Georgian Well Blow-Out 2004

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Introduction

- Well blow-out (September 2004)
- Ninotsminda, 70km East of Tbilisi
- Decommissioning without BOP
- 800m above sea-level
- Deciduous Forest
- Flowing at 5 – 10,000 bbls/day

The Spill

- Approximately 4000m^3 of oil had flowed from the well over the four days
- Oil composition:
  - Density at wellhead 0.826 g/cm3
  - Asphaltene content 1.8 %
  - Viscosity 2.4cp
  - 7% Aromatics
- The area impacted was over 1km^2 of land;
  - A large plateau around the wellhead 350m in diameter
  - An area of woodland
  - A natural ravine and storm gully

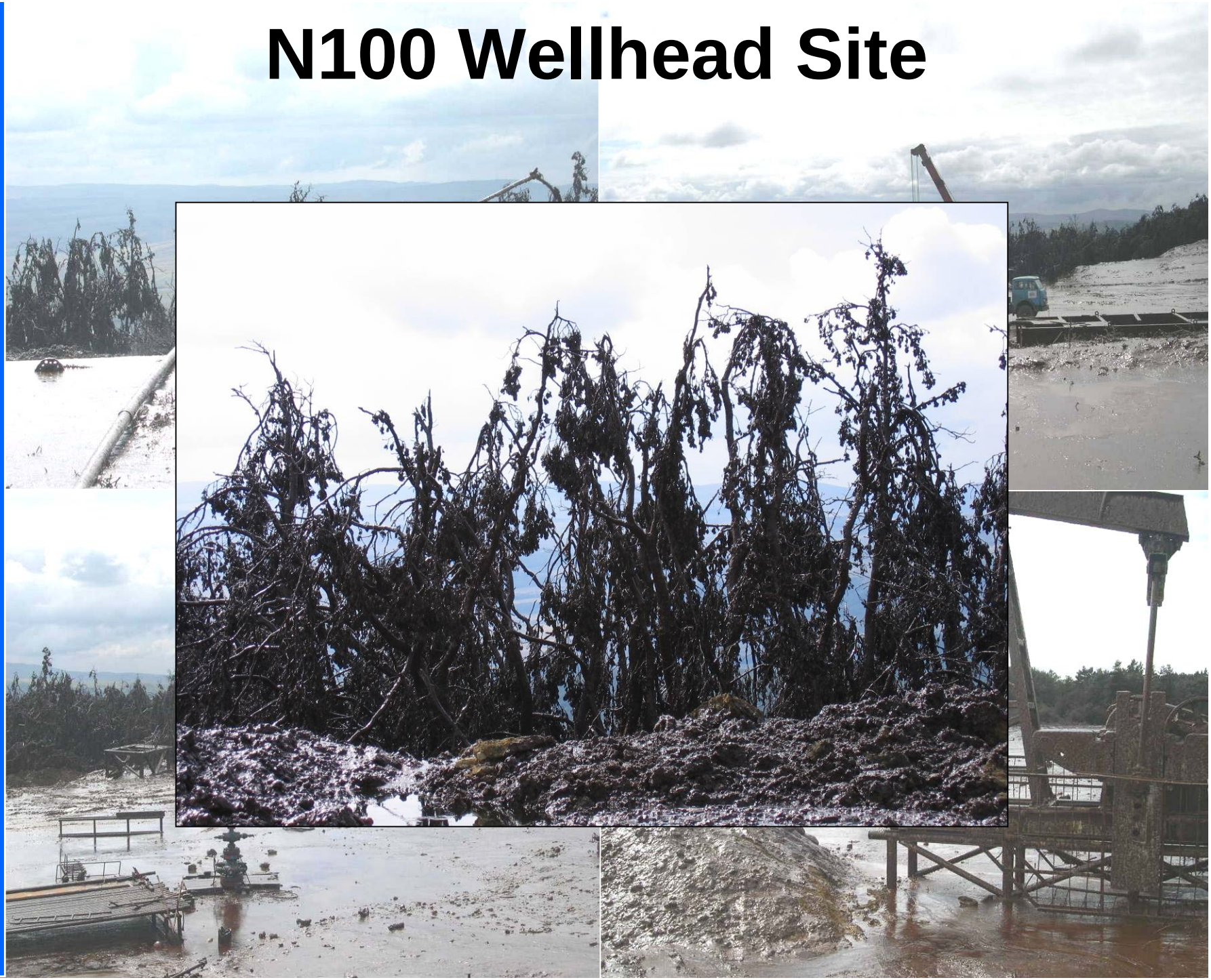
