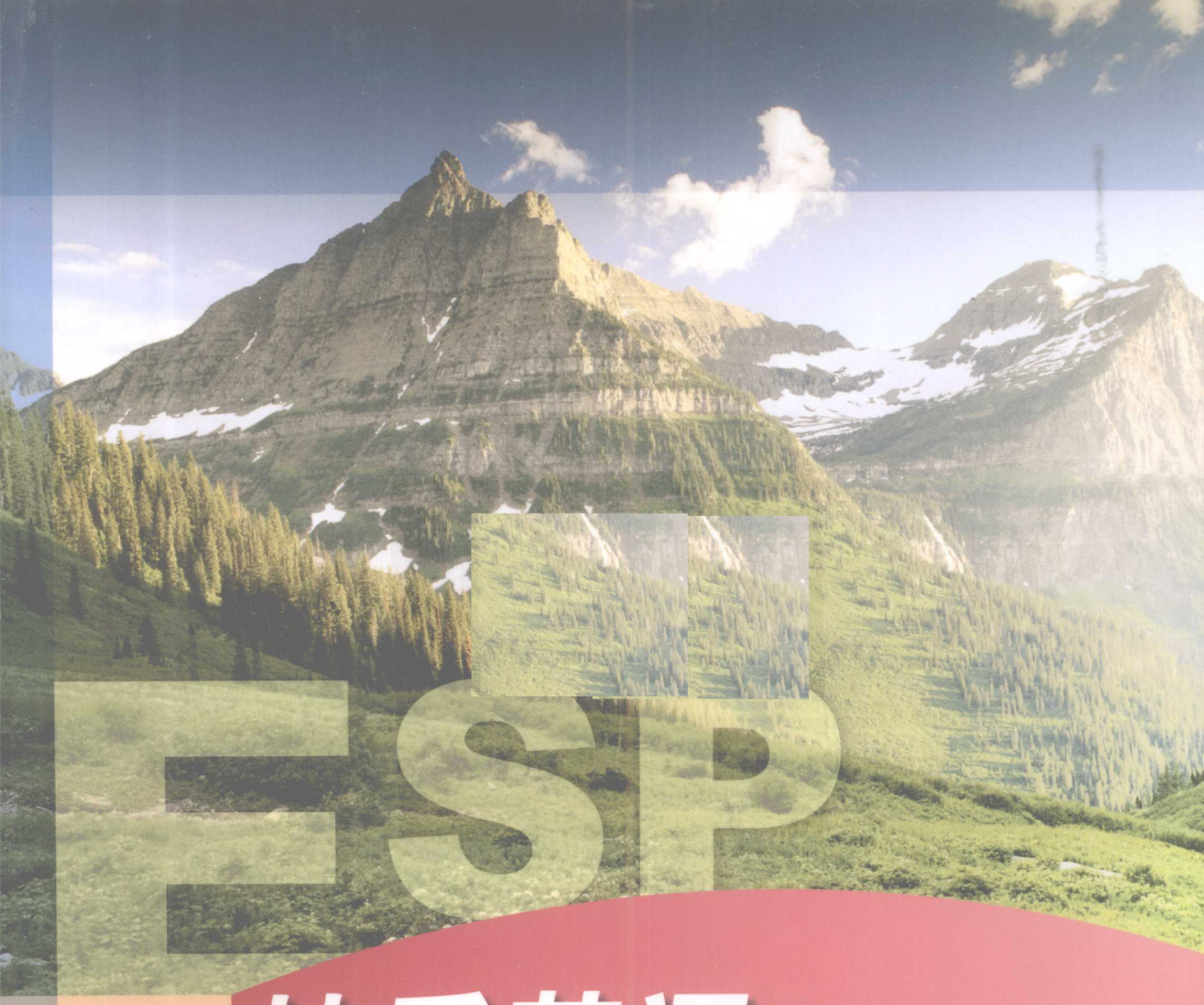

地质英语

English for Geology

《地质英语》教材编写组 编

高等教育出版社
Higher Education Press

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内容提要

专门用途英语系列教材是教育部规划的高等学院专业英语阶段的教材。《地质英语》是该系列教材之一，旨在提高地质类专业学生和从业人员在地质领域的涉外业务英语交际能力，其中包括专业阅读、翻译、写作和口头交际等各项能力。

