0.0	0.0	7,230 +/- 80
23.74	20	3.4	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24.54	21	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.07	22	0.3	0.9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
27.27	23	0.0	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
27.97	24	0.0	2.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	
28.43	25	0.0	0.0	0.0	0.0	0.3	0.0	0.0	11.6	0.0	10,950 +/- 90
28.63	26	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
31.11	27	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
35.20	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35.99	29	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S29

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
2.31	30	10.36	33.02	56.62	73.8	0.6	0.8	2.6	3.2	0.0	0.0	0.0	1.1	2.6	0.0
3.58	31	0.12	65.80	34.08	71.8	1.5	0.6	1.5	5.2	0.0	0.0	17.6	0.6	0.6	0.0
4.70	32	1.98	64.19	33.83	60.7	1.3	27.9	4.9	0.0	0.0	5.2	0.0	0.0	0.0	0.0
5.65	33	0.32	49.46	50.22	67.6	0.3	16.8	10.1	1.6	0.0	2.7	0.0	0.0	0.0	0.0
6.90	34	0.11	63.26	36.63	73.1	0.9	2.9	9.8	2.4	0.0	1.7	0.0	7.5	0.0	0.0
7.79	35	70.26	11.37	18.36	80.6	1.9	2.6	12.9	0.3	0.0	0.0	0.0	0.3	0.3	0.0
8.59	36	16.94	42.32	40.74	65.1	0.5	2.1	15.9	0.7	0.0	0.0	0.0	0.5	3.7	0.0
11.28	37	64.78	18.84	16.38	80.9	0.8	3.4	7.8	0.0	0.5	0.0	0.0	0.0	0.3	0.0
15.24	38	75.08	9.68	15.23	76.9	1.9	1.3	14.7	1.0	0.0	0.0	0.0	0.0	0.6	0.0
18.29	39	63.10	18.76	18.13	72.9	2.2	1.7	14.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0
21.65	40	89.96	4.82	5.21	91.3	1.4	0.0	0.0	0.6	0.0	0.6	0.0	0.0	0.3	0.0
25.0	41	83.40	8.47	7.84	88.2	2.8	0.0	0.0	2.5	0.0	0.3	0.0	0.0	0.3	0.0
28.05	42	91.05	4.07	4.88	88.4	1.8	0.8	1.4	3.9	0.0	1.1	0.0	0.0	0.0	0.0
31.60	43	95.89	1.63	2.48	96.2	1.7	0.3	0.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0
35.07	44	87.61	7.76	4.63	92.2	1.6	0.6	0.0	2.7	0.0	0.3	0.0	0.0	0.0	0.0
38.12	45	90.67	4.44	4.89	88.2	4.7	0.6	2.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S30

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
30.5cm	1	96.30	0.84	2.87	87.7	10.2	0.0	1.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0
1.52m	2	86.37	10.08	3.56	85.4	1.8	0.5	10.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2.28	3	93.24	5.58	1.18	79.5	12.3	0.5	6.8	0.0	0.0	0.9	0.0	0.0	0.0	0.0
5.48	4	92.80	6.44	0.76	91.1	1.1	0.0	6.6	0.3	0.0	0.3	0.0	0.0	0.0	0.0
7.01	5	68.42	0.47	31.10	82.2	2.1	1.1	8.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0
8.38	6	59.40	16.97	23.63	81.1	0.0	1.2	14.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0
9.91	7	68.14	18.95	12.91	74.5	4.2	5.9	11.1	3.4	0.0	0.3	0.0	0.0	0.0	0.0
15.25	8	79.50	15.04	5.46	81.5	4.7	3.5	6.8	3.2	0.0	0.0	0.0	0.0	0.0	0.0
18.83	9	6.17	63.95	29.88	47.2	0.0	10.4	9.4	14.6	0.0	0.0	0.0	12.1	3.1	0.0
19.55	10	2.40	46.62	50.98	21.5	0.0	21.5	5.4	34.1	0.0	0.6	0.0	6.7	3.9	0.0
20.56	11	0.80	46.43	52.78	41.1	0.0	6.4	4.2	15.5	0.0	0.0	0.0	24.2	7.8	0.0
21.64	12	1.34	41.69	56.97	88.3	0.0	0.3	6.5	1.5	0.0	0.6	0.0	0.0	1.6	0.0
22.60	13	0.57	40.86	58.57	47.3	0.0	2.4	3.7	1.6	0.0	0.0	0.0	14.4	24.2	0.0
23.57	14	3.72	40.91	55.37	50.6	0.0	1.8	19.9	15.2	0.0	0.0	0.0	1.2	10.1	0.0
24.10	15	1.06	38.18	60.76	11.5	0.0	7.7	0.0	27.2	0.0	0.0	15.6	24.5	7.4	0.0
24.80	16	3.29	36.72	59.99	60.5	0.0	0.3	0.0	0.8	0.0	0.0	21.0	0.6	7.0	0.0
25.51	17	19.10	37.68	43.22	42.0	0.0	8.3	11.4	0.3	0.0	0.0	0.0	4.0	6.4	0.0
26.33	18	0.76	48.39	50.85	16.3	0.0	2.7	6.6	2.2	0.0	0.0	0.0	0.6	19.3	0.0
27.17	19	0.10	39.54	60.36	67.7	2.2	0.0	7.3	8.2	0.0	0.6	0.0	0.6	3.1	0.0
27.51	20	1.27	36.97	61.76	36.2	1.1	0.0	14.5	1.4	0.0	0.0	0.0	0.4	19.5	0.0
27.78	21	45.21	7.43	47.36	91.8	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.3	0.3	0.0
28.43	22	98.34	0.49	1.16	95.9	0.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0
31.26	23	97.85	0.76	1.39	95.4	1.2	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0
34.31	24	98.08	0.73	1.19	87.8	0.6	0.0	0.0	0.3	0.0	2.6	0.0	0.0	0.0	0.0
35.83	25	95.15	1.99	2.86	87.2	4.7	0.3	1.6	0.6	0.0	5.0	0.0	0.0	0.0	0.0
38.88	26	96.17	2.25	1.58	95.5	0.3	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
40.41	27	95.23	1.76	3.00	95.3	0.6	0.0	0.3	2.2	0.0	1.3	0.0	0.0	0.0	0.0
41.93	28	97.44	0.91	1.65	92.3	2.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S30

DEPTH	NO	SHLW	SHLF	OSTR	SPNG	ECHN	WRMT	INSCT	OTH	WHITE	CARBON-14
30.5cm	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.52m	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.28	3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.48	4	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.01	5	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.38	6	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9.91	7	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15.25	8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18.83	9	0.0	1.5	0.2	0.0	1.5	0.0	0.0	0.0	0.0	5,270 +/- 90
19.55	10	0.0	3.6	0.6	0.0	2.1	0.0	0.0	0.0	0.0	
20.56	11	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21.64	12	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.3	0.0	
22.60	13	0.0	2.1	0.0	0.0	4.3	0.0	0.0	0.0	0.0	5,020 +/- 110
23.57	14	0.0	0.9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
24.10	15	0.0	3.5	0.0	0.0	2.6	0.0	0.0	0.0	0.0	
24.80	16	0.0	2.2	0.0	0.0	7.6	0.0	0.0	0.0	0.0	
25.51	17	0.0	8.8	0.7	0.0	18.1	0.0	0.0	0.0	0.0	
26.33	18	0.0	7.3	0.3	0.0	44.7	0.0	0.0	0.0	0.0	8,090 +/- 120
27.17	19	0.0	2.5	0.0	0.0	7.8	0.0	0.0	0.0	0.0	
27.51	20	0.0	3.5	0.7	0.0	22.7	0.0	0.0	0.0	0.0	
27.78	21	0.6	4.3	0.0	0.0	1.9	0.0	0.0	0.0	0.0	8,040 +/- 120
28.43	22	0.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31.26	23	0.3	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
34.31	24	0.8	7.6	0.0	0.0	0.0	0.0	0.0	0.3	0.0	10,770 +/- 120
35.83	25	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
38.88	26	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
40.41	27	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
41.93	28	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S31		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	LITH	AGG	PLTM	FORB	FORP
0.3	1	4.31	49.81	45.88	52.0	4.4	4.0	0.0	2.7	7.2	20.0	0.0	0.0	0.0	0.0	0.0
1.2	2	2.30	43.97	53.74	51.0	9.8	6.3	0.0	1.7	4.0	17.2	0.0	0.0	0.0	0.0	0.0
2.4	3	3.07	46.35	50.58	73.0	3.5	15.0	0.0	1.3	1.6	1.3	0.6	0.0	0.0	0.0	0.0
3.0	4	0.06	24.07	75.87	90.0	2.7	0.3	0.0	0.0	4.1	0.6	0.0	0.0	0.0	0.0	0.0
4.6	5	0.80	27.03	72.17	7.2	2.4	0.0	0.0	0.0	0.0	88.6	0.0	0.0	0.0	0.0	0.0
4.9	6	73.54	9.92	16.54	<1.0	0.0	0.0	0.0	0.0	0.0	99.0	0.0	0.0	0.0	0.0	0.0
5.2	7	68.32	22.12	9.56	93.0	0.6	2.5	0.3	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
6.9	8	67.66	21.76	10.57	83.0	1.9	8.3	0.0	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0
7.6	9	7.22	58.39	34.38	89.0	2.0	3.9	0.0	0.8	0.0	0.3	0.0	0.0	0.0	0.0	0.0
8.2	10	0.25	57.58	42.17	74.0	3.6	0.0	0.6	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0
9.1	11	—	—	—	88.0	0.9	6.0	0.0	0.3	1.1	0.6	0.0	0.0	0.0	0.0	0.0
9.4	12	5.83	44.86	49.32	73.0	4.6	12.0	0.0	0.3	0.0	7.6	0.9	0.0	0.0	0.0	0.0
10.7	13	51.18	28.16	20.66	81.0	1.5	14.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0
11.4	14	2.94	44.48	52.58	54.0	9.6	11.0	0.8	0.0	0.0	20.0	0.6	0.0	0.0	0.0	0.0
12.0	15	2.59	59.44	37.97	45.0	18.0	18.0	2.7	0.0	0.0	5.7	1.1	0.0	0.0	0.0	0.0
12.3	16	0.50	34.92	64.59	75.0	9.6	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.6	17	2.14	42.12	55.74	79.0	3.6	14.0	0.0	0.0	0.0	2.4	0.3	0.0	0.0	0.0	0.0
14.5	18	12.89	32.92	52.89	81.0	2.6	13.0	0.0	0.0	0.0	2.0	0.3	0.0	0.0	0.0	0.0
15.5	19	19.43	41.94	38.64	72.0	3.7	18.0	0.0	0.3	0.0	1.0	0.3	0.0	0.0	0.0	0.0
16.6	20	5.14	42.56	52.30	61.0	4.5	29.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0
17.5	21	7.73	50.00	42.27	36.0	8.7	17.0	0.0	0.6	0.0	0.3	1.2	0.0	0.0	0.0	0.0
18.4	22	0.38	38.25	61.37	45.0	21.0	6.9	0.0	0.8	0.0	19.6	0.4	0.0	0.0	0.0	0.0
19.7	23	0.53	55.23	44.24	29.0	35.0	2.5	0.0	0.0	0.0	15.6	12.6	0.0	0.0	0.0	0.0
20.0	24	0.13	27.72	72.15	43.0	29.0	1.1	0.0	0.0	0.0	2.2	13.4	0.0	0.0	0.0	0.0
21.0	25	1.45	29.31	69.24	2.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0
21.6	26	0.16	33.28	66.56	38.0	6.8	0.0	0.0	0.0	0.0	1.1	46.0	0.0	0.0	0.0	0.0
22.7	27	0.35	28.70	70.96	55.0	1.4	0.0	0.0	0.0	0.0	0.0	21.5	0.0	0.0	0.0	0.0
23.5	28	0.18	32.93	66.89	12.0	2.5	0.0	0.0	0.0	0.0	0.0	34.7	0.0	0.0	0.0	0.0
24.4	29	0.22	27.67	72.11	80.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0
25.1	30	0.44	27.47	72.09	91.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
23.2	31	0.39	21.13	78.48	76.0	0.0	0.0	0.9	0.0	0.3	0.0	1.8	0.0	0.0	0.0	0.0
26.4	32	0.22	22.12	77.66	63.0	0.0	0.8	19.0	0.0	0.3	0.0	5.3	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S31

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	BRYO	PTER	DIAT	RADIO	OTH	CARBON-14
0.3	1	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	3,260 +/- 90
1.2	2	0.0	0.0	0.0	0.0	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3.9	
2.4	3	0.0	0.0	0.3	0.0	0.0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
3.0	4	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	
4.6	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
4.9	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,260 +/- 90
5.2	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
6.9	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.6	9	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.2	10	0.0	0.0	0.0	0.0	0.6	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
9.1	11	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	5,840 +/- 140
9.4	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.7	13	0.0	0.0	0.0	0.0	0.3	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0	
11.4	14	0.0	0.0	0.0	0.0	1.4	0.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.0	15	0.0	0.0	0.0	0.0	3.8	0.4	1.9	0.0	0.0	0.0	0.4	0.0	0.0	
12.3	16	0.0	0.0	0.0	0.0	0.9	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	6,590 +/- 110
13.6	17	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	
14.5	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
15.5	19	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	
16.6	20	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	
17.5	21	0.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7,650 +/- 140
18.4	22	0.0	0.0	0.0	0.0	0.8	0.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	
19.7	23	0.0	0.0	0.0	0.0	0.6	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	
20.0	24	0.0	0.0	0.0	0.0	1.6	0.0	3.5	0.0	0.0	0.0	0.0	0.0	2.4	
21.0	25	0.0	0.0	0.0	90.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21.6	26	0.0	0.0	0.0	0.0	6.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	7,850 +/- 140
22.7	27	0.0	0.0	0.6	4.3	11.6	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	
23.5	28	0.0	0.0	0.0	0.0	49.0	0.3	0.0	0.6	0.0	0.0	0.0	0.0	0.0	
24.4	29	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	
25.1	30	0.0	0.0	0.0	0.0	1.8	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	
23.2	31	0.0	0.0	0.0	0.0	4.2	0.0	0.0	12.7	0.0	0.0	0.0	0.0	0.0	7,850 +/- 140
26.4	32	0.0	0.5	0.0	0.0	9.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.8	

[illegible]

APPENDIX 2.—Continued.

CORE S32		DEPTH	NO	FORB	FORP	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	CARBON-14
0.2	1			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.5	2			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.9	3			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.8	4			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.6	5			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	
5.3	6			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.5	7			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	5,880 +/- 170
9.1	8			5.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	3.0	0.0	
10.6	9			0.0	0.0	0.0	0.0	0.0	0.0	10.0	5.0	3.0	0.0	
11.9	10			0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.8	0.0	7,100 +/- 130
12.6	11			0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	1.0	0.0	7,960 +/- 150
19.3	12			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	
20.1	13			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.7	14			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	
6.9	15			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	
11.1	16			0.0	0.0	0.0	0.0	0.0	0.7	0.2	0.0	0.0	0.0	
13.2	17			0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
14.5	18			0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	
16.0	19			0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	
17.5	20			0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	
20.8	21			0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S33

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.0	22	—	—	—	89.0	5.6	1.1	1.4	0.0	0.0	0.8	0.6	0.6	0.0	0.0
1.5	1	70.24	20.77	8.99	79.0	6.2	2.0	9.2	0.0	0.0	3.3	0.0	0.0	0.0	0.0
2.3	2	8.70	22.32	68.98	52.0	3.1	5.6	5.1	0.0	0.0	0.6	0.0	1.5	4.5	0.0
3.4	3	0.11	57.84	42.05	15.0	6.5	35.0	2.3	0.0	0.0	1.0	0.0	38.5	0.0	0.0
4.4	4	1.63	53.76	44.61	42.0	1.8	18.0	19.0	0.8	0.0	0.8	0.0	3.1	2.9	0.0
5.8	5	0.95	30.59	68.47	60.0	4.0	9.5	3.5	0.6	0.0	0.6	0.0	1.7	13.9	0.0
6.3	6	71.59	18.31	10.10	66.0	0.6	3.2	27.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
7.2	7	1.17	68.46	30.37	51.0	3.1	29.0	12.0	0.0	0.0	1.2	0.9	2.2	0.0	0.0
7.8	8	0.86	71.73	27.42	57.0	1.2	22.0	6.5	0.0	0.0	0.9	0.0	8.3	0.0	0.0
8.4	9	0.79	59.27	39.94	24.0	1.1	40.0	1.4	0.0	0.0	0.0	0.0	20.4	3.5	0.0
9.3	10	65.88	20.27	13.86	81.0	4.5	1.3	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.0	11	90.66	4.49	4.85	17.0	0.5	0.3	1.9	0.0	0.0	0.8	0.0	0.0	0.1	0.0
10.5	12	75.07	18.28	6.65	83.0	2.8	0.8	12.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0
11.7	13	26.03	53.88	20.09	78.0	3.2	1.7	15.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0
12.6	14	93.56	2.54	3.89	94.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
13.2	23	—	—	—	76.0	2.7	1.8	13.0	0.0	0.0	2.7	2.4	0.3	0.0	0.0
14.5	24	—	—	—	95.0	0.9	0.6	0.9	0.0	0.0	0.0	0.9	0.0	0.0	0.0
16.0	25	—	—	—	79.0	6.0	2.6	7.3	0.0	0.0	2.8	0.5	0.0	0.0	0.0
17.5	26	—	—	—	82.0	2.0	1.2	9.7	0.0	1.2	1.2	1.5	0.0	0.0	0.0
18.8	27	—	—	—	82.0	3.5	0.6	10.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
19.7	28	—	—	—	77.0	3.7	3.3	12.0	0.0	1.5	1.2	0.3	0.3	0.0	0.0
20.2	15	9.61	11.90	78.49	85.0	6.6	0.9	6.0	0.0	0.6	0.6	0.0	0.9	0.0	0.0
20.7	16	0.06	7.75	92.19	92.0	4.5	0.3	1.1	0.0	0.0	0.8	0.0	0.9	0.0	0.0
21.1	17	0.40	2.44	97.16	0.5	0.5	0.0	0.0	0.0	10.0	0.0	89.0	0.0	0.0	0.0
21.6	18	2.22	8.35	89.42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
22.3	19	5.71	7.46	86.83	0.0	0.0	1.0	0.0	0.0	0.0	0.0	73.0	15.0	0.0	0.0
22.8	20	0.06	9.77	90.17	98.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.8	21	71.97	14.68	13.34	83.0	6.4	0.6	4.8	0.0	0.0	2.2	0.0	0.0	0.0	0.0
24.4	29	—	—	—	93.0	2.2	0.3	2.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0
25.5	30	—	—	—	90.0	3.4	0.8	3.4	0.0	1.0	0.8	0.0	0.3	0.0	0.0

APPENDIX 2.—Continued.

CORE S34		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.5	1	95.71	1.59	2.70	96	3.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.0	10	-	-	-	95	3.5	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
2.3	11	-	-	-	97	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.8	12	-	-	-	98	1.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
5.3	13	-	-	-	89	4.0	1.1	4.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
6.9	14	-	-	-	88	2.9	1.2	4.7	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.3	0.0
8.4	15	-	-	-	88	2.4	1.8	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.8	16	-	-	-	85	3.4	2.9	5.1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.6	0.0
10.4	2	1.90	46.07	52.04	14	0.0	23.0	0.8	0.0	0.0	1.5	0.0	0.0	0.0	59.0	0.0	0.0
11.6	3	58.29	25.46	16.25	88	2.9	1.8	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
12.5	4	20.45	46.83	32.72	75	2.6	2.2	19.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
13.1	5	2.43	65.28	32.29	9.7	1.6	52.0	7.1	0.0	0.0	1.3	0.0	0.6	0.0	22.3	1.0	0.0
13.9	17	-	-	-	89	2.1	0.3	3.9	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
14.8	18	-	-	-	91	2.2	0.6	2.2	0.0	0.0	0.0	0.0	1.3	0.0	0.3	0.0	0.0
16.0	19	-	-	-	91	2.5	0.6	2.5	0.0	0.0	0.0	1.6	0.3	0.0	0.3	0.0	0.0
17.5	20	-	-	-	82	3.0	0.6	5.1	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.3	0.0
19.1	21	-	-	-	93	1.9	0.3	1.9	0.0	0.0	0.0	0.6	0.3	0.0	0.0	0.0	0.0
20.6	22	-	-	-	80	1.7	0.0	4.7	0.0	0.0	0.0	1.9	0.3	0.0	0.0	0.0	0.0
21.9	23	-	-	-	88	1.6	1.0	1.9	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0
22.6	6	33.23	23.74	43.03	93	2.5	0.0	0.6	0.0	0.0	0.0	0.0	0.3	3.1	0.0	0.0	0.0
23.6	7	10.72	8.86	80.42	94	4.9	0.3	0.3	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
24.5	8	13.21	13.34	73.46	95	2.7	0.0	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
25.1	9	14.39	13.34	72.27	92	4.8	0.0	1.8	0.0	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0
25.5	24	-	-	-	86	4.6	0.0	2.2	0.0	0.0	0.0	1.5	1.2	1.2	0.0	0.0	0.0
26.7	25	-	-	-	83	3.8	0.6	6.8	0.0	0.0	0.0	1.8	0.9	0.9	0.0	0.0	0.0
28.2	26	-	-	-	88	2.5	0.9	4.1	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0
29.7	27	-	-	-	85	4.3	0.0	1.8	0.0	0.0	0.0	4.3	1.5	0.0	0.0	0.0	0.0
31.2	28	-	-	-	84	4.0	0.9	6.5	0.0	0.0	0.0	1.9	0.9	0.3	0.0	0.0	0.0
32.8	29	-	-	-	88	2.8	0.6	2.8	0.0	0.0	0.0	3.4	0.3	0.0	0.0	0.0	0.0
34.3	30	-	-	-	87	4.2	0.6	3.6	0.0	0.0	0.0	2.5	0.6	0.6	0.0	0.0	0.0
35.8	31	-	-	-	87	4.1	0.6	3.9	0.0	0.0	0.0	1.9	0.8	0.6	0.0	0.3	0.0
37.3	32	-	-	-	90	2.7	0.0	3.9	0.0	0.0	0.0	2.1	0.9	0.6	0.0	0.0	0.0
38.9	33	-	-	-	91	1.7	0.8	1.4	0.0	0.0	0.0	4.2	0.6	0.6	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S35		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
1.7	13	-	-	-	-	-	92	3.7	0.0	3.4	0.0	0.0	0.6	0.0	0.0	0.0	0.0
2.6	14	-	-	-	-	-	93	3.3	1.2	1.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0
3.8	15	-	-	-	-	-	93	3.5	0.6	1.8	0.0	0.0	1.5	0.0	0.0	0.0	0.0
5.3	16	-	-	-	-	-	88	4.4	0.9	3.2	0.0	0.0	2.6	0.0	0.0	0.0	0.0
6.9	17	-	-	-	-	-	85	4.5	0.9	3.6	0.0	2.4	0.9	0.0	0.0	0.3	0.0
8.4	18	-	-	-	-	-	87	3.0	0.6	4.9	0.0	2.4	1.2	0.0	0.0	0.0	0.0
10.1	19	-	-	-	-	-	81	1.4	0.5	2.2	0.0	2.0	2.0	0.0	0.6	0.2	0.0
11.2	1	28.58	40.50	-	-	30.92	60	2.1	6.8	2.3	0.0	0.0	1.3	0.0	1.8	0.5	0.3
11.8	20	-	-	-	-	-	88	1.5	0.9	5.5	0.0	0.3	1.8	0.0	0.0	0.0	0.0
12.6	21	-	-	-	-	-	86	4.4	1.2	3.8	0.0	0.0	1.5	0.0	0.0	0.3	0.0
13.6	22	-	-	-	-	-	86	3.0	1.5	4.6	0.0	1.2	2.1	0.0	0.0	0.3	0.0
14.0	2	23.59	33.53	-	-	42.88	58	1.0	5.9	11.0	0.0	0.0	1.0	0.0	19.5	1.0	0.0
14.5	3	46.42	37.64	-	-	15.94	76	2.3	3.0	14.0	0.0	0.0	3.9	0.0	0.0	0.0	0.0
15.8	24	-	-	-	-	-	85	1.8	0.4	2.1	0.0	5.0	0.7	0.0	0.0	0.0	0.0
16.2	4	53.44	31.79	-	-	14.78	82	5.0	1.0	8.3	0.0	0.0	2.3	0.0	0.7	0.3	0.0
18.0	5	1.42	58.53	-	-	40.04	41	0.9	20.0	9.8	0.6	0.0	0.6	0.0	25.0	0.6	0.0
19.1	6	1.45	53.67	-	-	44.88	39	1.9	23.0	15.0	0.0	0.0	0.0	0.3	17.8	1.1	0.0
19.6	7	0.55	33.94	-	-	65.51	19	1.5	0.3	0.0	0.0	0.0	0.3	0.0	27.0	50.2	0.0
20.9	9	12.92	32.39	-	-	54.69	60	1.5	0.0	0.0	10.0	0.0	0.0	0.0	9.0	1.0	0.0
21.6	10	6.76	43.87	-	-	49.37	15	1.0	0.0	0.0	2.0	0.0	0.0	0.0	5.0	4.0	0.0
22.3	25	-	-	-	-	-	84	1.4	0.4	2.4	0.0	0.2	0.6	0.0	0.0	0.0	0.0
23.6	26	-	-	-	-	-	88	2.0	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.2	27	-	-	-	-	-	90	1.2	0.6	1.8	0.0	0.6	0.9	0.0	0.0	0.0	0.0
26.7	28	-	-	-	-	-	91	0.9	0.3	1.5	0.0	1.2	1.2	0.0	0.0	0.3	0.0
28.2	29	-	-	-	-	-	90	1.6	0.3	1.8	0.0	0.7	0.3	0.0	0.0	0.0	0.0
29.4	30	-	-	-	-	-	85	1.7	0.1	2.4	0.0	0.6	0.3	0.0	0.0	0.0	0.0
30.0	11	32.22	26.07	-	-	41.71	81	1.9	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30.3	12	38.20	41.44	-	-	20.35	85	1.8	3.2	5.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
31.1	31	-	-	-	-	-	87	2.4	0.2	1.5	0.0	0.8	0.1	0.0	0.0	0.0	0.0
32.8	32	-	-	-	-	-	90	1.1	0.3	1.9	0.0	0.9	0.5	0.0	0.0	0.1	0.0
34.3	33	-	-	-	-	-	90	2.8	0.6	4.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S36		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.0		0.0	surf	-	-	-	88	1.7	0.0	0.3	0.0	0.0	0.0	1.2	7.6	0.0	0.0
0.5		0.5	1	66.89	12.50	20.61	96	1.0	0.3	0.6	0.0	0.3	0.0	0.3	1.0	0.0	0.0
1.1		1.1	14	-	-	-	97	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.8		1.8	2	43.65	19.75	36.60	88	0.9	0.3	0.0	0.0	0.0	0.0	0.0	11.2	0.0	0.0
2.6		2.6	15	-	-	-	96	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.8		3.8	16	-	-	-	97	2.7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.3		5.3	17	-	-	-	94	2.6	0.0	1.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
6.9		6.9	18	-	-	-	91	2.2	0.0	3.1	0.0	0.0	1.6	0.0	0.0	0.0	0.0
8.4		8.4	19	-	-	-	90	2.5	0.6	4.4	0.0	0.0	1.3	0.0	0.0	0.0	0.0
9.9		9.9	20	-	-	-	80	1.9	2.5	12.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0
11.4		11.4	21	-	-	-	85	3.3	2.2	6.8	0.0	0.0	1.1	0.0	0.0	0.0	0.0
12.3		12.3	3	0.59	39.65	59.76	70	1.4	12.0	2.8	0.3	0.0	0.0	0.0	13.4	0.0	0.0
13.3		13.3	4	24.90	49.30	25.80	70	2.1	7.2	15.0	0.0	0.0	2.1	0.0	3.1	0.0	0.0
14.0		14.0	5	0.80	43.72	55.48	90	0.5	2.0	0.0	0.0	0.0	0.0	0.0	5.5	0.5	0.0
14.3		14.3	6	89.13	2.91	7.96	89	9.5	0.6	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
14.8		14.8	22	-	-	-	83	7.7	1.9	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0		16.0	23	-	-	-	97	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5		17.5	24	-	-	-	94	5.6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.1		19.1	25	-	-	-	90	7.6	0.0	1.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0
20.6		20.6	26	-	-	-	90	4.8	0.6	3.1	0.0	0.0	0.8	0.0	0.0	0.0	0.0
22.1		22.1	27	-	-	-	83	2.7	1.2	2.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0
23.6		23.6	28	-	-	-	89	3.8	0.6	3.2	0.0	0.0	1.7	0.3	0.0	0.0	0.0
24.7		24.7	29	-	-	-	94	1.4	0.6	2.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0
25.2		25.2	7	0.74	2.83	96.43	38	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
25.8		25.8	8	76.46	10.07	13.47	98	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26.7		26.7	30	-	-	-	96	3.2	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
28.2		28.2	31	-	-	-	93	1.4	0.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.7		29.7	32	-	-	-	93	3.1	0.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31.2		31.2	33	-	-	-	91	3.1	0.3	2.9	0.0	0.0	1.4	0.0	0.0	0.0	0.0
32.8		32.8	34	-	-	-	93	3.1	0.3	1.7	0.0	0.0	0.6	0.0	0.0	0.0	0.0
34.0		34.0	35	-	-	-	90	1.7	0.3	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

[illegible]

APPENDIX 2.—Continued.

CORE S37

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB
0.4	1	4.95	51.79	43.26	5.8	0.6	0.6	0.9	0.0	92.0	0.0	0.0	0.0	0.0
1.5	2	1.01	36.99	62.01	83.0	2.9	2.6	7.3	0.0	0.0	2.0	1.7	0.0	0.0
2.9	3	3.42	24.80	71.78	81.0	1.1	13.0	1.9	0.0	0.0	0.0	0.6	0.9	0.0
3.8	4	0.12	62.71	37.17	36.0	2.6	4.7	0.0	46.0	0.0	0.0	0.0	7.0	0.0
4.6	5	0.55	60.88	38.57	22.0	2.0	46.0	1.7	1.7	0.0	0.0	0.7	16.0	3.0
6.1	6	43.29	28.46	28.25	82.0	2.2	3.2	9.7	0.0	0.0	1.6	0.0	1.1	0.0
7.0	7	68.72	21.01	10.27	82.0	2.4	2.4	13.0	0.0	0.0	0.3	0.0	0.0	0.0
7.9	8	5.35	44.17	50.48	64.0	2.1	13.0	9.0	0.0	0.0	1.1	0.3	9.8	0.0
9.1	9	0.78	52.12	47.09	79.0	0.6	8.6	0.9	0.3	0.0	0.0	0.3	7.1	1.5
9.9	10	4.06	44.12	51.82	77.0	4.1	4.4	11.0	0.0	0.0	1.7	0.0	1.4	0.0
10.7	11	0.32	43.27	56.41	68.0	3.3	5.3	4.1	0.0	0.0	0.0	0.0	6.1	0.0
12.2	12	1.65	38.27	60.08	37.0	1.2	29.0	3.8	0.0	0.0	0.0	0.0	25.0	0.0
12.8	13	90.68	4.24	5.08	95.0	2.2	1.9	0.3	0.0	0.0	0.3	0.0	0.3	0.0
13.0	14	18.32	58.07	23.60	64.0	5.2	6.5	1.0	0.0	0.0	0.0	0.0	22.0	0.0
13.5	15	-	--	-	99.0	0.6	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
14.5	16	-	-	-	82.0	3.6	0.0	13.0	0.0	0.0	1.4	0.0	0.0	0.0
16.0	17	-	-	-	99.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
17.3	18	-	-	--	93.0	1.2	0.9	3.4	0.0	0.3	0.0	0.0	0.0	0.0
19.0	19	-	-	-	94.0	1.2	0.9	2.4	0.0	0.0	0.9	0.3	0.0	0.0
20.5	20	-	-	-	95.0	1.6	0.0	2.5	0.0	0.0	0.3	0.0	0.0	0.3

APPENDIX 2.—Continued.