Initial Actions by Client

- Attempts to stem flow
- Use of heavy machinery
- Mobilisation of GPC to cap well

- No Contingency Plan
  - No trained personnel
  - No equipment
  - No Management system
  - No MOUs with other companies

Initial Actions (0 – 4 Days)

N100 Wellhead Site



OSRL's Evaluation

- Full evaluation of spill
  - The spill (oil specification, volume etc)
  - Environmental impact assessment
  - Health and Safety
  - Resources available
- From this information a response action plan was generated

Responder Welfare

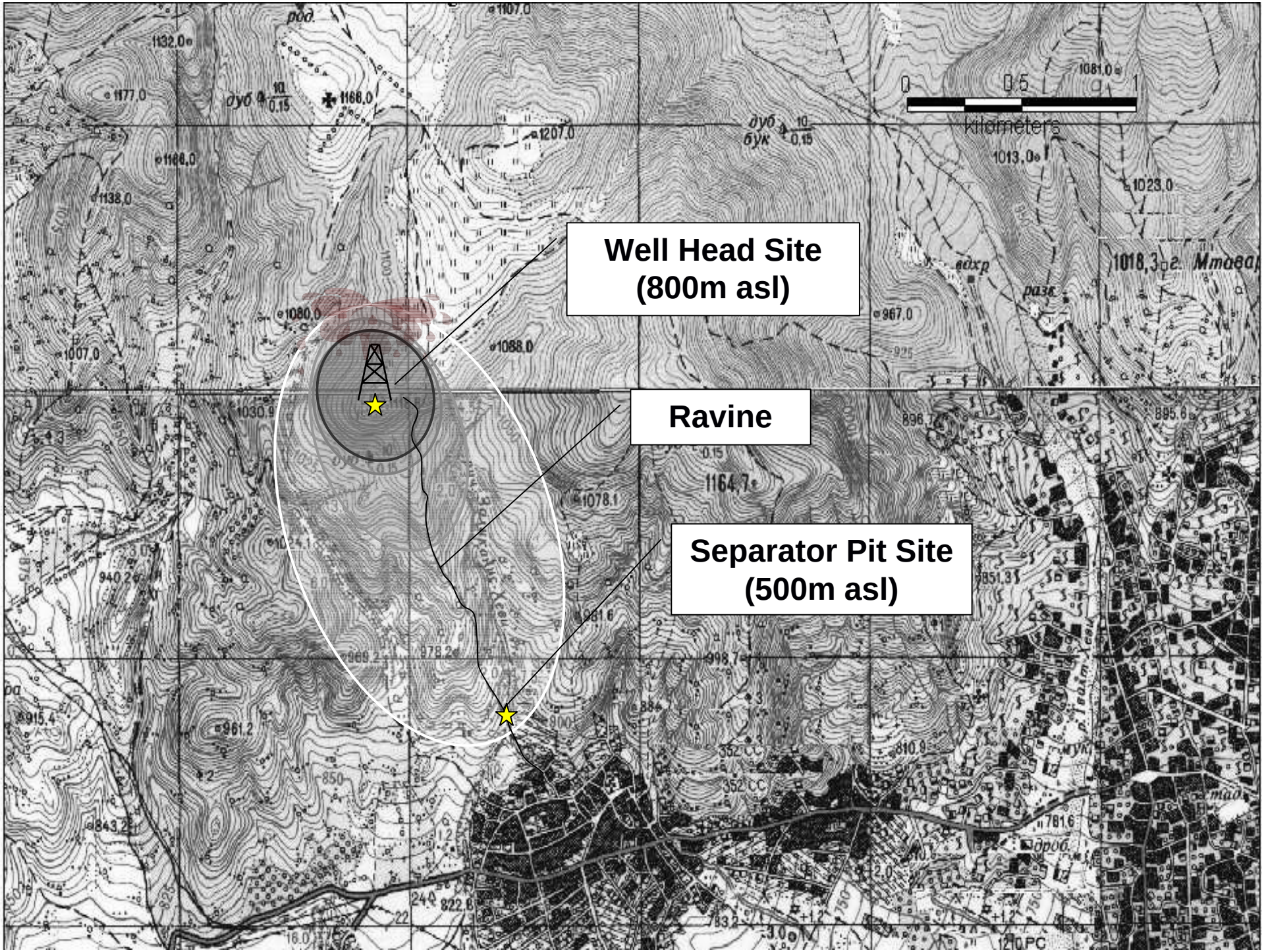
- Safety and welfare of response personnel
- Air monitoring
- Security of personnel and equipment
- Fire and explosion