全书共10个单元，每单元包括“听力与会话”、“阅读”、“翻译技巧”和“模拟套写”及相关练习。书后附有练习参考答案、听力材料、课文译文以及地质报告编写提纲。本书配有MP3光盘，其中包含了各单元对话、听力训练，以及课文的全部录音内容。

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前　言

专门用途英语系列教材是教育部规划的高等学院专业英语阶段的教材。该系列教材从高级应用型人才培养的总体目标出发，结合学生毕业后的工作实际，力求为学生提供其未来工作岗位所需要的专业英语知识和技能，培养学生使用涉外业务英语的能力。

专门用途英语系列教材主要供高等院校（包括高等专科院校和高等职业院校）专业英语学习者使用，也可供电大、各类成人院校以及广大专业人员学习专业英语、提高涉外交际能力使用。

《地质英语》系专门用途英语系列教材中的一种，旨在提高地质类专业学生和从业人员在地质领域的涉外业务英语交际能力，其中包括专业阅读、翻译、写作和口头交际等各项能力。

《地质英语》共10个单元，每单元包括以下四个部分：

1. “听力与会话”（Listening and Speaking），旨在培养学生进行涉外口语交际的能力。内容主要涉及日常生活用语，比如购物、吃饭、打电话、银行开户、看病、问路、邮寄、预订和住宿等。每单元在会话部分之前都选配了日常口语交际的常用表达法，以加深学生的句型意识和情景意识。所选句型和会话都来自于生活，真实实用。

2. “阅读”（Reading），旨在培养学生阅读地质专业英语资料的能力。本部分收录了两类文章：一类为专业技术性文章，用于培养学生阅读地质专业技术文献的能力，内容涉及地质学、大气圈、水圈和岩石圈、地震、地下水、化石、地壳运动、火山、石油、矿物、地质年代等；另一类为地质专业领域的科普性文章，内容涉及海啸、间歇泉、地球、矿物、地质工作者以及人物传记等。每篇文章之后均配有适量习题。

3. “翻译技巧”（Translating），旨在培养学生翻译地质专业英语资料的能力。内容涉及词义的选择与引申、词类转换、成分转换、增译法和减译法、定语从句的译法、被动语态的译法、否定结构的译法、以it为形式主语的句子的译法、长句的译法等。

4. “模拟套写”（Simulated Writing），旨在培养学生参照范例用英语模拟套写和翻译地质类涉外信函、备忘录、感谢信、求职信、致词、简历以及合同、产品和招聘广告、公司介绍、合同主要条款书、索赔信函等应用文的能力。书后附有区域地质调查报告（地质部分）编写提纲，便于学生参考。

本教材构思独特、实用性强，尤其突出了地质类专业涉外业务的实际需要；选材新颖、点面结合、内容丰富、语言规范；练习的设计兼具实用性和针对性。为便于学习，书后附有练习答案、听力材料和参考译文。

专门用途英语系列教材的总主编为孔庆炎教授，《地质英语》一书的主编为李学敏、李红新。编者为赵亮、王梅英、李华。

本书承蒙中国地质大学杨坤光教授审阅，并提出了宝贵意见。

在编写过程中，编者查阅了大量国内外最新资料，还得到了澳籍华人地质学专家黄万夫博士的大力支持，在此一并表示感谢。

由于编者水平有限，加之时间仓促，疏漏和不当之处在所难免，恳请读者不吝指正。

编者

2009年11月

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Part I Listening and Speaking: Making Invitations

OPENING YOUR MOUTH

Warm up

Have you ever received an invitation to your friend's birthday party? If you want to invite your classmates to have a cup of coffee, how would you say? Try to use the following sentences to make up dialogues and act them out with your partner.

Useful sentences

- I'd like to discuss our new product with you.
- Would you like to have lunch with me?
- I'd like to invite you to dinner next week.
- That sounds nice. / That's very kind of you. When exactly?
- How about Monday? / Is Friday convenient?
- Unfortunately, I've got a meeting all day.
- I'm afraid I will be visiting a trade fair.
- That's a pity. Does Tuesday suit you?
- Yes, I'm free then / that's fine.
- I'm sorry. I am expecting a visitor on Thursday.
- Wednesday will be difficult. What about Friday evening?

Now study the following model conversations carefully.