CORE S38

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
surf	36	18.14	41.90	39.96	87.0	2.5	1.4	6.1	0.0	0.0	1.9	1.1	0.0	0.0	0.0
2.1	37	25.62	27.28	47.10	78.0	3.4	2.1	3.0	0.0	0.0	0.9	9.5	0.9	0.0	0.0
2.3	1	23.88	41.32	34.80	49.0	1.7	3.0	3.0	0.0	0.0	0.3	41.0	0.8	0.0	0.0
3.0	2	84.42	10.14	5.44	83.0	4.7	0.2	9.6	0.4	0.2	0.7	1.3	0.0	0.0	0.0
4.6	3	6.99	21.33	71.68	70.0	4.7	5.4	6.3	0.0	0.0	0.3	2.5	8.8	0.0	0.0
5.6	4	66.27	17.41	16.33	82.0	3.7	1.7	10.0	0.7	0.0	1.0	0.7	0.0	0.0	0.0
5.9	5	94.39	2.60	3.01	89.0	2.9	0.3	6.1	0.0	0.0	0.3	1.0	0.0	0.0	0.0
3.8	6	-	-	-	88.0	3.2	0.3	6.1	0.0	0.0	1.7	0.3	0.0	0.0	0.0
7.3	38	0.14	46.09	53.77	72.0	1.7	2.2	1.1	0.0	0.0	0.0	0.0	21.0	0.0	0.0
7.9	7	0.71	47.95	51.33	31.0	1.8	27.0	0.0	0.6	0.0	0.0	0.0	37.2	0.0	0.0
9.4	8	69.33	23.39	7.28	74.0	2.9	6.0	14.0	0.0	0.0	1.7	0.9	0.0	0.0	0.0
11.0	9	72.37	16.94	10.69	77.0	4.0	3.4	9.2	1.2	0.0	4.0	1.2	0.0	0.0	0.0
11.9	39	1.55	47.2	51.25	12.0	0.2	50.0	2.2	0.0	0.0	0.0	8.0	22.5	0.0	0.0
12.8	10	7.23	40.12	52.65	68.0	2.8	5.6	4.7	2.3	0.0	0.5	0.9	14.2	0.0	0.0
13.7	11	89.75	6.27	3.98	53.0	1.5	0.0	0.0	0.0	0.0	0.0	40.0	0.0	0.0	0.0
14.5	12	-	-	-	84.0	5.0	1.5	6.1	0.0	0.0	2.3	1.2	0.0	0.0	0.0
16.0	13	-	-	-	91.0	2.2	1.7	1.7	0.0	0.0	2.5	0.3	0.0	0.0	0.0
17.3	14	-	-	-	93.0	2.7	0.7	3.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0
18.6	15	10.10	30.61	59.29	77.0	2.0	0.0	0.2	0.0	0.0	0.2	21.0	0.0	0.0	0.0
19.4	40	3.19	24.06	72.75	97.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19.5	16	1.8	32.91	65.29	82.0	0.7	0.3	2.3	0.0	0.7	0.3	7.6	0.0	0.0	0.0
20.4	17	3.13	51.58	45.29	60.0	1.0	4.5	6.8	0.0	0.0	1.3	26.0	0.0	0.0	0.0
20.7	41	1.39	48.12	50.50	66.0	0.9	7.5	5.1	0.0	0.0	0.3	20.0	0.0	0.0	0.0
21.5	18	0.98	33.53	65.49	11.0	0.8	0.8	0.0	0.0	1.1	0.0	78.0	0.0	0.0	0.0
21.9	42	0.16	2.88	96.96	91.0	3.3	4.2	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
23.0	19	9.61	15.81	74.57									Insufficient Sand for Grain Count		
24.4	20	71.53	0.0	0.0	98.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.1	21	-	-	-	82.0	2.4	1.8	9.1	0.0	0.0	2.7	0.3	0.0	1.2	0.0
26.7	22	-	-	-	71.0	11.0	3.7	6.9	0.0	0.0	2.2	0.5	0.2	0.5	0.0
28.2	23	-	-	-	88.0	1.8	1.0	4.5	0.3	0.0	2.5	0.8	0.0	0.0	0.0
29.9	24	11.98	49.11	38.91	61.0	1.9	5.1	5.1	0.0	0.0	0.6	26.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S38

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
30.8	25	7.16	44.18	48.66	58.0	0.6	2.0	6.0	0.0	0.0	0.0	33.0	0.0	0.0	0.0
31.0	43	10.36	46.37	43.27	67.0	0.3	15.0	3.9	0.0	0.0	0.3	9.3	0.3	0.0	0.0
32.0	26	46.63	38.92	14.46	68.0	3.3	8.8	14.0	0.0	0.2	1.1	4.2	0.0	0.0	0.0
32.8	27	-	-	-	90.0	2.5	0.3	4.4	0.0	0.0	1.9	0.0	0.0	0.0	0.0
34.3	28	-	-	-	84.0	1.9	0.2	8.8	0.0	0.0	3.7	0.5	0.0	0.5	0.0
35.8	29	-	-	-	86.0	2.7	0.2	7.4	0.0	0.0	2.0	0.7	0.0	0.0	0.0
37.3	30	-	-	-	84.0	4.8	1.2	6.3	0.0	0.0	2.2	0.5	0.2	0.2	0.0
38.9	31	-	-	-	83.0	2.5	1.4	7.8	0.0	0.0	2.8	0.6	0.0	0.6	0.0
40.4	32	-	-	-	83.0	2.1	2.7	7.5	0.0	0.0	0.9	1.8	0.0	0.0	0.0
41.9	33	-	-	-	88.0	2.8	0.4	4.5	0.0	0.0	1.7	1.3	0.2	0.2	0.0
43.4	34	-	-	-	93.0	1.7	0.3	2.5	0.3	0.0	0.8	0.6	0.0	0.0	0.0
45.0	35	-	-	-	88.0	4.6	0.6	4.9	0.0	0.0	0.3	0.9	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S39		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.8	15	1.94	29.23	68.83	P	0.0	P	0.8	P	5.3	0.0	P	0.5	P	0.0	0.0	0.0
1.5	1	8.63	74.62	16.75	38.0	P	38.0	P	0.8	5.3	0.0	38.0	0.5	16.6	0.0	0.0	0.0
2.1	16	13.33	50.81	35.86	P	P	P	P	P	P	0.0	0.0	3.3	P	0.0	P	0.0
3.0	2	47.93	37.45	14.56	64.0	1.5	64.0	5.6	5.6	24.0	0.0	0.0	4.4	1.5	0.0	0.0	0.0
3.5	3	86.17	10.71	3.12	75.0	3.6	75.0	3.3	3.3	13.0	0.0	0.0	4.2	0.6	0.0	0.0	0.0
4.0	4	-	-	-	74.0	3.1	74.0	3.7	3.7	13.0	0.3	0.0	3.5	1.4	0.0	0.0	0.0
5.3	5	-	-	-	79.0	1.2	79.0	4.4	4.4	11.0	0.0	0.0	3.1	1.5	0.0	0.0	0.0
6.9	6	-	-	-	82.0	4.4	82.0	1.3	1.3	8.8	0.0	0.0	6.3	0.3	0.0	0.0	0.0
8.4	7	-	-	-	73.0	5.1	73.0	5.7	5.7	9.4	0.0	0.0	2.1	0.6	0.3	0.0	0.0
9.9	8	-	-	-	81.0	3.3	81.0	3.0	3.0	10.0	0.0	0.0	3.8	0.6	0.0	0.0	0.0
11.4	9	-	-	-	78.0	5.3	78.0	1.5	1.5	10.0	0.0	0.3	6.0	0.8	0.0	0.0	0.0
13.0	10	-	-	-	87.0	2.9	87.0	0.3	0.3	4.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
14.0	17	0.21	7.80	92.00	99.0	1.0	99.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14.3	11	4.40	16.06	79.54	43.0	1.7	43.0	0.7	0.7	0.7	0.0	0.0	0.0	54.0	0.0	0.0	0.0
15.2	12	68.63	20.56	10.81	96.0	2.7	96.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.0	13	-	-	-	81.0	6.4	81.0	0.5	0.5	6.7	0.0	0.0	5.2	0.0	0.0	0.0	0.0
17.5	14	-	-	-	85.0	5.1	85.0	0.3	0.3	5.1	0.0	0.0	3.5	0.9	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S41

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
surf	43	98.33	1.30	0.37	85.0	12.0	0.0	1.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0
08	1	98.92	0.69	0.39	91.0	6.7	0.0	0.9	0.0	0.0	0.9	0.3	0.0	0.0	0.0
2.3	2	99.38	0.47	0.15	95.0	2.1	0.0	0.9	0.0	0.0	1.2	0.3	0.0	0.0	0.0
3.8	3	94.85	2.37	2.79	94.0	1.5	0.3	2.7	0.0	0.6	0.0	0.3	0.0	0.0	0.0
5.3	4	97.41	0.77	1.82	89.0	3.4	0.6	4.0	0.0	1.2	0.9	0.0	0.0	0.0	0.0
6.9	5	99.31	0.21	0.48	91.0	1.1	0.8	2.3	0.0	1.7	0.3	0.3	0.0	0.3	0.0
7.8	44	92.22	3.82	3.96		Insufficient Sand for Grain Count									
7.9	6	71.79	18.34	9.87	74.0	0.6	3.0	19.0	0.0	0.3	1.8	0.3	0.0	0.0	0.0
8.2	7	98.90	0.50	0.60	84.0	4.1	0.9	6.6	0.0	0.0	1.9	0.6	0.0	0.3	0.0
8.7	45	4.51	37.83	57.66	10.0	2.2	22.0	1.2	0.3	0.0	0.0	0.0	56.8	0.0	0.0
9.1	8	55.75	31.38	12.87	89.0	2.6	2.0	4.6	0.0	0.3	0.7	0.3	0.0	0.3	0.0
9.9	9	98.06	1.13	0.80	87.0	0.9	0.3	6.6	0.3	0.3	1.8	1.2	0.0	0.0	0.0
11.4	10	97.56	1.59	0.85	80.0	1.2	0.3	11.0	0.0	1.6	3.7	0.6	0.0	0.0	0.0
13.0	11	93.35	0.61	6.04	77.0	4.8	2.0	10.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0
13.9	12	94.04	4.06	1.90	82.0	3.9	1.2	6.6	0.6	0.0	4.8	0.9	0.0	0.0	0.0
14.2	46	21.49	34.91	43.60	84.0	3.4	3.1	3.7	0.0	0.0	2.8	1.2	0.9	0.0	0.0
15.5	13	51.62	38.05	10.34	84.0	4.2	0.6	6.3	0.6	0.0	4.2	0.3	0.0	0.0	0.0
15.7	14	96.93	1.86	1.21	83.0	1.8	1.6	9.2	0.0	0.0	3.4	0.8	0.0	0.0	0.0
16.6	15	92.93	4.12	3.66	92.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
18.3	16	63.20	27.97	8.83	84.0	1.8	1.8	12.0	0.0	0.0	0.8	0.0	0.0	0.3	0.0
18.6	17	96.02	2.70	1.29	79.0	4.3	3.4	8.2	0.3	0.0	4.0	0.0	0.0	0.0	0.0
19.1	47	18.99	45.83	35.19	76.0	1.2	4.7	6.1	0.3	0.0	3.5	1.2	5.3	0.0	0.0
20.1	18	59.18	18.81	22.01	75.0	2.0	8.8	3.0	0.0	0.0	0.0	0.0	9.0	0.5	0.0
20.7	19	97.89	1.44	0.67	88.0	4.8	0.8	3.1	0.0	0.0	2.2	0.0	0.0	0.6	0.0
22.1	20	95.31	3.06	1.63	82.0	5.9	0.3	8.2	0.0	0.0	2.0	0.3	0.0	0.3	0.0
23.5	21	91.47	5.52	3.01	85.0	2.7	1.5	7.6	0.3	0.3	0.9	0.6	0.0	0.3	0.0
24.2	48	2.35	28.99	68.66		Insufficient Sand for Grain Count									
24.4	22	4.67	31.95	63.38		Insufficient Sand for Grain Count									
25.0	23	9.28	46.27	44.46	37.0	1.2	2.9	4.1	0.3	0.0	0.3	28.0	0.0	0.0	0.0
25.6	24	8.65	47.95	43.40	69.0	3.9	3.9	5.0	0.0	0.3	0.6	15.6	0.0	0.0	0.0
26.4	49	1.76	54.00	44.24	66.0	0.3	5.8	1.3	0.0	0.0	0.3	1.9	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S41

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
26.4	25	21.46	34.57	43.97	43.0	2.4	2.1	6.2	0.0	0.3	0.0	40.0	0.0	0.0	0.0
27.1	26	99.08	0.39	0.53	99.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
28.2	27	-	-	-	79.0	1.6	2.1	8.7	0.0	1.3	0.8	4.7	0.0	0.3	0.0
29.7	28	98.62	0.55	0.83	97.0	0.6	0.0	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.0
31.2	29	89.40	4.94	5.66	82.0	6.1	1.1	4.5	0.0	2.6	2.9	1.3	0.0	0.5	0.0
32.8	30	94.25	3.41	2.33	84.0	5.2	0.9	6.9	0.0	0.0	1.4	1.7	0.0	0.0	0.0
34.3	31	97.40	1.45	1.15	92.0	3.8	0.0	2.3	0.0	0.9	0.9	0.0	0.0	0.0	0.0
35.8	32	96.73	3.14	0.14	87.0	3.0	0.9	4.2	0.0	0.9	2.1	0.9	0.0	0.3	0.0
37.3	33	97.20	1.43	1.38	92.0	3.4	0.6	1.1	0.0	0.6	0.6	0.3	0.0	0.3	0.0
38.9	34	96.89	1.75	1.36	95.0	1.2	0.0	2.1	0.0	0.6	0.3	0.0	0.0	0.0	0.0
40.4	35	97.86	1.26	0.87	94.0	2.1	1.1	1.9	0.0	0.5	0.5	0.3	0.0	0.0	0.0
41.9	36	93.57	3.60	2.83	86.0	5.2	0.9	4.9	0.0	0.0	2.9	0.3	0.0	0.0	0.0
43.4	37	98.05	0.89	1.06	95.0	1.5	0.0	1.7	0.0	1.5	0.6	0.0	0.0	0.0	0.0
45.0	38	97.70	1.17	1.13	88.0	6.4	0.3	2.4	0.0	0.0	1.9	0.5	0.0	0.0	0.0
46.5	39	97.50	1.08	1.42	91.0	3.0	0.5	3.5	0.0	1.1	0.8	0.5	0.0	0.0	0.0
48.0	40	95.34	2.33	2.33	86.0	8.1	0.0	2.7	0.0	0.9	1.2	0.9	0.0	0.0	0.0
49.5	41	94.76	3.14	2.10	94.0	1.5	0.6	2.9	0.0	0.6	0.6	0.6	0.0	0.0	0.0
51.1	42	95.92	2.31	1.78	90.0	2.1	0.9	3.0	0.0	1.5	1.2	0.9	0.0	0.0	0.0

CORE S41

[illegible]

APPENDIX 2.—Continued.

CORE S42

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.0	33	99.08	0.38	0.54	64.0	33.0	0.0	1.2	0.0	0.0	1.5	0.0	0.0	0.0	0.0
1.5	1	-	-	-	85.0	12.0	0.0	1.8	0.0	0.0	1.2	0.0	0.0	0.0	0.0
2.3	2	-	-	-	91.0	0.6	0.6	3.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0
3.8	3	-	-	-	85.0	3.3	0.5	5.4	0.0	0.0	3.8	0.0	0.0	0.0	0.0
5.3	4	-	-	-	82.0	1.7	1.4	9.1	0.0	0.0	3.6	0.0	0.0	0.3	0.0
6.9	5	-	-	-	86.0	1.2	0.5	5.3	0.0	0.0	4.1	0.0	0.0	0.2	0.0
8.3	6	-	-	-	90.0	3.3	0.6	1.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0
9.8	7	-	-	-	92.0	1.6	0.3	1.1	0.0	0.0	1.9	0.0	0.0	0.0	0.0
11.4	8	-	-	-	40.0	2.0	0.0	2.0	0.0	0.0	5.0	0.0	0.0	0.5	0.0
13.1	9	-	-	-	90.0	1.8	0.0	2.4	0.0	0.0	2.1	0.0	0.0	0.6	0.0
14.7	10	-	-	-	88.0	2.6	0.5	3.3	0.0	0.0	1.0	0.0	0.0	0.5	0.0
16.0	11	-	-	-	81.0	2.1	0.5	3.7	0.0	0.0	1.0	0.0	0.0	0.0	0.0
17.5	12	-	-	-	87.0	3.5	0.0	2.9	0.0	0.0	2.9	0.0	0.0	0.5	0.0
19.1	13	-	-	-	87.0	3.5	0.8	4.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
20.1	14	-	-	-	87.0	3.6	0.0	6.0	0.0	0.0	1.3	0.0	0.3	0.5	0.0
20.7	34	13.32	45.26	41.42	73.0	1.5	6.7	7.9	0.0	0.0	2.3	1.7	3.8	2.3	0.0
21.2	15	58.47	28.07	13.46	67.0	2.5	10.0	7.3	0.0	0.0	2.5	0.5	9.4	0.0	0.0
22.0	16	-	-	-	85.0	3.6	0.0	5.9	0.0	0.0	2.8	0.0	0.0	0.3	0.0
23.1	35	11.41	38.66	49.93	40.0	3.8	13.0	0.9	0.0	0.0	0.9	2.6	34.0	0.3	0.0
23.2	17	85.86	9.03	5.11	91.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23.9	18	-	-	-	82.0	4.0	0.9	7.0	0.0	0.0	5.2	0.0	0.0	0.3	0.0
25.1	19	-	-	-	84.0	3.2	0.2	6.2	0.0	0.0	4.7	0.0	0.0	0.0	0.0
26.7	20	-	-	-	70.0	2.1	1.9	3.3	0.0	0.0	2.6	0.0	0.0	0.5	0.0
28.2	21	-	-	-	86.0	4.0	0.6	3.7	0.0	0.0	2.8	0.6	0.0	0.0	0.0
29.7	22	-	-	-	90.0	4.5	0.3	2.0	0.0	0.0	0.9	0.3	0.0	0.3	0.0
31.2	23	-	-	-	85.0	3.0	0.3	6.8	0.0	0.0	2.5	0.3	0.0	0.5	0.0
32.8	24	-	-	-	90.0	2.9	0.3	3.4	0.0	0.0	1.1	0.0	0.0	0.3	0.0
34.3	25	-	-	-	88.0	4.4	0.3	4.1	0.0	0.0	0.9	0.3	0.0	0.3	0.0
35.8	26	-	-	-	91.0	4.0	0.3	3.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0
37.3	27	-	-	-	97.0	0.3	0.0	0.0	0.0	0.0	1.0	0.0	0.3	0.3	0.0
38.9	28	-	-	-	97.0	0.3	0.6	0.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0
40.4	29	-	-	-	93.0	2.9	0.3	1.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0
41.9	30	-	-	-	96.0	1.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43.4	31	-	-	-	96.0	0.3	0.3	0.3	0.0	0.0	0.3	0.0	0.0	0.6	0.0
45.0	32	-	-	-	98.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S43

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	EVAP	LITH	AGG	PLTM	FORB	FORP
0.0	34	81.08	5.36	13.56	87.9	5.6	0.3	4.9	0.0	0.0	0.6	0.6	0.0	0.0	0.0
0.8	1	97.4	0.79	1.81	92.4	3.8	0.3	0.9	0.0	0.0	0.9	1.3	0.0	0.0	0.0
2.3	2	98.22	0.54	1.24	85.8	6.1	0.9	3.3	0.0	0.0	0.3	2.7	0.3	0.0	0.0
5.5	3	3.57	66.40	30.02	52.5	0.0	25.7	11.0	0.8	0.0	0.0	3.6	4.4	0.8	0.0
6.2	35	21.45	35.96	42.59	61.0	2.2	6.0	6.6	0.0	0.0	0.9	5.4	2.8	6.0	0.0
7.0	4	7.58	27.80	64.62	73.0	4.0	3.3	8.8	0.3	0.0	0.0	1.8	1.5	6.1	0.0
7.9	36	51.71	21.07	27.22	85.0	3.5	0.6	3.1	0.0	0.6	3.5	0.0	3.2	0.0	0.0
8.5	5	69.64	13.55	16.81	86.4	1.2	2.4	5.4	0.3	0.0	0.3	2.4	0.0	0.0	0.0
9.0	6	92.82	4.61	2.58	86.6	5.0	1.25	5.0	0.0	0.0	0.9	1.25	0.0	0.0	0.0
9.8	7	89.06	8.27	2.66	81.5	3.3	1.5	10.7	0.0	0.0	0.9	1.8	0.0	0.3	0.0
11.4	8	92.44	5.50	2.05	86.2	2.6	0.6	8.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0
13.1	37	1.41	36.06	62.53			Insufficient Sand for Grain Count								
13.7	9	3.79	30.75	65.46	52.8	1.2	0.5	3.2	1.9	0.0	0.0	38.0	0.5	0.5	0.0
14.5	10	70.41	16.89	12.71	83.3	1.3	0.96	12.0	0.3	0.96	0.0	0.96	0.0	0.0	0.0
14.9	11	88.85	8.31	2.84	91.0	4.3	0.0	3.6	0.0	0.3	0.3	0.7	0.0	0.0	0.0
16.0	12	88.36	7.63	4.00	86.0	2.2	0.6	5.8	0.0	0.6	1.0	2.2	0.0	0.0	0.0
17.5	13	94.47	3.22	2.31	91.0	2.1	1.8	1.2	0.0	0.0	1.5	0.3	0.3	0.3	0.0
18.6	14	18.96	20.98	60.06	95.0	1.9	0.6	0.9	0.0	0.6	0.0	0.0	0.0	0.0	0.0
18.9	15	88.66	7.33	4.01	94.0	5.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
19.4	16	89.48	6.66	3.86	87.0	2.5	1.3	6.7	0.0	0.6	0.3	1.0	0.3	0.0	0.0
20.6	17	95.19	2.96	1.85	91.0	3.8	0.0	3.2	0.0	0.0	0.3	0.6	0.0	0.0	0.0
22.1	18	94.81	2.95	2.24	95.0	0.3	0.7	2.3	0.0	0.0	0.0	1.3	0.0	0.0	0.0
23.6	19	98.38	0.30	1.33	91.0	2.7	0.6	3.0	0.0	0.0	1.8	0.9	0.0	0.0	0.0
24.4	20	26.02	24.82	49.16	92.0	3.7	0.9	3.1	0.0	0.0	0.3	0.3	0.0	0.0	0.0
24.8	21	88.27	4.21	7.51	94.0	6.2	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25.4	22	95.18	2.13	2.69	90.0	3.3	0.0	3.6	0.0	0.0	2.4	0.9	0.0	0.0	0.0
26.7	23	95.05	2.39	2.56	86.0	5.9	0.3	5.3	0.0	0.0	2.4	0.3	0.0	0.0	0.0
28.2	24	94.46	2.75	2.79	91.0	3.1	0.9	2.8	0.3	0.0	0.9	0.0	0.0	0.0	0.0
29.7	25	93.58	3.43	2.98	89.0	6.0	0.3	3.8	0.0	0.0	0.5	5.4	0.0	0.0	0.0
31.2	26	93.44	4.39	2.18	98.0	1.2	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.8	27	93.38	3.52	3.10	89.0	5.5	0.0	1.2	0.0	0.0	1.8	0.6	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S43		CARBON-14										
DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	BRYO	PTER	DIAT
34.3	28	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0
35.8	29	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0
37.3	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.9	31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40.4	32	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0
41.9	33	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S44

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
0.8	1	1.38	34.33	64.29	82	5.9	2.0	0.6	0.0	2.0	2.2	0.3	0.0	1.7
3.0	2	11.12	42.44	46.44	27	0.0	3.8	1.9	0.0	0.0	0.7	0.0	59.0	0.0
4.1	3	0.72	42.98	56.30	56	1.7	12.0	0.9	12.0	0.0	0.6	0.6	13.2	1.7
5.2	4	0.78	73.66	25.55	6.6	0.3	45.0	1.0	0.3	0.0	0.0	3.0	39.0	0.0
7.6	5	1.14	71.01	27.86	4.0	0.3	48.0	2.5	1.1	0.0	0.0	4.8	36.0	0.0
8.5	6	13.55	56.40	30.05	54	0.3	8.8	13.0	0.3	0.0	0.0	4.7	11.3	0.9
10.5	7	0.93	58.10	40.96	19	1.5	35.0	2.7	0.0	0.0	0.0	4.1	32.9	0.3
14.5	8	44.87	28.38	26.75	92	2.7	1.5	3.0	0.0	0.0	0.6	0.0	0.0	0.0
16.0	9	-	-	-	87	4.5	0.8	5.1	0.0	0.0	0.8	0.0	0.0	0.0
17.5	10	-	-	-	91	2.5	1.6	3.1	0.0	0.0	1.2	0.0	0.0	0.0
19.1	11	-	-	-	88	5.6	0.9	5.0	0.0	0.0	0.0	0.0	0.0	0.3
20.6	12	-	-	-	92	3.3	0.5	3.6	0.0	0.0	0.5	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S46

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
0.17	1	9.51	54.16	36.33	76.42	4.72	5.97	9.43	0.0	0.63	1.57	0.0	0.0	0.63
1.52	2	11.83	51.46	36.71	85.21	1.78	0.3	10.95	0.0	0.3	0.89	0.59	0.0	0.0
2.13	3	14.24	53.65	32.11	77.5	2.5	3.75	11.56	0.0	0.0	4.06	0.63	0.0	0.0
9.96	4	62.75	26.27	10.98	89.63	1.52	3.05	3.66	0.0	0.0	2.13	0.0	0.0	0.0
5.94	5	—	—	—	78.33	4.64	0.31	5.57	0.0	1.86	7.74	0.0	0.0	0.31
6.4	6	9.20	27.69	63.11	43.73	0.96	1.29	2.89	0.96	0.0	0.0	0.96	4.5	22.6
6.8	7	0.77	57.31	41.92	81.17	3.57	3.57	2.60	2.60	0.97	0.65	0.0	4.22	0.32
7.62	8	12.74	74.75	12.51	66.67	4.58	3.27	23.2	0.0	0.0	0.65	0.0	0.0	0.0
8.4	9	38.20	38.59	23.21	73.79	2.27	4.21	17.48	0.0	0.0	0.97	0.0	1.29	0.0
8.95	10	8.74	69.72	21.54	50.15	0.62	5.23	39.38	0.0	0.62	0.0	1.54	1.23	0.0
9.45	11	2.46	68.53	29.01	27.04	0.0	29.56	25.47	0.0	0.63	0.0	0.94	13.52	0.0
10.40	12	4.62	62.43	32.95	56.83	0.31	9.32	4.35	0.0	0.0	0.0	0.0	35.09	0.0
10.98	13	77.44	12.26	10.30	93.16	2.28	0.0	0.33	0.0	0.0	0.65	0.0	3.58	0.0
11.6	14	—	—	—	84.11	6.95	0.33	6.62	0.0	0.0	1.32	0.0	0.0	0.0
12.5	15	18.76	42.09	39.15	87.16	2.09	1.79	2.99	0.0	0.0	0.0	0.0	0.0	0.0
13.11	16	57.50	31.01	11.50	86.69	3.25	3.57	5.52	0.0	0.32	0.65	0.0	0.0	0.0
13.7	17	48.99	31.16	19.86	84.94	4.81	1.92	6.09	0.0	0.0	2.24	0.0	0.0	0.0
14.5	18	—	—	—	85.76	5.18	2.27	2.59	0.0	0.0	2.59	0.0	0.0	0.0
16	19	—	—	—	87.50	4.49	0.0	4.17	0.0	0.0	3.21	0.64	0.0	0.0
17.4	20	—	—	—	85.76	9.29	0.31	1.86	0.0	0.93	1.55	0.0	0.0	0.0
18.35	21	30.98	19.50	49.51	92.03	3.12	0.0	0.31	0.0	1.87	0.93	0.0	0.0	0.0
18.8	22	49.12	27.54	23.34	93.57	0.96	0.32	3.22	0.0	0.0	0.96	0.96	0.0	0.0
19.1	23	72.76	20.76	6.48	96.33	2.67	0.33	0.67	0.0	0.0	0.0	0.0	0.0	0.0
19.44	24	—	—	—	86.36	8.44	0.32	0.97	0.0	1.9	1.30	0.0	0.0	0.0
20.78	25	—	—	—	85.53	8.68	0.32	2.25	0.0	0.0	2.89	0.0	0.0	0.0
22.11	26	—	—	—	84.62	7.69	0.64	2.56	0.0	0.32	2.56	0.64	0.0	0.0
23.63	27	—	—	—	91.22	3.13	0.0	2.19	0.0	1.25	1.25	0.63	0.0	0.0
25.16	28	—	—	—	87.46	4.39	0.0	0.94	0.0	2.82	3.45	0.0	0.0	0.0
26.68	29	—	—	—	89.97	6.08	0.0	1.52	0.0	0.3	2.13	0.0	0.0	0.0
28.21	30	—	—	—	89.34	5.64	0.0	1.25	0.0	1.25	2.51	0.0	0.0	0.0
29.73	31	—	—	—	96.46	1.61	0.0	0.0	0.0	0.0	1.61	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S46

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
31.11	32	-	-	-	96.72	1.64	0.33	0.33	0.0	0.0	0.98	0.0	0.0	0.0
32.63	33	-	-	-	89.07	6.43	0.32	2.25	0.0	0.64	0.64	0.64	0.0	0.0
34.31	34	-	-	-	94.29	4.44	0.0	0.63	0.0	0.0	0.32	0.0	0.32	0.0
35.83	35	-	-	-	95.92	2.82	0.0	1.25	0.0	0.0	0.0	0.0	0.0	0.0
37.36	36	-	-	-	98.02	0.99	0.0	0.33	0.0	0.0	0.66	0.0	0.0	0.0
38.89	37	-	-	-	97.68	0.66	0.0	0.0	0.0	0.33	0.66	0.0	0.0	0.0
40.41	38	-	-	-	97.07	1.63	0.0	0.33	0.0	0.0	0.33	0.33	0.0	0.0
41.94	39	-	-	-	93.44	3.75	0.0	0.31	0.0	0.31	1.56	0.0	0.0	0.0
43.46	40	-	-	-	92.83	4.98	0.0	1.25	0.0	0.31	0.31	0.0	0.0	0.0
44.99	41	-	-	-	93.07	4.62	0.0	0.66	0.0	0.33	0.99	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S46		CARBON-14								
DEPTH	NO	GSHF	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	DIAT	OTH
31.11	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.63	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34.31	34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35.83	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.36	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38.89	37	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.0	0.0
40.41	38	0.0	0.0	0.0	0.33	0.0	0.0	0.0	0.0	0.0
41.94	39	0.0	0.0	0.0	0.63	0.0	0.0	0.0	0.0	0.0
43.46	40	0.0	0.0	0.31	0.0	0.0	0.0	0.0	0.0	0.0
44.99	41	0.0	0.0	0.33	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S47

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	61.48	2.65	35.86	86.00	12.33	0.0	1.33	0.0	0.0	0.0	0.0	0.0	0.0
1.46	2	95.45	0.71	3.84	86.09	11.92	0.33	0.0	1.33	0.0	0.0	0.0	0.0	0.33
1.78	39	19.20	16.65	64.15	67.00	5.67	4.00	5.00	0.0	0.0	4.67	0.0	0.67	4.34
3.05	3	75.36	12.97	11.67	68.63	2.94	6.21	20.26	0.33	0.0	0.0	0.0	0.65	0.0
3.50	4	67.38	16.15	16.47	73.36	5.59	2.3	9.87	1.31	0.0	0.0	0.0	0.99	1.32
3.97	40	12.72	19.60	67.67	74.84	1.91	5.73	4.46	0.0	0.0	0.0	0.0	6.06	2.23
5.33	5	68.32	11.13	20.55	87.42	4.3	0.0	0.99	0.0	0.0	0.0	0.0	0.0	1.55
6.25	6	89.01	5.27	5.73	83.33	9.33	2.00	4.67	0.33	0.0	0.0	0.0	0.0	0.33
6.93	7	87.60	5.90	6.49	74.67	9.54	2.63	4.60	0.0	0.0	0.0	0.0	0.99	0.99
7.63	41	43.02	32.89	24.10	75.16	1.59	3.82	18.15	0.0	0.0	0.0	0.0	0.64	0.0
8.54	8	32.09	32.73	35.18	69.54	8.94	5.3	9.6	1.65	0.0	0.0	0.0	4.3	0.0
10.06	9	26.18	41.68	32.14	73.10	10.76	5.70	2.53	0.0	0.0	0.0	0.0	3.48	0.0
10.83	42	39.45	39.17	21.39	63.92	3.08	8.54	22.78	0.0	0.0	0.0	0.0	0.63	0.0
11.59	10	19.98	46.21	33.81	70.33	11.67	6.67	0.0	2.33	0.0	0.62	0.31	3.33	0.0
12.35	43	15.36	54.43	30.21	59.63	3.73	11.49	22.36	0.0	0.0	0.0	0.0	0.62	0.0
13.11	11	8.58	54.76	36.67	59.22	4.85	10.03	15.53	1.79	0.0	0.0	0.0	2.26	0.0
13.85	44	10.91	53.41	35.68	47.49	1.47	12.98	31.56	0.0	0.0	0.0	0.0	4.13	0.0
14.64	12	1.82	55.49	42.69	27.00	3.00	29.33	17.00	0.67	0.59	9.87	0.0	13.77	0.0
16.16	13	6.37	45.78	47.84	19.08	2.63	15.13	19.41	2.96	0.0	9.87	0.0	22.03	0.0
16.99	45	12.07	51.69	36.24	13.55	0.97	20.32	3.87	13.23	0.0	0.0	32.26	12.9	0.0
17.69	14	6.76	42.36	50.88	38.74	2.98	10.93	15.89	0.66	0.0	0.0	4.3	20.19	0.0
19.25	15	1.62	43.93	54.46	35.26	0.64	24.36	10.9	2.88	0.0	0.0	0.0	16.99	0.0
20.74	16	4.69	25.43	69.88	77.07	0.0	0.0	1.59	19.11	0.0	0.0	0.0	2.23	0.0
22.11	17	8.29	70.00	21.71	43.13	0.64	0.0	0.32	0.0	0.0	0.0	45.05	0.64	0.64
22.96	46	85.22	4.81	9.97	95.39	1.32	0.0	0.33	0.0	0.0	0.66	0.0	0.0	0.0
23.18	18	7.09	39.51	53.40	77.67	2.91	7.12	11.97	0.0	0.0	0.0	0.0	0.0	0.0
24.09	19	77.77	9.87	12.36	86.35	1.27	1.9	9.20	0.63	0.0	0.64	0.0	0.0	0.0
24.70	20	10.15	31.13	58.72	83.54	2.22	2.85	9.81	0.0	0.0	1.58	0.0	0.0	0.0
25.62	21	40.83	30.53	28.65	81.23	1.94	3.56	11.65	0.0	0.0	1.62	0.0	0.0	0.0
26.53	22	6.29	48.69	45.02	71.75	2.86	9.21	14.28	0.0	0.0	1.9	0.0	0.0	0.0
27.45	23	70.65	16.39	12.96	89.39	9.00	0.0	0.63	0.0	0.0	0.99	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S47

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
28.36	24	10.12	46.54	43.34	82.08	7.5	3.58	5.86	0.0	0.0	0.98	0.0	0.0	0.0
29.28	25	24.31	43.41	32.28	69.84	16.39	5.57	7.21	0.0	0.0	0.98	0.0	0.0	0.0
29.89	26	1.08	2.77	96.15	81.09	4.81	0.0	0.64	0.0	0.0	3.2	0.0	0.0	0.0
30.80	27	33.10	29.46	37.44	82.77	4.92	1.85	0.92	0.0	0.0	0.0	0.0	0.0	0.0
31.72	28	7.06	39.08	53.86	86.69	7.74	1.54	2.79	0.0	0.0	1.24	0.0	0.0	0.0
33.09	29	0.12	28.65	71.23	91.05	3.19	0.0	3.83	0.0	0.0	1.28	0.32	0.0	0.0
34.31	30	7.86	29.85	62.29	92.06	2.54	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0
35.22	31	15.63	28.03	56.34	95.48	2.90	0.0	0.0	0.0	0.0	1.62	0.0	0.0	0.0
35.38	32	89.83	3.81	6.37	85.99	5.86	0.65	6.51	0.0	0.0	0.98	0.0	0.0	0.0
36.29	33	1.39	35.98	62.62	88.04	6.31	0.0	5.32	0.0	0.0	0.33	0.0	0.0	0.0
37.36	34	9.53	12.04	78.43	66.12	6.25	0.0	0.66	0.0	0.0	0.66	0.0	0.0	9.87
37.82	35	89.89	3.61	6.50	92.03	2.67	3.99	0.0	0.0	0.0	1.32	0.0	0.0	0.0
38.96	36	95.04	1.81	3.15	90.76	4.29	0.66	3.30	0.0	0.0	0.66	0.0	0.0	0.0
40.41	37	94.27	2.23	3.50	82.47	7.47	0.65	5.84	0.0	0.0	3.57	0.0	0.0	0.0
41.93	38	91.29	3.44	5.27	83.77	9.74	0.32	4.22	0.0	0.0	1.95	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S48

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	LITH	AGG	PLTM	FORB
surf	1	92.75	0.0	7.25	80.78	16.61	0.0	0.0	0.0	2.61	0.0	0.0	0.0
0.76	2	-	-	-	84.88	11.73	0.0	0.0	0.0	3.39	0.0	0.0	0.0
1.83	3	-	-	-	82.41	15.31	0.0	1.30	0.0	0.98	0.0	0.0	0.0
2.3	31	25.92	48.63	25.45	59.75	4.09	12.89	15.72	0.0	0.94	0.63	0.94	0.94
3.66	4	26.74	46.67	26.59	64.37	0.0	5.69	26.35	0.9	0.0	0.0	1.78	0.3
4.27	32	66.16	12.00	21.84	41.32	1.2	5.39	4.79	0.0	0.0	0.0	41.92	2.4
5.18	5	4.39	56.35	39.26	47.73	0.97	8.77	11.69	1.62	0.65	0.0	24.02	0.65
6.71	6	0.92	69.34	29.74	7.77	0.32	44.66	0.0	0.97	0.0	0.65	31.72	1.94
7.53	33	42.38	23.88	33.74	19.64	1.02	0.77	1.02	0.0	0.0	0.51	62.5	0.0
8.23	7	22.35	24.40	53.24	12.65	0.0	0.0	0.32	1.9	0.0	2.22	57.91	0.32
9.76	8	7.75	44.80	47.46	47.67	1.00	2.00	3.33	1.00	0.0	0.0	40.33	1.7
10.52	34	18.98	33.23	47.78	3.70	0.0	6.48	0.0	0.0	0.31	88.27	0.0	0.31
11.28	9	0.37	40.64	58.99	55.48	3.55	0.64	0.0	0.97	1.29	19.03	11.93	6.13
12.81	10	3.35	28.10	68.54	35.65	0.95	0.31	0.63	23.34	0.0	2.21	2.21	1.89
15.86	11	25.28	41.60	33.12	2.90	0.0	0.0	0.0	0.97	0.0	0.0	72.26	0.0
15.95	12	-	-	-	85.71	11.14	0.0	0.86	0.0	2.28	0.0	0.0	0.0
16.62	13	-	-	-	94.94	3.16	0.0	0.0	0.32	1.89	0.0	0.0	0.0
18.14	14	-	-	-	91.35	5.13	0.0	2.56	0.96	0.0	0.0	0.0	0.0
19.67	15	-	-	-	90.76	2.97	0.0	0.0	0.0	1.65	0.0	0.0	0.0
21.19	16	-	-	-	43.29	7.72	0.0	0.33	0.67	1.68	0.0	0.0	0.0
22.72	17	-	-	-	90.38	2.56	0.32	0.96	0.0	0.64	0.0	0.0	0.0
24.24	18	-	-	-	82.51	8.91	0.66	5.28	0.66	1.98	0.0	0.0	0.0
25.77	19	-	-	-	92.65	5.11	0.32	1.28	0.0	0.64	0.0	0.0	0.0
27.29	20	-	-	-	88.12	8.91	0.0	0.66	0.99	1.32	0.0	0.0	0.0
28.82	21	-	-	-	88.10	8.04	0.0	2.89	0.0	0.96	0.0	0.0	0.0
30.34	22	-	-	-	90.55	6.51	0.0	0.65	0.0	2.28	0.0	0.0	0.0
31.87	23	-	-	-	84.26	10.49	0.33	3.28	0.0	1.64	0.0	0.0	0.0
33.39	24	-	-	-	87.91	4.57	0.33	5.23	0.33	1.63	0.0	0.0	0.0
34.92	25	-	-	-	71.85	25.16	0.33	1.65	0.0	0.99	0.0	0.0	0.0
36.44	26	-	-	-	87.30	9.91	0.0	1.55	0.0	1.24	0.0	0.0	0.0
37.97	27	-	-	-	88.34	9.62	0.0	0.87	0.0	1.17	0.0	0.0	0.0
39.95	28	-	-	-	84.38	11.29	0.0	0.99	0.0	3.32	0.0	0.0	0.0
41.02	29	-	-	-	90.8	6.29	0.0	1.45	0.0	1.45	0.0	0.0	0.0
42.54	30	-	-	-	90.03	6.85	0.0	0.0	0.0	3.12	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S49