The Environment

- Deciduous trees and shrubs
- Ecosystem disturbance
- Potential contamination of food crops
- Potential contamination of water for livestock and crop irrigation

Weather and Topography

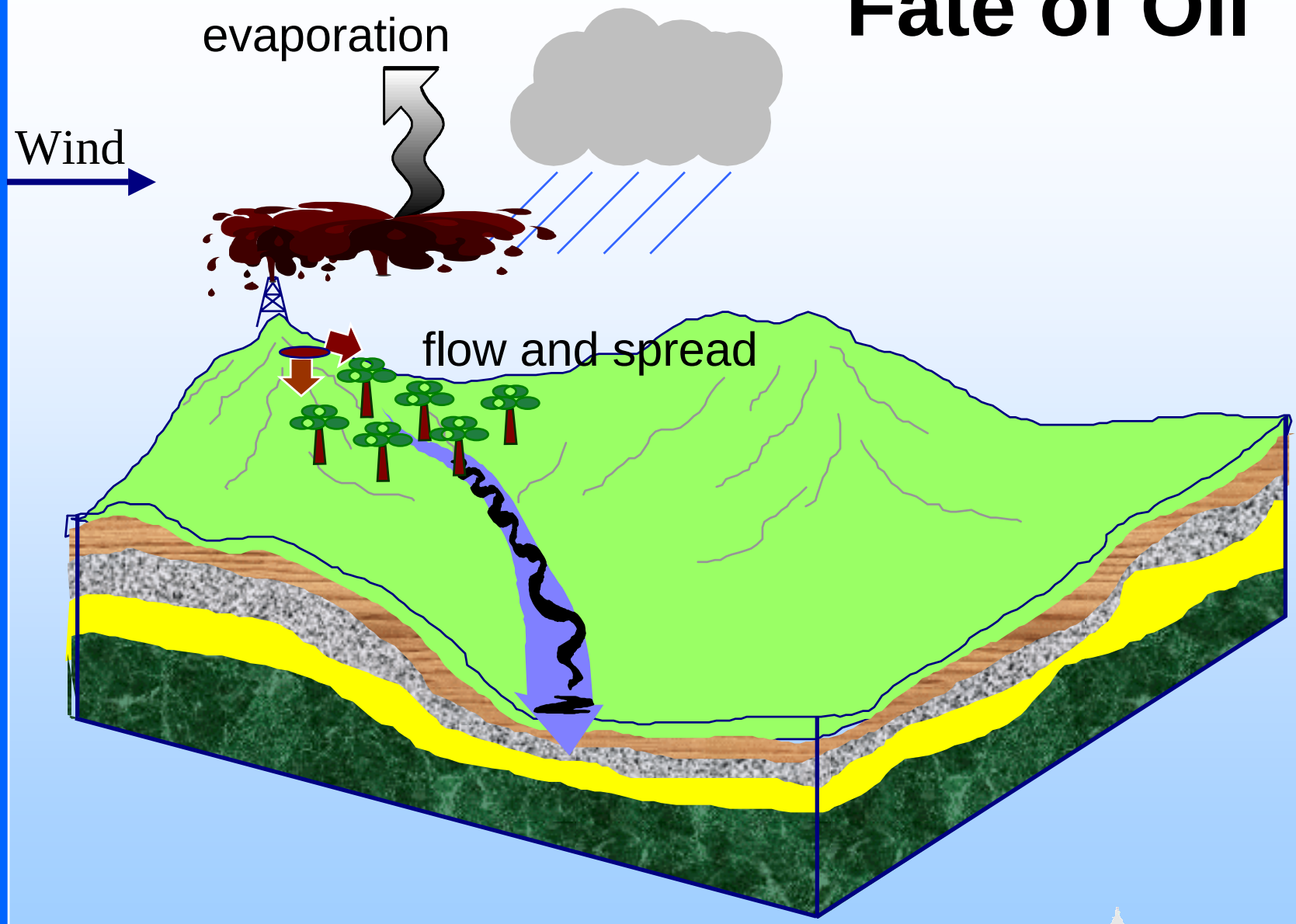
- Warm and dry in September
- Freshwater stream
- Clay substrate
- Deep water tables
- Poor accessibility



