



Biannual Environmental Monitoring Report

Project Number: 42399
Grant Number: ADB Loan No. 2533-KGZ (SF) and Grant No. 0153-KGZ (SF)
Reporting Period: July-December 2013

Kyrgyz Republic
CAREC Transport Corridor -1
(Bishkek – Torugart road) Project 2
Section 1, km 365+500 – 400+600
Section 2, km 439+000 – 479+000

Prepared By the Ministry of Transport and Communications of the Kyrgyz Republic



<i>Reviewed by: Name</i>	<i>Designation in IPIG</i>	<i>Responsibilities</i>	<i>Signature / Date</i>
Abdygulov Asylbek	Environmental Specialist		

31 JANUARY 2014

This report is prepared to update the status of all project components and their implementation progress. It is designed to feed ADB's internal Project Progress Report and will form the basis of the draft Project Completion Report upon project completion.

TABLE OF CONTENTS

Part I Introduction	1
Part II Environmental Monitoring	3
Part III Environmental Management	8
Part IV: Conclusions and Recommendations	9
Annex 1: Monitoring Test Results	12
Annex 2: Photographs	23
Annex 3: Implementation Report on EIA/IEE Mitigation Requirements	29

Part I Introduction

1. Construction season began on 1 April and officially ended on 31 October 2013. The works program is 95.48% completed for Section 1 and 97.52% completed for Section 2 as of 31 October 2013. The Contractor will have to complete all works on the At Bashy Road by June 2014 because the loan closes on 30 June. Aside from some minor additional drainage, work on the main road sections has been completed with only the At Bashy sidewalks, drainage and road furniture remaining to be done.

Project Activities

2. An important issue arose over the winter: cracks in the road appeared in December-January 2013 as a result of frost-heave. Similar cracks appeared on BNT 1 the previous winter. While this is a design issue (all future projects will include anti-frost layers), it also affects road sustainability. Retroactive measures (e.g., additional drainage) are being undertaken but the key to the road reaching its planned life is that proper maintenance including filling the cracks with bitumen each winter is essential. Although filled with bitumen in March-April 2013, the cracks have since re-opened as shown in Figure 1.

Figure 1: Frost-heave Cracks at km7+400-7+420, 22 January 2014





km5+730, 9 January 2014

3. During the July-December period, issues related to the main road including some erosion and slope stability were addressed. Road furniture and pavement markings were completed. Borrow (see below) pits were recultivated, assessed by TAEPF under the Government of the Kyrgyz republic and the work was approved and the borrow pits were returned to the local government. Some additional crack-reducing measures such as improved drainage will be completed by 1 June 2014. This is the only work remaining for the main road.

4. A major new activity began in July with the rehabilitation of the At Bashy bypass road. Paving was completed in October 2013. Drainage and sidewalks will be completed by 1 June 2014.

5. The ADB Safeguards Mission visited the site on 24 September and reviewed the recultivation of the borrow pits and the At Bashy road works. The Mission considered the borrow pits to have been greatly improved, and there was a need to unblock access one section of the At Bashy road, which was done over the following two days. The ADB Review Mission visited the site on 14 November and indicated that the borrow pits looked to be in good order. The borrow pits had been evaluated by an official commission consisting of local officials and senior government officers, and had directed and approved the recultivation of the borrow pits in October 2013.

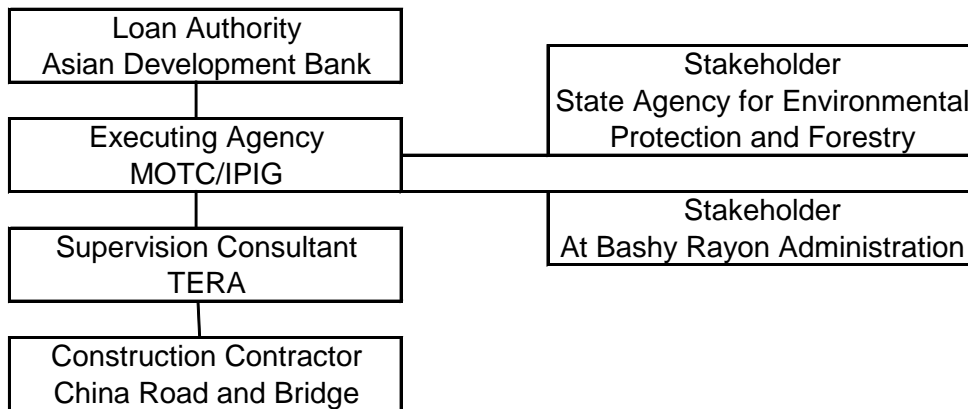
Project Organization

6. There have been no changes in Project organization or composition of the environmental management team.

7. The organizational structure for the Project with respect to environmental management is shown in Figure 2.

Figure 2:

Project Environmental Management Structure



8. Relations between the Executing Agency (EA), the Consultant and the Contractor have been satisfactory, and a good working relationship has evolved. However, there have been issues related to the environment, safety, and the community that have arisen and not all of these have been satisfactorily resolved as will be discussed in Part III below.

9. Monthly reports have been submitted that include the necessary environmental test results for air, water, noise and vibration. In addition, regular camp and road safety audits have been performed.

Part II Environmental Monitoring

10. The beginning of the road is located in the middle mountain zone of the Tien Shan and belongs to the southwestern part of the Naryn Too mountain range. In this section, the road is situated on the edges of deep ravines and often crosses these ravines. Depth of ravines is up to 70 m and width at the bottom is 30-50m. The road section km 370 to 387 is laid on the southern side of the Naryn Too mountain range. The surface of the pre-mountain part is divided with slopes to the south of 3-5 degrees. The road between km 387 to 390 is laid on the right bank terrace of the At-Bashy River (crossing at km 400). The surface of the terrace is undulating and height of the terrace is up to 50m. Further, up to the end of this section the road is located on the right bank over floodplain terrace of At-Bashy River. The surface of the terrace is plain with height up to 2.5m. Elevation of the section ranges from 2,100m to 2,400m mean sea level (msl). The road then traverses the At-Bashi Valley parallel to the At-Bashy Ridge, until it reaches the western part of the ridge. It then turns south, passing through open pasture areas, and ascends to the Ak Beit Pass (altitude 3,284 m). The road then crosses the northern branch of the At-Bashy Ridge, and continues down to the Arpa Valley. The final point of the section is located beyond the Ak Beit Pass in the Arpa Valley at km 479, which is just past the Border control point at km 478. The road does not pass through any villages or built

up areas except for the petrol station and restaurant in Section 1 and the Road Maintenance Unit houses at Ak Beit. Neither of these settlement areas has had to be relocated nor has land had to be acquired because of the road rehabilitation. There have been no compensation claims for loss of livestock, trees, crops, structures or any other items to date.