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORP
surf	1	93.15	3.38	3.46	80.25	14.97	0.32	0.64	0.0	0.0	3.82	0.0	0.0	0.0
0.76	2	-	-	-	78.79	19.62	0.0	0.0	0.0	0.0	1.58	0.0	0.0	0.0
2.28	3	-	-	-	82.82	9.81	0.0	1.23	0.0	0.0	6.13	0.0	0.0	0.0
3.81	4	-	-	-	75.08	19.09	0.0	0.65	0.0	0.0	4.53	0.0	0.0	0.0
5.33	5	-	-	-	84.02	9.58	0.0	1.60	0.0	0.0	0.0	0.0	0.0	1.28
6.2	33	2.39	61.65	35.96	34.38	1.14	21.88	20.74	0.0	0.0	0.0	0.85	17.62	0.57
7.62	6	13.82	51.71	34.37	18.79	0.91	12.42	60.91	2.42	0.0	0.0	0.0	1.82	0.61
9.15	7	2.06	60.25	37.69	23.58	0.6	31.94	36.12	0.9	0.0	0.0	0.0	2.68	0.6
10.37	8	1.45	67.07	31.47	3.35	0.0	36.89	5.79	1.83	0.0	0.0	0.0	39.63	0.61
11.28	9	3.60	66.38	30.03	5.68	0.0	15.14	0.63	8.52	0.0	0.0	0.0	61.51	0.0
12.2	10	91.82	0.30	7.88	5.16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	92.55	0.0
13.11	34	4.63	49.44	45.93	37.50	1.56	24.06	10.63	0.0	0.0	0.63	5.31	18.64	0.0
14.03	11	2.68	55.03	42.30	21.5	1.3	24.43	13.68	0.0	0.0	0.0	0.0	33.21	0.0
14.61	35	2.74	46.56	50.70	31.80	1.31	18.69	7.54	0.0	0.0	0.0	12.79	27.21	0.0
15.55	12	82.11	11.01	6.88	91.51	5.34	0.0	1.26	0.0	0.0	1.88	0.0	0.0	0.0
16.16	13	-	-	-	92.21	3.11	0.0	0.93	0.0	0.0	2.80	0.0	0.0	0.0
17.53	14	-	-	-	91.27	6.04	0.0	1.00	0.0	0.0	0.67	0.0	0.0	0.0
19.06	15	-	-	-	91.25	5.94	0.0	0.0	0.0	0.0	1.87	0.0	0.0	0.0
20.58	16	-	-	-	84.4	13.65	0.0	0.0	0.0	0.0	1.59	0.0	0.0	0.0
22.11	17	-	-	-	85.67	8.28	0.32	0.0	0.32	0.0	3.82	0.0	0.0	0.32
23.63	18	-	-	-	88.39	8.71	0.0	0.0	0.0	0.0	1.61	0.0	0.0	0.0
24.70	19	-	-	-	83.39	9.63	0.33	1.66	1.00	0.66	2.65	0.0	0.0	0.0
25.31	20	-	-	-	75.4	11.97	0.32	4.53	0.65	1.29	2.91	0.0	0.0	0.0
25.62	21	14.94	19.62	65.44	80.77	4.81	0.0	0.0	0.0	0.64	4.81	0.0	1.60	0.0
26.23	22	66.74	20.23	13.03	85.32	3.05	1.11	6.92	0.0	0.0	3.6	0.0	0.0	0.0
26.84	23	-	-	-	81.67	9.00	0.0	0.96	0.0	0.0	6.75	0.0	0.0	0.0
28.21	24	-	-	-	82.59	6.64	0.0	0.95	0.0	0.63	3.80	0.0	0.0	0.32
29.73	25	-	-	-	74.92	20.85	0.0	0.32	0.0	0.0	1.95	0.0	0.0	0.0
31.26	26	-	-	-	83.07	11.18	0.0	0.96	0.0	0.0	3.83	0.0	0.0	0.0
32.78	27	-	-	-	88.22	6.37	0.95	0.0	0.0	0.0	4.46	0.0	0.0	0.0
34.31	28	-	-	-	90.54	3.15	0.0	0.31	0.0	0.95	2.52	0.0	0.0	0.0
35.83	29	-	-	-	89.21	4.76	0.0	0.32	0.0	0.0	5.71	0.0	0.0	0.0
37.36	30	-	-	-	88.27	3.91	0.0	0.0	0.0	0.65	5.86	0.0	0.0	0.0
38.88	31	-	-	-	79.05	18.41	0.0	1.27	0.0	0.0	1.27	0.0	0.0	0.0
40.41	32	-	-	-	80.06	12.58	0.0	0.61	0.0	1.84	2.15	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S50

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	92.94	3.63	3.43	81.40	16.46	0.0	0.0	0.0	0.0	2.13	0.0	0.0	0.0
0.76	2	—	—	—	83.11	13.91	0.0	0.66	0.0	0.0	1.99	0.0	0.0	0.0
2.28	3	—	—	—	84.06	10.31	0.94	0.94	0.0	0.0	2.81	0.0	0.62	0.0
3.81	4	—	—	—	80.97	10.57	0.0	1.51	0.0	0.0	3.93	0.0	0.6	0.0
4.7	32	3.39	58.98	37.63	34.09	11.32	11.95	30.82	3.77	0.63	0.94	0.63	3.14	0.0
6.1	5	45.98	34.26	19.76	62.93	1.60	3.83	30.35	0.0	0.0	1.28	0.0	0.0	0.0
6.55	6	57.21	21.48	21.30	68.83	0.62	4.01	24.69	0.0	0.0	0.92	0.0	0.62	0.0
6.91	7	—	—	—	64.01	0.88	1.18	30.09	0.59	0.0	0.0	0.0	0.29	0.29
7.32	8	9.61	74.47	15.92	49.18	0.98	12.46	31.47	0.0	0.0	0.65	0.98	1.31	0.0
8.84	9	61.45	16.96	21.58	15.36	0.0	0.63	0.31	0.31	0.0	0.0	0.0	77.11	0.0
9.6	33	37.90	10.99	51.11	1.28	0.0	0.0	0.0	0.64	0.0	0.0	0.0	97.76	0.0
10.67	10	2.44	45.97	51.59	41.03	1.03	4.83	3.10	10.34	0.0	0.69	0.0	37.93	0.0
11.44	34	19.67	40.26	40.07	64.01	4.78	5.73	21.66	0.0	0.0	1.91	0.0	0.96	0.0
12.2	11	69.11	14.44	16.45	78.95	2.17	0.93	8.98	0.0	0.0	8.36	0.0	0.62	0.0
13.26	12	32.13	42.29	25.57	72.85	1.71	2.28	19.71	0.0	0.0	1.71	0.86	0.0	0.0
14.26	35	34.62	34.92	30.46	61.44	13.73	6.21	11.11	0.0	0.33	3.59	0.0	2.61	0.0
15.25	13	16.51	49.98	33.52	74.4	3.01	3.61	14.16	0.0	0.0	3.01	0.0	1.20	0.0
16.77	14	7.66	38.00	54.34	6.93	0.0	0.0	0.33	0.0	0.0	0.0	23.76	58.41	0.0
18.3	15	3.93	61.54	34.53	54.4	0.65	10.75	15.63	0.0	0.0	0.0	1.3	15.31	0.0
19.06	36	13.43	42.25	44.32	31.72	0.65	5.18	1.29	0.0	0.0	0.0	52.10	7.12	0.0
19.82	16	4.96	63.11	31.93	67.28	0.0	4.01	20.99	0.0	0.0	0.0	0.0	6.17	0.0
20.75	37	20.45	37.16	42.39	7.17	0.0	1.95	0.65	0.0	0.0	0.0	85.34	3.91	0.0
21.35	17	3.98	61.88	34.14	10.47	0.0	2.86	0.63	0.0	0.0	0.0	77.46	7.3	0.0
22.87	18	4.08	52.00	43.91	21.27	0.63	9.20	0.63	0.0	0.0	0.0	55.55	12.06	0.0
23	19	0.37	54.94	44.70	35.44	0.0	20.00	0.0	0.0	0.0	0.0	1.05	39.65	0.0
24.24	20	42.82	37.90	19.28	8.67	0.33	1.00	0.0	0.0	0.0	0.0	2.67	84.67	0.0
24.70	21	9.39	39.15	51.46	93.75	1.25	0.31	0.62	0.0	0.0	0.94	0.0	1.25	0.0
24.92	38	8.69	39.99	51.31	81.29	1.61	3.87	2.9	0.97	0.65	0.65	0.0	0.0	0.0
26	39	23.03	42.35	34.62	80.06	1.93	3.54	11.90	0.0	0.64	1.93	0.0	0.0	0.0
26.84	22	35.48	33.79	30.73	80.49	3.40	3.40	10.53	0.93	0.0	1.24	0.0	0.0	0.0
27.90	23	—	—	—	92.88	3.09	0.0	1.55	0.0	0.0	2.47	0.0	0.0	0.0
29.74	24	—	—	—	92.38	5.79	0.0	0.3	0.0	0.0	0.91	0.0	0.0	0.0
31.26	25	—	—	—	93.77	2.95	0.33	0.98	0.0	0.0	1.97	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S50

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
32.78	26	-	-	-	94.23	3.52	0.0	0.96	0.0	0.0	0.64	0.0	0.0	0.0
34.31	27	-	-	-	92.13	4.59	0.0	0.33	0.0	0.0	2.62	0.0	0.0	0.0
35.83	28	-	-	-	98.05	1.62	0.0	0.0	0.0	0.0	0.32	0.0	0.0	0.0
37.36	29	-	-	-	93.81	2.60	0.0	0.32	0.0	0.0	3.25	0.0	0.0	0.0
38.88	30	-	-	-	93.46	3.92	0.0	0.33	0.0	0.0	2.29	0.0	0.0	0.0
40.41	31	-	-	-	96.71	0.99	0.33	0.0	0.0	0.0	1.97	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S51		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
0.38	27	17.27	51.79	30.94	28.53	2.51	3.76	2.51	3.76	2.51	0.0	0.0	0.0	61.44	1.25	0.0
1.52	1	6.39	58.61	35.00	57.72	2.78	5.25	2.78	5.25	16.98	0.0	0.0	0.0	15.74	0.93	0.0
2.75	2	22.07	41.19	36.74	74.84	2.8	1.55	16.46	0.0	0.0	0.0	0.0	3.11	0.62	0.62	0.0
4.27	3	0.58	22.93	76.49	74.27	1.95	4.89	8.47	0.65	0.0	0.65	0.0	0.0	2.93	6.19	0.66
4.37	28	1.93	14.16	83.91	48.87	2.25	5.79	40.84	0.0	0.0	0.0	0.0	0.64	1.29	0.32	0.0
5.60	29	10.20	7.55	82.25	3.26	0.65	1.63	1.95	0.0	0.0	0.0	0.0	0.0	0.0	92.51	0.0
6.1	4	5.81	29.17	65.03	81.15	3.51	1.92	9.27	0.0	0.0	0.0	0.0	1.6	0.96	1.28	0.0
6.84	30	1.39	20.89	77.72	48.71	0.97	4.84	24.19	0.0	0.0	0.0	0.0	0.0	0.65	20.65	0.0
7.63	5	3.40	50.00	46.60	69.54	0.62	5.23	16.00	6.15	0.0	6.15	0.0	0.31	0.62	0.92	0.0
8.38	31	7.60	48.47	43.93	64.01	2.23	7.64	17.20	2.23	0.0	2.23	0.0	0.64	0.0	4.14	0.0
9.15	6	9.24	51.92	38.85	73.86	1.2	3.36	16.07	0.48	0.0	0.48	0.0	2.4	0.0	1.92	0.0
10.68	7	3.03	57.44	39.53	70.30	0.66	8.91	13.53	0.33	0.0	0.33	0.0	0.0	0.99	2.64	0.0
11.23	32	7.00	51.82	41.18	67.51	3.47	11.36	10.09	0.63	0.0	0.63	0.0	1.89	0.0	3.15	0.0
12.3	33	19.88	43.82	36.30	76.92	3.21	4.49	9.29	0.0	0.0	0.0	0.0	1.60	0.0	4.17	0.0
13.12	8	75.02	17.93	7.05	83.96	7.86	1.26	5.66	0.0	0.0	0.0	0.0	1.26	0.0	0.0	0.0
14.03	9	-	-	-	81.21	11.78	0.32	3.82	0.0	0.32	0.0	0.32	2.23	0.32	0.0	0.0
15.86	10	-	-	-	84.66	4.15	0.0	5.75	0.0	5.75	0.0	2.24	3.19	0.0	0.0	0.0
17.54	11	-	-	-	89.07	6.75	0.0	0.96	0.0	0.96	0.0	0.0	3.22	0.0	0.0	0.0
19.06	12	-	-	-	88.67	4.53	0.0	2.59	0.32	0.0	0.32	0.97	2.91	0.0	0.0	0.0
20.59	13	-	-	-	88.22	6.69	0.0	0.96	0.0	0.96	0.0	0.0	4.14	0.0	0.0	0.0
22.11	14	-	-	-	91.69	3.38	0.0	1.54	0.0	1.54	0.0	0.0	3.38	0.0	0.0	0.0
23.64	15	-	-	-	91.17	4.73	0.0	1.26	0.0	1.26	0.0	0.0	2.84	0.0	0.0	0.0
25.16	16	-	-	-	88.92	4.11	0.63	3.48	0.0	3.48	0.0	0.0	2.85	0.0	0.0	0.0
26.69	17	-	-	-	92.4	2.13	0.0	4.26	0.0	4.26	0.0	0.3	0.61	0.30	0.0	0.0
28.21	18	-	-	-	96.04	3.63	0.0	0.33	0.0	0.33	0.0	0.0	0.0	0.0	0.0	0.0
29.74	19	-	-	-	96.84	1.27	0.0	0.95	0.0	0.95	0.0	0.0	0.95	0.0	0.0	0.0
31.26	20	-	-	-	98.08	0.64	0.0	0.0	0.0	0.0	0.0	0.0	1.28	0.0	0.0	0.0
32.79	21	-	-	-	94.12	1.96	0.0	0.65	0.33	0.0	0.33	0.0	2.94	0.0	0.0	0.0
34.31	22	-	-	-	86.12	8.20	0.32	3.79	0.0	3.79	0.0	0.0	1.26	0.0	0.0	0.0
35.84	23	-	-	-	92.35	2.75	0.0	3.67	0.0	3.67	0.0	0.0	1.22	0.0	0.0	0.0
37.36	24	-	-	-	93.17	0.93	0.0	3.73	0.0	3.73	0.0	0.0	0.62	0.31	0.31	0.0
38.89	25	-	-	-	96.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.31	0.0	0.0	0.0
40.41	26	-	-	-	96.08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.92	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S51

DEPTH	NO	GSHW	GSHF	PSHF	SHLO	OSTR	SPNG	ECHN	CARBON-14
0.38	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1.52	1	0.0	0.0	0.62	0.0	0.0	0.0	0.0	
2.75	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.27	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.37	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.60	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,800 +/- 60
6.1	4	0.0	0.0	0.0	0.0	0.32	0.0	0.0	
6.84	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.63	5	0.0	0.0	0.0	0.0	0.0	0.31	0.31	
8.38	31	0.0	0.0	0.0	0.0	0.0	1.27	0.64	5,930 +/- 130
9.15	6	0.0	0.0	0.0	0.0	0.0	0.48	0.24	
10.68	7	0.0	0.0	0.0	0.0	0.0	1.98	0.66	
11.23	32	0.0	0.0	0.0	0.0	0.0	1.58	0.32	
12.3	33	0.0	0.0	0.0	0.0	0.0	0.32	0.0	6,580 +/- 110
13.12	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.03	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15.86	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17.54	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.06	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20.59	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22.11	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23.64	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25.16	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.69	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28.21	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29.74	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31.26	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
32.79	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
34.31	22	0.0	0.32	0.0	0.0	0.0	0.0	0.0	
35.84	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
37.36	24	0.31	0.31	0.0	0.31	0.0	0.0	0.0	
38.89	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
40.41	26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S52		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	PLTM	FORB
surf	1			1.59	24.24	74.18	72.40	0.97	0.65	12.99	0.0	0.97	0.65	4.22	2.92
0.3	2			2.65	27.09	70.27	67.78	4.07	3.33	4.44	0.0	0.0	6.67	4.44	2.96
1.68	29			14.10	25.89	60.01	26.54	0.65	1.94	1.29	0.65	0.0	62.78	1.29	1.62
2.29	30			53.20	6.08	40.71	5.30	0.0	0.0	0.66	0.0	0.0	0.0	90.72	0.0
3.2	3			81.39	10.77	7.84	75.16	3.27	1.96	18.30	0.0	0.65	0.65	0.0	0.0
4.73	4			70.82	16.65	12.53	80.43	3.42	0.62	12.42	0.0	2.17	0.0	0.0	0.0
6.25	5			1.09	61.71	37.20	23.58	0.0	46.86	6.60	3.14	0.31	1.26	11.63	0.62
7.09	31			4.84	54.01	41.16	42.48	1.31	9.15	1.96	1.31	0.0	18.95	16.99	0.0
7.78	6			94.06	2.84	3.10	19.29	0.64	2.57	2.25	0.0	0.0	0.0	73.95	0.0
8.03	32			40.12	18.57	41.30	31.41	0.0	0.64	0.64	0.0	0.0	0.0	66.03	0.0
9.3	7			39.97	31.03	28.99	80.19	1.28	2.56	12.46	0.0	2.56	0.32	0.64	0.0
10.00	33			54.04	23.05	22.91	76.19	6.98	5.40	9.84	0.32	0.95	0.0	0.32	0.0
10.83	8			6.20	38.15	55.65	51.18	0.89	1.18	6.8	1.48	0.59	0.0	37.87	0.0
11.97	34			11.37	10.07	78.56	63.21	3.77	1.26	0.94	5.35	0.0	2.52	22.96	0.0
12.35	9			73.00	14.49	12.51	97.06	2.61	0.0	0.33	0.0	0.0	0.0	0.0	0.0
12.9	10			-	-	-	89.34	5.02	0.31	4.08	0.63	0.63	0.0	0.0	0.0
14.5	11			-	-	-	85.44	6.65	1.58	4.43	0.32	0.95	0.32	0.0	0.0
16	12			-	-	-	83.71	5.43	0.64	9.58	0.0	0.64	0.0	0.0	0.0
17.54	13			-	-	-	91.15	3.69	0.0	2.46	0.0	2.7	0.0	0.0	0.0
19.06	14			-	-	-	89.31	4.46	0.32	2.55	0.0	2.87	0.0	0.0	0.0
20.6	15			-	-	-	87.38	5.99	0.95	4.73	0.0	0.95	0.0	0.0	0.0
22.1	16			-	-	-	89.27	5.36	0.0	4.1	0.0	1.26	0.0	0.0	0.0
23.64	17			-	-	-	88.67	5.50	0.32	3.88	0.32	1.29	0.0	0.0	0.0
25.16	18			-	-	-	86.89	5.25	0.0	3.93	0.0	3.93	0.0	0.0	0.0
26.7	19			-	-	-	86.65	4.97	5.59	0.0	0.0	2.8	0.0	0.0	0.0
28.21	20			-	-	-	87.01	8.12	0.32	2.92	0.0	0.97	0.65	0.0	0.0
29.74	21			-	-	-	92.95	5.77	0.0	0.64	0.0	0.64	0.0	0.0	0.0
31.3	22			-	-	-	87.5	9.69	0.0	0.63	0.0	2.19	0.0	0.0	0.0
32.8	23			-	-	-	90.19	6.01	0.0	0.63	0.0	3.16	0.0	0.0	0.0
34.3	24			-	-	-	88.78	6.09	0.32	3.21	0.0	1.6	0.0	0.0	0.0
35.8	25			-	-	-	90.00	5.59	0.0	3.24	0.0	1.18	0.0	0.0	0.0
37.4	26			-	-	-	89.00	7.77	0.0	2.59	0.0	0.65	0.0	0.0	0.0
38.9	27			-	-	-	87.62	6.67	0.63	2.86	0.0	2.22	0.0	0.0	0.0
40.4	28			-	-	-	87.54	7.79	0.0	2.8	0.0	1.25	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S52

DEPTH	NO	GSHW	PSHF	SHLO	OSTR	SPNG	ECHN	DIAT	OTH	CARBON-14
surf	1	0.0	0.0	0.32	2.6	0.0	0.0	0.0	1.30	
0.3	2	0.0	0.0	1.11	1.48	0.0	0.0	0.0	3.70	
1.68	29	0.0	0.0	0.65	1.29	0.32	0.0	0.0	0.97	
2.29	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.31	1,670 +/- 60
3.2	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4.73	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31	
6.25	5	0.0	1.26	0.0	1.89	1.89	0.31	0.63	0.0	3,250 +/- 100
7.09	31	0.0	0.0	0.0	0.33	6.54	0.0	0.0	0.98	
7.78	6	0.0	0.0	0.0	0.0	0.0	0.0	1.29	0.0	4,790 +/- 70
8.03	32	0.0	0.0	0.0	0.0	1.28	0.0	0.0	0.0	
9.3	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.00	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.83	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11.97	34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.35	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.9	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14.5	11	0.0	0.32	0.0	0.0	0.0	0.0	0.0	0.0	6,550 +/- 80
16	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,510 +/- 130
17.54	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19.06	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20.6	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22.1	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23.64	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25.16	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26.7	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28.21	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29.74	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
31.3	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
32.8	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
34.3	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
35.8	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
37.4	26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
38.9	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
40.4	28	0.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S53		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
	surf		1	1.62	45.02	53.36	14.02	3.12	8.41	1.87	0.0	0.0	0.0	47.98	15.27	3.43
	1.52		2	2.18	48.96	48.86	13.96	1.62	6.17	1.62	0.0	0.0	0.0	53.57	11.69	3.57
	2.29		19	5.02	25.12	69.85	66.47	4.49	2.56	1.28	2.56	0.96	0.0	0.64	20.51	0.0
	3.00		3	0.31	10.20	89.49	28.80	0.0	1.62	0.0	22.33	0.0	0.0	3.88	40.13	0.32
	3.15		20	14.36	54.72	30.93	6.31	0.66	1.33	0.66	1.33	0.0	0.0	0.0	50.16	1.00
	4.60		4	12.01	35.91	52.08	17.61	0.0	3.28	0.60	11.64	0.0	0.0	0.0	60.19	0.0
	5.19		21	9.24	57.74	33.01	66.35	2.20	5.66	18.24	6.29	0.0	0.0	0.0	0.0	0.0
	6.71		22	1.25	19.00	79.75	9.09	0.0	0.0	0.32	48.70	0.0	0.0	0.0	38.97	0.0
	7.62		5	1.94	38.55	59.52	12.10	0.32	4.14	2.55	26.43	0.0	0.0	0.64	53.19	0.0
	8.24		23	3.67	26.93	69.40	5.98	0.0	1.00	0.0	9.30	0.0	0.0	0.0	77.07	0.0
	9.15		6	56.59	14.00	29.41	6.62	0.0	0.0	0.0	1.58	0.0	0.0	1.89	89.90	0.0
	10.70		7	68.81	0.00	31.19	11.04	0.0	1.3	0.0	0.0	0.0	0.0	0.65	83.76	0.0
	10.98		24	28.56	35.81	35.63	91.96	0.96	0.96	1.61	4.18	0.0	0.32	0.0	0.0	0.0
	11.90		8	21.90	29.24	48.85	85.58	1.25	4.39	1.25	6.27	0.0	0.0	0.0	1.25	0.0
	12.66		25	0.43	46.87	52.69	91.80	1.97	0.0	0.66	0.0	0.0	0.66	0.0	1.64	0.0
	14.03		9	13.34	38.29	48.37	75.96	2.56	5.77	1.60	0.32	3.21	0.0	0.64	0.0	0.0
	14.79		26	1.47	4.86	93.67	65.27	3.54	13.50	15.76	0.32	0.0	1.61	0.0	0.0	0.0
	15.60		10	77.71	12.87	9.42	88.22	7.96	1.27	1.91	0.0	0.0	0.64	0.0	0.0	0.0
	16.16		11	-	-	-	82.75	15.02	0.32	0.32	0.0	0.0	1.6	0.0	0.0	0.0
	17.52		12	-	-	-	90.91	2.92	1.3	2.6	0.0	0.0	2.27	0.0	0.0	0.0
	19.06		13	-	-	-	88.06	8.06	0.32	2.90	0.0	0.0	0.65	0.0	0.0	0.0
	20.59		14	-	-	-	87.42	8.39	0.0	2.26	0.0	0.0	1.94	0.0	0.0	0.0
	22.11		15	-	-	-	89.00	7.12	0.32	1.62	0.0	0.0	0.0	0.65	0.0	0.0
	23.64		16	-	-	-	90.48	8.25	0.0	0.63	0.0	0.0	0.63	0.0	0.0	0.0
	25.16		17	-	-	-	88.67	8.41	0.0	0.65	0.0	0.0	0.65	0.97	0.0	0.0
	26.68		18	-	-	-	93.29	4.15	0.0	1.60	0.0	0.0	0.96	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S53

DEPTH	NO	SHLO	OSTR	SPNG	ECHN	DIAT	OTH	CARBON-14
surf	1	0.93	4.98	0.0	0.0	0.0	0.0	
1.52	2	2.92	4.87	0.0	0.0	0.0	0.0	
2.29	19	0.0	0.0	0.32	0.0	0.0	0.0	
3.00	3	0.32	0.0	2.27	0.0	0.32	0.0	
3.15	20	1.33	2.33	3.32	0.0	31.56	0.0	2,470 +/- 60
4.60	4	0.6	0.0	3.58	0.90	0.60	0.0	
5.19	21	0.31	0.0	0.63	0.0	0.31	0.0	
6.71	22	0.0	0.0	0.0	0.0	0.0	2.92	
7.62	5	0.0	0.0	0.64	0.0	0.0	0.0	
8.24	23	0.0	0.0	0.66	0.0	0.0	5.98	
9.15	6	0.0	0.0	0.0	0.0	0.0	0.0	
10.70	7	0.0	0.0	2.6	0.0	0.65	0.0	5,820 +/- 100
10.98	24	0.0	0.0	0.0	0.0	0.0	0.0	11,930 +/- 170
11.90	8	0.0	0.0	0.0	0.0	0.0	0.0	
12.66	25	0.0	0.0	0.0	0.0	0.0	3.28	
14.03	9	0.0	0.0	0.0	0.0	0.0	9.94	
14.79	26	0.0	0.0	0.0	0.0	0.0	0.0	
15.60	10	0.0	0.0	0.0	0.0	0.0	0.0	
16.16	11	0.0	0.0	0.0	0.0	0.0	0.0	
17.52	12	0.0	0.0	0.0	0.0	0.0	0.0	
19.06	13	0.0	0.0	0.0	0.0	0.0	0.0	
20.59	14	0.0	0.0	0.0	0.0	0.0	0.0	
22.11	15	0.0	0.0	0.0	0.0	0.0	1.29	
23.64	16	0.0	0.0	0.0	0.0	0.0	0.0	
25.16	17	0.0	0.0	0.0	0.0	0.0	0.65	
26.68	18	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S54

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM
surf	1	6.03	51.20	42.77	51.53	3.07	14.42	12.88	0.0	0.0	0.0	5.52	3.07
1.53	14	11.97	35.83	52.20	72.40	1.30	3.57	15.91	0.0	0.0	0.32	2.27	0.0
3.05	2	4.93	46.98	48.08	69.06	1.25	10.31	17.50	0.0	0.0	0.31	0.0	1.56
3.64	15	4.99	23.75	71.26	28.20	1.31	7.21	2.95	0.0	4.26	0.0	8.20	0.98
4.6	3	0.36	28.22	71.43	62.88	0.61	8.28	4.91	0.0	2.76	0.0	0.92	4.6
6.1	4	0.44	23.96	75.60	11.3	0.0	0.66	1.66	0.0	0.0	0.0	5.65	35.21
7.01	16	1.41	34.03	64.56	25.94	0.63	7.81	2.19	0.94	0.0	0.0	0.0	56.25
7.6	5	69.05	3.72	27.23	1.62	0.0	0.32	0.0	0.0	5.19	0.0	0.0	87.99
8.24	17	74.60	2.31	23.09	0.95	0.0	0.63	0.0	0.0	5.05	0.0	0.0	92.75
9.15	6	75.79	2.74	21.47	0.64	0.0	0.32	0.0	0.0	0.0	0.0	0.0	88.43
10.06	18	75.73	9.01	15.26	64.00	0.62	0.92	0.31	0.0	0.0	0.0	10.46	14.77
10.14	19	33.38	32.03	34.59	92.43	2.96	1.32	0.66	0.66	0.0	0.66	0.0	0.0
10.67	7	13.12	51.38	35.50	80.37	1.25	6.23	6.85	0.62	2.80	0.93	0.0	0.0
11.3	8	80.59	12.67	6.74	91.82	6.36	0.0	0.33	0.0	0.0	0.61	1.21	0.0
12.66	11	-	-	-	88.24	7.19	1.96	0.0	0.0	0.0	2.29	0.0	0.0
14.03	20	20.84	44.37	34.79	78.02	4.02	4.33	5.26	0.0	0.0	2.79	0.0	0.0
15.25	9	2.61	10.77	86.62	2.93	0.0	1.3	0.0	0.0	5.86	0.0	79.15	1.30
15.86	21	0.11	6.12	93.77	67.90	8.02	0.0	0.0	0.62	0.0	0.62	15.43	0.0
16.47	10	72.91	3.39	23.70	94.44	3.27	0.0	0.0	0.0	0.0	0.65	0.0	0.0
17.23	12	-	-	-	84.97	5.88	1.31	4.25	0.0	0.0	3.59	0.0	0.0
18.75	13	-	-	-	90.55	3.58	0.65	1.30	0.0	0.65	0.98	2.28	0.0

APPENDIX 2.—Continued.

CORE S54

DEPTH	NO	SHLO	OSTR	SPNG	GSHW	DIAT	OTH	CARBON-14
surf	1	0.31	0.0	0.31	0.0	0.92	7.98	
1.53	14	0.0	0.0	0.0	0.0	0.0	4.22	
3.05	2	0.0	0.0	0.0	0.0	0.0	0.0	
3.64	15	0.0	0.0	0.98	0.0	0.0	45.90	
4.6	3	0.0	0.0	1.84	0.0	0.0	13.19	3,080 +/- 70
6.1	4	0.0	0.0	0.0	0.0	0.0	45.51	
7.01	16	0.0	0.0	5.31	0.0	0.94	0.0	
7.6	5	0.0	0.0	0.97	0.0	0.0	3.9	
8.24	17	0.0	0.0	0.63	0.0	0.0	0.0	
9.15	6	0.32	0.0	10.29	0.0	0.0	0.0	5,990 +/- 100
10.06	18	0.31	1.54	5.23	1.85	0.0	0.0	12,310 +/- 120
10.14	19	0.0	0.0	0.0	0.0	0.0	1.32	
10.67	7	0.0	0.0	0.0	0.0	0.0	0.93	
11.3	8	0.0	0.0	0.0	0.0	0.0	0.0	
12.66	11	0.0	0.0	0.0	0.0	0.0	0.0	
14.03	20	0.0	0.0	0.0	0.0	0.0	5.57	22,820 +/- 770
15.25	9	0.0	0.0	0.0	0.0	0.0	9.44	
15.86	21	0.0	0.0	0.0	0.0	0.0	7.41	
16.47	10	0.0	0.0	0.0	0.0	0.0	1.63	
17.23	12	0.0	0.0	0.0	0.0	0.0	0.0	
18.75	13	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S55		CARBON-14						
DEPTH	NO	PSHF	SHLO	OSTR	SPNG	ECHN	OTH	
surf	1	0.0	0.32	0.0	0.0	0.0	0.0	
0.91	2	0.0	1.25	4.98	0.0	0.0	0.0	
1.83	3	0.63	0.0	0.32	0.0	0.0	0.0	
2.59	9	0.0	0.0	0.0	0.0	0.0	0.0	
3.36	16	0.0	0.0	0.0	0.0	0.0	21.47	2,420 +/- 110
4.88	4	0.0	0.0	0.0	0.0	0.0	0.0	
5.57	17	0.0	0.0	0.0	0.0	0.0	0.0	3,400 +/- 100
6.4	5	0.0	0.0	0.65	3.56	1.94	0.0	
7.02	18	0.0	0.32	0.0	0.32	0.96	0.0	4,170 +/- 90
8.08	6	0.0	0.0	0.0	0.0	0.0	0.0	
8.77	19	0.0	0.0	0.0	0.0	0.0	8.80	
9.45	7	0.0	0.0	0.0	0.0	0.0	1.25	14,120 +/- 160
9.74	20	0.0	0.32	0.0	0.0	0.0	2.86	
10.37	8	0.0	0.0	0.0	0.0	0.0	0.0	
11.28	10	0.0	0.0	0.0	0.0	0.0	0.0	
12.96	11	0.0	0.0	0.0	0.0	0.0	0.0	
14.5	12	0.0	0.0	0.0	0.0	0.0	0.0	
16.01	13	0.0	0.0	0.0	0.0	0.0	0.0	
17.54	14	0.0	0.0	0.0	0.0	0.0	0.0	
19.06	15	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S56

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	LITH	AGG	PLTM
surf	1	31.80	39.62	28.59	58.97	10.68	5.98	4.27	1.28	0.0	9.83	0.0
0.92	2	0.75	51.09	48.16	44.33	3.00	13.33	3.00	1.33	0.0	28.67	3.00
1.49	16	1.09	92.50	6.41	4.43	0.32	1.58	0.95	0.0	0.0	88.92	0.0
2.44	3	72.97	21.55	5.47	63.47	7.78	10.78	13.47	0.6	0.0	0.0	0.0
3.36	4	—	—	—	58.23	8.23	18.67	13.61	0.63	0.0	0.32	0.32
5.03	17	65.87	27.05	7.08	68.73	10.42	3.26	13.68	0.0	0.0	0.0	0.0
5.49	5	59.80	26.96	13.24	74.09	5.18	15.03	4.66	0.52	0.0	0.0	0.0
6.25	6	—	—	—	66.57	5.76	12.39	12.39	2.88	0.0	0.0	0.0
7.32	7	—	—	—	54.73	10.03	17.48	15.47	1.15	0.0	0.0	0.86
7.72	18	.75	88.91	10.35	28.25	10.16	31.75	6.03	0.0	0.0	10.48	11.11
8.58	19	28.93	58.11	12.96	35.00	12.06	17.06	25.00	0.29	0.0	0.0	7.06
9.15	8	73.82	18.96	7.22	80.78	6.91	5.11	4.2	2.1	0.0	0.9	0.0
9.91	9	—	—	—	68.86	8.08	11.98	7.78	0.0	2.1	0.0	1.2
11.44	10	—	—	—	60.50	12.71	12.71	11.88	0.83	0.0	1.38	0.0
12.96	11	—	—	—	60.59	14.41	11.76	10.59	1.47	0.29	0.59	0.0
14.49	12	—	—	—	60.31	15.08	10.15	10.77	1.54	0.0	0.31	0.62
16.01	13	—	—	—	62.87	8.97	13.17	11.98	1.2	0.0	0.6	0.6
17.54	14	—	—	—	62.45	5.73	12.89	14.04	0.57	0.0	1.15	2.59
19.06	15	—	—	—	64.65	13.6	9.4	9.4	1.8	0.6	0.0	0.6

APPENDIX 2.—Continued.

