**Выполненная работа высылается на электронный адрес преподавателя иностранного языка Фадеевой И.И. По всем методическим вопросам, касательно выполняемой работы, обращаться по fadira62@mail.ru**

**Темы: Бурение. Добыча и переработка нефти и газа.**

**Методические рекомендации:**

Согласно программе на данном отрезке изучения английского языка, нацеленного на развитие навыков перевода профессионально ориентированной лексики и установления межпредметных связей с профессиональными дисциплинами, вам предлагается выполнить следующие задания, используя в качестве опоры учебное пособие Практикум для специальности РЭНГМ на английском языке.

**Задание1.** Познакомьтесь с содержанием текста о процессе бурения и выполните послетекстовые задания.

**DIRECTIONAL DRILLING**

Control of the course of a well during the process of drilling is of vital importance. For divers reasons it is frequently necessary or desirable to finish a well at some point away from a straight line drawn vertically below the rotary table. For this purpose a new technique called "directional drilling" has been developed. The system has been used in starting wells under a derrick location on land and drilling away from a straight hole into a producing sand beneath the sea or to reach points situated some distance away, horizontally, from the starting point. In this event, the well must be directionally controlled during the progress of drilling from the surface location to the point selected for penetration of the producing formation. This will involve use of devices to achieve deflection of the well in the desired direction and at a suitable angle from the vertical to reach the point selected for penetration of the reservoir rock. The art of directional drilling has so far progressed that a well may be drilled into a given stratigraphic horizon within a few feet of the point selected.

**Задание 1. Найдите лексические соответствия.**

1. course а) продуктивный нефтяной пласт

2. diver б) ход буровых работ

3. frequently в) явление, акт

4. reason г) стратиграфический горизонт

5. drawn д) часто

6. producing sand е) нефтеносная свита пластов

7. beneath ж) прогиб, относительный прогиб

8. starting point з) направление

9. event и) довод, аргумент

10.progress of drilling к) протянутый

11. producing formation л) водолаз

12. deflection м) коллекторская порода, пористая порода

13. reservoir rock н) точка отсчета

14. stratigraphic horizon о) внизу

**Задание 2. Ответьте на вопросы:**

1.What is of vital importance during the process of drilling ?

2. Why is it frequently necessary to finish a well at some point away from a straight line drawn vertically below the rotary table?

3.Where has the system of directional drilling been used ?

4.When must the well be controlled ?

5.Why must the well be directionally controlled during the progress of drilling?

**Задание 3. Составьте из следующих слов предложения:**

1.selected, The, penetration, the, rock, point, for, reservoir, of

2.during, of , drilling, of, importance, is, process, Control, the, course , a well,

the ,of, vital, of

3.sea, beneath, the, hole, sand, From , hole , straight, a, producing, into

**Задание2.** Познакомьтесь с содержанием текста о процессе добычи нефти и выполните послетекстовые задания.

**How is oil extracted?**

**Geologists and surveyors search for places where crude oil could be trapped underground.** After performing some specific measurements and taking samples, they drill to confirm that there is actually oil. In the early days, successfully hitting an oil field might have meant being showered by a gusher of mud and oil, with the consequent loss of the initial outpouring and the risk of explosion. However, by means of measuring instruments and special valves, today’s drilling rigs prevent this from happening. Smaller and deeper drillings are also possible today. Eventually, the pressure that makes the oil and gas emerge decreases, and it must be maintained by the injection of water, chemicals, carbon dioxide, or other gases, such as nitrogen. Depending on the zone, oil can have different degrees of density. Naturally, light oil is by far preferred, for it is easier to obtain and refine. As explained by the American Petroleum Institute, modern technology includes horizontal drilling, done virtually parallel to the earth's crust, which reduces the number of wells that must be bored. Offshore extraction, which began in 1947 in the Gulf of Mexico, greatly increased oil production. A guyed tower constructed in more than 300 metres (11.000 feet) of water in the Gulf of Mexico has been estimated to produce oil at about 65 times the production cost in the Middle East. Of course, the extraction method used has a direct effect on the price of the final product.

***1. Задайте к выделенному жирным шрифтом предложению все возможные вопросы.***

***2. Переведите подчеркнутые предложения, содержащие придаточные предложения и причастные обороты.***

***3. Найдите в тексте эквиваленты следующим словам и выражениям:***

Специальные измерения, степень плотности, нефтяное месторождение, взятие образцов, измерительные приборы, буровая установка, горизонтальное бурение, конечный продукт, прямое влияние.

**Задание3.** Познакомьтесь с содержанием текста о процессе транспортировки нефти и выполните послетекстовые задания.

**How is oil transported?**

In 1863 in Pennsylvania, small-diameter wooden pipelines were built for transporting oil, as they were cheaper and less cumbersome to use than 159-liter barrels moved on horse carts. In the early days, oil was stored and transported in wooden barrels, the same as those used for wine.Today's pipeline systems have evolved and multiplied. According to the Association of Oil Pipe Lines, the United States alone has a network of 300,000 kilometers of petroleum pipeline! Such pipeline systems are mainly made of metal, transport not only crude oil to refineries but also final oil products to distributors. Modern pipeline technology allows for automated systems that monitor flow and pressure. So-called intelligent pigs (devices used to inspect hundreds of kilometers of pipeline), Magnetic Flux Leakage inspection, and ultrasonic in-line inspection have also been developed. Yet, all that the ordinary user of the final products will probably see is a sign indicating that a petroleum pipeline lies underground and warning that no digging should be done at the site. As useful as it is though, a pipeline system is not practical for the transportation of large quantities of oil overseas. Entrepreneurs found a solution for that too - immense oil tankers. These are specially designed ships as much as 400 meters long. Tankers are the largest ships to sail the oceans and are able to carry up to a million or more barrels of oil.

1. ***Переведите текст письменно.***

***2. Найдите в тексте эквиваленты следующим словам и выражениям:***

Транспортировка нефти; система контроля расхода и давления; нефтеперерабатывающий завод; трубопроводная система; нефтяной танкер; факел; несколько фракций; бутан.

***3. Ответьте на вопросы по содержанию текста.***

1. In the early days, oil was stored and transported in wooden barrels, the same as those used for wine, wasn’t it?

2. What country has a network of 300,000 kilometers of petroleum pipeline?

3. What material are such pipeline systems made of?

4. What are tankers?

5. When were small-diameter wooden pipelines built for transporting oil?