Conversation ❶

David: I wonder if you have made any plans tomorrow evening.
Evans: No. I have nothing on my mind yet.
David: Mr. Lee, our Managing Director, would like to have the pleasure of inviting you to a cocktail party.
Evans: That's very kind of him. I'd be delighted to go.
David: It'll be held at 6:00 p.m., at the Grand Hotel.
Evans: I see. Thank you. I'll be there on time.

Conversation ❷

Zhang Jun: Good afternoon. Zhang Jun speaking.
Robert: Hello. This is Robert Richard.
Zhang Jun: Hello, how are you, Mr. Richard?
Robert: Very well. Look, I have several questions to discuss with you about our contract. Would you like to have dinner at Beijing Restaurant sometime next week?
Zhang Jun: That sounds nice. When exactly?
Robert: Well, how about Monday?
Zhang Jun: That's very kind of you, but I'm afraid I can't make it. I'm engaged.
Robert: That's a pity. Does Tuesday suit you?
Zhang Jun: Let me see. Yes, that would be fine. What time exactly?
Robert: How about 6:00 p.m.?
Zhang Jun: Yes, that's fine. 6:00 p.m. next Tuesday, at the Beijing Restaurant. I'll look forward to it. See you then.
Robert: Good-bye.

Conversation ❸

Zhang Jun: Hi, Robert! I haven't seen you for ages.
Robert: It really has been a long time. How are you?
Zhang Jun: Very well. Thank you. And you?
Robert: Great, thanks.
Zhang Jun: By the way, do you have anything special tonight? I'd like to invite you to dinner. I know you like seafood. I heard that Huanghe Seafood Restaurant is really good.
Robert: That's very thoughtful of you. But I am so sorry. I will be out of town for a meeting tonight.

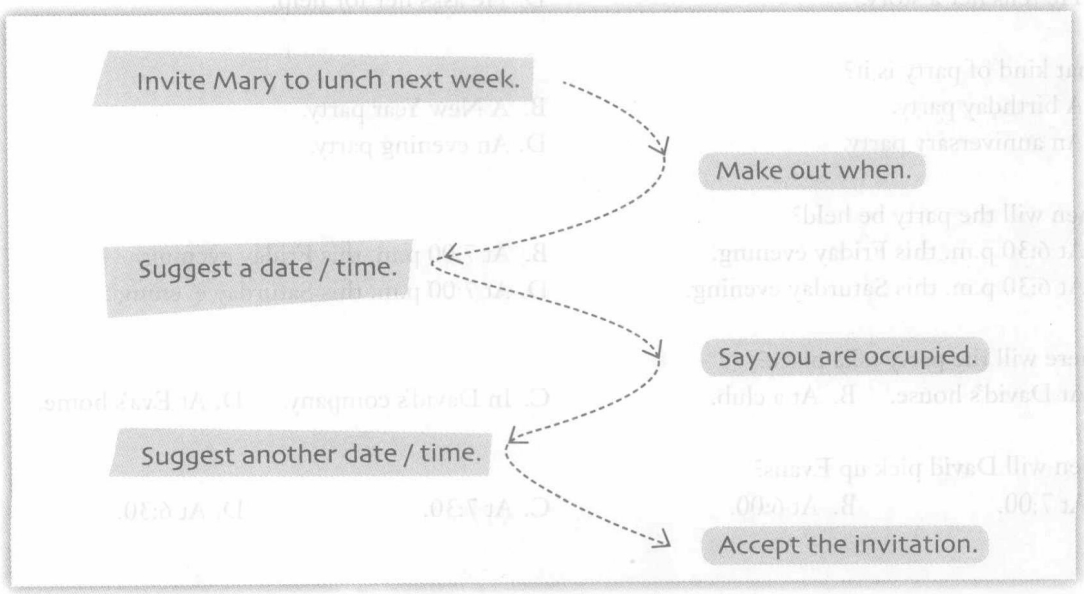
Zhang Jun: Can we make it Sunday? I'll come and pick you up.
Robert: Sunday is OK. I suggest that we meet at the restaurant at 6:30. That will save you a trip to come all the way to pick me up.
Zhang Jun: Sounds great! I am looking forward to it.

PRACTICE I

❶ Imagine you are inviting an English teacher from America to your birthday party. Read aloud the following conversation with your partner by putting in the missing words.