CORE S56

DEPTH	NO	GSHW	PSHW	PSHF	SPNG	ECHN	OTH	CARBON-14
surf	1	0.0	0.0	0.0	0.0	0.0	8.97	
0.92	2	0.0	0.0	0.0	0.0	0.0	3.33	
1.49	16	0.0	0.0	0.0	0.63	0.0	3.16	
2.44	3	0.0	0.0	0.0	0.0	0.0	3.89	
3.36	4	0.0	0.0	0.0	0.0	0.0	0.0	
5.03	17	0.0	0.0	0.0	0.0	0.0	3.91	
5.49	5	0.0	0.0	0.0	0.0	0.0	0.52	
6.25	6	0.0	0.0	0.0	0.0	0.0	0.0	
7.32	7	0.0	0.0	0.0	0.0	0.0	0.29	
7.72	18	0.0	0.0	0.32	0.0	0.32	1.59	
8.58	19	0.0	0.0	0.88	0.0	0.0	2.65	
9.15	8	0.0	0.0	0.0	0.0	0.0	0.0	1,490 +/- 80
9.91	9	0.0	0.0	0.0	0.0	0.0	0.0	
11.44	10	0.0	0.0	0.0	0.0	0.0	0.0	
12.96	11	0.0	0.0	0.0	0.0	0.0	0.29	
14.49	12	0.0	0.0	0.62	0.0	0.0	0.62	
16.01	13	0.3	0.0	0.3	0.0	0.0	0.0	
17.54	14	0.0	0.29	0.29	0.0	0.0	0.0	
19.06	15	0.0	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S57

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	2.86	28.28	68.86	9.8	0.65	1.31	1.63	0.0	23.20	0.0	9.80	48.04	0.0
0.56	15	2.87	27.26	69.87	37.41	2.10	3.15	4.55	8.39	23.20	0.0	3.50	9.44	2.80
1.52	2	15.08	34.36	50.57	69.87	3.81	0.32	3.85	2.88	0.0	0.32	0.0	1.92	11.86
2.44	16	4.52	26.36	69.13	44.34	2.27	4.53	5.83	6.47	0.0	0.65	0.0	18.45	6.48
3.35	3	3.30	21.66	75.05	64.29	0.62	0.93	1.55	16.46	1.86	0.0	0.0	6.52	3.73
3.97	17	2.28	28.61	69.12	70.92	3.27	8.17	4.25	6.21	0.0	0.65	0.0	5.23	0.33
4.88	4	15.02	44.58	40.40	71.09	2.06	4.72	17.70	2.95	0.0	0.0	0.59	0.88	0.0
5.40	18	0.92	23.23	75.84	38.69	0.0	6.23	1.97	19.67	0.0	0.0	0.0	31.47	0.0
6.40	5	7.48	38.44	54.09	76.47	1.31	2.29	8.17	6.86	0.0	0.0	0.98	1.96	0.65
6.86	19	2.64	13.46	83.89	0.66	0.0	0.0	0.0	28.20	0.0	0.0	0.0	69.84	0.0
7.63	20	1.81	28.71	69.48	10.78	0.0	0.0	7.52	32.03	0.0	0.0	0.0	48.7	0.33
8.84	6	8.26	6.22	85.52	3.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.00	0.0
10.37	7	21.97	16.63	61.40	2.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.43	0.0
11.49	21	8.26	34.11	57.63	2.25	0.0	1.29	0.0	0.32	0.0	0.0	0.0	94.53	0.0
12.2	8	98.61	0.40	0.99	0.99	0.0	0.0	0.0	0.0	3.64	0.0	0.0	94.7	0.0
12.97	22	41.45	33.67	24.88	42.50	3.13	0.63	0.31	1.56	0.0	0.0	0.0	0.63	0.0
13.73	9	20.97	30.74	48.29	81.88	2.50	0.31	0.94	0.31	0.0	0.0	0.0	0.63	0.0
14.64	10	60.00	20.86	19.14	94.25	2.88	0.64	2.24	0.0	0.0	0.0	0.0	0.0	0.0
15.7	11	-	-	-	90.55	1.52	0.0	4.27	0.91	0.0	0.91	0.0	0.0	0.0
18.3	12	-	-	-	88.33	6.31	0.0	2.52	0.63	0.0	0.63	0.0	0.0	0.0
19.83	13	-	-	-	86.17	5.79	0.0	1.61	0.64	0.0	1.93	0.0	0.0	0.32

APPENDIX 2.—Continued.

CORE S57

DEPTH	NO	GSHW	GSHF	PSHW	SHLO	OSTR	SPNG	ECHN	OTH	CARBON-14
surf	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.56	
0.56	15	0.0	0.0	0.0	4.20	1.40	0.0	0.0	0.0	
1.52	2	0.96	0.0	0.32	0.96	3.53	0.0	0.0	0.0	
2.44	16	0.0	0.32	0.0	6.15	4.53	0.0	0.0	0.0	
3.35	3	0.0	0.0	0.0	2.80	1.24	0.0	0.0	0.0	
3.97	17	0.0	0.0	0.0	0.0	0.65	0.33	0.0	0.0	
4.88	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5.40	18	0.0	0.0	0.0	0.0	0.0	0.33	0.0	1.64	3,630 +/- 70
6.40	5	0.0	0.0	0.0	0.65	0.65	0.0	0.0	0.0	
6.86	19	0.0	0.0	0.0	0.0	0.0	0.33	0.98	0.0	
7.63	20	0.0	0.0	0.0	0.0	0.0	0.65	0.0	0.0	
8.84	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.37	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11.49	21	0.0	0.0	0.0	0.0	0.0	1.29	0.32	0.0	
12.2	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.66	6,310 +/- 90
12.97	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.19	
13.73	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.44	13,630 +/- 100
14.64	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15.7	11	0.61	0.0	0.61	0.61	0.0	0.0	0.0	0.0	
18.3	12	0.0	0.32	0.63	0.63	0.0	0.0	0.0	0.0	
19.83	13	0.96	0.0	0.96	0.64	0.64	0.0	0.0	0.32	

APPENDIX 2.—Continued.

CORE S58

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	54.63	33.86	11.51	40.23	6.32	7.76	10.63	3.45	0.57	0.0	0.0	27.59	0.29
1.52	2	6.04	38.24	55.73	62.15	10.17	11.02	8.76	2.54	0.0	0.0	0.0	1.98	0.0
1.83	3	84.02	6.58	9.40	76.50	3.15	10.03	6.3	0.57	0.86	0.0	0.0	0.29	0.57
2.29	4	—	—	—	70.44	2.83	13.52	10.69	0.0	0.0	0.0	0.94	0.0	0.0
2.75	18	70.49	22.64	6.87	67.46	16.27	3.85	9.47	0.0	0.0	0.30	1.48	1.18	0.0
3.97	5	6.42	62.46	31.12	24.38	1.85	15.74	18.83	32.41	2.78	0.0	0.62	1.86	0.0
4.86	19	1.03	62.94	36.03	30.63	0.0	15.92	1.50	0.60	0.0	0.0	0.0	41.44	0.3
6.1	6	7.22	49.88	42.90	17.24	1.25	5.64	2.19	4.08	0.0	0.0	0.0	67.4	0.0
7.49	20	4.92	59.14	35.94	37.10	3.19	16.52	7.82	0.0	0.0	0.58	4.64	27.83	0.0
8.23	7	1.87	68.25	29.88	36.34	2.03	20.93	11.05	1.45	0.87	0.0	0.0	20.35	1.16
9.15	8	2.97	59.08	37.95	51.12	5.34	20.27	15.73	0.84	1.97	0.0	0.0	3.09	0.0
9.28	21	3.97	52.87	43.16	35.80	3.40	20.06	7.72	0.31	0.0	0.0	0.31	25.0	0.62
9.62	22	0.50	56.06	43.44	19.30	0.95	5.70	0.95	0.32	0.0	0.0	0.0	63.29	0.0
9.84	23	2.99	40.12	56.89	5.88	0.0	0.62	0.31	3.10	0.62	0.0	0.0	87.0	0.0
10.67	9	87.32	1.44	11.23	5.32	0.28	1.12	0.28	0.0	0.56	0.0	0.0	92.15	0.0
11.31	24	1.85	46.68	51.47	2.39	0.0	0.0	0.24	0.0	0.0	0.0	0.0	83.25	0.0
12.20	10	62.67	16.38	20.95	9.46	0.0	0.57	0.86	0.0	0.0	0.0	0.0	88.25	0.0
12.65	25	14.81	48.13	37.06	38.90	1.15	8.65	4.32	3.17	0.0	0.0	0.0	34.3	2.88
13.72	11	59.44	26.91	13.65	53.54	6.23	15.86	20.40	0.85	1.13	0.0	0.0	1.41	0.0
14.49	26	1.88	72.17	25.95	37.38	0.96	20.13	9.27	0.0	0.0	0.0	0.32	22.8	0.0
15.25	12	48.41	34.72	16.87	51.30	5.73	17.97	20.31	0.52	1.56	0.0	0.0	1.56	0.0
15.97	27	2.83	62.27	34.90	29.54	2.15	11.69	6.77	0.0	0.0	0.0	12.31	33.85	0.0
16.77	13	66.14	24.14	9.72	54.97	5.28	19.57	15.53	0.0	2.48	0.0	0.0	0.62	0.0
17.54	14	—	—	—	71.48	3.61	11.15	10.49	0.0	0.0	0.0	0.33	0.99	0.0
19.06	15	—	—	—	66.87	3.04	15.20	10.33	0.91	0.0	0.0	0.61	0.3	0.0
20.59	16	—	—	—	63.77	3.89	14.37	11.68	0.6	0.6	0.0	0.6	0.6	0.0
22.11	17	—	—	—	67.33	3.41	14.49	11.65	1.14	0.0	0.0	0.28	0.57	0.0

APPENDIX 2.—Continued.

CORE S59

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
surf	1	95.66	0.69	3.65	31.57	44.44	2.02	7.83	14.14	0.0	0.0	0.0	0.0	0.0	0.0
0.61	2	—	—	—	74.28	7.51	10.12	7.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.83	3	—	—	—	62.65	15.43	9.57	8.95	3.4	0.0	0.0	0.0	0.0	0.0	0.0
3.20	4	—	—	—	74.37	6.69	10.03	7.80	0.84	0.0	0.0	0.0	0.0	0.0	0.0
4.73	5	—	—	—	44.47	34.12	6.59	8.0	6.82	0.0	0.0	0.0	0.0	0.0	0.0
6.25	6	—	—	—	50.90	15.27	13.47	18.86	1.2	0.0	0.0	0.0	0.0	0.0	0.0
7.78	7	—	—	—	49.86	6.52	14.73	26.06	2.55	0.0	0.0	0.0	0.0	0.0	0.0
9.30	8	—	—	—	46.32	7.36	15.80	26.70	3.27	0.0	0.0	0.0	0.54	0.0	0.0
10.83	9	—	—	—	54.73	17.16	9.17	16.86	2.07	0.0	0.0	0.0	0.0	0.0	0.0
11.89	31	0.18	47.54	52.28	43.22	5.36	3.79	9.46	3.79	0.0	0.0	0.0	30.6	0.95	0.0
13.12	10	0.67	47.55	51.78	45.48	20.70	10.79	7.29	11.37	0.0	0.0	0.0	2.62	0.58	0.0
14.07	32	0.30	37.64	62.06	42.43	31.16	1.78	4.75	2.08	0.0	0.0	0.3	4.45	11.27	0.0
14.64	11	20.64	59.89	19.47	9.12	7.12	20.23	40.17	1.42	0.85	0.0	0.0	0.57	5.70	0.85
16.17	12	0.99	44.78	54.23	8.57	10.78	37.26	5.57	2.36	0.0	0.0	0.0	13.49	5.78	0.21
17.31	33	0.51	35.59	63.90	31.48	5.01	7.24	8.64	0.56	1.11	0.0	0.0	42.07	1.95	0.0
17.69	13	52.16	35.18	12.66	71.06	6.11	12.54	8.68	0.0	0.0	0.0	0.0	0.0	0.32	0.0
18.30	14	61.36	19.15	19.49	76.81	6.02	10.24	6.33	0.30	0.0	0.0	0.0	0.0	0.30	0.0
19.06	15	—	—	—	48.71	18.62	10.89	15.19	6.02	0.0	0.0	0.0	0.0	0.0	0.0
20.59	16	—	—	—	40.17	23.88	12.08	14.61	9.27	0.0	0.0	0.0	0.0	0.0	0.0
22.11	17	—	—	—	45.86	14.01	15.92	19.11	5.10	0.0	0.0	0.0	0.0	0.0	0.0
23.64	18	—	—	—	49.25	18.66	9.70	13.93	6.97	0.0	0.0	0.0	0.0	0.0	0.0
25.16	19	—	—	—	44.84	20.42	11.03	13.62	8.92	0.0	0.0	0.0	1.17	0.0	0.0
26.69	20	—	—	—	43.73	24.79	9.75	12.53	8.91	0.0	0.0	0.0	0.0	0.0	0.0
27.69	34	1.13	52.24	46.63	40.38	6.41	3.85	5.45	0.0	0.0	0.64	0.0	41.99	0.0	0.0
27.76	21	83.00	8.68	8.32	69.41	10.00	7.35	9.41	3.82	0.0	0.0	0.0	0.0	0.0	0.0
28.37	22	—	—	—	39.10	22.69	11.97	14.46	10.72	0.0	0.0	0.0	0.0	0.0	0.0
29.74	23	—	—	—	45.74	13.88	11.04	13.56	14.83	0.0	0.0	0.0	0.0	0.0	0.0
31.26	24	—	—	—	55.59	14.50	12.99	13.29	3.02	0.0	0.0	0.0	0.0	0.0	0.0
32.79	25	—	—	—	44.57	26.98	7.33	9.97	10.85	0.0	0.0	0.0	0.0	0.0	0.0
34.31	26	—	—	—	39.47	30.40	5.87	7.73	15.20	0.53	0.0	0.0	0.0	0.0	0.0
35.84	27	—	—	—	62.30	10.70	9.63	9.89	5.88	0.27	0.0	0.0	0.0	0.0	0.0
37.36	28	—	—	—	55.56	7.50	12.78	17.78	2.50	0.56	0.0	0.0	2.78	0.0	0.0
38.89	29	—	—	—	48.90	17.03	5.49	17.03	9.34	0.82	0.0	0.0	0.82	0.0	0.0
40.41	30	—	—	—	52.80	13.66	8.07	17.39	5.28	1.24	0.0	0.0	0.62	0.0	0.0

		DEPTH	NO	GSHW	GSHF	PSHF	PSHF	SHLO	OSTR	SPNG	ECHN	BRYO	DLAT	OTH	CARBON-14
	surf	1		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.61	2		0.0	0.0	0.0	0.29	0.0	0.0	0.0	0.0	0.0	0.0	0.58	
	1.83	3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	3.20	4		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.28	
	4.73	5		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	6.25	6		0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	7.78	7		0.0	0.0	0.28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	9.30	8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	10.83	9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	11.89	31		0.0	0.0	0.0	0.0	0.0	0.0	0.63	0.63	0.0	0.0	1.58	3,140 +/- 100
	13.12	10		0.0	0.0	0.0	0.29	0.0	0.0	0.0	0.0	0.0	0.0	0.87	
	14.07	32		0.0	0.0	0.0	0.0	1.48	0.0	0.3	0.0	0.0	0.0	0.0	
	14.64	11		0.85	0.0	0.85	0.28	0.0	1.42	0.57	4.84	1.99	0.0	3.13	
	16.17	12		0.21	0.64	0.0	0.0	0.0	0.64	7.71	3.21	1.50	0.43	2.14	
	17.31	33		0.0	0.0	0.0	0.0	0.84	0.0	0.28	0.0	0.0	0.0	0.84	3,560 +/- 80
	17.69	13		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.29	
	18.30	14		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	19.06	15		0.0	0.0	0.0	0.57	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	20.59	16		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	22.11	17		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	23.64	18		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.49	
	25.16	19		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	26.69	20		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.28	0.0	0.0	0.0	
	27.69	34		0.0	0.0	0.0	0.0	0.0	0.0	0.64	0.0	0.0	0.0	0.64	9,110 +/- 120
	27.76	21		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	28.37	22		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.75	
	29.74	23		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.95	
	31.26	24		0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	
	32.79	25		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.29	0.0	0.0	0.0	
	34.31	26		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	
	35.84	27		0.0	0.0	0.0	0.27	0.0	0.0	0.0	0.27	0.0	0.0	0.8	
	37.36	28		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.56	
	38.89	29		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.55	
	40.41	30		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.93	

APPENDIX 2.—Continued.

CORE S60

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MCA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
0.0	1	38.71	37.39	23.90	54.60	9.82	11.35	10.74	1.53	1.53	0.0	0.0	7.66	0.0
1.53	2	29.83	52.78	17.39	43.15	7.14	18.45	22.02	0.60	3.57	0.0	0.89	0.30	0.0
1.83	3	14.92	67.69	17.39	49.38	1.85	20.68	22.22	1.85	1.85	0.0	0.0	0.0	0.0
2.44	4	-	-	-	59.31	4.42	11.67	17.98	2.52	0.0	0.0	0.0	0.95	0.0
3.81	5	-	-	-	58.04	5.99	10.09	18.93	5.36	0.0	0.0	0.0	0.63	0.0
5.03	6	-	-	-	46.11	4.98	12.46	27.73	2.49	2.49	0.0	0.0	1.86	0.0
5.57	23	4.44	23.89	71.67	14.67	1.97	3.40	2.86	0.36	0.36	0.0	0.0	74.42	0.18
6.51	24	51.00	32.55	16.45	5.14	0.64	1.29	0.0	0.0	0.0	0.0	0.0	92.61	0.0
7.63	7	1.25	30.38	68.36	14.61	0.0	0.9	3.82	11.46	0.45	0.0	0.0	68.77	0.0
8.47	25	4.53	77.34	18.12	11.04	1.3	2.6	1.3	0.0	0.0	0.0	0.0	73.70	0.0
9.15	8	34.57	35.97	29.47	15.99	0.58	2.03	2.33	0.0	2.91	0.0	0.0	75.58	0.0
9.30	26	2.18	42.51	55.31	10.80	1.08	2.16	2.81	4.75	0.22	0.0	0.0	73.86	1.29
10.67	9	13.54	23.64	62.82	3.94	0.26	0.52	0.79	1.57	0.52	0.0	0.0	91.86	0.0
10.84	27	3.32	38.02	58.66	10.70	1.41	0.85	2.25	2.54	0.0	0.0	0.0	76.62	3.10
11.70	28	1.08	31.25	67.67	26.46	1.41	5.15	5.85	0.0	0.70	0.0	0.0	59.62	0.0
12.20	10	59.90	28.75	11.35	62.85	3.41	8.05	20.43	1.24	1.55	0.0	0.0	0.31	0.0
12.96	11	-	-	-	54.15	5.73	9.74	18.91	4.01	1.43	0.0	0.0	0.57	0.0
14.49	12	-	-	-	61.38	7.20	8.07	17.58	2.88	0.0	0.0	0.0	0.86	0.0
16.01	13	-	-	-	61.19	5.38	9.92	17.0	0.85	1.13	0.0	0.0	1.14	0.0
17.54	14	-	-	-	69.11	7.07	6.28	12.30	1.31	1.57	0.0	0.52	0.79	0.26
19.06	15	-	-	-	58.94	6.45	9.68	14.96	5.28	0.29	0.0	0.88	0.88	0.59
20.59	16	-	-	-	68.55	4.45	5.34	16.62	1.48	0.0	0.59	0.0	1.49	0.0
22.11	17	-	-	-	70.55	7.98	5.52	11.04	0.92	0.92	0.0	0.0	0.31	0.0
23.64	18	-	-	-	77.33	3.73	4.97	10.56	1.55	0.31	0.0	0.0	0.31	0.0
25.16	19	-	-	-	82.08	6.60	4.72	4.40	0.94	0.0	0.0	0.0	0.0	0.0
26.69	20	-	-	-	63.95	8.15	8.46	14.42	2.19	0.0	0.0	0.0	0.63	0.31
28.21	21	-	-	-	68.06	5.28	10.83	14.44	0.83	0.0	0.0	0.0	0.28	0.0
29.71	22	-	-	-	68.35	7.84	12.89	8.68	0.56	0.0	0.0	0.0	0.84	0.28

APPENDIX 2.—Continued.

CORE S60

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	DIAT	OTH	CARBON-14
0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.76	
1.53	2	0.0	0.0	0.0	0.0	0.0	0.0	0.89	0.0	0.0	2.98	
1.83	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.16	
2.44	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.15	
3.81	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.95	
5.03	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.87	
5.57	23	0.0	0.0	0.18	0.18	1.43	0.0	0.0	0.0	0.0	0.0	
6.51	24	0.0	0.0	0.0	0.0	0.32	0.0	0.0	0.0	0.0	0.0	
7.63	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.47	25	0.0	0.0	0.0	0.0	0.0	0.0	9.09	0.0	0.97	0.0	
9.15	8	0.0	0.0	0.0	0.0	0.58	0.0	0.0	0.0	0.0	0.0	
9.30	26	0.0	0.0	1.08	0.0	0.0	0.22	0.65	0.22	0.86	0.0	4,760 +/- 110
10.67	9	0.0	0.0	0.0	0.0	0.0	0.0	0.52	0.0	0.0	0.0	
10.84	27	0.0	0.0	0.56	0.0	0.0	0.0	0.0	0.28	0.28	1.41	
11.70	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.47	0.23	0.0	
12.20	10	0.0	0.0	0.0	0.0	0.0	0.0	0.93	0.0	0.0	1.24	
12.96	11	0.57	0.29	0.57	0.0	0.86	2.01	0.0	0.0	0.0	1.15	
14.49	12	0.29	0.0	0.29	0.0	0.29	0.29	0.0	0.0	0.29	0.58	
16.01	13	0.0	0.28	0.28	0.57	0.0	0.57	0.28	0.0	0.28	1.13	
17.54	14	0.26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.52	
19.06	15	0.0	0.0	0.29	0.0	0.0	0.0	0.29	0.29	0.29	0.88	
20.59	16	0.0	0.0	0.0	0.0	0.3	0.59	0.0	0.0	0.0	0.59	
22.11	17	0.0	0.0	0.31	0.0	0.31	0.31	0.0	0.0	0.0	1.84	
23.64	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.24	
25.16	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.26	
26.69	20	0.0	0.0	0.0	0.0	0.31	0.0	0.0	0.0	0.31	1.25	
28.21	21	0.0	0.0	0.0	0.0	0.28	0.0	0.0	0.0	0.0	0.0	
29.71	22	0.0	0.0	0.0	0.0	0.28	0.28	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S61

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	9.15	31.95	58.90	77.39	2.32	5.22	2.9	0.58	0.0	0.0	0.58	3.19	0.58
1.22	2	0.81	39.04	60.15	46.20	4.75	11.39	8.86	0.63	0.0	0.0	4.11	4.75	1.59
3.05	3	2.80	16.28	80.92	61.54	3.13	3.37	1.68	0.0	0.0	0.0	0.0	1.44	12.74
4.57	4	2.55	37.15	60.29	28.40	1.54	10.49	2.47	0.62	55.25	0.0	0.0	0.0	0.0
5.35	29	0.54	36.93	62.53	63.83	3.04	11.85	8.51	0.0	3.65	0.0	0.0	0.61	3.96
6.10	5	3.44	34.08	62.48	43.71	3.59	19.46	21.56	1.20	0.30	0.30	1.50	4.79	0.0
6.13	6A	1.26	26.92	71.83	30.09	1.57	10.03	8.46	5.02	1.88	0.0	0.0	41.06	0.0
6.59	30	11.82	41.11	47.07	46.25	9.06	15.0	21.88	1.56	0.94	0.0	0.63	1.88	0.0
7.62	6B	55.15	27.68	17.17	82.13	3.76	3.76	8.46	0.31	0.31	0.0	0.0	0.0	0.0
9.06	31	12.30	65.31	22.40	38.89	13.89	15.74	21.30	0.93	0.31	0.0	0.0	4.94	0.0
9.45	7	53.15	33.89	12.96	47.37	3.72	20.12	19.81	0.93	0.62	0.0	0.93	5.26	0.0
10.06	8	—	—	—	56.15	9.15	9.78	19.24	0.63	0.0	0.0	2.21	0.0	0.63
10.85	32	7.65	69.54	22.81	22.73	9.09	24.55	27.58	0.0	0.91	0.0	0.0	6.97	0.0
12.20	9	0.77	27.70	71.53	4.89	0.29	0.29	0.86	2.01	0.29	0.0	0.0	90.23	0.0
12.81	33	1.41	10.22	88.37	51.98	5.17	7.29	6.38	0.61	0.0	0.0	3.04	24.32	0.0
13.72	10	60.13	22.65	17.21	0.64	0.0	0.0	0.0	0.0	1.29	0.0	0.0	97.74	0.0
15.55	11	78.27	8.84	12.89	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.77	0.0
17.38	12	72.43	16.25	11.33	92.23	3.56	1.62	2.59	0.0	0.0	0.0	0.0	0.0	0.0
17.84	13	—	—	—	78.06	2.51	2.82	3.13	0.31	0.0	0.0	0.0	0.0	0.0
19.06	14	—	—	—	88.27	2.61	1.30	5.86	0.0	0.0	0.0	0.0	0.0	0.33
20.59	15	—	—	—	89.63	0.67	1.34	5.69	0.0	0.0	0.0	0.0	0.0	0.0
22.11	16	—	—	—	89.46	2.24	0.96	4.79	0.0	0.0	0.32	0.0	0.0	0.0
23.64	17	—	—	—	85.02	5.50	0.61	4.89	0.0	0.0	0.0	0.0	0.0	0.0
25.16	18	—	—	—	90.46	1.32	1.64	4.93	0.0	0.0	0.0	0.0	0.0	0.0
26.69	19	—	—	—	86.31	4.46	2.55	6.05	0.0	0.0	0.0	0.0	0.32	0.0
28.21	20	—	—	—	81.93	4.98	3.74	6.23	0.0	0.0	0.31	0.0	0.0	0.31
29.74	21	—	—	—	88.68	1.89	1.57	7.23	0.0	0.0	0.0	0.0	0.31	0.0
31.26	22	—	—	—	86.35	5.08	0.95	6.67	0.0	0.0	0.0	0.0	0.0	0.0
32.79	23	—	—	—	90.71	1.60	1.92	3.85	0.0	0.0	0.32	0.0	0.0	0.0
34.31	24	—	—	—	92.0	3.08	0.62	4.0	0.0	0.0	0.0	0.0	0.0	0.0
35.84	25	—	—	—	90.63	1.88	0.63	5.94	0.0	0.0	0.31	0.0	0.0	0.0
37.36	26	—	—	—	91.91	2.27	0.65	4.21	0.0	0.0	0.32	0.0	0.0	0.0
38.89	27	—	—	—	90.32	3.23	0.97	4.52	0.0	0.0	0.65	0.0	0.0	0.0
40.41	28	—	—	—	84.39	7.01	0.64	5.73	0.0	0.0	0.96	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S61

DEPTH	NO	GSHF	SHLO	OSTR	SPNG	ECHN	OTH	CARBON-14
surf	1	0.58	0.87	2.52	0.0	0.0	3.48	
1.22	2	0.0	1.27	13.92	0.0	0.0	2.53	2,990 +/- 80
3.05	3	0.0	2.16	12.98	0.0	0.0	0.96	
4.57	4	0.0	0.31	0.0	0.0	0.0	0.93	
5.35	29	0.0	0.0	2.43	0.0	0.0	2.13	
6.1	5	0.0	0.60	0.90	0.0	0.0	2.10	
6.13	6A	0.0	0.63	0.0	0.0	0.0	1.25	
6.59	30	0.0	0.0	0.31	0.31	0.0	2.19	4,220 +/- 100
7.62	6B	0.0	0.0	0.0	0.0	0.0	1.25	
9.06	31	0.0	0.0	0.0	0.62	0.62	2.78	
9.45	7	0.0	0.0	0.0	0.0	0.0	1.24	
10.06	8	0.0	0.0	0.0	0.0	0.0	2.21	
10.85	32	0.0	0.30	0.30	3.33	1.21	3.03	
12.2	9	0.0	0.0	0.0	0.0	0.0	1.15	
12.81	33	0.0	0.0	0.0	0.30	0.30	0.61	3,430 +/- 110
13.72	10	0.0	0.0	0.0	0.32	0.0	0.0	
15.55	11	0.0	0.0	0.0	0.0	0.0	0.91	
17.38	12	0.0	0.0	0.0	0.0	0.0	0.0	7,310 +/- 100
17.84	13	0.0	0.0	0.0	0.0	0.0	13.17	
19.06	14	0.0	0.0	0.0	0.0	0.0	1.63	
20.59	15	0.0	0.0	0.0	0.0	0.0	2.68	
22.11	16	0.0	0.0	0.0	0.0	0.0	2.24	
23.64	17	0.0	0.0	0.0	0.0	0.0	3.98	
25.16	18	0.0	0.0	0.0	0.0	0.0	1.64	
26.69	19	0.0	0.0	0.0	0.0	0.0	0.32	
28.21	20	0.0	0.0	0.0	0.0	0.0	2.49	
29.74	21	0.0	0.0	0.0	0.0	0.0	0.31	
31.26	22	0.0	0.0	0.0	0.0	0.0	0.95	
32.79	23	0.0	0.32	0.0	0.0	0.0	1.28	
34.31	24	0.0	0.0	0.0	0.0	0.0	0.31	
35.84	25	0.0	0.0	0.0	0.0	0.0	0.63	
37.36	26	0.0	0.0	0.0	0.0	0.0	0.65	
38.89	27	0.0	0.0	0.0	0.0	0.0	0.32	
40.41	28	0.0	0.0	0.0	0.0	0.0	1.27	

APPENDIX 2.—Continued.

CORE S62

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	13.35	59.12	27.53	26.11	1.78	2.08	1.78	1.19	15.73	0.0	3.56	45.40	0.60
1.85	17	11.70	37.96	50.34	27.74	1.61	4.19	2.58	0.0	0.0	0.0	0.0	60.97	0.32
3.35	2	2.65	40.44	56.91	57.91	6.78	1.69	3.67	0.56	2.26	0.0	0.0	7.62	11.58
3.78	18	0.72	29.07	70.21	18.39	3.01	4.68	1.00	0.0	0.0	0.0	0.0	1.34	54.52
4.57	3	6.82	55.57	37.61	45.69	4.47	20.45	24.28	0.0	0.96	0.0	0.0	0.96	0.0
4.60	4	21.46	31.84	46.69	41.18	3.72	11.46	7.12	0.0	0.62	0.0	1.86	15.48	6.5
4.82	19	1.18	34.49	64.34	36.67	2.42	6.97	1.52	0.3	0.0	0.0	0.0	27.88	12.73
6.10	5	5.50	26.51	67.99	24.71	0.0	8.33	2.01	0.86	0.0	0.0	0.0	54.6	5.18
6.72	20	0.32	59.57	40.11	9.97	0.28	3.42	0.57	27.35	0.0	0.0	0.0	55.55	1.42
7.62	6	10.79	62.62	26.59	30.23	0.85	17.23	14.12	0.0	0.0	1.69	0.0	34.18	0.0
9.15	7	3.33	67.37	29.30	22.48	1.81	12.66	7.49	0.0	0.26	0.0	0.26	53.23	0.0
10.67	8	1.41	63.43	35.16	8.92	0.32	9.87	1.59	0.32	0.0	0.0	0.0	76.44	0.0
12.20	9	57.55	13.38	29.07	4.56	0.0	0.0	0.61	0.0	0.0	0.0	0.0	94.83	0.0
13.71	10	47.56	22.68	29.76	10.98	0.29	0.58	0.29	0.0	7.80	0.0	0.0	79.19	0.0
16.47	11	12.15	45.45	42.40	43.68	2.75	4.40	6.87	1.37	0.27	0.0	0.0	39.28	0.0
17.07	21	0.94	60.12	38.94	29.52	1.33	18.35	7.18	0.0	0.0	0.0	0.0	39.36	0.0
17.99	12	81.94	10.01	8.05	93.89	2.89	0.32	0.64	0.0	0.0	0.0	0.0	0.64	0.0
18.91	13	-	-	-	82.20	2.82	3.39	4.80	0.0	0.0	0.0	0.0	2.26	0.0
20.59	14	-	-	-	86.14	1.98	2.31	5.28	0.0	0.0	1.32	0.33	0.0	0.0
22.11	15	-	-	-	80.75	4.35	2.48	8.07	0.0	0.0	1.24	0.31	1.24	0.0
23.64	16	-	-	-	85.71	5.28	4.66	2.48	0.0	0.0	0.31	0.31	0.62	0.0

APPENDIX 2.—Continued.

CORE S62												CARBON-14
DEPTH	NO	GSHW	SHLO	OSTR	SPNG	ECHN	DIAT	OTH				
surf	1	0.0	0.0	0.59	0.0	0.0	0.0	1.19				
1.85	17	0.0	0.0	0.97	0.0	0.0	0.65	0.97				
3.35	2	0.28	1.41	2.82	0.0	0.0	0.0	3.39				
3.78	18	0.0	0.33	16.72	0.0	0.0	0.0	0.0				
4.57	3	0.0	0.0	0.32	0.0	0.0	0.0	2.88				
4.60	4	0.31	2.48	3.72	0.0	0.0	0.0	5.57				
4.82	19	0.0	4.55	6.97	0.0	0.0	0.0	0.0				
6.10	5	0.0	2.87	0.86	0.0	0.29	0.29	0.0				3,660 +/- 70
6.72	20	0.0	0.0	0.0	0.85	0.0	0.0	0.57				
7.62	6	0.0	0.0	0.0	0.85	0.28	0.0	0.56				
9.15	7	0.0	0.0	0.0	1.03	0.52	0.0	0.26				
10.67	8	0.0	0.0	0.0	1.91	0.64	0.0	0.0				
12.20	9	0.0	0.0	0.0	0.0	0.58	0.0	0.0				
13.71	10	0.0	0.0	0.0	0.29	0.27	0.0	0.0				6,220 +/- 100
16.47	11	0.0	0.0	0.0	1.10	0.0	0.0	0.0				
17.07	21	0.0	0.0	0.0	4.26	0.0	0.0	0.0				
17.99	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
18.91	13	0.0	0.56	1.41	0.0	0.0	0.0	1.61				7,160 +/- 70
20.59	14	0.0	0.66	0.0	0.0	0.0	0.0	2.54				
22.11	15	0.0	0.62	0.0	0.0	0.0	0.0	1.98				
23.64	16	0.0	0.31	0.0	0.0	0.0	0.0	0.93				
								0.31				

APPENDIX 2.—Continued.

CORE S63

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB
surf	1	98.83	0.04	1.14	65.84	13.04	4.97	8.07	7.76	0.31	0.0	0.0	0.0	0.0
0.76	2	-	-	-	66.67	8.10	9.66	12.77	2.80	0.0	0.0	0.0	0.0	0.0
2.29	3	-	-	-	56.17	7.10	14.51	17.28	4.01	0.0	0.0	0.0	0.0	0.0
3.81	4	-	-	-	61.80	6.10	11.41	14.32	4.24	0.0	0.0	0.0	0.0	0.0
5.34	5	-	-	-	70.75	5.66	12.26	8.81	0.96	0.31	0.31	0.0	0.0	0.0
6.86	6	-	-	-	59.68	10.48	11.43	12.38	4.76	0.0	0.0	0.0	0.0	0.0
8.34	7	-	-	-	58.81	8.36	13.73	13.73	2.39	0.0	0.0	0.0	0.0	0.0
9.91	8	-	-	-	47.25	8.09	21.04	18.77	1.62	0.97	0.0	0.0	0.0	0.0
11.44	9	-	-	-	52.54	6.87	17.91	16.42	2.99	0.3	0.3	0.0	0.0	0.0
12.96	10	-	-	-	49.55	11.28	13.65	18.69	2.97	0.89	0.3	0.0	0.0	0.3
14.49	11	-	-	-	54.95	10.44	10.99	17.86	3.57	0.82	0.0	0.27	0.0	0.55
16.01	12	-	-	-	57.46	11.43	12.38	13.02	5.08	0.0	0.0	0.0	0.0	0.32
17.23	13	-	-	-	62.19	8.75	12.19	14.38	0.94	0.0	0.0	0.31	0.0	0.31
17.86	17	11.20	76.11	12.69	24.56	0.89	0.89	1.18	0.3	0.0	0.0	0.0	68.94	0.0
18.39	18	3.89	76.70	19.41	13.42	1.01	1.01	0.76	0.51	0.25	0.0	0.0	78.48	0.0
19.03	19	41.09	38.26	20.66	2.74	0.61	0.0	0.0	0.0	2.13	0.0	0.0	96.99	0.0
0.0	14	59.94	29.12	10.94	72.78	5.06	9.18	8.86	1.27	0.0	0.0	0.32	1.90	0.0
19.98	15	-	-	-	64.58	7.21	10.66	14.73	1.25	0.0	0.0	0.94	0.0	0.31
21.50	16	-	-	-	63.83	9.73	10.94	11.55	1.52	0.61	0.0	0.61	0.0	0.3

APPENDIX 2.—Continued.

CORE S63

DEPTH	NO	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	OTH	CARBON-14
surf	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0.76	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.29	3	0.0	0.0	0.0	0.0	0.0	0.0	0.93	
3.81	4	0.0	0.0	0.27	0.0	0.0	0.0	1.86	
5.34	5	0.0	0.0	0.31	0.0	0.0	0.0	0.63	
6.86	6	0.32	0.0	0.32	0.0	0.0	0.0	0.63	
8.34	7	0.0	0.0	0.0	0.0	0.0	0.0	2.99	
9.91	8	0.0	0.65	0.32	0.0	0.32	0.32	0.65	
11.44	9	0.0	0.0	0.3	0.3	0.0	0.3	1.79	
12.96	10	0.0	0.0	0.59	0.0	0.0	0.3	1.48	
14.49	11	0.0	0.27	0.0	0.0	0.0	0.0	0.27	
16.01	12	0.0	0.0	0.0	0.0	0.0	0.0	0.32	
17.23	13	0.0	0.0	0.63	0.0	0.0	0.0	0.31	
17.86	17	0.0	0.0	0.0	0.0	3.25	0.0	0.0	
18.39	18	0.0	0.0	0.0	0.0	4.56	0.0	0.0	
19.03	19	0.0	0.0	0.0	0.0	1.52	0.0	0.0	6,590 +/- 110
0.0	14	0.0	0.0	0.0	0.0	0.32	0.0	0.32	
19.98	15	0.0	0.0	0.0	0.0	0.0	0.31	0.0	
21.50	16	0.0	0.0	0.0	0.0	0.0	0.0	0.91	

APPENDIX 2.—Continued.