11. Monitoring data are included in Annex 1 for July-September 2013. However, no data were collected in October 2013 because of the early cold snap cause work to be stopped. The At Bashy road was paved by the end of the 1st week of October and then focus shifted to preparing for winter. Monitoring data have been collected for the following during the period:

- noise and vibrations,
- water quality, and
- air quality.

12. The tests for noise (Annex 1, Table 1) and vibration (Table 2) indicate that the maximum permissible levels were not exceeded at any of the test locations at the Tash Rabat asphalt/coating plant at km 452. These results are consistent with previous tests: they have been within permissible levels throughout the project. Therefore, no mitigation actions are required.

Environmental standards for noise

Table 1: Noise Standards

Units: dB

Activities/Category	Leq		Lmax	
	day	night	day	night
Sections in the vicinity of hospitals and sanatoriums	45	35	60	50
Sections adjacent to resident buildings, medical centres, outpatient clinics, health resorts, hotels, libraries, schools etc.	55	45	70	60
Sections adjacent to hospitals and dormitories.	60	50	75	65
Recreation area in hospitals and sanatoriums	35		50	
Rest areas in the territory of districts, territory for construction of health resorts, sanatoriums, schools, homes for elderly people, etc.	45		60	

13. 75 dB is conventionally defined as maximum permissible concentration only for construction period.

14. Test results for water quality in the Kara Koyun River were taken at the camp at km 452. The tests for PH (Figure 1), nitrates (Figure 2), sulfates (Figure 3) and oil products (Figure

4) all show levels within the permissible levels. Consistent with tests from 2011 and the earlier half of 2012, the sulfates tests results for the sites above the camp indicate that there are high levels of sulfates in the water to begin with and the project activities including the plant and camp have had limited or no impact on sulfate levels.

Environmental Standards for Water Pollution

Standards, shown in the Table 2, are set only for the construction period and taken from Law on Water of Kyrgyz Republic of 1994.

Table 2: Water Standards¹

	Standard
Hydroniums	6-9
Dissolved oxygen, DO, mg/l	4<
Sulphate, S, mg/l	<250
Ammonium nitrogen, NH4-N, mg/l	<3.3
Fuel and oil, mg/l	<0.05

15. For air quality, test results for suspended particles (Figure 5), carbon monoxide (Figure 6), sulfure dioxide (Figure 7), and nitrogen dioxide (Figure 8) were all within permissible levels. Air quality at the Tash Rabat asphalt/coating plant has been closely monitored because previous test results for carbon monoxide and sulfur dioxide had exceeded permissible levels in June 2012.

Environmental Standards for Air Pollution

Table 3: Air Quality

	Units	Maximum Permissible Concentration	Mean daily concentration
Sulfur Dioxide, SO2	mg/m ³	0.5	0.05
Nitrogen dioxide , NO2	mg/m ³	0.085	0.04
Carbon monoxide, CO	mg/m ³	5	3
Suspended substances, PM	mg/m ³	0.15	0.05

16. In addition to the sampling and testing data, visual inspections relating to flora and fauna are regularly undertaken by relevant staff on a daily and site inspection basis. To date, there have been no noticeable changes with respect to the conditions along the alignment. Commonly seen are marmots and voles. There are no protected or rare species along the alignment but there is considerable livestock raising, which could be affected by both construction and increased traffic.

• ¹According to Kyrgyz legislation more than 1 2000 points were identified.

17. Road accidents are also monitored. There have been no accidents reported on either section. However, the Contractor does not report accidents, and this has been an issue.

18. Similarly, safety accidents with workers are monitored and none have been reported during the period.

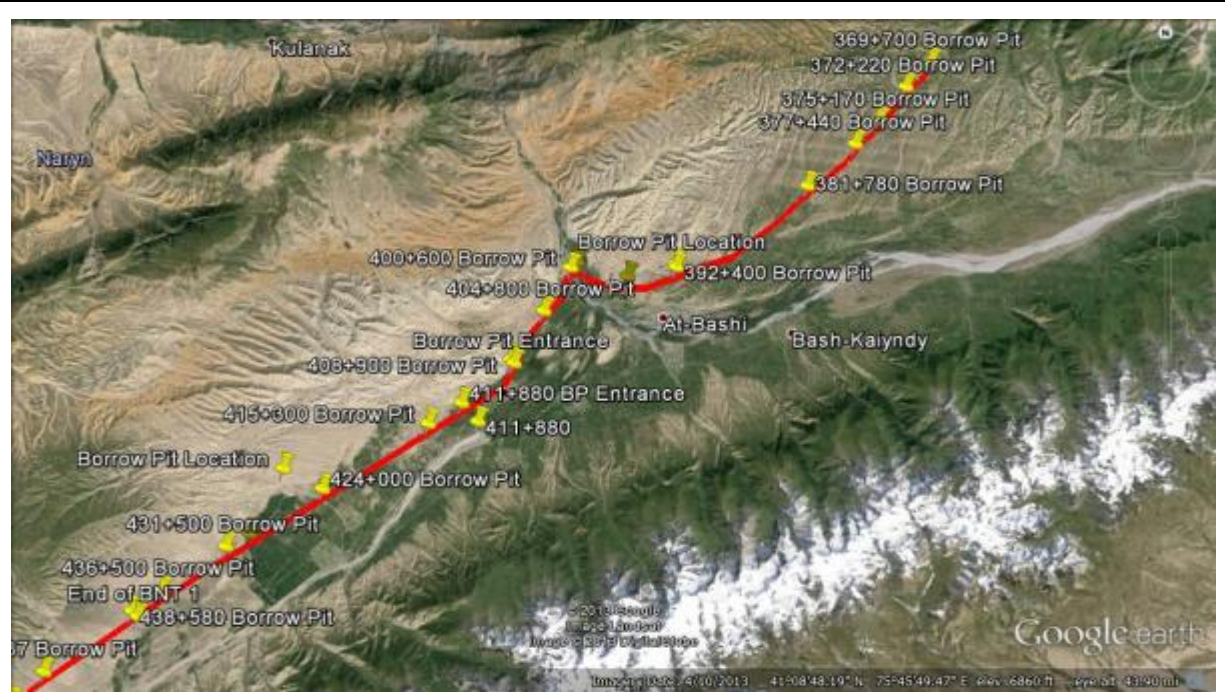
19. Community and stakeholder interactions are also monitored and a formal Grievance Redress Mechanism (GRM) has now been established based on instructions from IPIG and ADB. As noted above, a section of the At Bashy road then under construction blocked access to residences in September and this was quickly rectified. The ADB September 2013 directed that the blockages had to be cleared within 3 days and the contractor complied. As a follow up, the supervision consultant met with the area residents to ensure that they were satisfied with the work, and it has been positively received.