You: Hello, Professor Smith. _____1_____ if you have anything special tomorrow evening?
Mr. Smith: Let me see. No, I have _____2_____ my mind yet.
You: Well. _____3_____ you to my birthday party.
Mr. Smith: _____4_____. When exactly?
You: It'll be held at _____5_____, at the Huanghe Restaurant. I'll look forward to it. See you then.
Mr. Smith: Bye-bye.

❷ Imagine you work for Global Geological Company. You want to invite Mary Green, a customer, to discuss your company's latest product over lunch. Practice this conversation with your partner.



LISTENING IN

Task 1

Listen to the following sentences and choose the correct response to each of them.

1. A. No, I want it. B. Yes, it's delicious. C. I'd love to. D. So do I.

2. A. Yes, it is. B. No, it isn't. C. I'd love to. D. Yes, that's fine.

3. A. That's a pity. B. That's OK. C. No, it doesn't matter. D. Very well, then.

4. A. Seven o'clock.
   B. I wish I could, but I've been engaged.
   C. See you then.
   D. Yes, I am going to.

5. A. On Sunday.
   B. Yes, at 6:30.
   C. Great!
   D. Yes, it's very kind of you.

Task 2

Listen to the following conversation and make your choices to the questions according to what you hear.

1. Why does David call Eva?
   A. He invites her to dine out.
   B. He invites her to a party.
   C. He tells her a story.
   D. He asks her for help.

2. What kind of party is it?
   A. A birthday party.
   B. A New Year party.
   C. An anniversary party.
   D. An evening party.

3. When will the party be held?
   A. At 6:30 p.m. this Friday evening.
   B. At 7:00 p.m. this Friday evening.
   C. At 6:30 p.m. this Saturday evening.
   D. At 7:00 p.m. this Saturday evening.

4. Where will the party take place?
   A. At David's house. B. At a club. C. In David's company. D. At Eva's home.

5. When will David pick up Evans?
   A. At 7:00. B. At 6:00. C. At 7:30. D. At 6:30.

Passage A

Geology

Geology is the study of the earth. But of the three spheres, the atmosphere, the hydrosphere and the lithosphere, it only directly studies the lithosphere. It studies the composition and distribution of the material in the earth's crust. It studies also formation, changes and development of the rocks and minerals in it.

The study has been divided into two major divisions: physical and historical geology. Physical geology treats the earth's composition, its structure, the movements in and upon the earth's crust and the geologic processes by which the earth's surface is, or has been, changed. Its more important specialized branches include mineralogy, petrology, and structure geology — the study of earth structure, geochemistry that of the chemistry of earth materials; geophysics — the study of the physical behavior of earth materials; and economic geology — the study of the economic products of the earth's crust and their commercial and industrial application. Historical geology deals with the origin and evolution of the earth. Its subdivisions include paleontology, stratigraphy and paleogeography.

Geology relies heavily on other basic sciences. Astronomy has provided information about the earth's origin and its place in the universe. Chemistry is used to analyze and study earth's rocks and minerals, and the principles of physics are used to explain the physical forces that affect the earth and the reaction of earth materials to these forces. Biology has provided a better understanding of prehistoric plants and animals and how they developed throughout geologic time.

Who can experience or even hear about an earthquake or volcanic eruption without wondering about its cause? If you found a sea shell or fish solidly encased in the rock of an inland stream bed, or of a high mountain, would you wonder why it was there?

Have you ever pondered the jumbled varicolored rocks or multitudinous grains of sand of a shoreline, the gold like glitter of yellow mica in a piece of field stone, or the smooth symmetry of quartz crystal? If these or any of thousand and one phenomena all around us have stimulated so much as a fleeting question in your mind, you have peeked through a door into the world of geology. Anyone can walk through such a door and find treasures limited only by the dimensions of his curiosity and enthusiasm.