CORE S64

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
surf	1	98.55	0.00	1.45	78.26	12.11	2.80	4.66	1.24	0.0	0.0	0.0	0.0	0.0	0.0
0.76	2	-	-	-	75.30	8.84	7.62	8.23	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.29	3	-	-	-	72.84	10.15	6.87	8.06	2.09	0.0	0.0	0.0	0.0	0.0	0.0
3.81	4	-	-	-	63.77	14.67	5.09	12.57	3.89	0.0	0.0	0.0	0.0	0.0	0.0
5.34	5	-	-	-	75.24	6.98	9.21	7.62	0.95	0.0	0.0	0.0	0.0	0.0	0.0
6.86	6	-	-	-	71.67	7.78	11.39	8.61	0.56	0.0	0.0	0.0	0.0	0.0	0.0
7.65	31	1.50	57.53	40.96	7.19	0.0	37.91	3.92	0.0	0.0	0.0	0.0	47.39	0.65	0.0
8.24	7	72.96	20.26	6.77	59.52	11.18	16.01	11.48	0.6	0.0	0.0	0.0	0.0	0.0	0.0
8.69	8	-	-	-	48.79	13.40	20.11	15.82	1.88	0.0	0.0	0.0	0.0	0.0	0.0
9.91	9	-	-	-	53.10	18.33	13.48	13.48	1.62	0.0	0.0	0.0	0.0	0.0	0.0
11.44	10	-	-	-	44.75	14.92	16.57	22.93	0.55	0.28	0.0	0.0	0.0	0.0	0.0
12.96	11	-	-	-	38.91	17.93	17.02	23.71	1.82	0.61	0.0	0.0	0.0	0.0	0.0
13.87	32	0.53	60.32	39.15	39.88	2.15	26.07	7.06	0.0	0.92	0.61	0.0	21.16	0.0	0.0
14.58	33	2.43	41.79	55.78	49.84	4.15	14.38	16.61	0.64	0.96	0.0	0.0	8.63	0.64	0.0
15.25	12	0.15	38.21	61.64	60.79	11.85	6.38	13.37	1.57	0.0	0.0	0.0	2.13	0.91	0.0
15.52	34	0.98	30.20	68.82	14.89	1.29	7.77	1.62	0.0	0.32	0.0	0.65	72.49	0.0	0.0
16.17	13	67.81	22.59	9.60	68.99	8.70	10.72	9.57	1.45	0.0	0.0	0.0	0.0	0.29	0.0
16.62	14	-	-	-	60.29	15.59	7.35	11.18	3.53	0.59	0.0	0.0	0.0	0.29	0.0
18.61	15	26.95	40.52	32.53	60.98	9.02	7.56	12.20	0.98	0.0	0.0	0.0	1.95	2.19	0.0
19.05	35	0.09	27.76	72.15	30.77	0.59	0.59	2.37	5.03	0.0	0.0	0.0	46.15	7.39	0.0
19.75	36	89.47	4.25	6.28	80.00	4.92	4.92	6.46	0.62	0.31	0.62	0.0	0.0	0.31	0.0
20.13	16	20.52	25.44	54.04	55.28	8.94	6.10	5.28	1.22	0.81	4.07	2.85	4.48	3.66	1.62
20.89	17	-	-	-	59.06	11.11	10.23	12.87	4.09	1.46	0.0	0.0	0.0	0.0	0.0
22.42	18	-	-	-	60.06	11.76	11.46	13.62	1.24	0.62	0.0	0.0	0.0	0.0	0.0
23.79	19	-	-	-	71.47	6.76	10.88	9.12	1.18	0.0	0.0	0.0	0.29	0.0	0.0
25.16	20	-	-	-	67.51	10.41	11.99	9.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26.69	21	-	-	-	84.66	2.45	6.44	5.52	0.61	0.0	0.0	0.0	0.0	0.0	0.0
28.21	22	-	-	-	72.17	11.30	8.70	6.52	1.30	0.0	0.0	0.0	0.0	0.0	0.0
29.74	23	-	-	-	85.20	3.62	7.24	3.29	0.33	0.0	0.0	0.0	0.33	0.0	0.0
31.26	24	-	-	-	72.44	10.26	9.94	5.45	0.64	0.0	0.0	0.0	0.0	0.0	0.0
32.79	25	-	-	-	60.56	11.49	12.11	12.11	2.17	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S64		SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	FORB	FORP
DEPTH	NO														
34.31	26	-	-	-	76.38	7.06	7.67	6.44	1.23	0.61	0.0	0.0	0.0	0.0	0.0
35.84	27	-	-	-	83.13	4.60	5.21	5.21	0.61	0.0	0.0	0.0	0.0	0.0	0.0
37.36	28	-	-	-	76.16	5.57	8.67	4.33	1.86	1.24	0.0	0.0	0.0	0.0	0.0
38.89	29	-	-	-	70.72	14.02	7.48	5.30	1.87	0.31	0.0	0.0	0.0	0.0	0.0
40.41	30	-	-	-	77.06	6.47	6.76	7.94	1.18	0.29	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S64		CARBON-14									
DEPTH	NO	GSHW	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	BRYO	DIAT	OTH
surf	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.93
0.76	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.29	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3.81	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.34	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6.86	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.65	31	0.0	0.0	0.0	0.98	0.0	0.98	0.0	0.0	0.0	0.98
8.24	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.21
8.69	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9.91	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.44	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.96	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.87	32	0.0	0.0	0.0	0.61	0.0	0.31	0.0	0.0	0.0	1.23
14.58	33	0.0	0.0	0.0	1.28	0.32	0.0	0.0	0.0	0.0	2.56
15.25	12	0.0	0.0	0.0	0.91	0.3	0.0	0.0	0.0	0.0	1.82
15.52	34	0.0	0.0	0.0	0.0	0.0	0.0	0.32	0.0	0.0	0.65
16.17	13	0.0	0.0	0.0	0.0	0.0	0.0	0.29	0.0	0.0	0.0
16.62	14	0.0	0.0	0.29	0.0	0.0	0.0	0.0	0.0	0.0	0.88
18.61	15	0.0	0.0	0.0	0.98	0.0	0.73	0.24	0.49	0.0	2.68
19.05	35	0.0	0.0	0.0	5.92	0.0	0.0	0.0	0.30	0.0	0.59
19.75	36	0.0	0.0	0.0	0.92	0.31	0.0	0.0	0.0	0.0	0.62
20.13	16	0.0	0.0	0.0	2.03	0.0	0.81	1.63	0.41	0.41	0.0
20.89	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.17
22.42	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.24
23.79	19	0.0	0.0	0.0	0.29	0.0	0.0	0.0	0.0	0.0	0.0
25.16	20	0.0	0.32	0.0	0.63	0.0	0.0	0.0	0.0	0.0	0.0
26.69	21	0.0	0.0	0.0	0.31	0.0	0.0	0.0	0.0	0.0	0.0
28.21	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29.74	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31.26	24	0.32	0.0	0.0	0.0	0.0	0.0	0.64	0.0	0.0	0.32
32.79	25	0.0	0.0	0.0	0.31	0.0	0.0	0.0	0.0	0.0	1.24

2,250 +/- 100

3,780 +/- 120

APPENDIX 2.—Continued.

CORE S64		CARBON-14									
DEPTH	NO	GSHW	PSHW	PSHF	SHLO	OSTR	SPNG	ECHN	BRYO	DIAT	OTH
34.31	26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.61
35.84	27	0.31	0.0	0.0	0.31	0.0	0.0	0.0	0.0	0.0	0.61
37.36	28	0.31	0.0	0.0	0.31	0.0	0.0	0.0	0.0	0.0	1.55
38.89	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.31
40.41	30	0.0	0.0	0.29	0.0	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S65		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	EVAP	LITH	AGG	PLTM	OTH
surf	1			-	-	-	51.76	21.73	8.95	8.65	8.95	0.0	0.0	0.0	0.0	0.33
0.76	2			-	-	-	62.83	16.83	8.55	5.60	6.19	0.0	0.0	0.0	0.0	0.0
2.29	3			-	-	-	67.67	15.33	7.33	9.00	0.67	0.0	0.0	0.0	0.0	0.0
3.81	4			-	-	-	67.33	13.00	7.67	10.00	0.0	0.0	0.0	0.0	0.0	2.00
5.34	5			-	-	-	55.41	5.10	20.70	15.92	1.27	0.0	0.0	0.64	0.0	0.96
6.86	6			-	-	-	55.67	5.33	9.33	23.67	1.33	0.0	0.0	0.0	0.0	4.67
9.91	8			-	-	-	58.36	9.78	11.99	18.61	0.95	0.0	0.0	0.0	0.0	0.0
12.96	10			-	-	-	68.33	9.00	8.00	10.33	1.00	0.0	0.0	0.0	0.0	3.33
16.01	12			-	-	-	54.27	12.95	12.95	16.80	1.1	0.0	0.0	0.0	0.0	1.1
19.06	14			-	-	-	55.33	15.67	10.33	13.67	3.33	0.0	0.0	0.0	0.0	1.67
22.11	16			-	-	-	51.52	24.65	11.00	10.25	2.49	0.0	0.0	0.0	0.0	0.0
25.16	18			-	-	-	61.33	20.33	5.33	10.67	1.33	0.0	0.0	0.33	0.0	0.67
28.21	20			-	-	-	54.17	23.21	9.23	10.12	3.27	0.0	0.0	0.0	0.0	0.0
31.26	22			-	-	-	54.00	28.00	6.33	8.67	1.33	0.0	0.0	0.0	0.0	1.67
34.31	24			-	-	-	57.29	16.88	8.44	13.04	2.3	0.0	0.0	0.51	0.51	1.02
37.36	26			-	-	-	58.33	7.00	20.67	13.67	0.0	0.0	0.0	0.0	0.0	0.33
38.89	27			-	-	-	59.00	6.49	17.99	13.57	1.18	0.0	0.0	0.28	0.0	1.47
41.94	29			-	-	-	67.33	7.00	6.00	16.33	1.33	0.0	0.0	0.0	0.0	2.00
43.46	30			-	-	-	64.06	6.25	4.69	19.69	1.56	0.0	0.0	0.31	1.56	1.88
44.99	31			-	-	-	66.67	7.67	5.33	16.67	1.00	0.0	0.0	0.0	0.0	2.67
46.99	32			-	-	-	62.33	6.67	8.67	20.33	0.0	0.0	0.0	1.00	0.0	1.00
48.04	33			-	-	-	64.67	6.67	8.00	19.33	0.0	0.0	0.0	0.0	0.0	1.33

APPENDIX 2.—Continued on following page.

APPENDIX 2.—Continued.

CORE S66

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.00	1	14.69	63.26	22.06	58.03	6.56	0.98	9.51	0.0	0.0	3.28	20.98	0.0
0.61	2	16.11	77.92	5.97	84.54	3.95	1.97	0.66	0.0	2.30	1.64	1.32	0.0
1.22	3	3.01	69.59	27.40	87.30	2.28	0.65	1.95	0.0	0.0	6.84	0.0	0.0
1.83	4	1.90	41.32	56.78	66.67	3.24	2.59	1.29	0.0	1.29	21.68	0.97	0.32
2.75	5	0.36	21.32	78.33	79.87	1.62	1.62	4.87	0.0	0.0	7.47	2.27	0.0
3.05	21	0.09	85.99	13.93	59.24	1.27	0.0	0.0	0.0	0.0	10.19	29.3	0.0
3.95	6	1.15	43.84	55.01	55.66	0.97	3.56	2.59	36.89	0.0	0.32	0.0	0.0
4.42	22	0.70	77.22	22.07	68.62	4.0	1.85	0.0	24.31	0.92	0.0	0.31	0.0
5.50	7	0.53	31.10	68.37	19.94	0.62	0.31	0.0	42.99	0.0	28.35	5.61	0.0
7.0	8	38.00	44.42	17.59	76.95	11.69	0.97	3.25	2.27	0.0	1.62	2.92	0.0
7.30	9	--	--	--	76.71	6.83	3.42	6.52	4.66	0.31	0.0	0.0	0.0
8.24	23	8.10	76.00	15.90	2.56	0.0	0.64	0.0	0.0	0.64	0.64	95.51	0.0
8.69	18	1.50	38.75	59.75	9.87	0.0	0.0	0.0	0.99	0.0	0.0	89.14	0.0
9.5	10	0.38	22.53	77.09	6.58	0.0	0.0	0.66	1.97	0.0	0.0	88.81	0.0
9.91	24	9.91	71.26	18.83	52.79	0.66	0.66	0.0	0.0	0.0	0.98	44.92	0.0
11.0	11	0.42	18.43	81.16	26.73	1.32	0.99	1.32	6.93	0.0	0.0	61.39	0.0
11.59	19	16.55	71.74	11.72	0.99	0.0	0.66	0.0	0.99	0.0	0.99	96.38	0.0
12.5	12	22.07	39.30	38.62	1.00	0.0	0.0	0.33	0.0	0.0	0.0	97.33	0.0
13.57	25	6.26	72.47	21.27	3.85	0.0	0.0	0.0	3.21	0.0	0.32	92.63	0.0
14.0	13	5.79	41.26	52.95	4.32	0.0	0.0	0.0	0.66	0.0	0.0	93.02	0.0
14.18	26	62.75	31.24	6.01	90.03	7.40	0.64	0.32	1.29	0.32	0.0	0.0	0.0
14.64	20	3.33	52.81	43.86	71.29	1.65	0.66	0.0	0.0	0.0	0.0	26.40	0.0
15.6	14	74.28	17.75	7.97	77.70	12.79	4.26	3.93	0.0	0.0	0.0	0.66	0.0
16.32	15	--	--	--	75.91	7.26	4.29	11.55	0.0	0.0	0.0	0.99	0.0
17.84	16	--	--	--	79.68	10.32	1.94	6.77	0.0	0.0	0.0	1.29	0.0
19.37	17	--	--	--	71.29	6.77	6.77	12.26	0.32	0.0	0.0	1.29	0.0

APPENDIX 2.—Continued.

CORE S66

DEPTH	NO	SHLO	OSTR	SPNG	OTH	CARBON-14
0.00	1	0.0	0.0	0.0	0.66	
0.61	2	0.0	0.33	0.0	3.29	
1.22	3	0.0	0.0	0.0	0.98	
1.83	4	0.0	0.32	0.0	1.62	
2.75	5	0.0	0.0	0.0	2.27	
3.05	21	0.0	0.0	0.0	0.0	
3.95	6	0.0	0.0	0.0	0.0	
4.42	22	0.0	0.0	0.0	0.0	
5.50	7	0.0	0.0	0.0	2.18	
7.0	8	0.0	0.0	0.0	0.32	4020+/-100
7.30	9	0.0	0.0	0.0	1.55	
8.24	23	0.0	0.0	0.0	0.0	
8.69	18	0.0	0.0	0.0	0.0	
9.5	10	0.33	0.0	1.64	0.0	3950+/- 70
9.91	24	0.0	0.0	0.0	0.0	
11.0	11	0.33	0.0	0.0	0.99	
11.59	19	0.0	0.0	0.0	0.0	
12.5	12	0.33	0.0	0.66	0.0	5480+/- 80
13.57	25	0.0	0.0	0.0	0.0	
14.0	13	1.33	0.0	0.66	0.0	
14.18	26	0.0	0.0	0.0	0.0	7230+/- 70
14.64	20	0.0	0.0	0.0	0.0	
15.6	14	0.0	0.0	0.0	0.66	
16.32	15	0.0	0.0	0.0	0.0	
17.84	16	0.0	0.0	0.0	0.0	
19.37	17	0.0	0.0	0.0	1.29	

APPENDIX 2.—Continued.

CORE S67

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	46.84	34.46	18.70	93.23	4.19	0.0	1.61	0.0	0.0	0.0	0.0	0.97	0.0	0.0
1.83	2	--	--	--	95.83	1.60	0.0	1.28	0.96	0.0	0.0	0.32	0.0	0.0	0.0
3.36	3	--	--	--	96.44	1.62	0.32	0.97	0.0	0.0	0.65	0.0	0.0	0.0	0.0
4.27	13	15.79	34.57	49.64	95.11	3.58	0.0	0.0	0.0	0.98	0.0	0.0	0.0	0.0	0.0
5.64	4	77.29	15.05	7.66	92.75	3.72	0.31	1.86	1.55	0.0	0.0	0.0	0.0	0.0	0.0
6.41	5	--	--	--	92.13	5.57	0.0	2.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.93	6	--	--	--	92.38	5.30	0.0	1.66	0.0	0.0	0.0	0.66	0.0	0.0	0.0
9.38	7	--	--	--	90.00	9.67	0.0	0.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10.83	8	--	--	--	93.00	3.67	0.0	3.33	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.35	9	--	--	--	91.09	7.26	0.33	1.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.88	10	--	--	--	79.14	16.56	0.0	3.64	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16.16	11	--	--	--	86.38	7.64	0.0	4.98	0.0	0.0	0.0	0.33	0.33	0.0	0.0
18.75	12	--	--	--	90.73	7.95	0.33	0.66	0.0	0.0	0.0	0.33	0.0	0.0	0.0

[illegible]

APPENDIX 2.—Continued.

CORE S68

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.0	1	98.14	0.37	1.49	75.32	12.66	0.65	8.12	0.0	0.0	0.0	0.0	0.0
1.22	2	--	--	--	91.91	5.18	0.0	0.97	1.62	0.0	0.32	0.0	0.0
1.83	3	--	--	--	85.90	10.49	0.0	0.98	1.31	0.0	0.0	0.0	0.33
3.05	4	27.11	52.64	20.25	48.36	10.86	22.70	16.12	0.0	0.0	0.0	0.0	0.0
3.96	5	23.02	57.64	19.35	52.98	4.39	12.85	11.60	0.31	0.0	0.0	13.79	0.31
5.19	34	--	--	--	82.87	5.92	3.12	1.25	0.31	0.62	0.0	4.98	0.0
5.49	6	16.75	58.49	24.77	47.17	1.26	18.24	16.04	0.31	0.0	0.0	13.21	1.89
6.56	35	--	--	--	39.38	0.0	1.25	6.25	0.0	0.0	1.56	20.31	5.94
7.01	7	37.92	29.69	32.39	8.22	0.66	2.63	2.63	0.0	0.0	0.0	82.23	0.0
7.32	8	34.76	46.89	18.34	53.72	0.97	22.33	12.62	0.0	0.0	0.0	10.36	0.0
7.93	9	--	--	--	90.88	4.89	0.33	2.28	0.65	0.0	0.0	0.0	0.33
8.54	36	--	--	--	89.71	5.14	2.89	0.0	0.0	0.64	0.64	0.96	0.0
10.06	10	5.21	55.30	39.49	45.57	2.53	22.78	11.08	0.0	0.0	0.0	13.30	0.63
10.37	37	--	--	--	65.29	1.59	7.96	0.0	0.0	0.64	6.37	18.51	0.0
11.59	11	18.57	39.20	42.23	39.37	1.74	1.74	0.35	0.70	0.0	0.0	33.45	0.0
11.74	38	--	--	--	9.09	0.0	0.0	0.0	0.0	0.0	0.29	73.31	0.0
12.67	39	--	--	--	8.55	0.33	0.0	0.0	0.0	0.0	0.0	85.53	0.0
13.72	12	2.82	57.70	39.48	34.70	1.58	7.26	1.89	0.0	0.0	0.0	49.21	0.0
14.49	13	69.33	17.99	12.68	39.55	1.93	0.0	0.0	0.0	0.0	0.0	45.98	0.0
14.87	14	--	--	--	91.28	4.98	0.0	2.18	0.0	0.0	0.0	0.93	0.0
16.01	15	--	--	--	91.42	3.63	0.0	1.98	1.98	0.0	0.0	0.33	0.0
17.54	16	--	--	--	91.03	4.98	0.0	2.33	1.00	0.0	0.0	0.0	0.33
19.06	17	--	--	--	88.56	5.88	0.0	2.94	1.31	0.0	0.0	0.98	0.0
20.59	18	--	--	--	88.49	7.24	0.0	2.63	0.99	0.0	0.0	0.33	0.0
22.11	19	--	--	--	85.76	9.06	0.65	3.24	0.65	0.0	0.0	0.32	0.0
23.64	20	--	--	--	87.42	7.86	0.0	2.83	1.89	0.0	0.0	0.0	0.0
25.16	21	--	--	--	90.54	3.79	0.0	3.79	0.95	0.0	0.0	0.63	0.0
28.21	23	--	--	--	92.03	5.32	0.33	2.33	0.0	0.0	0.0	0.0	0.0
31.26	25	--	--	--	92.33	4.00	0.0	3.00	0.67	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S68		SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
DEPTH	NO												
34.31	27	--	--	--	89.29	7.47	0.0	2.27	0.97	0.0	0.0	0.0	0.0
37.36	29	--	--	--	90.40	5.96	0.0	1.66	0.99	0.0	0.99	0.0	0.0
40.41	31	--	--	--	87.79	7.59	0.0	4.29	0.33	0.0	0.0	0.0	0.0
43.46	33	--	--	--	92.45	6.29	0.0	1.26	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

[illegible]

APPENDIX 2.—Continued.

CORE S69

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	PLTM	FORB
0.0	1	7.29	35.10	57.61	57.61	10.68	0.97	3.24	0.0	0.0	16.18	0.65
1.22	2	4.30	29.55	66.15	70.57	2.53	5.70	1.90	0.0	0.0	10.76	0.32
2.75	3	1.84	22.25	75.91	79.14	7.62	3.31	1.99	0.0	0.99	2.32	0.0
3.20	16	26.61	60.53	12.86	96.05	3.29	0.0	0.0	0.0	0.33	0.0	0.0
4.12	4	70.72	25.00	4.29	96.36	3.31	0.0	0.33	0.0	0.0	0.0	0.0
4.88	5	--	--	--	94.72	3.30	0.0	0.66	0.0	0.0	0.66	0.0
5.87	6	--	--	--	91.18	5.56	0.0	1.63	0.65	0.0	0.0	0.0
6.86	7	--	--	--	91.75	6.60	0.0	0.99	0.0	0.0	0.0	0.0
7.63	17	43.42	50.76	5.82	93.75	5.94	0.31	0.0	0.0	0.0	0.0	0.0
8.69	8	12.36	47.68	39.97	90.03	4.61	1.64	2.30	0.0	0.0	0.66	0.0
9.30	18	4.36	85.38	10.28	69.51	2.84	0.0	0.26	0.0	1.03	26.36	0.0
10.22	9	2.16	18.14	79.69	66.99	2.91	0.0	0.65	0.0	1.62	27.51	0.0
10.82	19	0.81	89.95	9.24	92.31	1.99	0.57	0.0	0.0	2.85	2.28	0.0
11.74	10	12.41	32.14	55.45	80.49	11.69	2.93	2.27	0.0	1.30	0.33	0.0
12.66	20	31.29	65.76	2.95	90.88	4.89	3.26	0.0	0.0	0.98	0.0	0.0
13.11	11	63.06	17.40	19.54	95.15	1.94	0.0	2.91	0.0	0.0	0.0	0.0
13.88	12	--	--	--	86.27	10.13	0.65	2.94	0.0	0.0	0.0	0.0
15.40	13	--	--	--	89.17	6.05	0.95	3.82	0.0	0.0	0.0	0.0
16.93	14	--	--	--	87.49	6.25	0.99	4.28	0.0	0.0	0.0	0.0
18.76	15	--	--	--	92.39	3.97	0.66	2.32	0.0	0.0	0.33	0.0

APPENDIX 2.—Continued.

CORE S69

DEPTH	NO	GSHW	GSHF	PSHF	SHLO	OSTR	SPNG	CARBON-14
0.0	1	1.62	0.32	0.97	2.27	6.15	0.0	
1.22	2	4.11	0.0	0.0	3.15	1.28	0.0	
2.75	3	1.66	0.0	0.0	0.99	1.99	0.0	
3.20	16	0.0	0.0	0.0	0.33	0.0	0.0	4410 +/- 80
4.12	4	0.0	0.0	0.0	0.0	0.0	0.0	
4.88	5	0.0	0.0	0.0	0.66	0.0	0.0	
5.87	6	0.0	0.0	0.0	0.98	0.0	0.0	
6.86	7	0.0	0.0	0.0	0.66	0.0	0.0	
7.63	17	0.0	0.0	0.0	0.0	0.0	0.0	23670 +/- 370
8.69	8	0.0	0.0	0.0	0.0	0.66	0.0	
9.30	18	0.0	0.0	0.0	0.0	0.0	0.0	
10.22	9	0.32	0.0	0.0	0.0	0.0	0.0	
10.82	19	0.0	0.0	0.0	0.0	0.0	0.0	
11.74	10	0.0	0.0	0.0	0.0	0.0	0.99	
12.66	20	0.0	0.0	0.0	0.0	0.0	0.0	35260 +/- 610
13.11	11	0.0	0.0	0.0	0.0	0.0	0.0	
13.88	12	0.0	0.0	0.0	0.0	0.0	0.0	
15.40	13	0.0	0.0	0.0	0.0	0.0	0.0	
16.93	14	0.0	0.0	0.0	0.66	0.0	0.0	
18.76	15	0.33	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S70

DEPTH	NO	SHLO	SPNG	DIAT	OTH	CARBON-14
0.0	1	0.0	0.32	0.0	0.64	
1.07	2	0.0	0.0	0.0	2.61	
1.83	15	0.0	0.0	0.0	0.0	
2.59	3	0.0	0.30	0.0	1.52	3220+/-120
3.20	16	0.96	0.0	0.32	0.0	
4.12	4	0.0	0.0	0.0	1.32	3690+/-140
4.88	5	0.0	0.0	0.0	0.0	
6.33	6	0.0	0.0	0.0	0.0	
7.78	7	0.0	0.0	0.0	0.0	
9.30	8	0.0	0.0	0.0	0.0	
10.98	9	0.0	0.0	0.0	0.0	
12.66	10	0.0	0.0	0.0	0.0	
14.33	11	0.0	0.0	0.0	0.0	
16.01	12	0.0	0.0	0.0	0.0	
17.54	13	0.0	0.0	0.0	0.0	
19.06	14	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S71

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.0	1	28.04	47.34	24.62	59.69	22.81	1.50	2.81	0.0	0.63	0.0	7.19	4.69
0.61	2	23.97	51.04	24.99	55.63	18.97	9.00	6.75	0.0	3.54	0.0	2.89	2.89
1.07	3	-	-	-	54.88	36.28	0.30	1.22	0.0	0.0	0.0	0.0	7.01
1.83	4	-	-	-	51.38	36.92	1.85	1.54	0.0	0.0	0.0	0.31	6.15
2.14	33	14.31	76.93	8.76	84.24	4.18	3.86	0.0	0.0	0.96	0.0	3.54	0.96
2.90	34	4.56	85.19	10.25	23.43	0.0	45.87	0.0	0.0	0.0	2.64	28.05	0.0
3.05	5	2.51	58.55	38.94	44.14	16.05	7.10	0.31	0.0	2.78	0.0	23.15	3.40
4.27	35	3.43	86.12	10.45	52.74	1.44	18.16	0.58	0.0	1.44	2.31	19.89	0.58
5.34	36	18.95	68.78	12.27	62.82	0.64	0.64	0.32	0.32	0.64	1.60	3.85	8.33
6.10	6	14.86	35.77	49.36	74.50	10.60	1.99	1.32	0.0	3.31	0.0	5.96	0.66
6.86	7	-	-	-	83.39	13.79	1.88	0.31	0.0	0.31	0.0	0.31	0.0
8.39	8	-	-	-	83.12	13.64	0.97	0.65	0.0	0.65	0.0	0.65	0.0
9.91	9	-	-	-	69.87	20.51	3.85	2.56	0.0	0.96	0.0	2.24	0.0
11.44	10	-	-	-	66.02	14.24	9.39	5.83	0.0	0.0	0.0	2.91	0.97
12.20	37	28.47	58.74	12.79	78.15	4.30	0.66	0.33	0.33	0.0	0.0	15.23	0.66
12.51	38	4.53	76.33	19.14	44.85	0.30	0.91	0.0	0.61	0.30	0.61	52.13	0.0
12.96	11	33.25	25.79	40.96	80.00	6.89	0.98	0.98	0.0	0.98	0.0	10.16	0.0
13.39	12	-	-	-	86.23	12.13	0.0	0.66	0.0	0.33	0.0	0.0	0.33
14.49	13	-	-	-	87.13	10.23	0.66	0.99	0.0	0.66	0.0	0.0	0.0
16.01	14	-	-	-	88.16	11.18	0.0	0.66	0.0	0.0	0.0	0.0	0.0
17.54	15	-	-	-	78.26	13.35	0.62	0.62	0.0	0.93	0.62	2.48	0.0
19.06	16	-	-	-	70.20	8.61	0.0	0.33	0.0	0.33	18.21	1.66	0.0
20.59	17	-	-	-	81.46	6.29	0.0	0.0	0.0	0.0	11.26	0.66	0.0
22.11	18	-	-	-	86.54	5.13	0.0	0.0	0.0	0.0	6.73	0.64	0.64
23.64	19	-	-	-	86.82	7.07	0.0	0.0	0.0	0.32	4.82	0.32	0.0
25.16	20	-	-	-	86.60	7.19	0.0	0.0	0.0	0.0	5.56	0.0	0.0
26.69	21	-	-	-	86.23	5.90	0.0	0.0	0.0	0.0	7.21	0.0	0.0
28.21	22	-	-	-	85.11	7.62	0.0	0.0	0.0	0.0	8.61	0.0	0.0
29.74	23	-	-	-	85.53	7.57	0.0	0.66	0.0	0.66	3.29	0.0	0.66
31.26	24	-	-	-	78.50	13.71	0.0	0.0	0.0	0.62	6.23	0.0	0.0
32.79	25	-	-	-	85.89	10.43	0.31	0.31	0.0	0.0	2.15	0.0	0.0
34.31	26	-	-	-	80.84	11.04	0.0	2.27	0.0	0.65	4.22	0.0	0.0
35.84	27	-	-	-	82.68	9.15	0.0	0.33	0.0	0.0	6.86	0.33	0.0

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
37.36	28	-	-	-	84.74	8.44	0.32	0.32	0.0	0.97	3.57	0.0	0.0
38.89	29	-	-	-	80.83	10.22	0.0	0.0	0.0	0.64	6.71	0.0	0.0
40.41	30	-	-	-	88.57	5.40	0.32	0.0	0.0	0.63	3.17	0.0	0.32
41.94	31	-	-	-	81.81	9.72	0.0	0.0	0.0	0.94	4.70	1.88	0.63
33.47	32	-	-	-	80.06	13.92	0.0	0.0	0.0	0.63	3.48	0.32	0.63

[illegible]

APPENDIX 2.—Continued.

CORE S72

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB
0.0	1	19.60	66.33	14.07	56.90	15.21	10.70	11.83	0.0	0.56	0.0	0.0	1.69	0.28
1.52	2	73.34	16.50	10.16	65.26	17.86	6.17	9.09	0.0	0.0	0.0	0.0	0.0	0.0
1.68	3	--	--	--	75.49	9.48	3.59	8.50	0.0	0.0	0.33	1.31	0.33	0.0
1.98	17	13.78	60.35	25.87	80.19	2.92	11.69	1.62	0.0	1.62	0.0	1.30	0.0	0.32
3.05	4	--	--	--	47.52	3.63	21.45	26.40	0.0	0.0	0.0	0.0	0.0	0.0
3.51	18	32.60	57.65	9.76	86.02	3.42	6.21	1.55	0.0	0.31	0.0	1.24	0.31	0.0
4.57	5	33.37	37.76	28.88	21.13	2.11	8.10	6.34	0.0	0.0	0.0	0.0	1.76	20.77
4.60	6	26.04	49.98	23.98	24.91	1.81	9.75	7.58	0.0	0.0	0.0	0.0	2.53	16.97
5.19	19	77.79	15.27	6.95	80.19	3.24	6.15	1.94	0.0	1.94	0.0	2.27	1.94	0.65
6.10	7	9.50	68.82	21.88	29.26	5.47	21.22	28.62	0.0	0.0	0.0	0.0	11.25	0.64
7.62	8	10.84	66.46	22.69	39.55	5.47	17.68	20.58	0.0	0.0	0.0	0.0	13.5	0.32
8.08	20	7.09	84.31	8.60	31.16	0.59	2.67	0.0	0.0	1.19	0.0	0.30	62.91	0.89
8.70	21	20.93	69.59	9.48	91.18	2.29	0.33	0.0	0.33	1.31	0.0	0.33	4.25	0.0
9.15	9	84.63	9.75	5.62	88.54	1.91	1.59	0.0	0.0	0.32	0.0	0.0	2.23	0.0
9.91	10	--	--	--	75.16	5.10	7.01	7.32	0.0	0.0	0.32	0.64	0.64	1.27
11.44	11	--	--	--	85.85	2.52	4.40	3.46	0.0	0.0	0.94	0.0	0.0	0.31
12.96	12	--	--	--	84.62	4.92	1.54	2.77	0.0	0.0	0.0	0.31	0.92	1.23
14.19	13	--	--	--	72.22	1.23	7.10	9.57	0.0	0.0	0.93	0.0	0.93	0.0
16.01	14	--	--	--	83.86	3.48	1.27	3.38	0.0	0.32	0.32	0.0	0.32	0.0
17.54	15	--	--	--	77.72	6.69	3.06	8.91	0.0	0.0	0.0	0.0	0.56	0.0
19.06	16	--	--	--	86.82	1.61	1.29	3.86	0.0	0.0	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S72

DEPTH	NO	GSHW	GSHF	PSHW	SHLO	OSTR	SPNG	ECHN	DIAT	OTH	CARBON-14
0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.82	
1.52	2	0.32	0.0	0.0	0.32	0.0	0.0	0.0	0.0	0.97	
1.68	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.98	
1.98	17	0.0	0.0	0.0	0.32	0.0	0.0	0.0	0.0	0.0	
3.05	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.99	
3.51	18	0.0	0.0	0.93	0.0	0.0	0.0	0.0	0.0	0.0	
4.57	5	1.41	1.76	0.0	36.27	0.0	0.0	0.0	0.0	0.35	2900+/- 70
4.60	6	2.17	0.72	0.0	33.21	0.0	0.0	0.0	0.0	0.36	
5.19	19	0.0	0.0	0.32	0.65	0.0	0.0	0.0	0.0	0.0	
6.10	7	0.0	0.0	0.0	0.0	0.64	1.29	0.32	1.29	0.0	
7.62	8	0.0	0.0	0.0	0.0	0.64	1.29	0.0	0.96	0.0	
8.08	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8.70	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6420+/- 80
9.15	9	0.32	0.0	0.0	0.64	0.0	0.0	0.0	0.0	4.46	
9.91	10	0.32	0.32	0.0	0.64	0.64	0.0	0.0	0.0	0.64	
11.44	11	0.31	0.62	0.31	1.26	0.0	0.0	0.0	0.0	0.0	
12.96	12	0.62	0.0	0.0	0.92	0.31	0.0	0.0	0.0	1.85	
14.19	13	0.93	0.31	0.0	0.93	0.31	0.0	0.0	0.0	5.56	
16.01	14	0.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.65	
17.54	15	0.28	0.28	0.0	0.0	0.0	0.0	0.0	0.0	2.51	
19.06	16	0.0	0.32	0.0	0.32	0.0	0.0	0.0	0.0	5.79	

APPENDIX 2.—Continued.