20. The GRG is chaired by the supervision consultant's Deputy Team Leader and includes community stakeholders. Supervision consultant's staff are on site daily and regularly interact with area residents and stakeholders to ensure that there are no problems with the Project and the progress of the construction. A complaints log has been established on site and a "no complaints" is entered if there had been no complaints during that week.

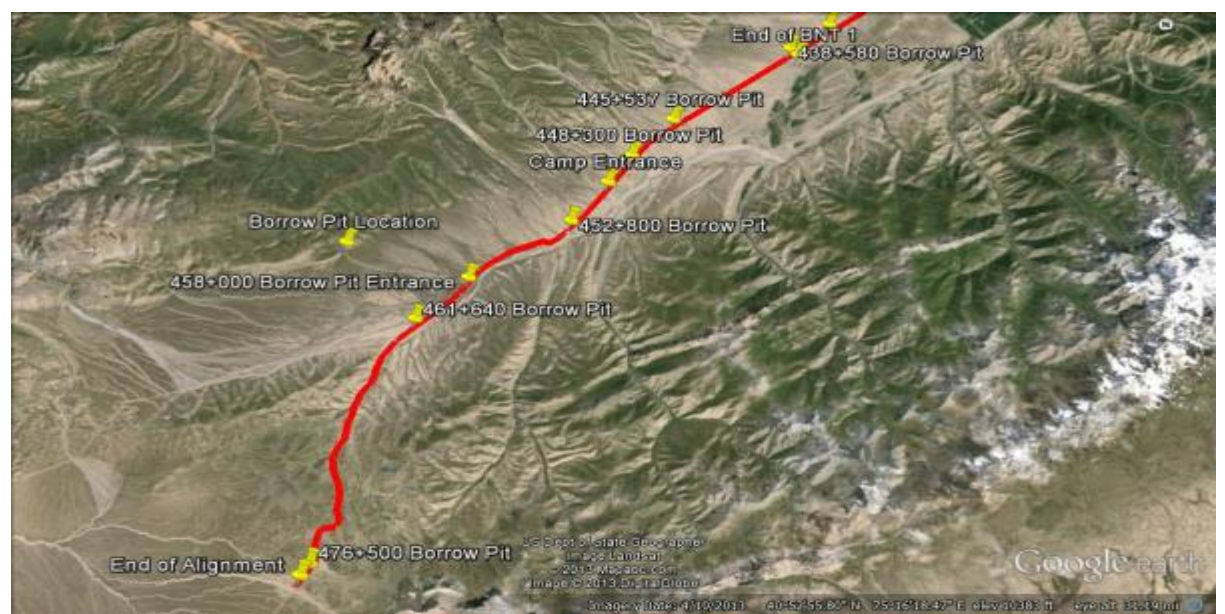
21. For the At Bashy road, a complete dilapidation survey was conducted prior to construction, and all relevant structures and buildings were included. A team of youth was hired to interact with the community including explaining what work was going to be done, where and when. This had positive results in that issues could be resolved prior to becoming problems. Staff were also on site and responding to queries by area residents and stakeholders. The staff also inspected structures and buildings for possible cracks from vibration.

22. Under BNT 2, the Contractor has recultivated nearly all borrow, and only the one at km 396+800 remains open) by the end of October. The Commission to approve/reject the recultivated pits approved them in October. The borrow pit used for At Bashy road will not be closed until the road construction requirements are met.

Figure 3 below shows the alignment with the locations of the borrow pits.



Section 1



Section 2

23. All erosion and slope stability issues identified by the ADB mission in June 2013 were rectified by the close of the construction season.

24. A traffic survey was conducted in September 2013, which indicates that traffic, especially of heavily-loaded large trucks is increasing. This could pose safety issues for area residents and their livestock. The Traffic Police have conducted awareness raising seminars in schools and community centers.

25. The recultivation and demobilisation of Contractor's camp at km450 has not started yet. Recultivation and demobilisation of Contractor's camp will start in spring 2014.

Part III Environmental Management

26. This section addresses conformance with the Project Environmental Management Plan (EMP) and other contractual obligations relating to the environment and health and safety issues.

27. The Contractor has submitted monthly Health, Safety and Environmental Monitoring Progress Reports (HSEMPRs) as required under the contract. All necessary approvals for borrow pits, camps and work sites have been received as noted in these reports. These reports also indicate that the required training in safety and provision of safety equipment have been undertaken. In addition, medical exams have been given, condoms distributed, and HIV/AIDS training provided.

28. With respect to audits and site visits, a camp audit and road safety audit have been conducted. Work sites are visited daily. Collectively, the audits and site visits provide the basis for identifying non-compliance with the EMP.

