



DHV BV in joint venture
with COWI A/S, ECORYS,
and WL | Delft Hydraulics

Caspian Water Quality Monitoring and Action Plan for Areas of Pollution Concern

Harmonisation for Regional Monitoring

Stephen de Mora

February 2008



Caspian MAP

Tacis/2005/109244



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Harmonised Work Plan (Wednesday)

1. Parameters
2. Proficiency testing
3. Station Locations
4. Timing
5. Laboratories
6. Sampling logistics (Vessel)
7. Equipment needs
8. Training needs
9. Reporting
10. Meetings
11. Action planning toward LBS

1. Parameters

Sampling media: sediments

Contaminant Parameters:

- Total Petroleum Hydrocarbons (TPH)
- OCPs: DDTs, Lindane
- Trace Metals: Hg, Cu, Zn

Complementary parameters:

- Grain size
- TOC (Total Organic Carbon) and Carbonate
- Al and Fe

2. Proficiency Test Time Table

Jan	Preparation of test sample
Feb	Characterization of test sample
Early March	Distribution to laboratories by DHL (test material, instructions and reporting forms)
April	Chemical analyses in laboratories
Late May	Submission of results to CMSET
June	CMSET interpret data and prepare report

3. Station Locations

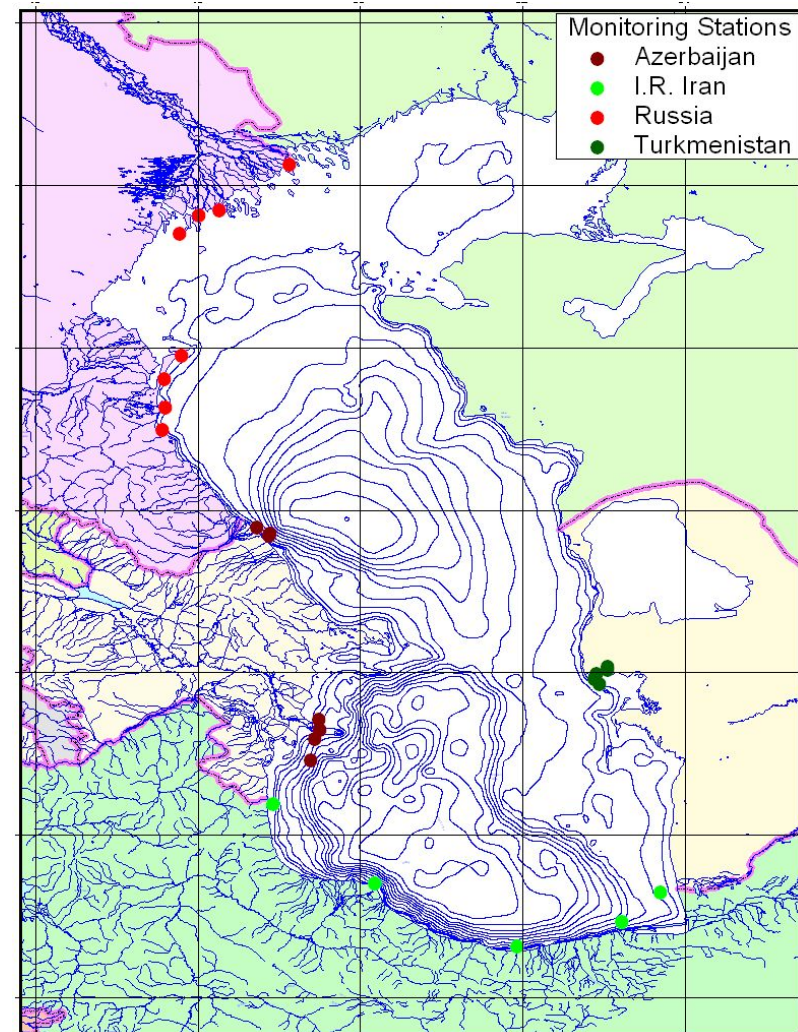
Number of stations: 5 to 8

Previously proposed locations

Need station locations from

Kazakhstan

**Additional / different sites in
Azerbaijan & Turkmenistan**



4. Sampling & Analysis Time Table

Late June	Meeting (Proficiency Test Report; Final plans for monitoring campaign)
July - Aug	Sample collection
Sept - Nov	Chemical analyses of samples
Nov	Data interpretation
Late Nov	Submission of data and environmental interpretation to TL
Dec	Regional Workshop to discuss monitoring results

5. Laboratories

AZ-1	Caspian Complex Env.Monitoring Administration
AZ-2	AzEcolab
IR-1	Department of Environment-Central Laboratory
IR-2	Iranian National Center for Oceanography/ Plant Protection Research Center
KZ-1	Aktau-Port HMC Laboratory/Central Laboratory
KZ-2	Atyrau Municipal Analytical Environment Protection Lab.
RU-1	SOI/ Dagestan HMC
RU-2	Shirshov OI Astrakhan Caspian Center
TK-1	CaspEcontrol Laboratory
TK-2	TurkmenGeology Lab

6. Sampling logistics - vessels & dates

Country	Mission Dates	Vessel	Areas of Concern	Station total
AZ	03-09 08	Halif Gajiev 4+2 person	Baku bay (5) Kura Avandelta (5) Coast area (3)	13
IR	July-August	Gilan	Sefid Rood River (3), Bandar Anzali (3), Chalus/Noshahr (3), Gorgan Bay (3)	12
KZ	24 -29 08	Elen, KAAE 4+2 person	Ural River (2), Agip platforms (5), Bautino (2) Aktau (3), Fetisovo (3)	15
RU	15 -23.08	“Briz” 4+1 person	Volga avandelta (4), Dagestan North (3), Central (3), Samur (3)	13
TK	01 -06 09	Rented 4+2 person	Turkmenbashi (3), Cheleken (3), Ekerem (1), Gasan-Kuli (1), Bekdash (2)	10

7. Equipment Needs

AZ	Consumables, packing materials, bottles. Box-corer
IR	---
KZ	Consumables, packing materials, bottles. Box-corer. Filtration facilities
RU	Consumables, packing materials, bottles. Box-corer,
TK	Consumables, packing materials, bottles. Box-corer. Filtration facilities

8. Training Needs

	General	Individual
AZ	<ol style="list-style-type: none"> Strategy for Monitoring and Data interpretation QA/QC management Harmonization of the Guides sampling and Basic Marine Chemistry 	GasChromotography, AAS
IR		
KZ		GasChromotography, AAS Basic oceanography
RU		GasChromotography, AAS Bottom sediment chronology
TK		GasChromotography, AAS Basic oceanography

9. Reporting & 10. Meetings

Reporting

- Proficiency test data due **May 30, 2008**

Meeting - late June

- Proficiency Test Report
- Final planning meeting before sampling campaign

Reporting

- Chemical data and environmental interpretation due **Nov 30, 2008**

Meeting - mid December

- Discuss results of monitoring programme



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11. Action planning toward LBS

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