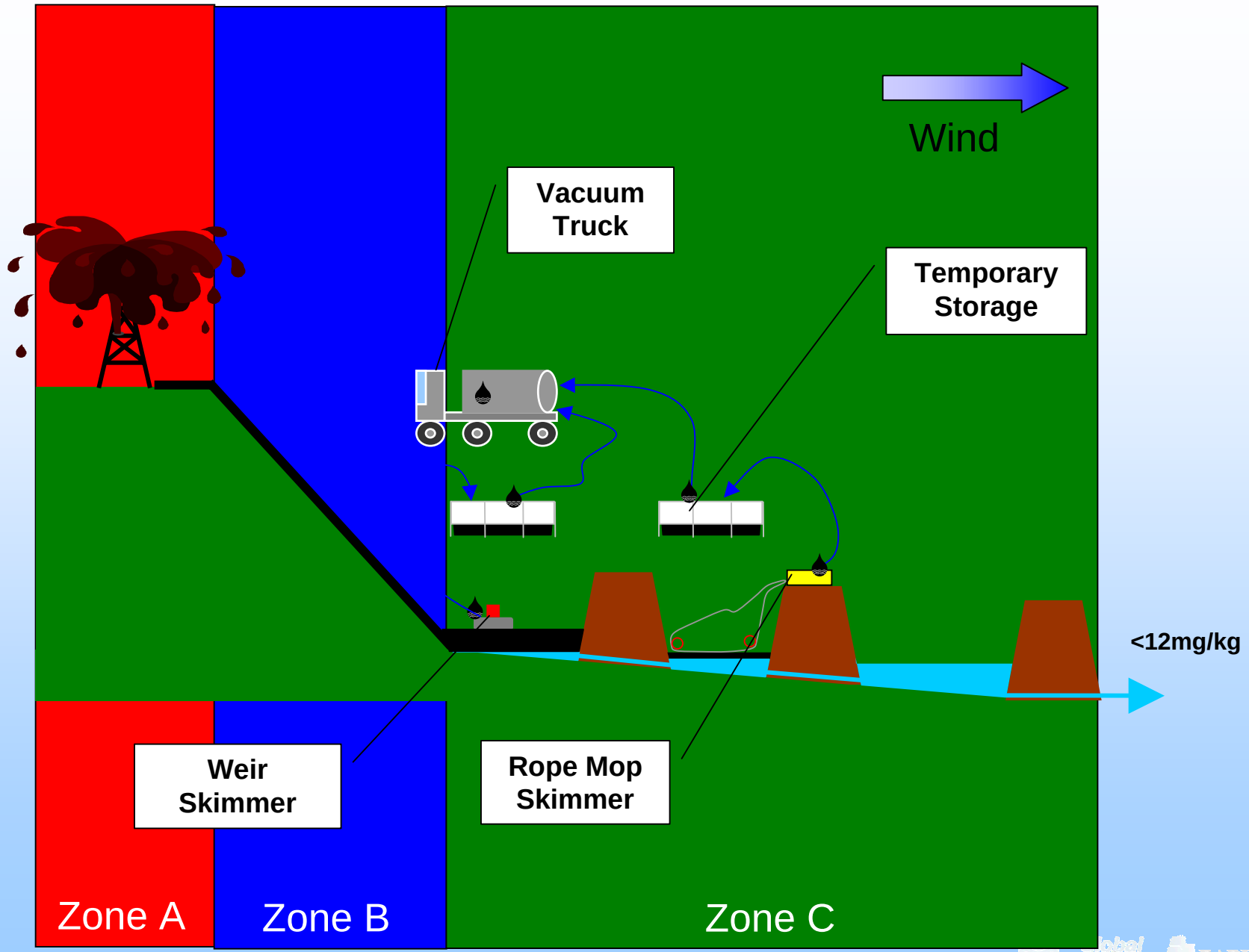
Response Action Plan

- Build an ICS to integrate with company's management
- Minimise impact and spread of oil
- Remove gross oil from the wellhead and then the woodland
- Final cleaning
- Site surveys established 3 work areas:
  - Zone A: Wellhead area
  - Zone B: Woodland
  - Zone C: Separator pits and storm gully

Fate of Oil



Site Layout



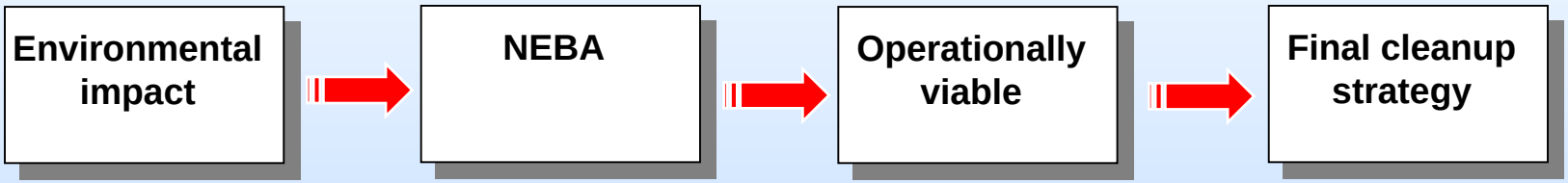
Zone C – Separator Pits

Zone C - Separator Pit

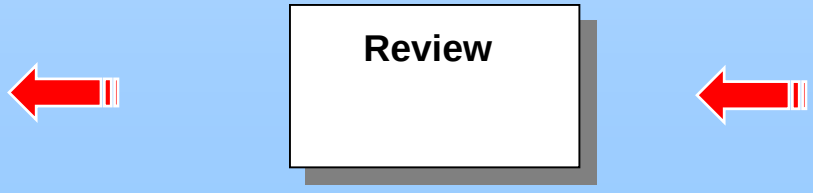
Zone A – Well Head

Effective response

- Alliance environmental specialists conducted a woodland survey
  - Environmental impact assessment



  - The following cleanup options were employed
    - Flushing and manually re-mobilising the bulk oil
    - Manual recovery of the heavily oiled leaf litter
    - Structured and managed felling and lopping
    - Regeneration program