29. One borrow pit remains to be recultivated and it is still being used for the At Bashy road construction, and it will be completed by June 2014.

30. During July-October, audits of work camps and construction sites were conducted that has resulted in improved conditions at the camps and sites

31. Regular monthly meetings between the Contractor's Project management staff and the Consultant have been held to discuss the Project, including road and other safety issues and camp cleanliness.. A meeting for camp and site closing for winter and winter maintenance arrangements was held in October.

32. The EMP is shown below. Most of the outstanding issues have been resolved as the Project moves towards completion. Much of the remaining work revolves around completing the At Bashy road.

33. The annexes follow the EMP and Annex 1 includes the Monitoring Test results for the July-September 2013 period. Annex 2 includes photographs. Annex 3 is the Implementation Report on EIA/IEE Mitigation requirements.

Part IV: Conclusions and Recommendations

34. The outstanding issues for the main project road, namely the borrow pits and erosion have all been rectified. The remaining tasks during 2014 will be to complete restoration of the final borrow pit and the camp at km 450.

35. The remaining work on the At Bashy road needs to be completed by 1 June 2014. This will continue to be closely monitored to ensure that there are no problems with the construction or negative impacts on community stakeholders. As noted, the construction work will involve primarily drainage and sidewalks. In addition, road furniture and markings will be completed.

36. The frost-heave cracks will be treated with bitumen during the late February-April period.

37. Monitoring will continue as scheduled. No further problems or issues are foreseen at this time.

38. The next EMR will serve as the final environmental report for the project and include a post-construction audit under the EMP.

Environmental Management Plan

Environmental Issue	Mitigation Measures	Estimated Cost (\$)	Location	Time Frame	Responsibility	
					Implementation	Supervision
A. Construction Phase						
1. Soil erosion	<ul style="list-style-type: none"> Preventive and erosion control measures to minimize soil clearance, use less erodible materials, and engineering measures 	Included in the main civil works cost	Throughout the section	Construction period	Contractor	IPIG
2. Natural hazards: rock falls mudflows, and avalanches	<ul style="list-style-type: none"> Installation of rock fall retaining structures Installation of box culverts Artificial release of avalanches with artillery or explosives Warning signs 	Included in the main civil works cost	Rock fall – Karaunkur–Ottuk Gorge, upgrade to Kyzyl-Bel Pass; mudflow – Karaunkur–Ottuk Gorge, west end of At-Bashi Valley; avalanche – Karaunkur–Ottuk Gorge, Kyzyl-Bal and Ottuk passes	Construction phase	Contractor, Design Institute. Anti-avalanche Department of MOES. Ministry of Defense	IPIG
3. Air quality deterioration	<ul style="list-style-type: none"> Air quality control measures and monitoring 	Control measures are included in the main civil works cost; monitoring: 30,000	Construction sites, asphalt plants	Construction phase	Contractor	IPIG
4. Water Quality	<ul style="list-style-type: none"> Water quality control measures and monitoring 	Control measures are included in the main civil works cost; monitoring: 50,000	Construction sites	Construction period	Contractor	IPIG
5. Ecosystems degradation	<ul style="list-style-type: none"> Location of asphalt plants, construction camps, and other facilities outside sensitive ecosystems 	Included in the main civil works cost	Exclude Dolon Pass, Karaunkur–Ottuk Gorge, Ak Beit Pass from potential locations	Construction	Contractor	IPIG
	<ul style="list-style-type: none"> Monitoring of sensitive ecosystems health 	5,000	Dolon Pass, Karaunkur–Ottuk Gorge, Ak Beit Pass	Post-construction	Local ecosystem specialists	IPIG

Environmental Issue	Mitigation Measures	Estimated Cost (\$)	Location	Time Frame	Responsibility	
					Implementation	Supervision
6. Flora	• Landscaping (planting trees)	Included in the civil works cost	Throughout the section	Post-construction	Contractor	IPIG
7. Noise/vibration	• Noise/vibration control mitigation measures and monitoring	Mitigation measures are included in the civil works cost; noise/vibration monitoring:30,000	Construction sites and settlements (Naryn town, Karaunkur, Ottuk, Kara-Suu, and Karabulung)	Construction period	Contractor	IPIG
8. Historical and archaeological heritage	• Halt of all construction activities and notification of the relevant authorities in case of historical and/or archaeological site found during construction	-	Project Area	Construction period	Contractor	Local administration, Academy of Sciences
9. Reinstatement of borrow pits and quarries	• Topsoil strip (where necessary) and re-topsoil • Grassing the area	Included in the main civil works cost	Identified quarries and borrow-pits along the road	After completion of works	Contractor	IPIG
10. Construction camps	• Proper construction camp management in compliance with health and safety plan	50,000			Contractor	IPIG
11. Road safety	• Engineering to reduce the likelihood of accidents • Education of users on the risks of high speeds • Enforcement of traffic laws	Activities ongoing	In all sections	Design, construction, and operation phases	Contractor, local traffic police	IPIG
C. Operation Phase						
1. Monitoring of quality, noise/vibration	• Ambient air quality Naryn town, water quality monitoring of major rivers, noise/vibration monitoring in Naryn town and settlements	Air quality – Water quality, noise/vibration – cost of equipment is included in construction phase	Air quality – Naryn; Water quality – Karaunkur, Ottuk, Naryn, On-Archa, At-Bashi; noise/vibration – Naryn, Karaunkur, Ottuk, Kara-Suu, Karabulung	Operation	Kyrgyz Sanitary and Epidemiological Station	KHM, Ecological Monitoring under SAEPF
2. Habitat fragmentation and wildlife corridor restriction	• Introduce crossing channels and traffic signs	5,000	Wildlife migration routes	Operation period	MOTC in consultation with SAEPF	SAEPF

KHM = Kyrgyz Agency on Hydrometeorology; MOES = Ministry of Emergency Situations, MOTC = Ministry of Transport and Infrastructure; IPIG = Investment Projects Implementation Group; SAEPF = State Agency for Environmental Protection and Forestry. Note: List of proposals and/or method statements to be required from the contractor for approval through PIU: aggregate/borrow-pits management plan; spill management plan; construction camp management plan; reinstatement and/or revegetation management plan, and traffic management plans. Source: Asian Development Bank estimates.