CORE S73

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.0	1	79.76	7.92	12.32	69.08	20.39	0.0	0.0	0.0	0.0	0.66	0.0	6.58
1.53	2	1.22	31.40	12.32	62.38	4.62	1.65	0.0	0.0	0.0	0.99	13.20	15.18
1.68	32	76.79	21.14	2.07	86.34	5.90	1.86	0.31	0.0	0.0	0.0	0.31	0.93
2.14	33	7.58	87.50	4.91	81.25	5.94	9.38	1.25	0.0	0.94	0.63	0.31	0.0
2.44	34	3.31	83.14	13.55	28.30	0.0	36.48	0.0	0.0	1.57	1.57	31.13	0.94
2.90	35	1.52	87.50	10.98	19.58	0.59	15.73	0.0	0.0	0.0	0.0	30.86	22.55
3.05	3	63.08	12.93	23.99	0.94	0.0	0.0	0.0	0.0	0.0	0.0	1.26	63.84
3.81	4	--	--	--	74.45	16.40	0.32	0.32	0.0	0.32	0.0	0.32	3.15
5.03	36	4.35	85.91	9.74	65.25	0.98	13.11	0.66	0.33	1.31	1.31	16.07	0.33
5.80	37	21.98	70.88	7.14	81.55	4.46	4.17	0.60	0.0	0.60	2.98	4.76	0.30
6.10	5	5.51	58.84	35.65	48.11	2.20	25.47	0.0	0.0	0.94	12.26	7.86	1.57
6.71	38	1.08	87.11	11.81	10.32	0.0	26.77	0.0	0.65	0.0	0.0	62.26	0.0
7.63	6	1.09	43.54	55.38	15.32	0.0	35.14	0.0	0.0	0.60	15.62	26.43	5.71
7.93	39	5.30	83.44	11.26	78.13	4.06	2.81	0.31	0.0	0.94	4.38	6.56	1.25
8.54	40	0.14	86.50	13.36	64.35	0.95	1.26	0.0	0.95	0.95	0.95	24.29	5.68
9.15	7	0.66	46.96	52.38	64.51	1.54	4.32	0.0	0.0	0.0	6.48	18.21	2.78
9.46	41	0.71	87.35	11.95	63.64	1.52	3.94	0.61	0.61	0.30	0.91	19.09	2.73
10.07	42	0.39	89.52	10.10	42.09	1.58	2.53	0.0	0.32	0.0	1.27	51.26	0.95
10.68	8	1.23	27.88	70.89	80.38	8.86	0.63	0.0	0.0	0.0	4.75	0.32	5.06
10.98	43	2.95	87.09	9.96	10.92	0.86	11.78	0.0	3.16	3.74	0.0	68.39	0.57
11.74	44	1.61	82.59	15.80	75.25	3.96	0.0	0.0	2.31	1.98	2.31	0.99	13.20
12.81	9	11.65	64.07	24.28	66.34	0.65	0.0	0.0	0.0	0.0	2.61	28.43	0.65
12.90	45	11.65	73.95	14.39	85.89	1.25	0.31	0.0	2.82	0.94	2.82	3.45	1.25
13.12	10	87.01	3.69	9.30	87.66	9.74	0.0	0.0	0.0	0.0	1.95	0.0	0.0
13.42	11	--	--	--	83.92	10.61	0.64	0.0	0.0	1.29	0.96	0.0	0.96
11.73	46	45.57	50.41	4.02	84.84	4.19	3.23	0.0	0.32	2.58	1.29	1.30	0.32
14.34	47	31.34	64.85	3.81	82.53	2.11	6.93	0.0	0.0	3.31	2.11	0.0	0.0
15.25	12	69.80	17.48	12.72	83.96	9.75	1.57	0.0	0.0	0.0	0.0	0.0	0.0
16.01	13	--	--	--	81.31	12.79	0.0	0.0	0.98	0.66	0.0	0.0	1.31
17.54	14	--	--	--	86.97	8.47	0.0	0.33	0.0	0.65	0.0	0.33	1.95
19.06	15	--	--	--	89.90	6.51	0.0	0.0	0.0	0.0	0.0	0.0	2.28

APPENDIX 2.—Continued.

CORE S73

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
20.59	16	--	--	--	91.23	7.14	0.0	0.0	0.0	0.0	0.0	0.0	0.65
22.11	17	--	--	--	88.60	8.79	0.0	0.0	0.0	0.0	0.0	0.0	0.98
23.64	18	--	--	--	89.07	5.14	0.0	0.0	0.0	0.0	0.32	0.0	3.86
25.16	19	--	--	--	88.10	6.75	0.0	0.0	0.0	0.0	0.0	0.0	4.18
26.38	20	--	--	--	84.89	7.40	0.0	0.0	0.0	0.0	0.64	6.11	0.0
28.21	21	--	--	--	83.54	8.07	0.0	0.0	0.0	0.0	0.0	0.0	6.52
29.74	22	--	--	--	84.47	6.80	0.0	0.0	0.0	0.0	0.0	0.0	6.80
31.26	23	--	--	--	85.62	4.90	0.33	0.0	0.0	0.0	1.31	5.88	0.0
32.79	24	--	--	--	89.00	6.47	0.0	0.0	0.0	0.0	0.0	0.0	3.56
34.31	25	--	--	--	92.43	5.92	0.0	0.0	0.0	0.0	0.0	0.0	1.32
35.84	26	--	--	--	82.69	14.74	0.0	0.0	0.0	0.0	0.0	0.0	0.96
37.36	27	--	--	--	91.40	3.82	0.0	0.0	0.0	0.0	0.32	0.0	2.55
38.89	28	--	--	--	84.97	11.11	0.33	0.0	0.0	0.0	0.0	0.0	2.61
40.41	29	--	--	--	79.14	19.21	0.0	0.0	0.0	0.99	0.0	0.0	0.33
41.94	30	--	--	--	78.95	17.76	0.0	0.0	0.0	0.66	0.0	0.0	1.32
43.46	31	--	--	--	85.81	11.88	0.33	0.0	0.0	0.0	0.0	0.0	1.32

APPENDIX 2.—Continued.

CORE S73

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	OTH	CARBON-14
0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	3.29	
1.53	2	0.0	0.0	0.0	0.0	0.0	0.0	1.98	
1.68	32	0.0	0.0	0.0	0.0	4.04	0.31	0.0	
2.14	33	0.0	0.0	0.0	0.0	0.31	0.0	0.0	
2.44	34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2.90	35	0.0	0.0	0.0	1.19	9.50	0.0	0.0	
3.05	3	3.14	0.0	0.0	0.0	19.50	9.43	1.89	
3.81	4	0.0	0.32	0.32	0.32	2.84	0.32	0.0	
5.03	36	0.0	0.0	0.0	0.0	0.66	0.0	0.0	3,990 +/- 90
5.80	37	0.0	0.0	0.0	0.0	0.60	0.0	0.0	
6.10	5	0.0	0.0	0.0	0.0	0.63	0.0	0.94	
6.71	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7.63	6	0.0	0.0	0.0	0.0	0.90	0.30	0.0	
7.93	39	0.0	0.0	0.0	0.0	1.25	0.31	0.0	
8.54	40	0.0	0.0	0.0	0.0	0.63	0.0	0.0	
9.15	7	0.0	0.0	0.0	0.0	0.62	0.0	1.54	
9.46	41	0.0	0.0	0.0	0.0	6.06	0.61	0.0	
10.07	42	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.68	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10.98	43	0.0	0.0	0.0	0.0	0.29	0.29	0.0	
11.74	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12.81	9	0.0	0.0	0.0	0.0	0.33	0.33	0.65	7,590 +/- 90
12.90	45	0.0	0.0	0.0	0.0	1.25	0.0	0.0	
13.12	10	0.0	0.0	0.0	0.0	0.0	0.0	0.65	
13.42	11	0.32	0.0	0.0	0.0	0.64	0.64	0.0	
11.73	46	0.0	0.0	0.0	0.0	0.0	0.0	1.94	12,760 +/- 110
14.34	47	0.0	0.0	0.0	0.0	0.0	0.0	3.01	
15.25	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16.01	13	0.33	0.33	0.0	0.0	1.31	0.33	0.66	
17.54	14	0.0	0.0	0.0	0.0	0.98	0.0	0.33	
19.06	15	0.0	0.0	0.0	0.0	1.30	0.0	0.0	

APPENDIX 2.—Continued.

CORE S73

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	OTH	CARBON-14
20.59	16	0.0	0.0	0.0	0.0	0.32	0.0	0.65	
22.11	17	0.0	0.0	0.0	0.0	1.30	0.0	0.99	
23.64	18	0.0	0.0	0.0	0.32	0.64	0.0	0.64	
25.16	19	0.0	0.0	0.0	0.0	0.96	0.0	0.0	
26.38	20	0.0	0.0	0.0	0.0	0.32	0.0	0.64	
28.21	21	0.0	0.0	0.31	0.0	0.62	0.0	0.93	
29.74	22	0.0	0.0	0.0	0.0	1.29	0.32	0.32	
31.26	23	0.0	0.0	0.0	0.0	0.65	0.33	0.98	
32.79	24	0.0	0.0	0.0	0.0	0.32	0.0	0.65	
34.31	25	0.0	0.0	0.0	0.0	0.33	0.0	0.0	
35.84	26	0.0	0.0	0.0	0.0	0.0	0.0	1.60	
37.36	27	0.0	0.0	0.0	0.0	0.32	0.0	1.59	
38.89	28	0.0	0.0	0.0	0.0	0.33	0.0	0.65	
40.41	29	0.0	0.0	0.0	0.0	0.33	0.0	0.0	
41.94	30	0.0	0.0	0.0	0.0	0.66	0.0	0.66	
43.46	31	0.0	0.0	0.0	0.0	0.66	0.0	0.0	

APPENDIX 2.—Continued.

CORE S74

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.0	1	29.81	47.76	22.43	31.72	0.0	11.65	0.0	0.0	3.56	42.00	7.44	1.29
1.37	2	--	--	--	16.93	0.64	1.60	0.0	0.0	0.0	3.51	0.64	20.77
2.75	14	75.30	22.02	2.68	81.07	4.42	0.95	0.32	0.0	0.0	0.0	0.63	0.0
3.97	3	39.06	40.69	20.25	50.00	2.56	7.69	0.0	0.0	3.85	30.77	4.81	0.0
5.03	15	29.60	60.87	9.52	88.68	4.40	2.52	1.57	0.63	0.0	1.26	0.31	0.31
5.49	4	4.74	72.75	22.51	27.36	0.0	13.52	0.0	0.0	4.40	33.96	19.81	0.0
5.80	16	4.76	83.70	11.54	86.27	1.79	2.99	0.60	0.0	0.0	0.30	3.28	1.19
7.02	5	2.58	58.23	39.20	32.21	0.0	10.36	0.0	0.0	1.68	29.13	17.65	5.32
7.32	17	14.35	77.37	8.27	89.10	2.49	2.49	0.62	0.0	0.62	0.62	1.56	1.25
8.54	6	2.77	49.68	47.55	84.81	5.70	0.0	0.0	0.0	0.0	8.86	0.0	0.0
8.70	18	77.37	19.34	3.30	89.10	7.08	0.27	0.0	0.27	0.54	0.0	0.0	1.36
9.15	7	72.74	18.87	8.38	94.37	3.97	0.0	0.0	0.0	0.0	0.66	0.0	0.0
9.91	8	--	--	--	0.0	81.85	2.56	0.64	0.0	0.32	12.14	0.32	0.0
11.44	9	--	--	--	0.0	76.33	5.03	2.07	0.0	2.07	10.95	1.18	0.0
12.96	10	--	--	--	0.0	82.26	4.44	2.82	0.0	5.65	2.82	0.40	0.0
14.49	11	--	--	--	0.0	83.39	4.98	0.66	0.0	2.33	5.98	0.0	0.0
16.01	12	--	--	--	0.0	84.87	4.93	0.66	0.0	0.0	6.25	0.0	0.0
17.54	13	--	--	--	0.0	86.69	3.90	0.0	0.0	1.95	5.84	0.0	0.0

APPENDIX 2.—Continued.

CORE S74									CARBON-14
DEPTH	NO	GSHW	PSHF	SHLO	OSTR	SPNG	OTH		
0.0	1	0.0	0.0	0.0	0.0	0.0	1.62		
1.37	2	3.19	1.92	42.81	7.99	0.0	0.0		
2.75	14	0.0	0.0	9.15	0.95	0.0	0.0		
3.97	3	0.0	0.0	0.0	0.0	0.0	0.32		6290 +/-140
5.03	15	0.0	0.0	0.31	0.0	0.0	0.0		
5.49	4	0.0	0.0	0.0	0.0	0.0	0.94		
5.80	16	0.0	0.0	0.30	1.49	1.79	0.0		
7.02	5	0.0	0.0	2.52	0.56	0.0	0.56		
7.32	17	0.0	0.0	1.25	0.0	0.0	0.0		
8.54	6	0.0	0.0	0.0	0.0	0.0	0.63		
8.70	18	0.0	0.0	1.09	0.27	0.0	0.0		
9.15	7	0.0	0.0	0.0	0.0	0.0	0.99		6420 +/- 90
9.91	8	0.0	0.0	0.32	0.64	0.0	1.92		
11.44	9	0.30	0.0	0.89	0.0	0.0	1.18		
12.96	10	0.0	0.0	0.0	0.0	0.0	1.61		
14.49	11	0.0	0.0	0.0	0.0	0.0	2.66		
16.01	12	0.0	0.0	0.33	0.0	0.0	2.96		
17.54	13	0.0	0.0	0.65	0.0	0.0	0.97		

APPENDIX 2.—Continued.

CORE S75

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	AGG	PLTM	FORB
0.0	1	51.90	38.42	9.68	29.17	0.0	3.21	0.0	0.0	3.85	56.09	5.45	0.96
0.15	2	--	--	--	57.32	18.69	0.0	0.0	0.0	0.0	0.0	1.87	9.97
0.92	3	38.52	32.20	29.28	55.23	7.53	6.69	0.0	0.0	6.69	2.93	16.32	2.93
1.53	4	38.22	36.80	24.98	50.00	5.59	2.30	0.0	0.0	2.63	10.53	22.70	2.96
2.14	21	45.85	40.37	13.79	85.95	4.58	2.29	0.65	0.0	0.65	2.94	0.65	0.98
2.89	22	78.80	18.84	2.37	89.87	6.21	0.0	0.98	0.0	1.96	0.0	0.0	0.65
2.60	23	77.50	18.24	4.26	61.40	3.51	0.29	0.0	0.0	0.58	1.46	1.46	5.85
3.36	5	84.50	7.37	8.13	69.45	11.58	3.22	0.0	0.0	5.47	9.00	1.29	0.0
3.97	6	--	--	--	78.34	7.32	0.96	0.0	0.0	2.55	4.46	0.96	0.64
5.34	7	--	--	--	71.43	18.83	0.32	0.0	0.0	3.57	2.60	0.32	0.0
6.56	8	--	--	--	57.74	2.90	0.65	0.0	0.0	7.10	18.06	0.0	0.0
7.63	24	0.49	36.95	62.56	9.26	0.62	0.62	0.0	66.36	4.32	0.0	0.0	14.20
8.54	9	17.49	50.80	31.70	27.72	3.30	8.91	0.0	0.0	2.97	33.00	2.97	0.0
9.00	25	4.58	33.27	62.15	72.93	4.14	1.59	0.64	9.55	2.55	0.0	1.27	1.27
9.46	26	0.14	38.97	60.90	68.83	1.62	6.49	0.32	1.30	0.65	0.97	17.53	0.65
10.07	10	0.17	42.20	57.63	39.43	0.63	5.05	0.0	0.0	2.21	11.04	37.85	1.26
10.68	27	4.69	47.70	47.61	61.86	3.21	4.49	0.0	8.97	2.56	1.92	11.86	1.28
11.59	11	0.29	30.67	69.04	31.05	0.33	0.0	0.0	0.0	3.27	3.92	0.33	47.71
11.90	28	0.19	67.93	31.88	84.59	3.77	0.0	0.0	0.63	3.46	0.31	3.14	1.26
13.12	12	7.97	54.37	37.67	75.32	7.79	0.32	0.0	0.0	0.32	0.32	0.32	13.31
13.26	30	6.90	71.39	21.71	65.18	2.08	0.30	0.0	0.30	1.19	5.95	2.38	17.86
13.42	29	2.98	62.97	34.05	60.00	5.48	0.65	0.0	0.0	0.97	0.0	0.32	29.35
14.34	13	65.98	9.13	24.90	80.91	12.94	0.0	0.0	0.0	2.91	0.97	0.97	0.0
14.79	14	--	--	--	77.51	14.29	1.22	0.0	0.0	1.22	2.43	0.0	0.0
16.01	15	--	--	--	74.28	12.22	0.0	0.0	0.0	2.89	5.47	0.0	0.0
17.54	16	--	--	--	73.99	12.07	1.55	0.0	0.0	0.93	7.74	0.0	1.24
19.06	17	--	--	--	78.90	7.79	0.32	0.0	0.0	1.95	8.12	0.0	0.0
20.59	18	--	--	--	72.73	14.61	1.30	0.0	0.0	3.90	3.90	0.0	0.32
22.11	19	--	--	--	76.09	9.32	0.93	0.0	0.0	2.17	5.90	0.0	0.62
23.64	20	--	--	--	81.03	12.54	0.32	0.0	0.0	0.0	3.86	0.0	0.0

APPENDIX 2.—Continued.

CORE S75

DEPTH	NO	GSHW	GSHF	PSHF	SHLO	OSTR	DIAT	OTH	CARBON-14
0.0	1	0.32	0.0	0.0	0.96	0.0	0.0	0.0	
0.15	2	0.0	0.0	0.0	5.61	0.0	0.0	6.54	
0.92	3	0.0	0.0	0.0	0.0	0.0	0.0	1.67	
1.53	4	0.0	0.33	0.0	0.66	0.33	0.0	1.97	
2.14	21	0.0	0.0	0.0	0.33	0.0	0.0	0.98	
2.89	22	0.0	0.0	0.0	0.0	0.33	0.0	0.0	
2.60	23	0.58	0.0	0.0	20.76	4.09	0.0	0.0	2900 +/- 60
3.36	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3.97	6	0.0	0.0	0.0	2.87	1.27	0.0	0.64	
5.34	7	0.0	0.0	0.0	0.0	0.0	0.0	2.92	
6.56	8	0.0	0.0	0.0	0.0	0.0	0.0	13.55	
7.63	24	0.0	0.0	0.0	4.01	0.62	0.0	0.0	5830 +/- 90
8.54	9	0.33	0.0	0.0	0.0	0.0	0.0	20.79	
9.00	25	0.0	0.0	0.0	5.73	0.32	0.0	0.0	
9.46	26	0.0	0.0	0.0	1.62	0.0	0.0	0.0	
10.07	10	0.0	0.0	0.0	0.0	0.0	0.0	2.52	
10.68	27	0.32	0.0	0.0	2.88	0.64	0.0	0.0	
11.59	11	0.0	0.0	0.0	7.19	5.56	0.0	0.65	
11.90	28	0.0	0.0	2.83	0.0	0.0	0.0	0.0	
13.12	12	0.0	0.0	0.0	0.97	0.0	0.0	1.30	
13.26	30	0.0	0.0	0.0	3.87	0.89	0.0	0.0	
13.42	29	0.0	0.0	0.0	2.26	0.65	0.32	0.0	
14.34	13	0.0	0.0	0.0	0.0	0.0	0.0	1.29	6960 +/- 110
14.79	14	0.0	0.0	0.0	0.61	0.91	0.0	1.82	
16.01	15	0.0	0.0	0.0	0.0	0.0	0.0	5.14	
17.54	16	0.0	0.0	0.0	1.24	0.62	0.0	0.62	
19.06	17	0.0	0.0	0.0	1.62	0.0	0.0	1.30	
20.59	18	0.0	0.0	0.0	0.32	0.0	0.0	2.92	
22.11	19	0.0	0.0	0.31	0.62	0.0	0.0	4.04	
23.64	20	0.0	0.0	0.0	1.29	0.0	0.0	0.96	

APPENDIX 2.—Continued.

CORE S76		CARBON-14									
DEPTH	NO	GSHW	PSHW	PSHF	SHLO	OSTR	ECHN	DIAT	OTH		
0.0	1	0.0	0.0	0.0	1.88	0.31	0.0	0.0	2.19		
1.53	2	0.0	0.0	0.0	1.32	6.58	0.88	0.0	46.38		
1.83	15	0.0	0.0	0.0	27.51	2.37	0.0	0.0	0.0		
2.14	16	0.0	0.0	0.0	0.33	0.0	0.0	0.0	0.0		
2.44	3	0.0	0.0	0.0	68.00	4.33	0.0	0.0	3.67		
2.75	17	0.0	0.0	0.0	11.21	2.06	0.0	0.0	0.0		
3.51	18	0.0	0.0	0.0	77.85	6.65	0.0	0.0	0.0		
3.97	4	5.94	0.0	0.63	53.13	10.00	0.0	0.0	0.64		
4.58	19	0.0	0.0	0.0	58.17	1.96	0.0	0.0	0.0		
5.49	5	0.0	0.0	0.64	28.75	0.96	0.0	1.60	0.96		
5.94	20	0.0	0.0	0.0	76.59	1.16	0.0	0.0	0.0		
6.56	21	33.54	0.0	0.0	18.99	0.32	0.0	0.0	0.0		
7.02	6	0.0	0.0	0.0	20.77	1.92	0.0	0.0	0.0		
7.32	22	1.30	0.0	0.0	1.63	0.0	0.0	0.0	0.0		
7.93	23	0.0	0.0	0.0	0.31	0.0	0.0	0.0	0.0		
8.54	7	0.0	0.0	5.52	0.65	0.0	0.0	0.0	1.30		
9.30	8	0.0	0.0	0.0	22.44	9.62	0.0	0.0	1.92		
11.13	9	0.0	0.0	0.0	10.39	4.55	0.0	0.0	4.22		
12.96	10	3.63	0.0	0.0	34.14	5.44	0.0	0.0	0.91		
14.25	11	0.0	1.23	0.0	23.15	1.85	0.0	0.0	4.94		
16.01	12	0.0	0.0	0.0	10.23	5.56	0.0	0.0	7.89		
17.54	13	0.32	0.0	0.0	8.68	1.61	0.0	0.0	3.22		
19.06	14	0.0	0.0	0.0	19.61	2.57	0.0	0.0	1.61		

APPENDIX 2.—Continued.

CORE S77

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	50.72	48.41	0.87	10.89	0.33	0.0	0.0	0.0	0.0	0.0	58.75	0.0	0.99	0.0
2.75	2	83.30	15.58	1.12	32.27	0.0	0.0	0.0	0.0	0.0	0.0	32.91	26.84	0.0	0.0
3.97	3	--	--	--	30.13	8.32	0.32	0.0	0.0	0.64	0.0	5.45	2.88	0.96	0.0
5.2	29	23.03	57.66	19.31	29.6	1.5	0.0	0.0	7.9	2.8	0.3	3.1	1.0	2.4	0.0
5.8	30	2.54	32.36	65.10	43.7	2.5	0.3	0.0	3.0	0.6	0.0	1.1	1.7	2.5	0.0
6.1	31	2.79	63.03	34.18	52.3	3.1	0.0	0.0	1.4	0.6	0.3	0.6	2.3	1.9	0.0
6.7	32	4.05	57.73	38.22	18.3	1.8	0.5	0.0	0.2	28.6	0.0	0.0	3.7	2.5	0.0
6.71	4	2.76	64.64	32.60	56.44	6.27	0.0	0.0	0.0	0.33	0.0	1.98	4.29	8.25	0.0
7.0	33	1.02	46.83	52.15	74.9	2.9	0.0	0.0	2.0	1.5	0.6	0.9	1.2	4.0	0.0
7.7	34	5.62	62.33	32.05	45.2	0.7	0.3	0.0	1.3	2.1	0.0	1.0	4.7	0.0	0.0
8.24	5	1.79	72.49	25.72	83.33	7.69	0.0	0.0	0.0	0.0	0.0	2.88	0.64	0.0	0.0
8.3	35	7.32	66.20	26.48	21.5	1.5	0.6	0.0	5.1	2.4	0.0	1.2	3.33	3.9	0.3
8.4	36	0.84	63.83	35.33	50.6	3.0	1.2	0.0	1.2	0.0	0.0	1.7	1.5	5.2	0.0
8.6	37	1.21	42.17	56.62	91.6	3.7	2.5	0.3	0.0	0.3	0.0	0.3	0.0	0.0	0.0
8.99	6	70.75	25.89	3.36	82.03	7.19	0.0	0.0	0.0	0.0	0.0	1.63	3.59	0.0	0.0
9.91	7	--	--	--	71.99	10.75	1.63	1.95	0.0	3.26	0.0	4.23	0.33	0.33	0.0
10.8	38	10.45	22.05	67.49	95.1	0.6	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11.1	39	1.32	47.74	50.95	85.4	4.9	4.9	0.0	0.0	2.1	0.0	1.8	0.0	0.0	0.0
11.6	40	1.58	57.80	40.62	59.5	6.1	10.7	0.3	1.3	3.2	0.0	12.6	0.0	0.0	0.0
12.2	41	52.34	22.49	25.17	88.3	1.2	0.6	0.0	0.0	5.5	0.0	1.2	0.3	0.0	0.0
12.20	8	37.34	15.48	47.19	91.88	3.90	0.0	0.0	0.0	0.0	0.0	1.62	0.65	0.0	0.0
12.3	42	69.68	21.57	8.75	95.5	1.8	0.9	0.0	0.6	0.0	0.0	0.6	0.0	0.0	0.0
12.4	43	95.39	4.58	0.02	95.5	0.3	0.3	0.0	0.0	2.4	0.0	0.3	0.3	0.0	0.0
12.81	9	82.08	2.82	15.10	91.86	6.84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13.57	10	--	--	--	80.19	5.84	0.65	0.32	0.0	0.32	0.0	7.47	0.0	0.0	0.0
14.79	11	--	--	--	83.28	7.02	0.0	0.0	0.0	0.0	0.0	0.67	0.33	0.67	0.0
16.01	12	--	--	--	82.52	10.36	0.0	0.0	0.0	0.65	0.0	2.27	0.32	0.0	0.0
16.7	44	13.49	25.28	61.23	96.2	1.6	0.0	0.3	0.0	0.0	0.0	1.2	0.0	0.0	0.0
17.5	45	35.56	16.27	48.17	88.2	3.4	0.3	0.0	0.0	5.5	0.0	2.1	0.0	0.0	0.0
17.69	13	79.06	12.89	8.05	95.32	4.01	0.0	0.0	0.0	0.0	0.0	0.67	0.0	0.0	0.0
18.45	14	--	--	--	85.62	10.46	0.0	0.0	0.0	0.0	0.0	1.96	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S77

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
19.98	15	--	--	--	90.49	3.28	0.0	0.0	0.0	0.0	0.0	3.93	0.0	0.0	0.0
21.50	16	--	--	--	89.51	6.89	0.0	0.0	0.0	0.0	0.0	1.64	0.0	0.0	0.0
23.03	17	--	--	--	85.20	9.87	0.0	0.99	0.0	0.33	0.0	0.33	0.0	0.0	0.0
24.55	18	--	--	--	85.16	10.32	0.0	1.94	0.0	0.32	0.0	0.65	0.0	0.0	0.0
26.08	19	--	--	--	82.89	13.82	0.0	0.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.60	20	--	--	--	82.45	14.90	0.33	0.66	0.0	0.0	0.0	0.33	0.0	0.0	0.0
29.13	21	--	--	--	81.13	13.91	0.0	0.66	0.0	0.0	0.0	2.32	0.0	0.0	0.0
30.65	22	--	--	--	84.72	12.62	0.0	0.0	0.0	0.0	0.0	1.99	0.0	0.0	0.0
32.18	23	--	--	--	83.82	12.30	0.0	1.62	0.0	0.0	0.0	0.32	0.0	0.0	0.0
33.70	24	--	--	--	83.06	13.03	0.65	0.98	0.0	0.98	0.0	0.65	0.0	0.0	0.0
35.23	25	--	--	--	80.71	13.50	0.0	0.96	0.0	0.64	0.0	2.57	0.0	0.0	0.0
36.75	26	--	--	--	81.25	15.79	0.0	0.66	0.0	0.0	0.0	0.33	0.0	0.0	0.0
38.28	27	--	--	--	81.85	7.59	0.0	0.99	0.0	1.32	0.0	2.64	0.0	0.66	0.0
39.50	28	--	--	--	83.65	10.58	0.0	0.64	0.0	0.32	0.0	1.28	0.0	0.96	0.0

CORE S77

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	ECHN	BRYO	DIAT	CARBT	CARBON-14
19.98	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.30	
21.50	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.97	
23.03	17	0.0	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.0	2.63	
24.55	18	0.0	0.0	0.0	0.0	1.29	0.0	0.0	0.0	0.0	0.32	
26.08	19	0.0	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.0	1.64	
27.60	20	0.0	0.0	0.0	0.0	0.66	0.0	0.33	0.0	0.0	0.33	
29.13	21	0.0	0.0	0.0	0.0	0.66	0.0	0.0	0.0	0.0	1.32	
30.65	22	0.0	0.0	0.0	0.0	0.33	0.0	0.0	0.0	0.0	0.33	
32.18	23	0.0	0.0	0.0	0.0	1.94	0.0	0.0	0.0	0.0	0.0	
33.70	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.65	
35.23	25	0.0	0.0	0.0	0.0	0.96	0.0	0.0	0.0	0.0	0.64	
36.75	26	0.0	0.0	0.0	0.0	1.32	0.0	0.0	0.0	0.0	1.32	
38.28	27	0.0	0.0	0.0	0.0	4.62	0.33	0.0	0.0	0.0	0.0	
39.50	28	0.0	0.0	0.0	0.0	2.56	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S78		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	51.66	28.94	19.41	72.9	4.6	0.3	0.0	0.0	0.0	0.0	7.0	0.3	1.3	7.4	0.0	0.0
0.3	16	48.36	32.14	19.49	89.3	5.3	3.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
1.5	2	48.60	30.93	20.47	83.4	8.4	0.9	0.0	0.0	0.0	0.0	1.7	0.6	0.3	0.0	0.3	0.0
1.7	17	58.41	35.08	6.51	84.1	6.6	0.7	0.0	0.0	0.0	0.0	3.8	0.0	0.7	0.0	0.0	0.0
3.0	3	59.17	19.80	21.04	85.2	8.8	0.3	0.0	0.0	0.0	0.0	1.6	0.9	0.0	0.0	0.0	0.0
4.0	4	--	--	--	17.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0
4.3	18	18.01	34.44	47.55	6.0	0.3	1.1	0.0	0.0	0.0	1.1	1.4	0.0	0.0	0.0	3.2	0.0
4.6	19	21.56	61.39	17.05	4.6	0.0	0.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
5.2	20	19.55	35.90	44.55	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	1.3
5.8	5	2.80	45.05	52.15	61.8	3.2	0.0	0.0	0.0	0.0	10.6	5.1	0.0	0.0	0.6	0.0	0.0
5.9	21	20.07	42.11	37.83	42.6	1.0	4.8	1.3	0.0	1.3	2.3	4.4	0.0	0.3	0.0	11.9	0.0
7.0	22	15.35	61.77	22.87	76.0	2.7	4.2	1.5	0.0	1.5	2.1	6.9	0.0	0.0	1.5	0.0	0.0
7.1	23	79.96	10.08	9.96	91.4	1.8	0.9	2.1	0.0	2.1	0.3	1.2	0.0	0.0	0.3	0.0	0.0
7.3	6	21.40	32.53	46.07	75.4	2.7	0.9	0.0	0.0	0.0	0.0	1.8	0.0	0.6	0.6	0.0	0.0
7.4	24	25.39	33.87	40.74	70.7	4.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.6	25	21.36	33.99	44.65	61.8	0.0	0.3	0.0	0.0	0.0	0.0	7.5	0.0	0.6	0.0	0.0	0.0
7.9	7	16.44	28.53	55.03	67.9	3.1	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0	0.0
8.0	8	--	--	--	0.0	81.1	3.7	0.0	0.0	0.0	0.0	9.1	0.0	0.9	0.0	0.0	0.0
10.0	9	--	--	--	0.0	79.9	4.7	0.0	0.0	0.0	0.0	9.2	0.0	0.3	0.0	0.0	0.0
11.0	10	--	--	--	0.0	82.2	5.6	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
13.0	11	--	--	--	0.0	73.7	7.2	0.0	0.0	0.0	0.0	12.7	0.0	1.1	0.0	0.0	0.0
14.0	12	--	--	--	0.0	88.3	5.2	0.0	0.0	0.0	0.0	2.3	1.3	0.0	0.0	0.0	0.0
16.0	13	--	--	--	0.0	80.3	5.8	0.0	0.0	0.0	0.0	9.4	0.0	0.6	0.0	0.0	0.0
17.0	14	--	--	--	0.0	85.5	4.4	0.0	0.0	0.0	0.0	4.7	1.6	0.0	0.0	0.0	0.0
19.0	15	--	--	--	0.0	78.5	5.4	0.0	0.0	0.0	0.0	11.5	0.9	0.9	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S78												CARBON-14	
DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	ECHN	RADIO	CARB			
0.0	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2			
0.3	16	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0			
1.5	2	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	3.5			
1.7	17	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	3.8			
3.0	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1			
4.0	4	0.0	0.3	0.3	8.7	50.7	2.4	0.0	0.0	15.8			
4.3	18	0.0	0.3	9.2	63.1	5.5	0.0	0.0	0.3	8.4	3250+/- 60		
4.6	19	1.7	1.2	5.2	75.6	0.0	0.0	0.3	0.0	2.3			
5.2	20	0.3	0.0	11.3	45.1	14.4	0.0	0.0	0.0	3.1			
5.8	5	0.0	0.0	1.1	8.1	0.3	0.0	0.0	0.0	9.2			
5.9	21	0.3	0.0	10.0	9.7	2.3	0.0	0.0	0.0	6.1	6730+/- 70		
7.0	22	0.0	0.0	0.0	2.4	0.3	0.0	0.0	0.0	2.4			
7.1	23	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.9			
7.3	6	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	17.7			
7.4	24	0.0	0.0	0.3	2.1	0.0	0.0	0.0	0.0	21.0			
7.6	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.8			
7.9	7	0.0	0.0	0.3	0.9	0.0	0.0	0.0	0.0	16.4	15920+/-140		
8.0	8	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	4.9			
10.0	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9			
11.0	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2			
13.0	11	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	5.0			
14.0	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9			
16.0	13	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	3.6			
17.0	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8			
19.0	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7			

APPENDIX 2.—Continued.

