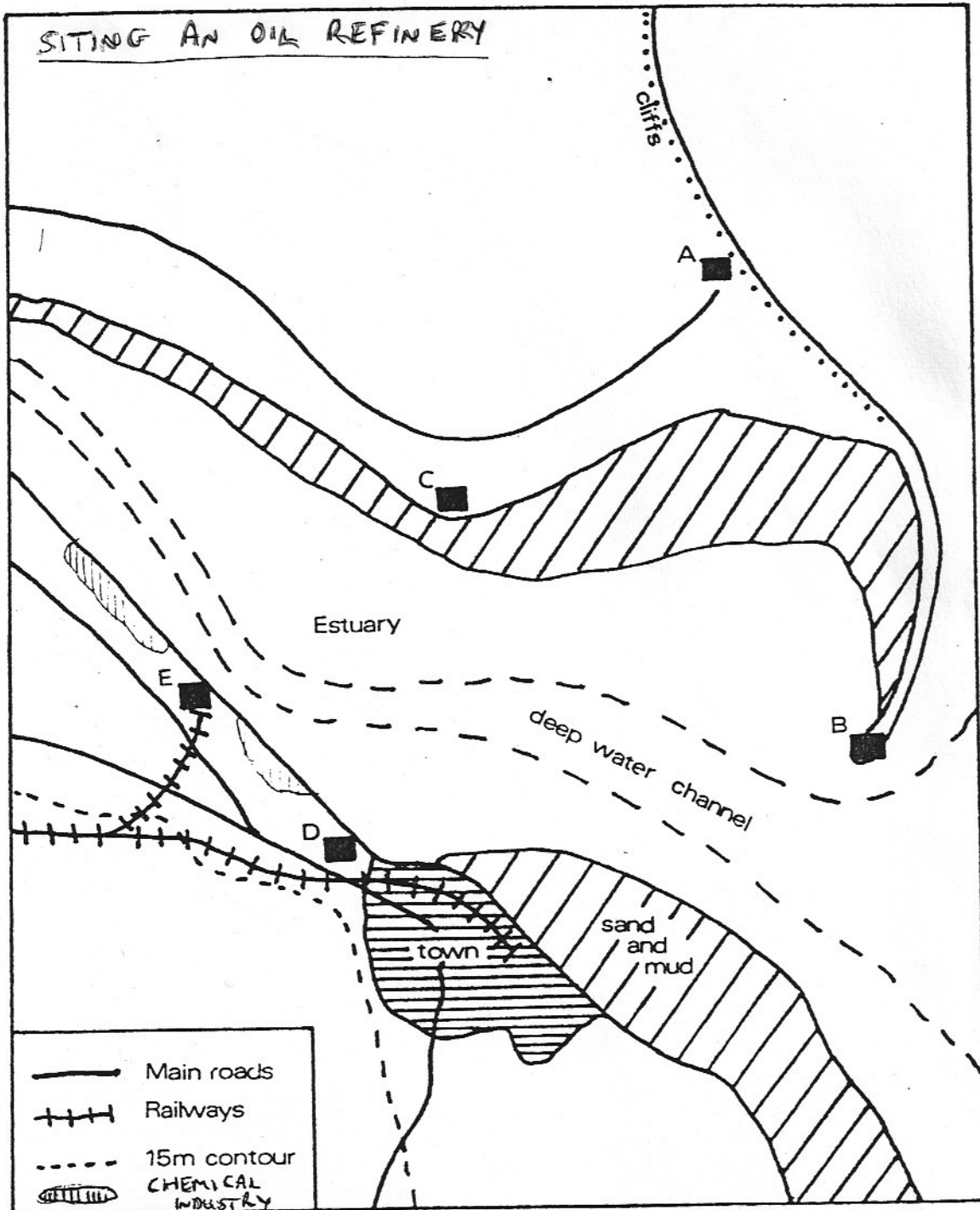


# SITING AN OIL REFINERY



## SITING AN OIL REFINERY

Most of Britains oil refineries are located on the coast. Although Britain produces a great deal of oil from the North Sea, much is still imported by tankers and a coastal site is best. Less than 1% of Britains oil comes from inland.

### FACTORS AFFECTING THE LOCATION OF OIL REFINERIES

#### DEEP WATER

Crude oil is transported in V.L.C.C. (very large crude carriers). These may be up to and over 250 000 tonnes in size. It is cheaper to transport oil in large amounts using these super-tankers. Deep water is needed to allow large super-tankers to dock.

#### SHELTERED SITE

An exposed coastal site where waves and winds may be stormy is not a good place to berth a super-tanker. A more sheltered site such as can be found in an estuary is better.

#### FLAT LAND

A large area of land is needed for the refinery and its many oil storage tanks. Reasonably flat land is best for building on. Sometimes land is reclaimed from the sea to build the refinery on, since this land is cheap and of little use for other purposes.