Annex 1: Monitoring Test Results

Table 1: Noise Levels

№	Sampling point	Sound pressure levels in dB in the octave bands with average metrical frequency in									Sound level (dB)	
		31.5	63	125	250	500	1000	2000	4000	8000		
29 July 2013, Coating plant, Tash-Rabat												
1	In plant territory	55	51	48	47	45	41	38	39	35	45	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-
2	500 m from plant	41	39	43	47	49	48	45	43	41	43	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-
28 August 2013, Coating plant, Tash-Rabat												
3	In plant territory	42	38	41	42	45	47	41	38	36	52	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-
4	500 m from plant	52	48	45	43	49	43	41	44	39	48	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-
30 September 2013, Coating plant, Tash-Rabat												
5	In plant territory	55	51	48	47	45	41	38	39	35	43	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-
6	500 m from plant	47	60	65	59	54	50	45	42	42	53	Results
		90	75	66	59	54	50	47	45	44	55	MPL
		-	-	-	-	-	-	-	-	-	-	-

Table 1: Noise Levels

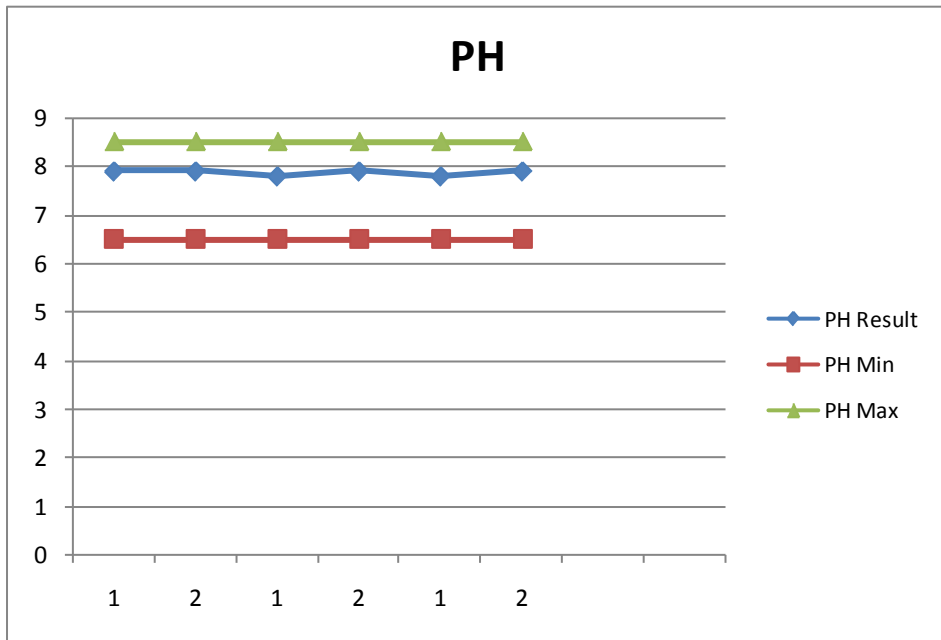
Table 2: Vibration Levels

№	Sampling point	Sound pressure levels in dB in the octave bands with average metrical frequency in Hertz								Sound level (dB)		
				1.0	2	4	8	16	32			63
29-Jul-13												
1	near Bitumen plant				79	65	63	58	53	51	69	Results
					86	83	83	89	95	101	83	MPL
2	near Crushers				81	64	61	59	65	64	71	Results
					86	83	83	89	95	101	83	MPL
28-Aug-13												
1	near Bitumen plant				81	64	61	59	65	63	71	Results
					86	83	83	89	95	101	83	MPL
2	near Crushers				79	65	61	58	53	51	69	Results
					86	83	83	89	95	101	83	MPL
30-Sep												
7	near Bitumen plant				79	65	61	58	53	51	64	Results
					86	83	83	89	95	101	83	MPL
4	near Crushers				81	64	61	59	65	63	71	Results
					86	83	83	89	95	101	83	MPL

Water Analysis

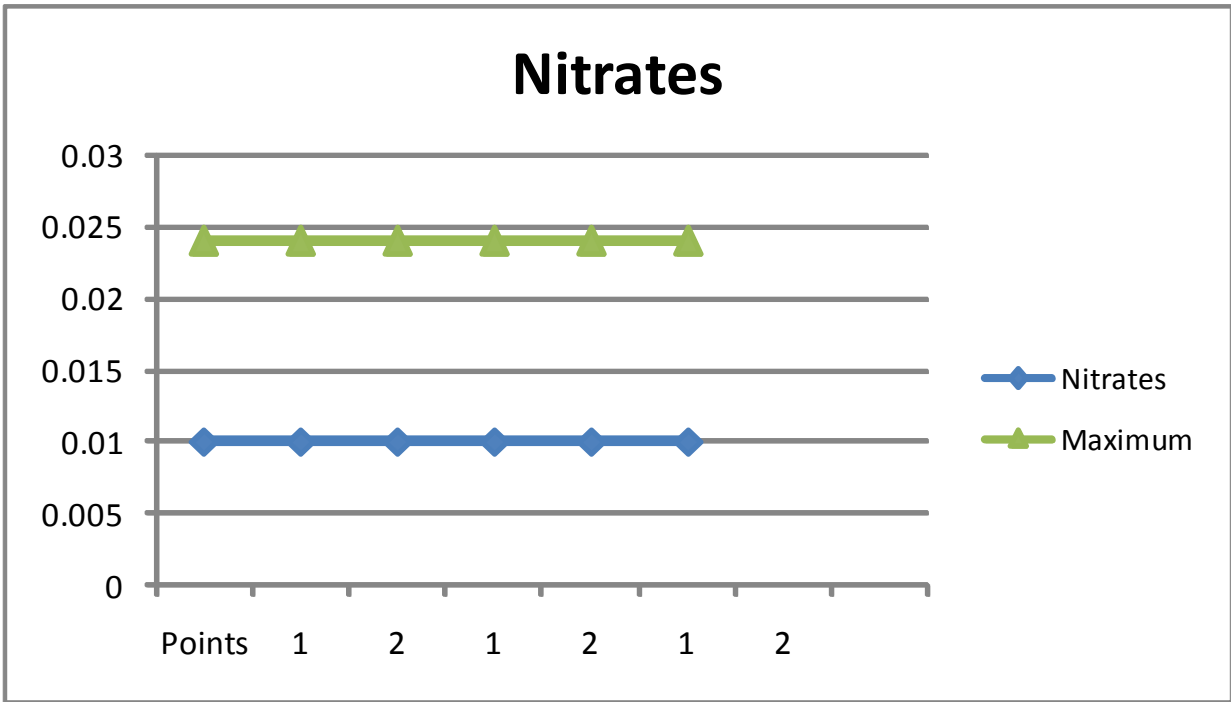
Analysis of samples was carried out by Department of Environmental Monitoring of State Agency on Environment Protection and Forestry: the first sampling points (1) - Kara-Koyun River - 500 m above the asphalt plant at 450 km except for in October when the sample was taken from 1000 m above the plant, and the second sampling point (2) - is from the Kara-Koyun River 500 downstream from the plant.

