

PRINCIPLE

Collection of viscous oil using caterpillar excavator

This technique consists in collecting the oil in order to facilitate its removal from the beach. Collection is carried out using a tractor or earthmoving equipment.



CONDITIONS OF USE

- ✓ **Pollution:** heavy pollution, continuous slick
- ✓ **Pollutant:** slightly to very viscous oil
- ✓ **Substrate:** vast, flat foreshore with wet fine-grain sand (very damp to saturated), and a good load-bearing capacity, without ripple marks
- ✓ **Site:** accessible and sufficient load bearing capacity for earthmoving equipment, sufficiently large to allow vehicles to manoeuvre.

EQUIPMENT

- **Basic equipment:**
 - ✓ Backhoe loader
 - ✓ Grader/bulldozer
 - ✓ Tractor or loader with front blade
 - ✓ Front-end loader or lorry (for removal).
- **PPE:** At least suitable for heavy machinery operation.



- ✓ Consists of bringing the oil together in order to facilitate its removal from the beach. Scraping is carried out using a tractor or earthmoving equipment fitted with a front blade in an oblique position. According to the viscosity of the oil, two options are available:
 - (case 1) fluid oil: radial or converging scraping towards a collection point on the foreshore; removal by pumping
 - (case 2) more viscous oil: concentration to form windrows, by successive slightly curving passes parallel to the water line; subsequent removal of windrows
- ✓ Should only be carried out on heavy pollution; do not use on moderate to light pollution
- ✓ Inform and supervise operators; use experienced operators
- ✓ Work methodically
- ✓ Set up traffic lanes on the beach in order to reduce oil and sediment mixing.



- ✓ Don't remove excessive amounts of non-contaminated materials
- ✓ Don't fill the bucket of loader more than 2/3 capacity
- ✓ Don't drive on polluted materials.



IMPACT

- ✓ Normally only removes the oil, but some sediment may also be taken with it (if the operator is poorly supervised or inexperienced), especially if used on light pollution or an unsuitable site
- ✓ High risk of disturbance due to traffic and mixing of oil with sediment
- ✓ May lead to reduction of beach stability and beach erosion/loss of beach area.



PERFORMANCE

Minimum workforce required: 2 people per vehicle (1 driver + 1 assistant)

Waste: oil mixed with a varying quantity of sediment; but can very rapidly become unselective if scraping is carried out on moderate pollution (should be avoided).

Bulldozer used for mechanical recovery operations



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