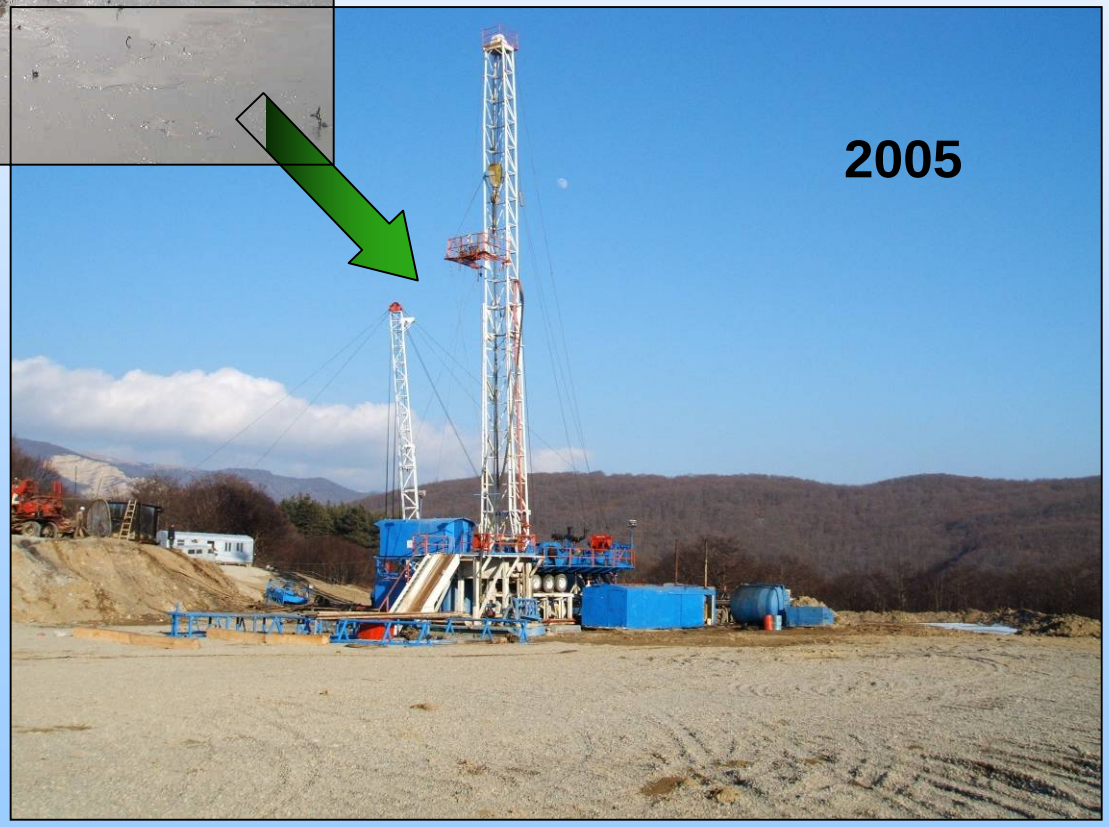
Zone B – Woodland

Knowing what to leave alone

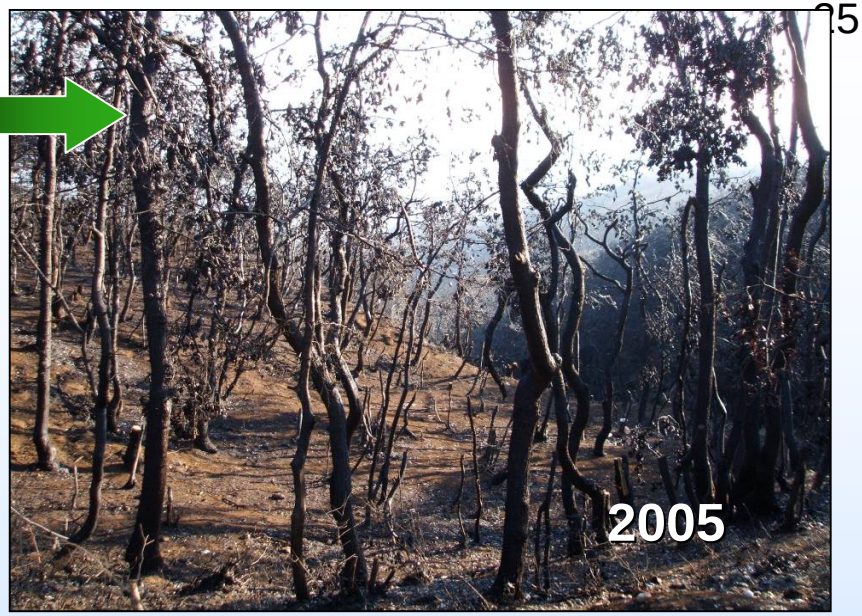
Post Spill Activities

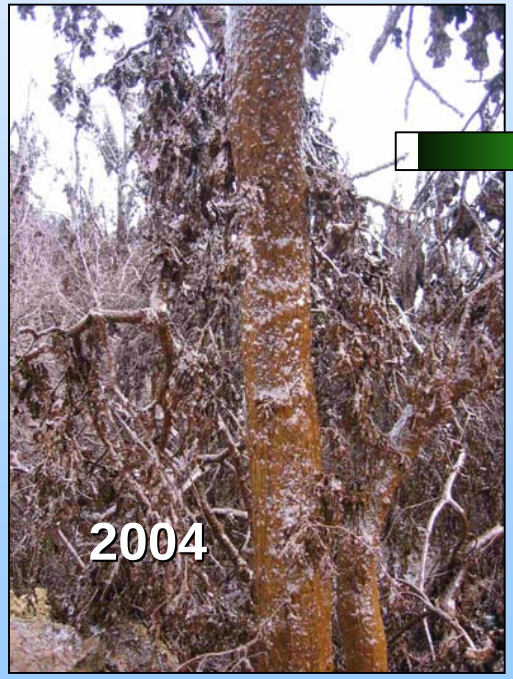
- Continued site rehabilitation
- Selective felling & oiled debris removal
- Continued monitoring of water quality
- Bioremediation scheme ongoing