Figure 1: PH Levels



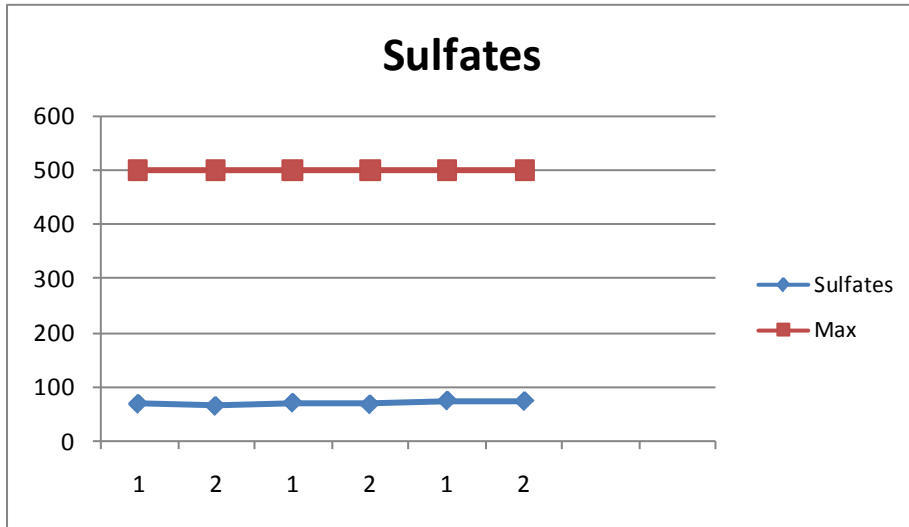
PH				
Date	Points	Result	Min	Max
7/18/2013	1	7.9	6.5	8.5
	2	7.9	6.5	8.5
8/15/2013	1	7.8	6.5	8.5
	2	7.9	6.5	8.5
9/25/2013	1	7.8	6.5	8.5
	2	7.9	6.5	8.5

Figure 2: Nitrate Levels



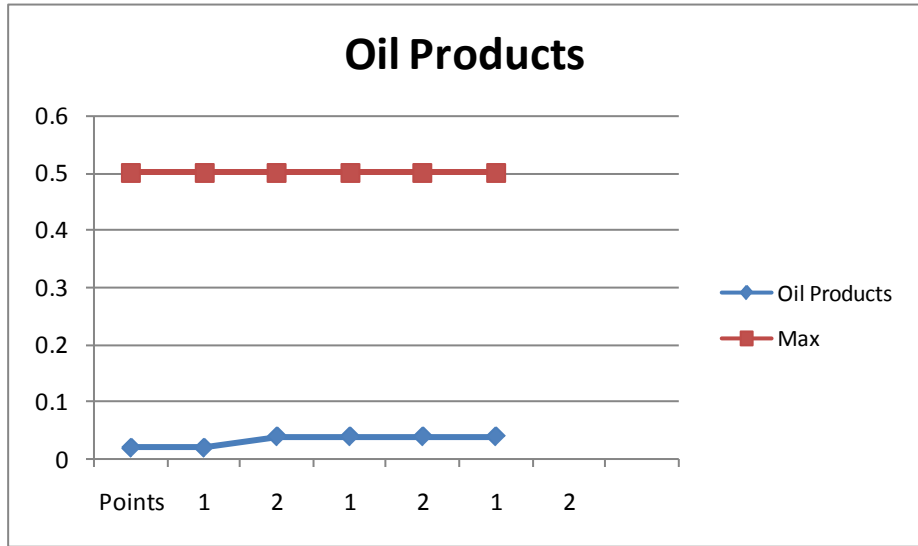
Nitrates			
Date	Points	Result	Max
7/18/2013	1	0.01	0.024
	2	0.01	0.024
8/15/2013	1	0.01	0.024
	2	0.01	0.024
9/25/2013	1	0.01	0.024
	2	0.01	0.024

Figure 3: Sulfate Levels



Sulfates			
Date	Points	Result	Max
7/18/2013	1	69	500
	2	65	500
8/15/2013	1	71	500
	2	68	500
9/25/2013	1	75	500
	2	74	500