New Words and Expressions

geology /dʒɪ'ɒlədʒɪ/	*n.* 地质学，地质概况
atmosphere /'ætməsfɪə(r)/	*n.* 大气
hydrosphere /'haɪdrəsfɪə(r)/	*n.* 水圈
lithosphere /'lɪθəsfɪə(r)/	*n.* 岩石圈
composition /ˌkɒmpə'zɪʃən/	*n.* 成分，合成物；写作，作文
distribution /ˌdɪstrɪ'bju:ʃən/	*n.* 区分，分类
crust /krʌst/	*n.* 外壳，硬壳；地壳
formation /fɔ:'meɪʃən/	*n.* 形成，构成
mineral /'mɪnərəl/	*n.* 矿物，矿石
divide into	分成
division /dɪ'vɪʒən/	*n.* 分开，分割，区分
mineralogy /ˌmɪnə'rælədʒɪ/	*n.* 矿物学
petrology /pe'trɒlədʒɪ/	*n.* 岩石学
geochemistry /ˌdʒi:əʊ'kemɪstrɪ/	*n.* 地球化学
geophysics /ˌdʒi:əʊ'fɪzɪkz/	*n.* 地球物理学
commercial /kə'mɜ:ʃəl/	*a.* 商业的，贸易的
deal with	安排，处理，涉及
evolution /ˌi:və'lu:ʃən,ˌe-/	*n.* 进展，发展；演变，进化
subdivision /ˌsʌbdɪ'vɪʒən/	*n.* 细分，一部
paleontology /ˌpælɪɒn'tɒlədʒɪ/	*n.* 古生物学
stratigraphy /strə'tɪgrəfɪ/	*n.* 地层学
paleogeography /ˌpælɪəʊdʒɪ'ɒgrəfɪ/	*n.* 古地理学
rely on	依赖，依靠
astronomy /ə'strɒnəmɪ,-trɑ-/	*n.* 天文学

affect /ə'fekt/ *v.* 影响；感动；侵袭

biology /baɪ'ɒlədʒɪ/ *n.* 生物学，生物 (总称)

prehistoric /ˌpriːhɪs'tɒrɪk/ *a.* 史前的

volcanic eruption 火山爆发

eruption /ɪ'rʌpʃən/ *n.* 喷发，爆发

encase in 嵌入，围住，包裹

ponder /'pɒndə(r)/ *v.* 沉思，考虑

jumbled *a.* 混乱的

multitudinous /ˌmʌltɪ'tjuːdɪnəs/ *a.* 大量的；群集的；多种多样的

mica /'maɪkə/ *n.* 云母

symmetry /'sɪmɪtrɪ/ *n.* 对称，匀称

crystal /'krɪstl/ *a.* 结晶状的 *n.* 水晶，水晶饰品

thousand and one 无数的

phenomenon /ˌfɪ'nɒmɪnən/ *n.* 现象 (phenomena *pl.*)

stimulate /'stɪmjʊleɪt/ *v.* 刺激，激励

fleeting /'fliːtɪŋ/ *a.* 飞逝的；短暂的

peek /piːk/ *v.* 从缝隙看；窥视

dimension /dɪ'menʃən,daɪ-/ *n.* 尺寸，大小，范围

enthusiasm /ɪn'θjuːzɪæzəm/ *n.* 热心，热情

PRACTICE II

❶ Make the best choices according to the passage.

1. What does geology directly study of the Earth's three spheres?
   A. The atmosphere. B. The hydrosphere. C. The lithosphere. D. The biosphere.

2. Which one is not a branch of geology?
   A. Mineralogy. B. Geomorphology. C. Geography. D. Historical geology.

3. Geology is related to the following science except _____.
   A. Astronomy B. Medicine C. Biology D. Chemistry

4. Which of the following statements is **true**?
   A. Mineralogy, petrology, structure geology, geochemistry, geophysics and economic geology are the specialized branches of the physical geology.
   B. Geology only studies the formation, changes and development of the rocks and minerals in the earth's crust.
   C. Historical geology deals with the origin and evolution of the earth.
   D. Biology has provided information about the earth's origin and its place in the universe.

5. Historical geology includes the following subdivisions except _____.
   A. paleontology B. stratigraphy C. petrology D. paleogeography

❷ Fill in the conjugate words in each pair and then choose the correct word from the list above to fill in the brackets.

geologist	paleontologist			volcanologist
geology		mineralogy	hydrology	

1. a science dealing with minerals ( )
2. a person studying and applying hydrology ( )
3. a science dealing with volcanic phenomena ( )
4. a person studying and applying geology ( )
5. a science dealing with the life of past geological periods as known from fossil remains ( )

❸ Fill in the blanks with the proper words and expressions given below, changing the form where necessary.

encase in	trace	rely ... on	peak
divide into	ponder	deal with	affect

1. Tiny crocuses _____ through the snow in March.
2. He _____ his words thoroughly.
3. His broken leg _____ plaster.
4. The slight change of weather can _____ her delicate (脆弱的) health.
5. Nowadays we _____ increasingly _____ the computer in work and life.
6. His lecture _____ three parts.
7. How would you _____ an armed burglar?
8. The custom _____ to the time of the Warring States.