- Replanting scheme planned
- Drinking water well drilled
- Well N100 still producing

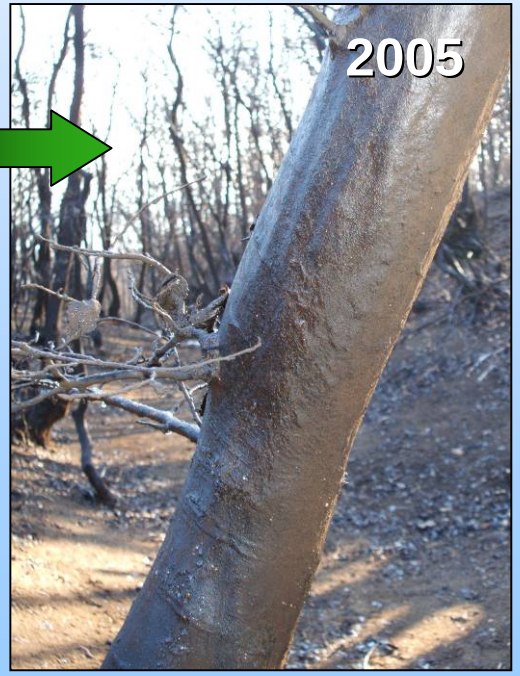
Post Spill (Well Head)



Post Spill (Forest)







Post Spill (Forest)

Summary

Lessons Learnt

- Importance of an OSCP
- Improvised spill techniques
- Self sufficiency in response
- Health and Safety

Thank You.

Any Questions?