Figure 4: Levels of Oil Products

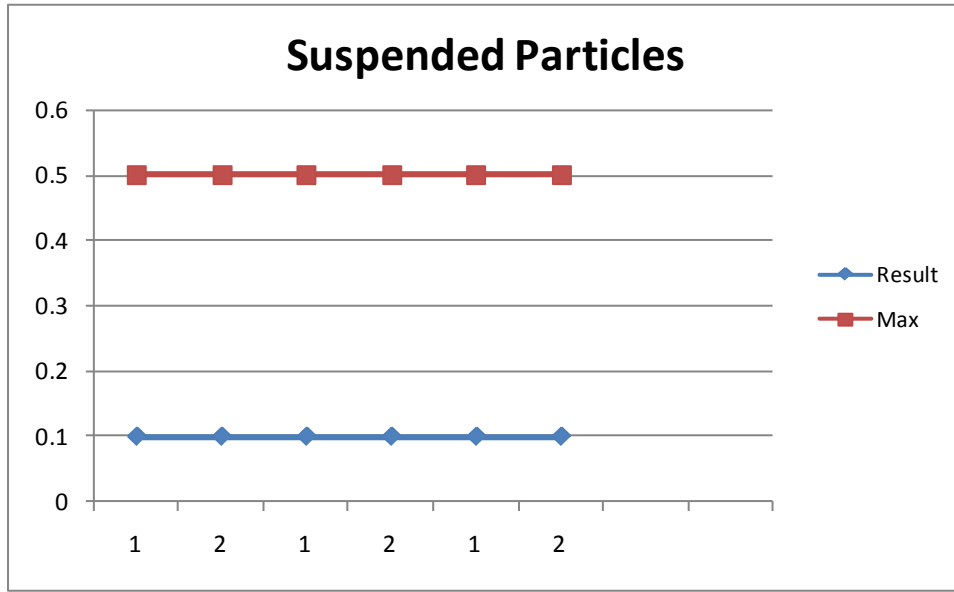


Oil Products			
Date	Points	Result	Max
7/18/2013	1	0.02	0.5
	2	0.02	0.5
8/15/2013	1	0.04	0.5
	2	0.04	0.5
9/25/2013	1	0.04	0.5
	2	0.04	0.5

AIR ANALYSIS

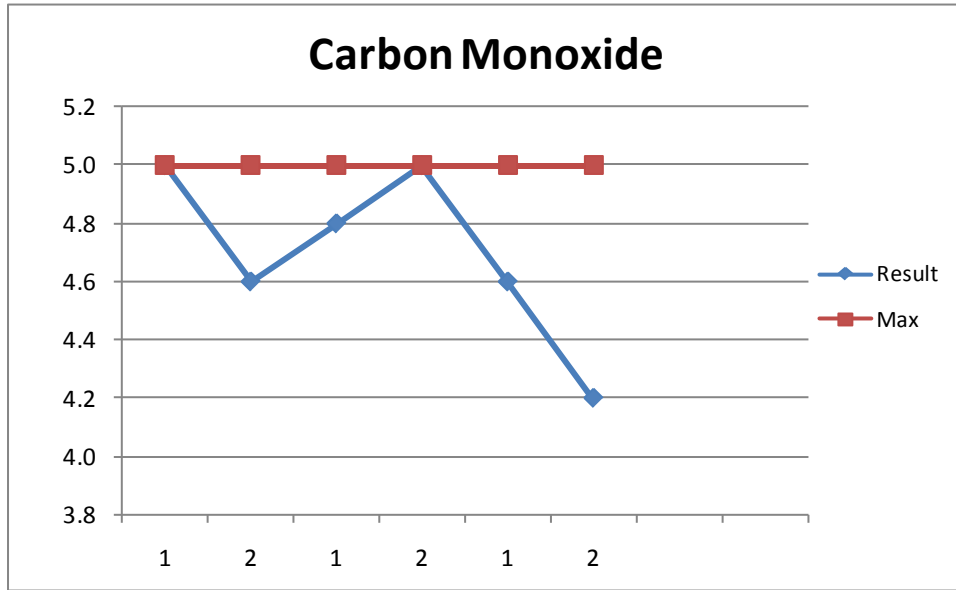
Locations of samples: the first is 500 m west of the Tash-Rabat coating plant;
the second is taken at the plant.

Figure 5: Levels of Suspended Particles



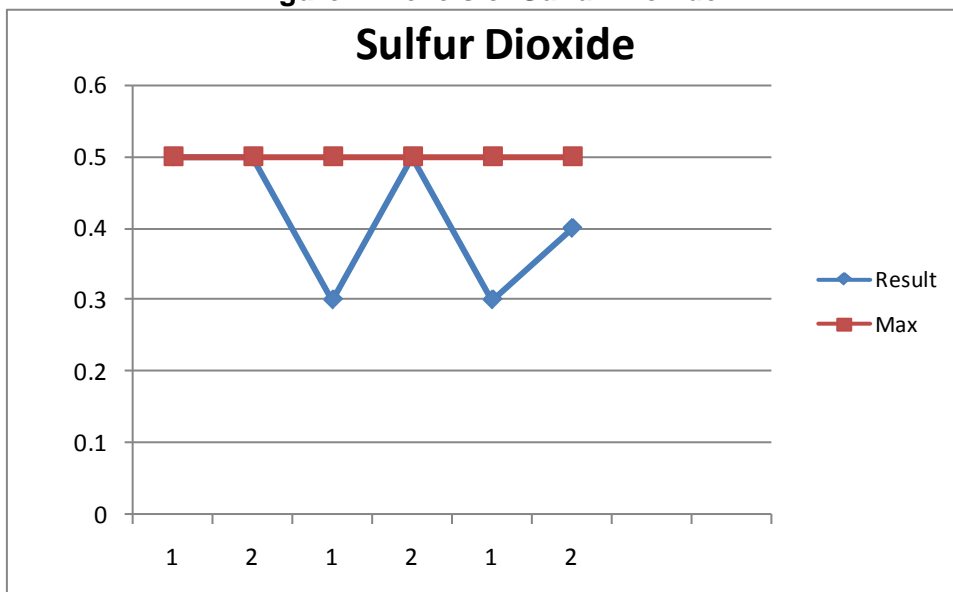
Suspended Particles			
Date	Points	Result	Max
7/19/2013	1	0.1	0.5
	2	0.1	0.5
8/14/2013	1	0.1	0.5
	2	0.1	0.5
9/25/2013	1	0.1	0.5
	2	0.1	0.5