CORE S79		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	54.41	24.15	21.44	5.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	6.1	0.3
0.7	30	73.95	12.69	13.36	73.9	3.3	0.3	0.0	0.0	0.0	0.0	7.7	0.3	0.6	0.0	0.0	0.0
1.5	2	67.13	10.68	22.18	69.5	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.3	0.0
1.6	31	45.92	44.42	9.65	61.6	3.6	0.0	0.0	0.0	0.0	0.0	9.7	0.9	0.0	0.0	0.9	0.0
1.9	32	46.32	44.88	8.80	32.3	1.2	0.3	0.0	0.0	0.0	0.0	3.1	0.6	0.0	0.0	1.2	0.0
2.1	33	54.37	31.68	13.95	65.1	4.8	0.3	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.9	0.0
2.4	34	43.18	33.97	22.85	31.3	1.6	0.6	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.9	1.8	0.0
3.0	3	64.29	30.70	5.02	56.7	0.6	0.0	0.0	0.0	0.0	0.0	28.7	0.3	0.0	0.0	0.0	0.0
3.1	35	35.53	27.32	37.14	5.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	5.3	0.0
3.5	36	34.58	61.95	3.47	3.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.3	0.0
4.1	37	34.71	44.73	20.56	45.9	1.7	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.6	0.3	0.3	0.0
4.2	38	50.60	18.68	30.72	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	6.5	0.9
4.3	39	57.24	16.92	25.83	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	2.5	0.0
4.6	40	42.66	28.87	28.48	71.6	2.8	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.6	0.0	3.7	0.0
4.7	41	16.72	62.98	20.29	76.5	3.9	0.6	0.6	0.0	0.6	0.0	16.7	0.3	0.0	0.0	0.0	0.0
5.2	4	10.07	50.52	39.41	87.8	2.8	5.0	0.3	0.0	0.3	0.0	1.2	0.6	0.6	0.0	0.0	0.0
5.3	42	--	--	--	69.5	2.2	1.3	0.9	0.0	0.9	0.0	11.3	0.0	0.9	0.0	0.6	0.0
5.5	43	35.15	45.61	19.25	81.9	5.6	1.6	0.9	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.0	0.0
5.7	44	0.74	51.04	48.21	89.0	1.9	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5.9	45	32.91	42.47	24.62	76.2	6.6	2.0	0.0	0.0	0.0	0.0	12.9	0.0	0.6	0.6	0.0	0.0
6.1	5	21.22	41.98	36.81	58.5	2.4	0.3	0.3	0.0	0.3	0.0	26.5	2.1	2.1	0.6	0.3	0.0
6.2	46	25.42	41.79	32.79	83.2	5.3	0.9	0.0	0.0	0.0	0.0	5.6	0.3	0.9	0.0	0.0	0.0
6.6	47	21.72	52.14	26.14	87.9	2.2	1.9	0.0	0.0	0.0	0.0	6.0	0.9	0.0	0.0	0.0	0.0
7.0	48	61.01	22.74	16.25	80.8	2.9	0.9	0.6	0.0	0.6	0.3	9.9	2.0	0.0	0.0	0.0	0.0
7.6	6	71.21	10.16	18.63	82.0	3.4	0.0	0.3	0.0	0.3	0.0	12.7	0.3	0.6	0.0	0.0	0.0
8.0	7	--	--	--	78.6	5.6	0.0	0.0	0.0	0.0	0.0	6.2	1.2	0.0	0.0	0.3	0.0
10.0	8	--	--	--	79.4	6.4	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0
11.0	9	--	--	--	68.7	4.6	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
13.0	10	--	--	--	80.1	4.8	0.0	0.0	0.0	0.0	0.0	5.7	0.3	0.0	0.0	0.3	0.0
14.4	11	--	--	--	76.5	6.4	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.3	0.0
16.0	12	--	--	--	82.8	7.2	0.0	0.2	0.0	0.2	0.0	3.0	0.5	0.0	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S79		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
17.5	13	--	--	--	--	--	76.3	5.7	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0
19.0	14	--	--	--	--	--	79.8	4.8	0.0	0.0	0.0	6.0	0.3	0.0	0.0	0.3	0.0
20.5	15	--	--	--	--	--	79.1	2.5	0.0	0.0	0.0	4.7	0.9	0.0	0.0	0.0	0.0
22.0	16	--	--	--	--	--	81.9	3.5	0.0	0.0	0.0	2.4	0.3	0.0	0.0	0.5	0.0
23.6	17	--	--	--	--	--	82.8	5.0	0.0	0.0	0.0	4.1	0.3	0.0	0.0	0.3	0.0
25.5	18	--	--	--	--	--	79.6	3.6	0.6	0.0	0.0	3.3	0.3	0.0	0.0	0.0	0.0
26.5	19	--	--	--	--	--	52.9	3.0	0.3	0.0	0.0	12.7	0.6	0.0	0.0	0.6	0.0
28.5	20	--	--	--	--	--	54.0	3.8	0.8	0.0	0.0	14.9	0.5	0.3	0.0	0.0	0.0
29.3	27	--	--	--	--	--	71.8	4.1	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
30.0	21	--	--	--	--	--	48.5	4.3	0.3	0.0	0.0	4.9	0.0	0.3	0.0	0.0	0.0
31.5	22	--	--	--	--	--	51.0	3.6	0.0	0.0	0.0	11.9	0.0	0.0	0.3	0.3	0.0
33.2	23	--	--	--	--	--	58.2	3.9	0.0	0.0	0.0	11.6	0.6	0.0	0.0	0.3	0.0
35.0	24	--	--	--	--	--	63.7	3.1	0.0	0.3	0.0	8.4	0.0	0.0	0.0	0.0	0.0
36.0	25	--	--	--	--	--	67.0	1.8	0.0	0.0	0.0	2.4	0.0	0.3	0.0	0.6	0.0
38.0	26	--	--	--	--	--	62.8	3.7	0.0	0.0	0.0	4.0	0.6	0.0	0.0	0.3	0.0
41.0	28	--	--	--	--	--	61.0	2.7	0.0	0.0	0.0	0.9	0.3	0.0	0.0	0.3	0.0
42.5	29	--	--	--	--	--	35.9	1.7	0.3	0.0	0.0	4.7	0.0	0.3	0.0	0.0	0.0

APPENDIX 2.—Continued.

CORE S79

DEPTH	NO	GSHW	GSHF	PSHW	PSHF	SHLO	OSTR	ECHN	CARBT	CARBON-14
0.0	1	0.0	0.0	0.0	4.6	32.5	0.0	0.0	50.1	
0.7	30	0.0	0.0	0.0	0.3	4.7	0.8	0.0	8.0	
1.5	2	0.0	0.0	0.0	0.8	17.5	0.3	0.0	7.0	
1.6	31	0.0	0.0	0.0	1.5	10.3	0.3	0.0	11.8	
1.9	32	0.0	0.0	0.0	0.0	26.0	0.6	0.0	34.5	
2.1	33	0.0	0.0	0.0	0.6	16.4	0.0	0.0	10.0	
2.4	34	0.3	0.3	0.0	1.6	25.4	3.8	0.0	30.4	
3.0	3	0.0	0.3	0.0	0.6	4.78	0.3	0.0	7.7	
3.1	35	0.0	0.0	0.0	2.2	51.0	3.9	0.0	28.8	
3.5	36	0.0	0.0	0.0	14.9	3.9	0.0	75.9	0.0	
4.1	37	0.0	0.3	0.3	1.7	11.4	0.0	0.0	31.6	
4.2	38	0.3	0.0	0.0	4.2	50.8	4.5	0.0	27.2	3850+/- 80
4.3	39	0.0	0.3	0.0	3.2	52.5	0.0	0.0	31.3	
4.6	40	0.0	0.0	0.0	0.0	8.9	0.0	0.0	8.0	4480+/- 70
4.7	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	17900+/-220
5.2	4	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.2	
5.3	42	0.0	0.0	0.0	0.0	6.3	0.3	0.0	5.3	
5.5	43	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.9	
5.7	44	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.6	
5.9	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	
6.1	5	0.0	0.0	0.0	0.6	1.8	0.3	0.0	4.0	
6.2	46	0.0	0.0	0.0	0.0	1.2	0.0	0.0	2.6	
6.6	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
7.0	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	
7.6	6	0.0	0.0	0.0	0.0	0.3	0.0	0.0	7.6	
8.0	7	0.0	0.3	0.0	0.9	1.8	0.3	0.0	4.8	
10.0	8	0.0	0.6	0.0	0.0	1.8	0.6	0.0	6.9	
11.0	9	0.2	0.0	0.0	0.0	0.7	0.2	0.0	25.06	
13.0	10	0.0	0.0	0.0	0.0	0.6	0.0	0.0	8.2	
14.4	11	0.0	0.0	0.0	0.0	1.2	0.0	0.0	7.2	
16.0	12	0.0	0.0	0.0	0.0	2.0	0.2	0.0	4.0	

APPENDIX 2.—Continued.

CORE S79

DEPTH	NO	GSHW	GSWF	PSHW	PSHF	SHLO	OSTR	ECHN	CARBT	CARBON-14
17.5	13	0.0	0.0	0.0	0.0	2.5	0.0	0.0	8.2	
19.0	14	0.0	0.0	0.6	0.3	1.5	0.0	0.0	6.3	
20.5	15	0.0	0.0	0.0	1.3	2.2	0.3	0.0	8.9	
22.0	16	0.0	0.0	0.0	0.8	2.2	0.0	0.3	8.1	
23.6	17	0.0	0.0	0.0	0.0	0.0	1.2	0.0	6.2	
25.5	18	0.0	0.0	0.0	0.0	0.6	0.6	0.0	11.4	
26.5	19	0.0	0.0	0.0	0.0	3.6	0.3	0.0	26.3	
28.5	20	0.0	0.0	0.0	0.0	0.0	0.5	0.0	25.1	
29.3	27	0.0	0.0	0.0	0.6	1.3	0.9	0.0	19.9	
30.0	21	0.0	0.0	0.0	0.3	2.3	0.0	0.0	38.9	
31.5	22	0.0	0.0	0.0	0.6	1.2	0.0	0.0	31.2	
33.2	23	0.0	0.0	0.0	0.3	1.5	0.0	0.0	23.7	
35.0	24	0.0	0.0	0.0	0.0	0.8	0.0	0.0	23.7	
36.0	25	0.0	0.6	0.0	0.3	2.1	0.0	0.0	25.1	
38.0	26	0.0	0.0	0.0	0.3	2.2	0.3	0.0	26.0	
41.0	28	0.0	0.0	0.0	0.0	2.1	0.0	0.0	32.6	
42.5	29	0.0	0.0	0.0	0.0	2.8	0.0	0.0	54.4	

APPENDIX 2.—Continued.

CORE S80

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB
0.0	surf	--	--	--	14.8	0.5	0.7	0.0	0.0	37.9	0.0	11.1	0.0	5.5
0.3	34	59.51	25.59	14.90	56.1	1.8	0.0	0.0	0.0	2.1	0.0	0.3	0.0	1.2
0.8	35	71.54	16.69	11.77	46.4	0.6	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.9
1.5	1	64.15	23.33	12.51	21.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
2.0	2	--	--	--	23.5	0.9	0.9	0.0	0.0	14.5	0.0	5.2	0.0	2.9
5.0	4	--	--	--	31.9	0.0	0.0	1.2	0.0	23.6	0.0	4.5	0.0	0.3
6.2	36	37.60	35.40	27.00	61.3	3.5	0.6	0.3	0.0	5.8	0.0	1.7	0.0	2.3
6.6	37	82.12	5.50	12.38	25.8	0.3	0.0	0.0	0.0	6.5	0.0	2.7	0.0	0.9
6.7	38	25.00	52.37	22.63	84.9	4.1	5.6	0.0	1.9	0.0	1.2	0.0	0.0	0.0
6.8	5	48.96	20.45	30.59	30.4	3.0	0.0	0.3	0.0	32.1	0.0	5.2	0.3	0.0
7.0	3	40.14	40.68	19.17	83.0	2.9	2.6	0.0	0.0	2.3	0.0	0.0	0.0	1.0
7.1	39	29.19	41.46	29.35	88.7	0.9	0.0	0.0	0.0	3.8	0.0	0.3	0.3	0.0
7.3	40	15.04	26.22	58.74	92.4	2.7	0.0	0.0	0.0	3.6	1.2	0.0	0.0	0.0
7.6	6	--	--	--	85.8	2.5	0.0	0.0	0.0	0.6	0.6	0.3	0.0	0.0
7.8	41	20.56	25.52	53.92	94.3	2.8	0.0	0.0	0.3	1.3	0.0	0.3	0.0	0.0
8.2	7	--	--	--	98.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.5	8	--	--	--	71.8	1.1	0.0	0.0	0.0	11.7	0.8	1.1	0.0	0.0
10.0	9	--	--	--	50.5	1.7	0.0	0.0	0.0	23.8	4.7	0.0	0.0	0.0
11.0	10	--	--	--	17.8	1.9	0.3	0.3	0.0	32.2	0.3	1.9	0.0	0.0
11.7	11	--	--	--	24.8	1.1	0.0	0.0	0.0	24.3	0.6	2.0	0.0	0.3
13.0	12	--	--	--	44.3	1.4	0.3	0.0	0.0	29.0	2.0	3.5	0.0	0.3
14.0	13	--	--	--	34.6	3.9	0.0	0.0	0.3	42.4	2.8	2.2	0.0	0.0
16.0	14	--	--	--	38.5	3.2	0.3	0.0	0.0	42.9	3.2	0.9	0.0	0.0
17.0	15	--	--	--	38.9	3.8	0.7	0.2	0.0	39.9	6.2	0.5	0.0	0.0
19.0	16	--	--	--	43.4	3.4	0.3	0.9	0.0	42.5	1.5	1.2	0.0	0.0
20.5	17	--	--	--	45.7	4.9	0.0	0.0	0.0	32.8	3.2	1.4	0.0	0.0
22.0	18	--	--	--	73.6	6.9	0.3	0.6	0.3	5.1	3.0	0.0	0.0	0.0
23.5	19	--	--	--	76.5	3.4	0.0	0.0	0.0	8.1	5.0	0.0	0.0	0.0
25.0	20	--	--	--	71.2	3.1	0.3	0.0	0.0	11.4	2.8	0.3	0.0	0.0
26.5	21	--	--	--	74.8	6.7	0.5	0.0	0.0	6.9	1.5	0.0	0.0	0.0
28.0	22	--	--	--	72.2	2.1	0.0	0.0	0.0	4.8	4.2	0.3	0.0	0.3

APPENDIX 2.—Continued.

CORE S80												CARBON-14	
DEPTH	NO	GSHW	GSHF	PSHF	SHLO	OSTR	SPNG	BRYO	CARBT				
0.0	surf	0.0	0.0	0.0	13.6	1.0	0.0	0.0	14.8				
0.3	34	0.0	0.0	0.9	5.0	1.2	0.0	0.3	31.2				
0.8	35	0.0	0.0	0.3	2.5	0.0	0.0	0.6	46.4				
1.5	1	0.0	0.0	0.0	2.2	0.0	0.0	1.5	74.1				
2.0	2	0.0	0.0	0.0	13.6	2.9	0.0	0.0	35.6			3530+/- 60	
5.0	4	0.0	0.0	1.5	7.2	0.0	0.0	0.0	29.8				
6.2	36	0.0	0.0	3.2	11.0	0.0	1.2	0.0	9.2				
6.6	37	0.0	0.0	4.4	26.4	2.1	0.0	0.0	30.9				
6.7	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2				
6.8	5	0.0	0.0	0.5	8.4	0.0	0.0	0.0	19.0				
7.0	3	0.0	0.0	0.0	1.2	0.0	0.0	0.0	7.9				
7.1	39	0.0	0.0	0.0	2.8	0.0	0.0	0.0	3.1				
7.3	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
7.6	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2			23070+/- 1880	
7.8	41	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9				
8.2	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0				
8.5	8	0.0	0.0	0.6	2.3	0.0	0.0	0.0	10.5				
10.0	9	0.0	0.0	1.7	3.9	0.0	0.0	0.0	13.8				
11.0	10	0.0	0.0	0.6	5.3	0.0	0.0	0.0	39.0				
11.7	11	0.0	0.3	0.3	6.8	0.0	0.0	0.0	39.6				
13.0	12	0.0	0.0	0.3	1.7	0.0	0.0	0.0	17.1				
14.0	13	0.0	0.0	0.5	1.1	0.0	0.0	0.0	12.2				
16.0	14	0.0	0.0	0.3	0.0	0.0	0.0	0.0	10.8				
17.0	15	0.0	0.0	0.5	0.0	0.0	0.0	0.0	9.3				
19.0	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8				
20.5	17	0.3	0.0	1.1	0.0	0.0	0.0	0.0	10.6				
22.0	18	0.0	0.0	0.6	0.6	0.0	0.0	0.0	9.0				
23.5	19	0.0	0.0	0.3	1.1	0.0	0.0	0.3	5.3				
25.0	20	0.0	0.0	0.0	1.4	0.0	0.0	0.0	9.4				
26.5	21	0.0	0.0	0.0	1.2	0.0	0.0	0.0	8.4				
28.0	22	0.0	0.0	0.9	1.2	0.0	0.0	0.0	14.2				

APPENDIX 2.—Continued.

CORE S81		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB
0.0	1	--	--	--	--	--	29.2	2.1	0.3	0.0	0.0	13.3	0.0	14.7	0.0	0.6
1.5	2	9.43	35.56	55.01	16.5	0.6	16.5	0.6	0.0	0.0	0.3	0.0	0.3	0.3	0.6	0.6
1.6	21	23.88	46.04	30.08	24.3	0.9	24.3	0.9	0.0	0.0	0.0	4.1	0.0	2.6	0.3	1.5
1.8	22	--	--	--	83.0	2.1	83.0	2.1	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
2.2	23	58.53	22.03	19.43	94.6	3.0	94.6	3.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
2.6	24	73.91	16.49	9.60	61.0	4.3	61.0	4.3	0.0	0.0	0.0	8.0	0.3	4.3	0.0	0.0
3.0	3	58.47	16.98	24.55	72.0	3.9	72.0	3.9	0.0	0.0	0.0	18.4	0.0	0.3	0.0	0.0
3.2	25	49.20	26.34	24.45	73.0	4.1	73.0	4.1	0.0	0.0	0.0	13.8	1.6	0.6	0.0	0.0
3.4	26	66.06	15.87	18.08	76.9	5.8	76.9	5.8	0.6	0.0	0.0	10.5	0.0	0.6	0.0	0.0
3.6	4	55.03	21.54	23.43	84.3	4.3	84.3	4.3	0.6	0.0	0.0	7.1	0.0	0.3	0.0	0.0
5.2	6	--	--	--	78.4	3.2	78.4	3.2	0.6	0.9	7.5	0.3	2.9	0.0	0.0	0.0
5.6	27	30.78	31.14	38.08	40.0	1.5	40.0	1.5	0.3	0.3	6.6	0.3	0.0	0.0	0.0	0.0
6.0	28	36.22	27.10	36.67	80.8	6.2	80.8	6.2	0.0	0.0	0.0	5.3	0.0	1.5	0.0	0.0
6.3	29	11.31	12.98	75.70	84.7	2.1	84.7	2.1	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0
6.5	5	--	--	--	80.7	5.6	80.7	5.6	0.9	0.0	0.0	6.0	0.6	2.3	0.0	0.0
6.5	30	80.89	7.40	11.71	82.9	3.4	82.9	3.4	0.0	0.6	0.0	10.0	0.3	0.0	0.0	0.0
6.7	31	70.37	15.43	14.20	85.6	1.8	85.6	1.8	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
7.0	7	70.73	16.91	12.36	73.0	2.6	73.0	2.6	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0
7.5	8	--	--	--	69.2	3.9	69.2	3.9	0.3	1.8	0.0	9.9	0.9	0.3	0.0	0.0
9.0	9	--	--	--	65.3	4.7	65.3	4.7	0.6	0.0	0.0	11.2	0.6	1.8	0.0	0.0
9.7	32	26.67	30.70	42.63	71.7	2.9	71.7	2.9	0.0	0.0	0.0	8.4	0.9	0.0	0.0	0.0
9.8	34	19.97	30.34	49.69	85.1	3.1	85.1	3.1	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0
10.6	10	29.14	17.22	53.63	65.4	5.1	65.4	5.1	0.6	0.9	0.0	17.3	0.9	0.0	0.0	0.9
10.8	35	19.65	27.14	53.21	73.6	5.1	73.6	5.1	0.3	0.3	0.0	11.8	0.3	0.0	0.0	1.2
10.9	36	28.81	35.81	35.38	36.3	1.2	36.3	1.2	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.5
11.0	37A	23.47	16.72	59.80	19.5	0.0	19.5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	23.2
11.5	11	16.48	19.50	64.02	94.0	1.2	94.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
11.7	37B	18.15	30.93	50.92	89.6	2.3	89.6	2.3	0.0	0.0	0.0	1.0	0.3	0.0	0.0	0.3
11.8	38	61.98	18.17	19.85	82.2	3.3	82.2	3.3	0.0	0.3	0.0	5.0	0.3	0.0	0.0	0.0
11.9	39	23.41	57.98	18.61	57.6	1.8	57.6	1.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
12.1	40	28.59	40.39	31.02	76.8	1.1	76.8	1.1	0.3	0.0	0.0	2.5	0.0	1.1	0.0	0.0

APPENDIX 2.—Continued.

CORE S81

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PVRT	GYP	LITH	AGG	PLTM	FORB
12.2	41	32.66	27.41	39.92	51.8	1.8	0.0	0.0	0.0	7.4	0.0	3.2	0.0	0.0
12.3	42	--	--	--	70.7	1.6	0.3	0.0	0.0	0.0	0.0	10.1	0.0	0.0
12.3	12	58.12	21.50	20.38	75.6	2.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
12.4	43	65.11	18.26	16.63	83.7	2.6	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
12.5	44	63.27	16.15	20.58	80.9	1.6	0.3	0.0	0.0	10.9	0.0	0.3	0.0	0.0
12.7	45	--	--	--	90.4	0.9	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0
12.9	46	--	--	--	84.9	0.6	0.3	0.0	0.0	1.3	0.0	0.3	0.0	0.0
13.2	13	41.12	25.60	33.28	75.4	3.7	0.0	0.6	0.0	16.5	0.0	0.9	0.0	0.0
13.3	47	28.36	35.82	35.82	84.7	2.2	0.0	0.0	0.0	12.5	0.0	0.6	0.0	0.0
13.8	49	54.62	23.95	21.43	61.4	0.6	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
14.0	15	43.45	31.24	25.32	50.6	1.6	0.0	0.0	0.0	11.5	0.0	1.0	0.0	0.0
14.2	50	72.64	16.04	11.32	66.6	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
14.9	16	70.34	12.86	16.80	75.7	3.1	0.0	0.0	0.0	5.6	1.2	0.6	0.0	0.0
16.0	17	--	--	--	66.6	3.8	0.6	0.3	0.0	12.6	0.6	0.0	0.0	0.0
17.0	18	--	--	--	64.8	1.8	0.0	0.0	0.0	13.7	1.5	1.8	0.0	0.0
19.0	19	--	--	--	71.9	1.2	0.0	0.3	0.0	10.5	0.0	0.9	0.0	0.0
20.5	20	37.17	23.73	39.10	67.3	1.5	0.0	0.0	0.0	9.8	0.0	0.6	0.0	0.0

APPENDIX 2.—Continued.

CORE S81

DEPTH	NO	PSHF	SHLO	OSTR	BRYO	CARBT	CARBON-14
12.2	41	0.0	0.0	0.0	0.0	35.8	
12.3	42	0.0	0.3	0.0	0.0	17.0	
12.3	12	0.0	0.0	0.0	0.0	18.7	
12.4	43	0.0	0.0	0.0	0.0	10.1	
12.5	44	0.0	0.0	0.0	0.0	5.9	
12.7	45	0.0	0.0	0.0	0.0	4.2	
12.9	46	0.0	0.0	0.0	0.0	12.5	
13.2	13	0.0	0.0	0.0	0.0	2.8	
13.3	47	0.0	0.0	0.0	0.0	0.0	
13.8	49	0.0	0.0	0.0	0.0	36.4	
14.0	15	0.0	0.0	0.0	0.0	35.3	
14.2	50	0.0	0.0	0.0	0.0	32.2	
14.9	16	0.0	0.3	0.0	0.0	13.4	
16.0	17	0.0	0.0	0.0	0.0	15.5	
17.0	18	0.0	0.0	0.0	0.0	16.4	
19.0	19	0.0	0.0	0.0	0.0	15.1	
20.5	20	0.0	0.0	0.0	0.0	20.8	

APPENDIX 2.—Continued.

CORE S82		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	--	--	--	24.89	--	20.8	0.0	0.0	0.0	0.0	7.3	0.0	16.8	2.1	0.0	0.0
0.2	23	49.20	25.91	78.5	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.6	0.0
0.75	2	--	--	62.7	3.5	0.0	0.0	0.0	0.0	0.0	0.0	10.2	0.6	1.2	0.0	0.0	0.0
2.2	24	54.99	10.31	80.6	0.5	0.3	0.0	0.0	0.0	0.0	0.0	18.3	0.0	0.0	0.0	0.0	0.0
2.7	25	56.41	21.26	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	3.1	0.0	9.3	0.3
3.1	26	30.60	37.62	37.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	6.9	0.0
3.3	27	12.89	48.33	92.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.6	0.0	0.0	0.0
3.4	28	60.17	18.54	91.2	4.4	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.3	0.0	0.0
3.6	29	33.23	23.34	20.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.6	0.0	0.0	0.0
4.0	4	13.39	52.85	79.9	1.2	0.0	0.0	0.0	0.0	0.6	0.0	10.1	0.0	0.0	0.0	0.0	0.0
4.1	30	12.60	56.85	88.3	2.5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0
4.4	31	77.33	14.34	85.8	3.4	0.9	0.0	0.0	0.0	0.0	0.0	8.9	0.0	0.0	0.0	0.0	0.0
4.7	32	29.62	47.57	78.9	3.1	1.2	0.0	0.0	0.0	0.0	0.0	14.7	0.6	0.0	0.3	0.0	0.0
4.75	33	81.74	12.64	96.6	2.5	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
5.2	5	64.41	20.65	92.9	0.9	0.0	0.0	0.0	0.0	0.3	0.0	3.9	0.0	0.0	0.0	0.0	0.0
5.5	6	--	--	80.3	3.9	0.6	0.0	0.0	0.0	0.0	0.0	8.2	1.5	0.9	0.0	0.0	0.0
7.0	7	--	--	75.7	2.6	0.3	0.0	0.0	0.0	0.0	0.0	12.0	1.2	0.3	0.0	0.0	0.0
8.0	8	--	--	75.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.3	1.9	0.0	0.0	0.0
10.0	9	--	--	72.0	1.2	0.0	0.0	0.0	0.0	0.3	0.0	12.1	0.3	0.9	0.0	0.0	0.0
11.0	10	--	--	69.5	2.7	0.6	0.0	0.0	0.0	0.6	0.0	11.5	1.1	2.9	0.0	0.0	0.0
13.0	11	--	--	71.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.3	3.5	0.0	0.0	0.0
14.0	12	--	--	53.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	13.4	0.6	4.6	0.0	0.6	0.0
16.0	13	--	--	51.2	1.9	0.3	0.0	0.0	0.0	0.3	0.0	12.1	0.3	3.0	0.0	1.6	0.0
17.0	14	--	--	47.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.3	4.7	0.0	0.6	0.0
19.0	15	--	--	42.2	2.1	0.7	0.0	0.0	0.0	0.0	0.0	8.9	0.3	2.3	0.3	0.9	0.0
20.0	16	--	--	44.5	1.2	0.3	0.0	0.0	0.0	0.0	0.0	16.8	0.0	3.5	0.0	0.3	0.0
22.0	17	--	--	43.3	2.2	0.3	0.0	0.0	0.0	0.0	0.0	16.4	1.1	3.3	0.0	0.3	0.0
23.5	18	--	--	40.3	1.1	0.3	0.0	0.0	0.0	0.0	0.0	15.7	0.0	3.9	0.0	1.4	0.0
25.0	19	--	--	53.0	2.8	0.8	0.0	0.0	0.0	0.3	0.0	14.8	0.0	4.6	0.0	0.9	0.0
26.5	20	--	--	51.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.0	3.0	0.0	0.6	0.0
28.0	21	--	--	56.2	3.8	0.0	0.0	0.0	0.0	0.0	0.0	12.4	0.6	0.9	0.0	0.9	0.0
29.0	22	--	--	54.2	3.1	0.3	0.0	0.0	0.0	0.0	0.0	16.2	0.0	2.0	0.0	0.3	0.0

APPENDIX 2.—Continued.

CORE S82

DEPTH	NO	GSHW	GSHF	PSHF	SHLO	OSTR	ECHN	CARBT	CARBON-14
0.0	1	0.0	0.0	0.6	19.0	2.4	0.0	30.9	
0.2	23	0.0	0.0	0.0	1.9	0.3	0.0	12.0	
0.75	2	0.0	0.0	0.0	0.3	0.3	0.0	21.2	
2.2	24	0.0	0.0	0.0	0.3	0.0	0.0	0.0	
2.7	25	0.9	0.6	8.2	60.6	6.5	0.0	7.9	
3.1	26	0.0	0.0	2.9	30.9	1.4	0.0	18.9	5050 +/- 70
3.3	27	0.0	0.0	0.3	0.6	0.0	0.0	0.9	5850 +/- 150
3.4	28	0.0	0.0	0.0	0.0	0.0	0.0	1.6	
3.6	29	0.0	0.0	0.0	0.6	0.3	0.0	75.2	
4.0	4	0.0	0.0	0.0	1.5	0.0	0.0	6.7	16540 +/- 220
4.1	30	0.0	0.0	0.0	0.6	0.0	0.0	4.6	
4.4	31	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
4.7	32	0.0	0.0	0.0	0.3	0.0	0.0	0.9	
4.75	33	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
5.2	5	0.0	0.0	0.0	0.0	0.0	0.0	1.8	
5.5	6	0.0	0.0	0.6	2.1	0.0	0.0	1.8	
7.0	7	0.0	0.0	0.0	1.2	0.0	0.0	6.7	
8.0	8	0.0	0.0	0.6	0.3	0.0	0.0	13.9	
10.0	9	0.0	0.0	0.0	0.3	0.0	0.0	13.3	
11.0	10	0.0	0.0	0.8	1.1	0.0	0.0	9.4	
13.0	11	0.3	0.0	0.3	0.3	0.0	0.0	13.0	
14.0	12	0.0	0.0	0.0	0.0	0.0	0.3	24.9	
16.0	13	0.0	0.0	0.3	0.0	0.0	0.0	29.1	
17.0	14	0.0	0.0	0.0	0.3	0.0	0.0	42.7	
19.0	15	0.0	0.0	0.0	0.7	0.0	0.0	41.7	
20.0	16	0.0	0.0	0.0	1.2	0.0	0.0	32.4	
22.0	17	0.0	0.0	0.0	0.6	0.0	0.0	32.5	
23.5	18	0.0	0.0	0.0	0.8	0.0	0.0	36.4	
25.0	19	0.0	0.0	0.0	0.8	0.0	0.0	21.9	
26.5	20	0.0	0.0	0.0	0.8	0.0	0.0	27.3	
28.0	21	0.0	0.0	0.0	0.0	0.0	0.0	25.2	
29.0	22	0.0	0.0	0.0	23.7	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S83		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB
0.0	1	38.16	22.88	38.95	2.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.3
0.6	22A	--	--	--	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1	0.6	0.6
1.2	23A	--	--	--	7.9	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.4	0.0	0.9
1.2	2	45.42	31.55	23.03	4.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
2.0	3	--	--	--	7.4	0.0	0.3	0.0	0.0	0.0	0.0	1.9	0.3	0.6	0.0	0.0
3.1	24	34.92	36.55	28.53	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	1.2
3.5	25	2.62	38.43	58.95	69.3	2.6	0.3	0.0	0.0	0.0	0.0	3.8	0.3	3.5	8.4	0.0
4.0	26	39.41	32.00	28.60	86.2	5.6	0.6	0.0	0.0	0.0	0.0	0.9	0.0	0.3	0.3	1.8
4.1	27	58.20	24.61	17.20	68.1	2.1	0.0	0.6	0.0	0.0	0.0	8.1	0.0	0.3	1.2	3.0
4.2	28	27.14	43.04	29.81	82.2	2.6	0.0	0.0	0.0	0.0	1.7	2.6	0.3	0.3	1.1	0.9
4.5	29	60.43	18.94	20.63	64.3	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.3
4.57	4	67.85	16.63	15.53	53.1	0.3	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
4.7	30	55.24	24.20	20.56	74.0	1.6	0.3	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0
4.8	31	41.50	34.53	23.97	63.6	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0
5.0	32	38.17	39.33	22.50	65.3	0.9	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.9	0.0	0.0
5.3	33	61.98	25.10	12.93	37.1	0.0	0.6	0.0	0.0	0.0	0.0	4.7	0.0	2.9	0.0	0.0
5.5	5	43.64	36.44	19.92	53.9	0.8	0.0	0.0	0.0	0.0	0.0	3.5	0.0	1.3	0.0	0.0
5.5	6	--	--	--	32.8	1.7	1.7	0.0	0.3	0.0	0.3	15.8	0.6	1.0	0.0	0.3
7.0	7	--	--	--	34.7	0.6	1.2	0.0	0.6	0.0	0.6	12.2	0.0	0.0	0.0	0.3
8.0	8	--	--	--	62.8	0.6	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.6	0.0	0.0
10.0	9	--	--	--	54.4	1.4	0.3	0.0	0.0	0.0	0.0	10.6	0.6	0.0	0.0	0.0
11.0	10	--	--	--	51.6	2.7	1.1	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0
13.0	11	--	--	--	43.5	0.6	0.8	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0
14.0	12	--	--	--	45.6	0.8	0.8	0.6	0.0	0.0	0.0	8.9	0.3	0.0	0.0	0.3
16.0	13	--	--	--	43.9	1.0	1.7	0.3	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
17.0	14	--	--	--	39.3	2.2	1.7	0.8	0.8	0.8	0.8	14.4	0.0	0.6	0.0	0.0
19.0	15	--	--	--	48.9	2.0	0.6	0.3	0.0	0.0	0.0	11.4	0.0	1.7	0.3	0.3
20.5	16	--	--	--	46.9	2.6	0.6	0.9	0.3	0.3	0.3	20.2	0.0	0.0	0.3	0.0
22.0	17	--	--	--	56.5	7.4	2.2	0.6	0.0	0.0	0.0	14.9	1.1	1.1	0.3	0.0
23.5	18	--	--	--	74.0	3.5	1.1	0.6	0.0	0.6	0.0	5.1	0.6	3.2	0.0	0.0
25.0	19	--	--	--	78.1	4.4	0.3	0.0	0.0	0.0	0.0	3.2	0.0	0.3	0.0	0.0

CORE S83

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB
26.5	20	--	--	--	70.8	3.2	0.3	0.6	0.0	11.1	0.0	1.7	0.0	0.0
29.0	21	--	--	--	68.0	3.3	1.4	0.0	0.0	5.5	0.3	0.9	0.0	0.0
30.0	22	68.98	10.83	20.19	69.0	4.0	1.4	0.0	0.0	10.0	0.0	0.0	0.0	0.3
31.0	23	48.01	26.80	25.19	66.3	3.2	0.9	0.0	0.0	5.2	0.3	2.3	0.0	0.3

CORE S83

[illegible]

APPENDIX 2.—Continued.

CORE S84		DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	PYRT	GYP	LITH	AGG	PLTM	FORB	FORP
0.0	1	34.61	15.52	49.87	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	19.3	0.0	0.0
0.2	18	31.08	61.74	7.18	8.1	0.3	0.3	0.0	0.0	0.0	0.0	9.8	0.0	8.7	9.5	0.0	0.0
0.6	19	32.29	47.69	20.02	17.0	0.6	0.0	0.0	0.0	0.0	0.0	13.6	0.0	28.7	0.3	0.0	0.0
0.8	20	35.03	24.30	40.67	16.8	1.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0	2.5	0.6	7.2	0.0
1.3	24	42.15	33.18	24.67	6.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.6	0.0
1.5	2	42.57	44.26	13.17	80.6	0.3	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.3	0.0	0.0
1.6	21	47.04	37.46	15.50	25.3	0.3	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0
2.0	22	40.12	41.61	18.27	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.3	0.3	0.0
2.1	23	28.83	54.93	16.23	68.7	0.6	0.3	0.0	0.0	0.0	0.0	8.1	0.3	0.9	3.4	0.0	0.0
2.4	3	35.01	46.22	18.77	74.9	1.9	0.0	0.0	0.0	0.0	0.0	11.0	0.0	2.8	0.0	0.0	0.0
2.8	4	--	--	--	35.2	0.7	0.2	0.0	0.0	0.0	0.0	10.5	0.9	5.5	0.0	0.0	0.0
4.0	5	--	--	--	23.9	0.3	0.0	0.0	0.3	0.6	0.6	8.8	0.0	2.2	0.0	0.0	0.0
7.0	7	--	--	--	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	6.9	0.0	0.0	0.0
8.0	8	--	--	--	3.7	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	4.6	0.0	0.0	0.0
10.0	9	--	--	--	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	3.6	0.0	0.0	0.0
11.0	10	--	--	--	3.7	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.9	0.0	0.0	0.0
13.0	11	--	--	--	3.7	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	3.1	0.0	0.0	0.0
14.0	12	--	--	--	5.1	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.9	0.0	0.0	0.0
16.0	13	--	--	--	4.3	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	2.6	0.0	0.6	0.0
17.5	14	--	--	--	3.3	0.0	0.0	0.6	0.0	0.0	0.0	1.9	0.0	0.8	0.0	0.0	0.0
19.0	15	--	--	--	2.6	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.9	0.0	0.3	0.0
20.5	16	--	--	--	3.9	0.0	0.0	0.0	0.0	0.0	0.0	3.9	1.5	1.2	0.0	0.9	0.0
22.0	17	--	--	--	3.9	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.3	2.7	0.0	0.9	1.2

APPENDIX 2.—Continued.