❹ **Match the English expressions in Column A with the Chinese equivalents in Column B.**

A	B
1. ( ) geological survey	A. 土壤地质学
2. ( ) the region of bedrock	B. 地质填图
3. ( ) locating station / point	C. 矿产资源
4. ( ) free-hand field map	D. 地质调查
5. ( ) geological mapping	E. 地质旅游资源
6. ( ) soil geology	F. 基岩区
7. ( ) mineral resources	G. 野外手图
8. ( ) geological resources for tourism	H. 定点

Passage B

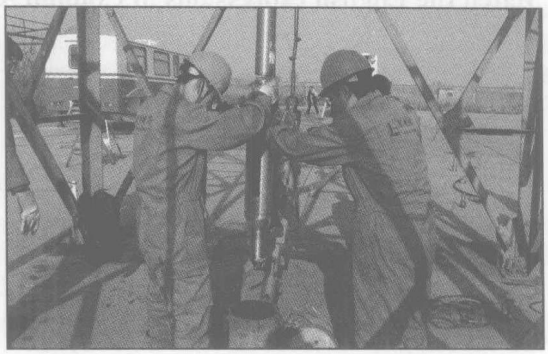
Geologist

Geologists work to understand the history of our planet. The better they can understand the earth history, the better they can foresee how events and processes of the past might influence the future. Here are two examples:

1) The processes acting upon the earth cause hazards such as landslides, mud-rock flow, land subsidence, earthquakes and volcanic eruptions. Geologists are working to understand these processes well enough to avoid building important structures where they will be damaged. If geologists learn a lot about volcanic mudflows of the past then that information can be very useful in predicting the dangerous areas where volcanic mudflows might strike in the future.

2) Geologists have worked hard to learn that oil and natural gas formed from organic materials deposited along the margins of continents and in shallow seas upon the continents. They have also learned to recognize the types of rock that are deposited in these near-shore environments. This knowledge enables them to recognize potential oil and natural gas source rocks. In the photo below oil field workers are placing a tool into an oil exploration well. This tool will be lowered down the hole and will record tiny amounts of radioactivity released from the rocks below (rocks rich in organic materials frequently contain tiny amounts of radioactive materials). The information obtained from the tool will help them assess the oil and natural gas production potential of the rocks below. If they do these tests at many locations within a region

they might be able to map an oil or natural gas field.



Geology can be a very interesting and rewarding career. The minimum training required is a college degree in geology. Pre-college students who are interested in becoming a geologist should take college preparatory courses in earth science, biology, chemistry, physics and math. Courses related to writing, environmental science, computers, geography and mapping are also valuable.

Geologists work in a variety of settings which include: natural resource companies, environmental consulting companies, government agencies, non-profit organizations, and universities. Many geologists do field work at least part of the time. Others spend their time in laboratories, classrooms or offices. All geologists prepare reports, do calculations and use computers. Although a bachelor's degree is required for entry level employment, many geologists earn master's and doctor's degrees. Advanced degrees will often qualify the geologist for supervisory positions, research assignments or teaching positions at the university level. These are some of the most desirable jobs in the field of geology.

New Words and Expressions

foresee /fɔː'siː/	*v.* 预见，预知
hazard /'hæzəd/	*n.* 危险因素
landslide /'læn(d)slaɪd/	*n.* 山崩；滑坡
subsidence /səb'saɪdəns, 'sʌbsɪdəns/	*n.* 沉淀，陷没，下沉
mudflow /'mʌdfləʊ/	*n.* 泥流
organic material	有机材料
deposit /dɪ'pɒzɪt/	*v.* 淤积物，沉积物
margin /'mɑːdʒɪn/	*n.* (湖、池等的) 边缘
potential /pə'tenʃəl/	*a.* 潜在的
radioactivity /ˌreɪdɪəʊæk'tɪvɪtɪ/	*n.* 放射能
assess /ə'ses/	*v.* 估定，评定
rewarding /rɪ'wɔːdɪŋ/	*a.* 有益的，值得的
supervisory /'suːpəvaɪzərɪ, 'sjuː-/	*a.* 管理的，监督的
assignment /ə'saɪnmənt/	*n.* 分配
desirable /dɪ'zaɪərəbl/	*a.* 值得要的，合意的，令人想要的