Figure 6: Levels of Carbon Monoxide



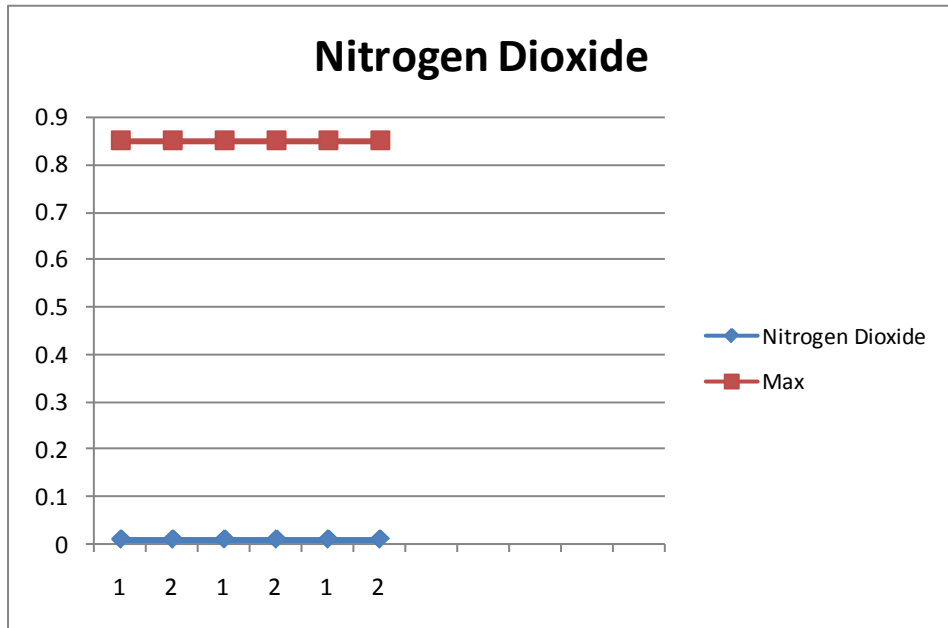
Carbon Monoxide			
Date	Points	Result	Max
7/19/2013	1	5.0	5
	2	4.6	5
8/14/2013	1	4.8	5
	2	5.0	5
9/25/2013	1	4.6	5
	2	4.2	5

Figure 7: Levels of Sulfur Dioxide



Sulphur Dioxide			
Date	Points	Result	Max
7/19/2013	1	0.5	0.5
	2	0.5	0.5
8/14/2013	1	0.3	0.5
	2	0.5	0.5
9/25/2013	1	0.3	0.5
	2	0.4	0.5

Figure 8: Levels of Nitrogen Dioxide



Nitrogen Dioxide			
Date	Points	Result	Max
7/19/2013	1	0.01	0.85
	2	0.01	0.85
8/14/2013	1	0.01	0.85
	2	0.01	0.85
9/25/2013	1	0.01	0.85
	2	0.01	0.85

Annex 2: Photographs



km7+550



Bridge at km 460



Bridge at km389+200



Bridge at km 400



km7+450



km367+500



km4+260



km4+600



km5+728



km7+420



Additional drainage at km387+200



Slope stabilization against erosion at km368

Annex 3: Implementation Report on EIA/IEE Mitigation Requirements

Implementation Report on EIA/IEE Mitigation Requirements

Issue	Requirement	Action to date	Action required/comment
Construction Phase			
1. Soil erosion	<ul style="list-style-type: none"> Preventive and erosion control measures to minimize soil clearance, use less erodible materials, and engineering measures 	Contractor has largely fulfilled measures	No further action required
2. Natural hazards: rock falls, mudflows, and avalanches	<ul style="list-style-type: none"> Installation of rock fall retaining structures Installation of box culverts Artificial release of avalanches with artillery or explosives Warning signs 	<p>Completed</p> <p>Completed</p> <p>All measures implemented</p>	<p>Completed the activity</p> <p>Completed the activity</p> <p>No further action required</p>
3. Air quality deterioration	<ul style="list-style-type: none"> Air quality control measures and monitoring 	Measures and monitoring in place	Monitoring was conducted in July-September with satisfactory results.
4. Water Quality	<ul style="list-style-type: none"> Water quality control measures and monitoring 	Measures and monitoring in place	Monitoring was conducted in in July-September with satisfactory results.
5. Ecosystems degradation	<ul style="list-style-type: none"> Location of asphalt plants, construction camps, and other facilities outside sensitive ecosystems Monitoring of sensitive ecosystems health 	<p>This has been done.</p> <p>Monitoring continuing</p>	<p>No further action required.</p> <p>Continue monitoring</p>
6. Flora	<ul style="list-style-type: none"> Landscaping (planting trees) 	To be done—this is part of the borrow pit restoration. There are no funds for planting trees.	Continue monitoring restoration of borrow pits.—only one remains to be restored.
7. Noise/vibration	<ul style="list-style-type: none"> Noise/vibration control mitigation measures and monitoring 	Monitoring continuing	Continue monitoring
8. Historical and archaeological heritage	<ul style="list-style-type: none"> Halt of all construction activities and notification of the relevant authorities in case of historical and/or archaeological site found during construction 	No sites have been identified.	No further action required
9. Reinstatement of borrow pits and quarries	<ul style="list-style-type: none"> Topsoil strip (where necessary) and re-topsoil Grassing the area 	Only 1 remains to be restored, and it is being used for At Bashy road.	Contractor will complete by June 2014..
10. Construction camps	<ul style="list-style-type: none"> Proper construction camp management in compliance with health and safety plan 	Problems identified with camp cleanliness and some safety violations and these have been corrected	Regular and frequent monitoring. Camps have largely been broken down, with final cleaning and inspections due in 2014.
11. Road safety	<ul style="list-style-type: none"> Engineering to reduce the likelihood of accidents Education of users on the risks of high speeds Enforcement of traffic laws 	Awareness classes have been held	No accidents reported. Follow up required. Continued awareness raising.
B. Operation Phase			
1. Monitoring of quality, noise/vibration	<ul style="list-style-type: none"> Ambient air quality Naryn town, water quality monitoring of major rivers, noise/vibration monitoring in Naryn town and 		Future activity on completion of construction

	settlements		
2. Habitat fragmentation and wildlife corridor restriction	<ul style="list-style-type: none">• Introduce crossing channels and traffic signs		Future activity on completion of construction