#### TRANSPORT

The refined products of the oil refinery must be transported to the markets. This may be done by road, rail or pipeline.

#### MARKET

A major market for the products of an oil refinery is the petro-chemical industry. It is best if the refinery is sited near to these industries which are also found on the banks of estuaries.

## WORK SHEET

You are in charge of a plan to build a new oil refinery in the area shown on the map. Since most of Britain's crude oil is either imported or comes from the North Sea, the refinery must be located on the coast. 5 possible sites are shown on the map, A, B, C, D and E, and it is your job to decide which is the best for the new refinery.

Study the factors which affect the siting of an oil refinery.

a) Which at first sight appears to be the best place for a new refinery? \_\_\_\_\_

b) (i) Now fill in the grid below to make your final decision. Score each site on a scale of 10 (excellent) down to 1 (very poor) for each factor. Your best site will have the highest score.

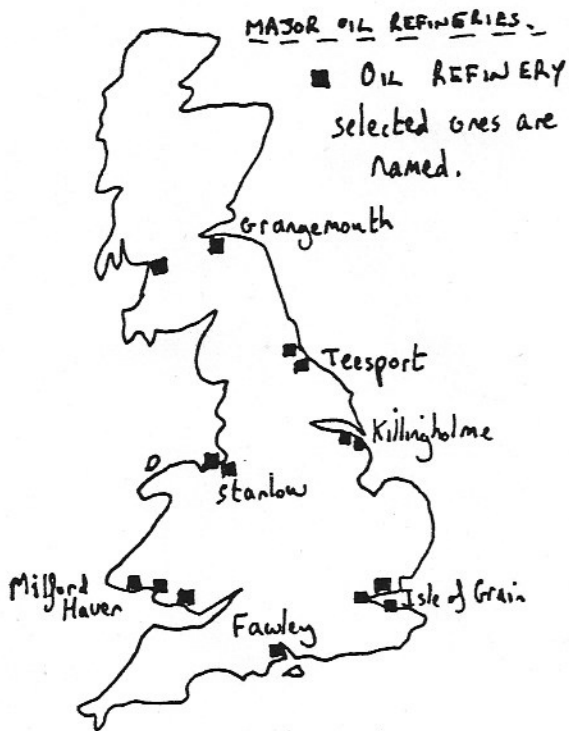
SITE	DEEP WATER	SHELTER	FLAT LAND	TRANSPORT	MARKET	TOTAL
A						
B						
C						
D						
E						

(ii) My best site is \_\_\_\_\_

c) Explain why your chosen site is best? \_\_\_\_\_

d) Explain why your worst site is not suitable? \_\_\_\_\_

SITING AN OIL REFINERY : DE-BRIEF.



a) Briefly describe the location of oil refineries in Britain.

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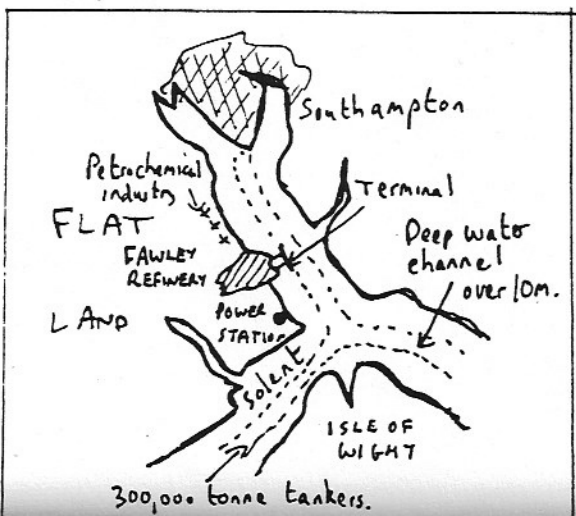
b) Name 3 refineries and the estuaries on which they are built.

<u>REFINERY</u>	<u>ESTUARY</u>
_____	_____
_____	_____
_____	_____

c) Complete the following section by choosing the correct words from the list below. An oil refinery must be located near to \_\_\_\_\_ water to allow the Very Large Crude Carriers (VLCC) or \_\_\_\_\_ to berth. These large ships allow crude oil to be transported in very large quantities which is \_\_\_\_\_. An \_\_\_\_\_ is better than an exposed coastal site since it gives shelter to the tankers and helps to protect them from \_\_\_\_\_ force winds and storm waves. Large areas of \_\_\_\_\_ land are needed for the refinery complex and storage tanks. The refined products are transported by \_\_\_\_\_, \_\_\_\_\_ or by \_\_\_\_\_ and one of the major users of these products is the \_\_\_\_\_ industry.

- SUPERTANKERS ESTUARY PETROCHEMICAL DEEP CHEAPER RAIL  
 PIPELINE FLAT ROAD GALE

d)



Use the information on the map to say why a refinery was built at Fawley.

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