CORE S84

DEPTH	NO	GSHF	PSHF	SHLO	OSTR	ECHN	BRYO	CARB	CARBON-14
0.0	1	0.0	0.0	0.9	0.3	0.0	0.0	76.3	
0.2	18	0.0	0.0	0.6	0.0	0.0	0.0	62.8	
0.6	19	0.0	0.0	0.0	0.0	0.0	0.0	39.7	
0.8	20	0.0	0.3	6.7	0.8	0.0	0.0	62.0	2,890 +/-60
1.3	24	0.0	0.3	8.5	3.8	0.0	0.0	76.8	
1.5	2	0.0	0.0	0.6	0.0	0.0	0.6	15.2	
1.6	21	0.0	0.0	0.3	0.0	0.0	0.0	72.6	
2.0	22	0.0	0.0	3.1	0.0	0.0	0.0	67.2	16760+/-120
2.1	23	0.0	0.0	1.2	0.0	0.0	0.0	16.2	23510+/-260
2.4	3	0.0	0.0	0.3	0.0	0.0	0.0	9.1	
2.8	4	0.0	0.0	1.9	0.0	0.0	0.0	44.6	
4.0	5	0.0	0.0	1.3	0.0	0.0	0.3	61.9	39,350 +/-800
7.0	7	0.0	0.0	0.9	0.0	0.3	0.0	87.1	
8.0	8	0.3	0.0	2.1	0.0	0.0	0.6	87.2	
10.0	9	0.0	0.0	2.4	0.0	0.0	0.3	90.9	
11.0	10	0.6	0.0	2.5	0.0	0.0	0.0	87.6	
13.0	11	0.0	0.0	2.4	0.0	0.0	0.0	88.0	
14.0	12	0.0	0.3	0.6	0.0	0.0	0.0	90.9	
16.0	13	0.3	0.0	4.3	0.0	0.0	0.0	85.4	
17.5	14	0.8	0.3	7.7	0.0	0.0	0.8	83.7	
19.0	15	0.6	0.3	5.9	0.3	0.0	0.0	83.5	
20.5	16	0.0	0.0	5.7	0.3	0.3	0.0	82.2	
22.0	17	0.0	0.0	3.9	0.0	0.0	0.0	82.3	

CORE S85

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GYP	LITH	AGG	FORB
0.0	1	54.12	20.00	25.87	27.3	0.0	0.3	9.1	0.3	3.8	0.0
0.5	2	--	--	--	2.9	0.8	0.0	36.1	0.0	1.9	0.3
1.0	3	--	--	--	13.9	0.0	0.0	64.8	0.3	11.1	0.0
2.0	4	--	--	--	19.73	1.6	0.0	18.9	0.3	6.1	0.0
2.5	5	--	--	--	13.1	0.0	0.0	8.4	0.0	11.7	0.0
3.5	6	--	--	--	10.1	0.3	0.0	44.2	0.0	12.5	0.0
5.0	7	--	--	--	6.0	0.0	0.0	38.5	0.0	12.5	0.0

APPENDIX 2.—Continued.

CORE S85

DEPTH	NO	GSHF	PSHF	SHLO	CARB	CARBON-14
0.0	1	0.0	0.0	0.6	58.6	
0.5	2	0.0	0.0	2.6	55.4	
1.0	3	0.0	0.0	0.3	9.7	
2.0	4	0.0	0.3	1.9	51.2	
2.5	5	0.3	0.3	0.0	66.1	20,300 +/-270
3.5	6	0.0	0.0	1.2	31.4	
5.0	7	0.0	0.0	0.0	43.0	

Samples 8 and deeper not displayed; a C-14 date for sample 12 in core I (14-24 cm depth) is > 39,730.

APPENDIX 2.—Continued.

CORE S86

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	GYP	LITH	AGG	PLTM
0.0	1	1.57	86.20	12.23	40.73	5.63	1.32	0.0	1.66	6.62	25.50	18.54
1.53	2	13.93	79.86	6.21	68.81	5.50	1.83	0.0	3.98	5.20	12.23	2.14
3.05	3	10.85	83.03	6.12	77.56	7.05	0.64	0.0	3.53	1.28	7.05	2.88
3.65	29	5.88	87.51	6.60	69.93	0.98	0.0	0.0	1.31	26.47	0.65	0.0
4.12	30	7.44	84.41	8.15	82.75	0.96	0.0	0.64	0.0	0.0	10.86	2.24
4.58	4	13.34	82.29	4.37	72.22	3.40	0.62	0.0	2.47	1.54	15.74	3.70
5.22	31	4.18	84.26	11.56	72.96	4.09	0.63	0.0	1.89	1.26	17.61	0.31
5.65	32	3.89	88.98	7.13	82.97	1.58	1.26	0.32	0.63	0.0	7.26	5.05
6.1	5	13.19	76.25	10.56	81.62	4.98	2.49	0.0	2.80	0.0	7.17	0.93
6.56	33	5.15	85.94	8.91	87.18	1.92	0.32	0.0	0.64	2.24	4.49	1.92
7.3	34	25.10	70.88	4.02	82.62	3.61	1.31	0.0	1.97	2.30	8.20	0.0
7.63	6	54.26	38.84	6.90	82.78	4.97	1.66	0.0	3.97	0.0	3.97	0.99
8.10	35	15.49	77.62	6.89	72.31	0.98	0.65	0.0	1.63	0.0	23.78	0.65
8.54	36	22.29	69.72	7.99	82.11	2.24	0.96	0.0	1.60	0.0	13.10	0.0
9.15	7	4.04	83.89	12.07	70.46	3.69	0.92	0.0	2.46	0.0	18.15	3.08
10.68	8	4.41	81.76	13.82	72.90	4.84	2.58	0.0	3.23	0.0	11.94	3.55
11.45	37	61.33	29.16	9.51	80.91	7.58	1.82	0.61	1.82	1.82	3.94	0.0
11.8	38	28.06	53.08	18.87	60.95	5.08	0.63	0.63	1.27	1.90	28.89	0.63
12.2	9	12.38	78.84	8.78	77.48	3.97	0.99	0.0	3.64	0.0	8.28	4.64
12.80	39	21.61	73.72	4.67	64.39	4.15	4.75	0.59	1.19	2.97	17.51	2.67
13.27	40	37.40	53.52	9.07	68.14	2.95	2.65	0.29	1.18	0.88	11.21	12.09
13.73	10	33.81	60.49	5.70	64.86	1.28	7.67	0.0	5.11	0.0	18.21	1.92
14.18	41	25.27	65.73	9.00	51.91	1.59	5.73	0.64	0.0	0.64	26.11	12.42
14.75	42	29.88	62.85	7.27	78.57	1.86	3.73	0.93	0.0	2.80	8.70	1.86
15.25	11	54.42	34.69	10.89	75.32	3.53	2.88	0.0	2.56	0.0	10.58	4.17
16.16	43	25.76	64.32	9.92	69.69	4.38	1.56	0.0	1.56	4.06	17.50	1.25
16.78	12	70.06	19.79	10.15	85.95	4.90	0.65	0.0	0.65	0.0	6.21	1.31
17.54	13	--	--	--	81.91	6.25	0.0	0.0	3.29	4.28	3.29	0.0
19.06	14	--	--	--	83.07	5.43	0.0	0.0	1.60	4.47	4.15	0.0
20.59	15	--	--	--	87.58	5.56	1.96	1.31	0.33	1.63	1.31	0.33
22.11	16	--	--	--	85.85	4.50	0.0	0.64	2.57	2.57	2.25	0.64

APPENDIX 2.—Continued.

CORE S86

DEPTH	NO	PSHW	SHLO	SPNG	CARBT	Fe-OXIDE	CARBON-14
0.0	1	0.0	0.0	0.0	0.0	0.0	1690+/- 80
1.53	2	0.0	0.31	0.0	0.0	0.0	
3.05	3	0.0	0.0	0.0	0.0	0.0	
3.65	29	0.0	0.0	0.0	0.65	0.0	
4.12	30	0.32	0.0	0.0	1.60	0.64	
4.58	4	0.0	0.31	0.0	0.0	0.0	
5.22	31	0.0	0.0	0.0	0.0	1.26	
5.65	32	0.0	0.0	0.0	0.63	0.32	
6.1	5	0.0	0.0	0.0	0.0	0.0	
6.56	33	0.0	0.0	0.0	0.64	0.64	
7.3	34	0.0	0.0	0.0	0.0	0.0	
7.63	6	0.0	0.0	0.0	1.66	0.0	
8.10	35	0.0	0.0	0.0	0.0	0.0	4910+/-100
8.54	36	0.0	0.0	0.0	0.0	0.0	
9.15	7	0.0	0.0	0.0	1.23	0.0	
10.68	8	0.0	0.0	0.0	0.97	0.0	
11.45	37	0.0	0.0	0.0	1.52	0.0	
11.8	38	0.0	0.0	0.0	0.0	0.0	
12.2	9	0.0	0.0	0.0	0.99	0.0	
12.80	39	0.0	0.0	1.19	0.59	0.0	
13.27	40	0.0	0.0	0.59	0.0	0.0	
13.73	10	0.0	0.0	0.0	0.96	0.0	
14.18	41	0.0	0.0	0.96	0.0	0.0	
14.75	42	0.0	0.0	1.55	0.0	0.0	
15.25	11	0.0	0.0	0.0	0.96	0.0	6430+/-110
16.16	43	0.0	0.0	0.0	0.0	0.0	
16.78	12	0.0	0.0	0.0	0.33	0.0	
17.54	13	0.0	0.0	0.0	0.99	0.0	
19.06	14	0.0	0.0	0.0	1.28	0.0	
20.59	15	0.0	0.0	0.0	0.0	0.0	
22.11	16	0.0	0.0	0.0	0.96	0.0	

APPENDIX 2.—Continued.

CORE S86							
DEPTH	NO	PSHW	SHLO	SPNG	CARBT	Fe OXIDE	CARBON-14
23.63	17	0.0	0.0	0.0	0.0	0.0	
25.16	18	0.0	0.0	0.0	0.0	0.0	
26.69	19	0.0	0.0	0.0	0.0	0.0	
28.21	20	0.0	0.0	0.0	0.0	0.0	
29.74	21	0.0	0.0	0.0	0.0	0.0	
31.26	22	0.0	0.0	0.0	0.0	0.0	
32.79	23	0.0	0.0	0.0	0.0	0.0	
34.31	24	0.0	0.0	0.0	0.0	0.0	
35.84	25	0.0	0.0	0.0	0.0	0.0	
37.36	26	0.0	0.0	0.0	0.0	0.0	
38.89	27	0.0	0.0	0.0	0.0	0.0	
40.41	28	0.0	0.0	0.0	0.0	0.0	

APPENDIX 2.—Continued.

CORE S87

DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	GYP	LITH	AGG	PLTM
0.0	1	35.66	55.69	8.65	36.25	5.50	0.97	0.0	1.62	0.0	54.69	0.65
0.61	2	19.48	64.83	15.70	61.49	11.04	1.19	0.0	2.09	0.0	20.30	3.28
1.53	3	12.82	81.44	5.74	61.22	0.64	0.96	0.0	1.92	0.0	31.73	1.92
2.13	31	3.78	89.88	6.33	61.88	1.56	1.56	0.0	1.88	0.0	30.63	2.50
2.60	4	5.67	83.34	10.99	44.21	0.89	3.26	0.0	1.78	0.0	47.48	1.78
3.20	32	4.66	86.67	8.67	58.06	0.97	0.0	0.0	1.94	0.0	37.42	1.61
3.66	33	4.60	80.61	14.79	73.19	2.21	0.0	0.0	0.63	0.0	19.87	3.15
4.12	5	11.53	59.79	28.68	61.20	2.84	0.32	0.0	0.63	0.0	33.12	0.95
4.57	34	8.69	84.66	6.65	55.23	4.65	0.87	0.0	3.20	0.0	32.85	2.33
5.03	35	7.99	86.20	5.81	65.30	2.21	0.95	0.0	2.84	0.0	26.18	1.26
5.64	6	12.74	65.45	21.82	68.83	3.90	1.62	0.0	0.0	0.0	25.00	0.65
6.10	36	11.99	79.91	8.10	73.68	1.97	0.0	0.0	2.30	0.0	20.07	1.97
6.70	37	8.71	81.84	9.45	69.77	1.29	0.32	0.0	0.94	0.0	27.01	0.0
7.17	7	10.41	74.40	15.19	35.62	0.98	0.0	0.0	0.65	0.0	59.15	2.29
7.62	38	9.52	83.59	6.89	7.81	0.94	0.63	0.0	0.63	0.0	79.06	10.31
8.08	39	19.12	74.25	6.63	9.18	0.63	0.0	0.0	0.32	0.0	81.65	8.23
8.69	8	2.71	80.83	16.46	68.77	1.26	0.0	0.0	0.95	0.0	18.93	9.15
8.85	40	8.32	86.41	5.27	32.68	1.63	0.0	0.0	0.98	0.0	62.75	1.96
9.46	9	77.43	11.51	11.06	95.00	4.67	0.0	0.0	0.0	0.33	0.0	0.0
10.10	10	--	--	--	95.41	1.97	0.0	0.0	0.33	1.97	0.33	0.0
11.44	11	--	--	--	92.79	3.67	0.0	0.0	0.33	3.28	0.0	0.0
12.96	12	--	--	--	94.44	2.61	0.33	0.33	0.33	1.31	0.0	0.65
14.49	13	--	--	--	83.65	1.57	0.0	0.31	2.20	2.83	9.43	0.0
16.01	14	--	--	--	82.57	3.62	0.0	0.33	1.32	3.62	8.55	0.0
17.54	15	--	--	--	94.08	0.99	0.0	0.0	0.66	2.63	1.32	0.33
19.06	16	--	--	--	92.83	3.58	0.33	0.0	0.33	1.95	0.98	0.0
20.59	17	--	--	--	91.03	2.66	0.33	1.00	0.33	1.66	2.33	0.33
22.11	18	--	--	--	90.43	2.64	0.0	0.66	1.65	1.98	0.33	1.98
23.64	19	--	--	--	81.96	7.28	1.58	0.95	1.27	4.75	1.27	0.95
25.16	20	--	--	--	95.41	1.31	0.0	0.0	0.98	1.64	0.0	0.66
26.69	21	--	--	--	87.62	3.26	0.0	0.0	1.95	4.89	1.30	0.33

APPENDIX 2.—Continued.

CORE S87												
DEPTH	NO	SAND	SILT	CLAY	LT	HVY	MICA	GLAU	GYP	LITH	AGG	PLTM
28.21	22	--	--	--	95.35	0.66	0.33	0.0	1.00	2.66	0.0	0.0
29.74	23	--	--	--	95.05	1.65	0.0	0.33	0.66	2.31	0.0	0.0
31.26	24	--	--	--	95.13	2.27	0.65	0.0	0.32	1.62	0.0	0.0
32.79	25	--	--	--	94.17	2.27	0.0	0.97	0.97	1.62	0.0	0.0
34.31	26	--	--	--	96.03	0.66	0.0	0.33	0.33	1.99	0.66	0.0
35.84	27	--	--	--	90.16	0.98	0.0	0.66	0.33	3.28	3.93	0.0
37.36	28	--	--	--	95.47	0.32	0.0	0.0	0.0	2.27	1.94	0.0
40.41	30	--	--	--	84.33	2.82	0.31	0.0	1.88	5.02	5.02	0.63

APPENDIX 2.—Continued.

CORE S87						
DEPTH	NO	CARB	Fe OXIDE	CARBON-14		
0.0	1	0.32	0.0	1720+/-80		
0.61	2	0.60	0.0			
1.53	3	1.60	0.0			
2.13	31	0.0	0.0			
2.60	4	0.59	0.0			
3.20	32	0.0	0.0			
3.66	33	0.0	0.95			
4.12	5	0.95	0.0			
4.57	34	0.0	0.87			
5.03	35	0.0	1.26			
5.64	6	0.0	0.0	7030+/-130		
6.10	36	0.0	0.0			
6.70	37	0.0	0.64			
7.17	7	1.31	0.0			
7.62	38	0.0	0.63			
8.08	39	0.0	0.0			
8.69	8	0.95	0.0			
8.85	40	0.0	0.0			
9.46	9	0.0	0.0			
10.10	10	0.0	0.0			
11.44	11	0.0	0.0			
12.96	12	0.0	0.0			
14.49	13	0.0	0.0			
16.01	14	0.0	0.0			
17.54	15	0.0	0.0			
19.06	16	0.0	0.0			
20.59	17	0.33	0.0			
22.11	18	0.33	0.0			
23.64	19	0.0	0.0			
25.16	20	0.0	0.0			
26.69	21	0.65	0.0			

APPENDIX 2.—Continued.

CORE S87				
DEPTH	NO	CARB	Fe OXIDE	CARBON-14
28.21	22	0.0	0.0	
29.74	23	0.0	0.0	
31.26	24	0.0	0.0	
32.79	25	0.0	0.0	
34.31	26	0.0	0.0	
35.84	27	0.66	0.0	
37.36	28	0.0	0.0	
40.41	30	0.0	0.0	

Literature Cited

- Abdel-Kader, A.
1982. Landsat Analysis of the Nile Delta, Egypt. 260 pages. Master's thesis, University of Delaware, Newark, Delaware.
- Abdel Wahab, H.S. El Din, and D.J. Stanley
1991. Clay Mineralogy and the Recent Evolution of the North-central Nile Delta, Egypt. *Journal of Coastal Research*, 7:317-329.
- Abu-Zeid, M.M., and D.J. Stanley
1990. Temporal and Spatial Distribution of Clay Minerals in the Late Quaternary Deposits of the Nile Delta, Egypt. *Journal of Coastal Research*, 5:677-698.
- Allen, R., H. Hamroush, and D.J. Stanley
1993. Impact of the Environment on Egyptian Civilization Before the Pharaohs. *Analytical Chemistry*, 65:32A-43A.
- Anastasakis, G.C., and D.J. Stanley
1984. Sapropels and Organic-rich Variants in the Mediterranean: Sequence Development and Classification. In D.V. Stow and D.J.W. Piper, editors, *Fine-Grained Sediments: Deep Water Processes*. London Geological Society Special Publication, 15:497-510.
1985. Uppermost Sapropel in the Eastern Mediterranean: Sedimentological Approach for Interpreting Paleooceanography and Stagnation. *National Geographic Research & Exploration*, 2:179-197.
- Arbouille, D., and D.J. Stanley
1991. Late Quaternary Evolution of the Burullus Lagoon Region, North-central Nile Delta, Egypt. *Marine Geology*, 99:45-66.
- Attia, M.
1954. *Deposits in the Nile Valley and the Delta*. 356 pages. Cairo, Egypt: Geological Survey of Egypt and Government Press.
- Bernasconi, M.P., and D.J. Stanley
1994. Molluscan Biofacies and Their Environmental Implications, Nile Delta Lagoons, Egypt. *Journal of Coastal Research*, 10:440-465.
In press. Molluscan Biofacies off Egypt in the Nile Littoral Cell, Southeastern Mediterranean. *Journal of Coastal Research*.
- Bernasconi, M.P., D.J. Stanley, and I. DiGeronimo
1991. Molluscan Faunas and Paleobathymetry of Holocene Sequences in the Northeastern Nile Delta, Egypt. *Marine Geology*, 99:29-43.
- Biswas, A.K.
1993. Land Resources for Sustainable Agricultural Development in Egypt. *Ambio*, 22: 556-560.
- Broussard, M.
1975. *Deltas: Models for Exploration*. 555 pages. Houston, Texas: Houston Geological Society.
- Butzer, K.W.
1976. *Early Hydraulic Civilization in Egypt*. 134 pages. Chicago, Illinois: University of Chicago Press.
- Chen, Z., and D.J. Stanley
1993. Alluvial Stiff Muds (Late Pleistocene) Underlying the Lower Nile Delta Plain, Egypt: Petrology, Stratigraphy and Origin. *Journal of Coastal Research*, 9:539-576.
- Chen, Z., Warne, A.G., and D.J. Stanley
1992. Late Quaternary Evolution of the Northwestern Nile Delta between the Rosetta Promontory and Alexandria, Egypt. *Journal of Coastal Research*, 8:527-561.
- Coleman, J.M.
1982. *Deltas: Processes of Deposition and Models for Exploration*, Second edition, 124 pages. Boston: International Human Resources Development Corporation.
- Coleman, J.M., H. Roberts, S. Murray, and M. Salama
1981. Morphology and Dynamic Sedimentology of the Eastern Nile Delta. *Marine Geology*, 42:301-326.
- Coutellier, V., and D.J. Stanley
1987. Late Quaternary Stratigraphy and Paleogeography of the Eastern Nile Delta, Egypt. *Marine Geology*, 77:257-275.
- Dominik, J., and D.J. Stanley
1993. Boron, Beryllium and Sulfur in Holocene Sediments and Peats of the Nile Delta, Egypt: Their Use as Indicators of Salinity and Climate. *Chemical Geology*, 104:203-216.
- Foucault, A., and D.J. Stanley
1989. Late Quaternary Paleoclimatic Oscillations in East Africa Recorded by Heavy Minerals in the Nile Delta. *Nature*, 339:44-46.
- Frihy, O.E.
1988. Nile Delta Shoreline Changes: Aerial Photographic Study of a 28-year Period. *Journal of Coastal Research*, 4:597-606.
- Frihy, O.E., and M.F. Lotfy
1994. Mineralogic Evidence for the Remnant Sebennitic Promontory on the Continental Shelf off the Central Nile Delta. *Marine Geology*, 117:187-194.
- Frihy, O.E., A.A. Moussa, and D.J. Stanley
1995. Abu Quir Bay, A Sediment Sink off the Northwestern Nile Delta, Egypt. *Marine Geology*, 121:199-211.
- Frihy, O.E., and D.J. Stanley
1987. Quartz Grain Surface Textures and Depositional Interpretations, Nile Delta Region, Egypt. *Marine Geology*, 77:247-255.
1988. Texture and Coarse Fraction Composition of Nile Delta Deposits: Facies Analysis and Stratigraphic Correlation. *Journal of African Earth Sciences*, 7:237-255.
- Gerber, C.D.
1988. Clay Mineralogy and Geochemistry of Nile Delta Sediments, Lake Manzala Area, Northeast Egypt. 177 pages. Master's thesis, The George Washington University, Washington, D.C.
- Gerges, M.A., and D.J. Stanley
1985. Assessing Hydrography and Man's Influence on Sediments in the Northern Suez Canal. *Marine Geology*, 65:325-331.
- Goodfriend, G., and D.J. Stanley
1996. Reworking and Discontinuities in Holocene Sedimentation in the Nile Delta: Documentation from Amino Acid Racemization and Stable Isotopes in Mollusk Shells. *Marine Geology*, 129:271-283.
- Gupta, N.
1989. Geochemical and Mineralogical Relations of Holocene Mud-Rich Sediments in the Vicinity of the Extinct Pelusian Branch and Northern Lake Manzala, Northeastern Nile Delta, Egypt. 180 pages. Master's thesis, The George Washington University, Washington, D.C.
- Hamroush, H.A., and D.J. Stanley
1991. Paleoclimatic Oscillations in East Africa Interpreted by Analysis of Trace Elements in Nile Delta Sediments. *Episodes*, 13:264-269.
- Howa, H., and D.J. Stanley
1991. Plant-rich Holocene Sequences in the Northern Nile Delta Plain, Egypt: Petrology, Distribution and Depositional Environments. *Journal of Coastal Research*, 7:1077-1096.
- Kay, R., editor
1993. *Deltas of the World*. 138 pages. New York: American Society of Civil Engineers.
- Kerambrun, P.
1986. Coastal Lagoons Along the Southern Mediterranean Coast (Algeria, Egypt, Libya, Morocco, Tunisia) Description and Bibliography. *UNESCO Reports in Marine Science*, 34: 184 pages.
- Kulyk, V.
1987. Holocene Foraminifera of the Eastern Nile Delta, Egypt. 90 pages.

- Master's thesis, The George Washington University, Washington, D.C.
- Leroy, S.
1992. Palyonological Evidence of *Azolla nilotica* dec. In Recent Holocene of the Eastern Nile Delta and Palaeoenvironment. *Vegetation History and Archaeobotany*, 1:43-52.
- Loizeau, J.-L., and D.J. Stanley
1993. Petrological-statistical Approach to Interpret Recent and Subrecent Lagoon Subfacies, Idku, Nile Delta of Egypt. *Marine Geology*, 111:55-81.
1994. Bottom Sediment Patterns Evolving in Polluted Mariut Lake, Nile Delta, Egypt. *Journal of Coastal Research*, 10:416-439.
- Longo, F.
1992. Molluscan Thanatocoenoses of the Nile Delta Lagoons. 213 pages. Master's thesis, Università degli Studi della Calabria, Italy [in Italian].
- Maldonado, A., and D.J. Stanley
1978. Nile Cone Depositional Processes and Patterns in the Late Quaternary. In D.J. Stanley and G. Kelling, editors, *Sedimentation in Submarine Canyons, Fans and Trenches*, pages 239-257. Stroudsburg, Pennsylvania: Dowden, Hutchinson & Ross.
- Morcos, S., and S. Messieh
1973. Change in the Current Regime in the Suez Canal After Construction of the Aswan High Dam. *Nature*, 242:38-39.
- Pimmel, A., and D.J. Stanley
1989. Verdinized Fecal Pellets as Indicators of Prodelta and Delta-front Deposits in the Nile Delta, Egypt. *Marine Geology*, 86:339-347.
- Posamentier, H.W., and P.R. Vail
1987. Eustatic Controls on Clastic Deposition, II: Sequence and Systems Tracts Models. In C.K. Wilgus, B.S. Hastings, H.W. Posamentier, J. van Wagoner, C.K. Ross, editors, *Sea Level Changes: An Integrated Approach*. *Society of Economic Paleontologists and Mineralogists, Special Publication*, 42:125-154.
- Pugliese, N., and D.J. Stanley
1991. Ostracoda, Depositional Environments and Late Quaternary Evolution of the Eastern Nile Delta, Egypt. *Il Quaternario*, 4:275-302.
- Randazzo, G.
1992. Evolution of the Nile Delta: Interaction of Present and Recent Sedimentation and Holocene Environments in the Deltaic Plain. 197 pages. Master's thesis, Università di Messina, Messina, Italy.
- Schneiderman, J.S.
1995. Detrital Opaque Oxides as Provenance Indicators in Nile River Sediments. *Journal of Sedimentary Petrology*, A65:668-674.
- Shergill, B.S.
1990. Geochemical and Mineralogical Relations of Holocene Sediments along the Damietta Nile and Adjacent Continental Shelf, Nile Delta, Egypt. 287 pages. Master's thesis, The George Washington University, Washington, D.C.
- Siegel, F.R., C. Gerber, N. Gupta, D.J. Stanley, and B. Shergill
1995. Geochemistry of Holocene Sediments from the Nile Delta, Egypt: Damietta to Gulf of Tineh. *Journal of Coastal Research*, 11:415-431.
- Siegel, F.R., M.L. Slaboda, and D.J. Stanley
1994. Metal Pollution Loading, Manzalah Lagoon, Nile Delta, Egypt: Implications for Aquaculture. *Environmental Geology*, 23:89-98.
- Slaboda, M.L.
1993. Baseline-Contaminant Metal Concentrations in Sediment Cores from Manzalah Lagoon, Nile Delta, Egypt: Implications for Aquaculture. 226 pages. Master's thesis, The George Washington University, Washington, D.C.
- Smith, S., and A. Abdel-Kader
1988. Coastal Erosion along the Egyptian Delta. *Journal of Coastal Research*, 4:245-255.
- Stanley, D.J.
1985. Mud Redeposition Processes as a Major Influence on Margin-based Sedimentation. In D.J. Stanley and F.C. Wezel, editors, *Geological Evolution of the Mediterranean Basin*, pages 377-410. New York: Springer-Verlag.
1986. Mediterranean Deltas and Cones: Introduction and Generalities. *Rapports et Procès-Verbaux, Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée*, 30:61-62.
1988a. Low Sediment Accumulation Rates and Erosion on the Middle and Outer Nile Delta Shelf off Egypt. *Marine Geology*, 84:111-117.
1988b. Subsidence in the Northeastern Nile Delta: Rapid Rates, Possible Causes, and Consequences. *Science*, 240:497-500.
1989. Sediment Transport on the Coast and Shelf Between the Nile Delta and Israeli Margin as Determined by Heavy Minerals. *Journal of Coastal Research*, 5:813-828.
1990. Recent Subsidence and Northeast Tilting of the Nile Delta, Egypt. *Marine Geology*, 94:147-154.
1992. Will the Nile Delta Sink into the Sea? *National Geographic*, 181:xiii.
1993. Harsh Winter in 1992 and Climate Change in the Nile Delta. *National Geographic Research & Exploration*, 9:250-256.
- Stanley, D.J., V. Arad, Y. Bartov, and F.M. El Bedewy
1994. The Nile Delta: Bibliography of Geological Research. *Geological Survey of Israel, Jerusalem, Report GSI/22/93*, 169 pages.
- Stanley, D.J., D. Arnold, and A.G. Warne
1992. Oldest Pharaonic Site Yet Discovered in the North-central Nile Delta, Egypt. *National Geographic Research & Exploration*, 8:264-275.
- Stanley, D.J., and Z. Chen
1991. Distinguishing Sand Facies in the Nile Delta, Egypt, by Stained Grain and Compositional Component Analysis. *Journal of Coastal Research*, 7:863-877.
- Stanley, D.J., G.L. Freeland, and H. Sheng
1982. Dispersal of Mediterranean and Suez Bay Sediments in the Suez Canal. *Marine Geology*, 49:61-79.
- Stanley, D.J., and F.H. Hamza
1992. Terrigenous-carbonate Sediment Interface (Late Quaternary) along the Northwestern Margin of the Nile Delta, Egypt. *Journal of Coastal Research*, 8:153-171.
- Stanley, D.J., and A.N. Liyanage
1986. Clay-mineral Variations in the Northeastern Nile Delta as Influences by Depositional Processes. *Marine Geology*, 73:263-283.
- Stanley, D.J., and A. Maldonado
1977. Nile Cone: Late Quaternary Stratigraphy and Sediment Dispersal. *Nature*, 266:129-135.
1983. Southeastern Mediterranean (Levantine Basin-Nile Cone) Sedimentation and Evolution. *National Geographic Society Reports*, 15: 609-627.
- Stanley, D.J., and H. Sheng
1986. Volcanic Shards from Santorini (Upper Minoan Ash) in the Nile Delta, Egypt. *Nature*, 360:733-735.
- Stanley, D.J., H. Sheng, and Y. Pan
1988. Heavy Minerals and Provenance of Late Quaternary Sands, Eastern Nile Delta. *Journal of African Earth Sciences*, 7:735-741.
- Stanley, D.J., and A.G. Warne
1993a. Nile Delta: Recent Geological Evolution and Human Impact. *Science*, 260:628-634.
1993b. Sea Level and Initiation of Predynastic Culture in the Nile Delta. *Nature*, 363:435-438.
1994. Worldwide Initiation of Holocene Marine Deltas: Deceleration of Sea-Level Rise as Principal Factor. *Science*, 265:228-231.
- Stanley, D.J., A.G. Warne, H.R. Davis, M.P. Bernasconi, and Z. Chen
1992. Nile Delta: The Late Quaternary North-central Nile Delta from

Manzala to Burullus Lagoons, Egypt. *National Geographic Research & Exploration*, 8:22–51.

Stanley, D.J., and F.C. Wezel, editors

1985. *Geological Evolution of the Mediterranean Basin*. 591 pages. New York: Springer-Verlag.

UNDP/UNESCO

1976. Proceedings of Seminar on Nile Delta Sedimentology: Alexandria, Egypt. *The Academy of Scientific Research and Technology*, 257 pages.
1977. Proceedings of Seminar on Nile Delta Coastal Processes with Special Emphasis on Hydrodynamical Aspects: Alexandria, Egypt. *The Academy of Scientific Research and Technology*, 624 pages.
1978. Coastal Protection Studies, Project Findings and Recommendations: Paris. *UNDP/EGY/73/063*, 483 pages.

Warne, A.G., and D.J. Stanley

- 1993a. Archaeology to Refine Holocene Subsidence Rates Along the Nile Delta Margin, Egypt. *Geology*, 21:715–718.
- 1993b. Late Quaternary Evolution of the Northwest Nile Delta and Adjacent Coast in the Alexandria Region, Egypt. *Journal of Coastal Research*, 9:26–64.
1995. Sea-Level Change as a Critical Factor in Development of Basin Margin Sequences: New Evidence from Late Quaternary Record. *Journal of Coastal Research, Special Publication*, 17:231–240.

Waterbury, J.

1979. *Hydropolitics of the Nile Valley*. 301 pages. Syracuse, New York: Syracuse University Press.

Wigley, T.M.L., and S.C.B. Raper

1992. Implications for Climate and Sea Level of Revised IPCC Emissions Scenarios. *Nature*, 357:293–300.

REQUIREMENTS FOR SMITHSONIAN SERIES PUBLICATION

Manuscripts intended for series publication receive substantive review (conducted by their originating Smithsonian museums or offices) and are submitted to the Smithsonian Institution Press with Form SI-36, which must show the approval of the appropriate authority designated by the sponsoring organizational unit. Requests for special treatment—use of color, foldouts, case-bound covers, etc.—require, on the same form, the added approval of the sponsoring authority.

Review of manuscripts and art by the Press for requirements of series format and style, completeness and clarity of copy, and arrangement of all material, as outlined below, will govern, within the judgment of the Press, acceptance or rejection of manuscripts and art.

Copy must be prepared on typewriter or word processor, double-spaced, on one side of standard white bond paper (not erasable), with 1 1/4" margins, submitted as ribbon copy (not carbon or xerox), in loose sheets (not stapled or bound), and accompanied by original art. Minimum acceptable length is 30 pages.

Front matter (preceding the text) should include: title page with only title and author and no other information; **abstract** page with author, title, series, etc., following the established format; table of **contents** with indents reflecting the hierarchy of heads in the paper; also, **foreword** and/or **preface**, if appropriate.

First page of text should carry the title and author at the top of the page; **second page** should have only the author's name and professional mailing address, to be used as an unnumbered footnote on the first page of printed text.

Center heads of whatever level should be typed with initial caps of major words, with extra space above and below the head, but no other preparation (such as all caps or underline, except for the underline necessary for generic and specific epithets). Run-in paragraph heads should use period/dashes or colons as necessary.

Tabulations within text (lists of data, often in parallel columns) can be typed on the text page where they occur, but they should not contain rules or numbered table captions.

Formal tables (numbered, with captions, boxheads, stubs, rules) should be submitted as carefully typed, double-spaced copy separate from the text; they will be typeset unless otherwise requested. If camera-copy use is anticipated, do not draw rules on manuscript copy.

Taxonomic keys in natural history papers should use the aligned-couplet form for zoology and may use the multi-level indent form for botany. If cross referencing is required between key and text, do not include page references within the key, but number the keyed-out taxa, using the same numbers with their corresponding heads in the text.

Synonymy in zoology must use the short form (taxon, author, year:page), with full reference at the end of the paper under "Literature Cited." For botany, the long form (taxon, author, abbreviated journal or book title, volume, page, year, with no reference in "Literature Cited") is optional.

Text-reference system (author, year:page used within the text, with full citation in "Literature Cited" at the end of the text) must be used in place of bibliographic footnotes in all Contributions Series and is strongly recommended in the Studies Series: "(Jones, 1910:122)" or "...Jones (1910:122)." If bibliographic footnotes are

required, use the short form (author, brief title, page) with the full citation in the bibliography.

Footnotes, when few in number, whether annotative or bibliographic, should be typed on separate sheets and inserted immediately after the text pages on which the references occur. Extensive notes must be gathered together and placed at the end of the text in a notes section.

Bibliography, depending upon use, is termed "Literature Cited," "References," or "Bibliography." Spell out titles of books, articles, journals, and monographic series. For book and article titles use sentence-style capitalization according to the rules of the language employed (exception: capitalize all major words in English). For journal and series titles, capitalize the initial word and all subsequent words except articles, conjunctions, and prepositions. Transliterate languages that use a non-Roman alphabet according to the Library of Congress system. Underline (for italics) titles of journals and series and titles of books that are not part of a series. Use the parentheses/colon system for volume (number):page: "10(2):5-9." For alignment and arrangement of elements, follow the format of recent publications in the series for which the manuscript is intended. Guidelines for preparing bibliography may be secured from Series Section, SI Press.

Legends for illustrations must be submitted at the end of the manuscript, with as many legends typed, double-spaced, to a page as convenient.

Illustrations must be submitted as original art (not copies) accompanying, but separate from, the manuscript. Guidelines for preparing art may be secured from the Series Section, SI Press. All types of illustrations (photographs, line drawings, maps, etc.) may be intermixed throughout the printed text. They should be termed **Figures** and should be numbered consecutively as they will appear in the monograph. If several illustrations are treated as components of a single composite figure, they should be designated by lowercase italic letters on the illustration; also, in the legend and in text references the italic letters (underlined in copy) should be used: "Figure 9b." Illustrations that are intended to follow the printed text may be termed **Plates**, and any components should be similarly lettered and referenced: "Plate 9b." Keys to any symbols within an illustration should appear on the art rather than in the legend.

Some points of style: Do not use periods after such abbreviations as "mm, ft, USNM, NNE." Spell out numbers "one" through "nine" in expository text, but use digits in all other cases if possible. Use of the metric system of measurement is preferable; where use of the English system is unavoidable, supply metric equivalents in parentheses. Use the decimal system for precise measurements and relationships, common fractions for approximations. Use day/month/year sequence for dates: "9 April 1976." For months in tabular listings or data sections, use three-letter abbreviations with no periods: "Jan, Mar, Jun," etc. Omit space between initials of a personal name: "J.B. Jones."

Arrange and paginate sequentially every sheet of manuscript in the following order: (1) title page, (2) abstract, (3) contents, (4) foreword and/or preface, (5) text, (6) appendices, (7) notes section, (8) glossary, (9) bibliography, (10) legends, (11) tables. Index copy may be submitted at page proof stage, but plans for an index should be indicated when the manuscript is submitted.

SMITHSONIAN INSTITUTION LIBRARIES
3 9088 01004 5789