

SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT

Project Number: 43405-028

Reporting Period: July-December 2018

**GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM
(TRANCHE 6)**

(FINANCED BY THE ASIAN DEVELOPMENT BANK)

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For: The Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

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ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPRP	Department of Environmental protection, Resettlement and Construction Permit
DIPDR	Department of International Procurement and Donors Relations
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ES/ SES	Environmental Specialist/ Senior Environmental Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IA	Implementing Agency
IPMO	Investment Program Management Office
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MEPA	Ministry of Environmental Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
OJSC	Open Joint Stock Company
SC	Supervision Consultant
USIIP	Urban Sector Improvement Investment Program
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sewerage

1. INTRODUCTION

1.1 Preamble

- 1.** This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for the Urban Services Improvement Investment Program, Tranche 6.
- 2.** This report is the 3rd Environmental Monitoring Review (EMR) of USIIP/Tranche 6.

1.2 Headline Information

- 3.** Contractors follow the instructions given by the Supervision Consultant and the UWSCG/USIIP under CHI-01 sub-project during the reporting period, however 46% of the non-conformances still remain unresolved, this is basically the proper organization and cleaning of the sites on a regular basis, community H&S issues such as absence of barriers to trenches, bridges across trenches for pedestrian use which may result in residents being unable to get out of their houses.
- 4.** Non-conformance notice were issued by SC and UWSCG to contractor. On-site trainings were carried out by ES of USIIP during the site visits (Please see Annex B, photos of sites).
- 5.** All improvements in the framework of the CHI-01 subproject will be reflected in the next EMR, January-June 2019.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

6. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the United Water Supply Company of Georgia, LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
7. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network; and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
8. Tranche 6 of the Investment Program includes:
 - Construction of Water Supply and Waste Water Systems in Marneuli and Bolnisi (MAR-01)
 - Construction of Waste Water Treatment Plant in Marneuli (MAR-02);
 - Construction of Water Supply System in Chiatura (CHI-01);
 - Construction of Waste Water Treatment Plant in Chiatura (CHI-02)

The following projects are financed under Tranche 6:

9. **Construction of Waste Water Systems in Marneuli and Bolnisi and Construction of Wastewater Treatment Plant in Marneuli (MAR-01):** Mar-01 project envisages the rehabilitation and construction of reservoirs with the total capacity of 12,000M³=(2X3000+3X2000); construction of cast iron transmission pipeline with the diameter of 700 mm - 10 km and 600 mm – 4km; construction of network with Polyethylene pipes of OD 50 to OD 500. The project measures for the sewer network comprise the laying about 150 km new gravity pipes (DN 150 to DN 800) and 2.7 km new pressure pipes (OD 110 and OD 225). There will be 9 new wastewater pumping stations; 600mm to 1000 mm diameter inspection wells (concrete or polyethylene) and 400 mm diameter house connections (polyethylene). Proposed project envisages construction of sewerage system in Bolnisi which will work entirely by gravity (DN 200 and DN 250 HDPE pipes) and will be connected at 3 different points to the future DN 500 HDPE interceptor that will convey the collected sewer from Bolnisi to Marneuli WWTP.
10. IEE for Bolnisi waste water system was updated and submitted to ADB for approval during the reporting period.
11. The contract No P43405-ICB-MAR-01 was signed on November 20, 2018 with “Akelik Group OJSC” (Azerbaijan), The date of completion of the contract is March 29, 2021.
12. **Construction of Waste Water treatment Plant in Marneuli (MAR-02).** The project comprises of the construction of new Wastewater Treatment Plant in Marneuli with the capacity of 9,931 m³/day.
13. No contract was signed under MAR-02 sub-project during the reporting period.

- 14. Construction of Water Supply System in Chiatura (CHI-01).** The work under the CHI-01 project comprises the rehabilitation and construction of the water supply network, transmission pipeline and Reservoirs. In particular, Chi-01 project envisages construction of network in Chiatura and Navardzeti, construction of a transmission lines, the rehabilitation of existing reservoirs and construction of 2 new reservoirs one near the intake and one new reservoir in Bisi, construction of pumping stations and replacement of network pipelines, more detailed information is provided in chapter 31 below.
- 15.** The contract No P43405-ICB-CHI-01 was signed on August 21, 2017 with “Akkord Industry Construction Investment Corporation” OJSC” (Azerbaijan), the date of completion of the contract is 21 February 2019.
- 16. Construction of Waste Water Treatment Plant in Chiatura (CHI-02):** The project comprises of the construction of new Wastewater Treatment Plant in Chiatura. Capacity of the WWTP is not determined as yet.
- 17.** No contract was signed under CHI-02 sub-project during the reporting period.

2.2 Project Contracts and Management

- 18.** The following agencies are involved in implementing the Investment program: Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) responsible for management, coordination and execution of all activities funded under the loan. MoRDI has overall responsibility for compliance with loan covenants.
- 19.** Ministry of Environmental Protection and Agriculture of Georgia (MEPA). MEPA has the overall responsibility for protection of environment in Georgia. The Department of Permits of MEPA is responsible for reviewing EIAs and for issuance of the Environmental Permits. MEPA is the main state body pursuing state policy in the sphere of environment. Their functions for regulating economic or development activities with regard to environmental protection include:
- Issuing permits for project development (Environmental Decision)
 - Setting emission limits and issuing surface water intake and discharge consents
 - Responding to incidents and complaint
- 20.** United Water Supply Company of Georgia (UWSCG) is the implementing agency (IA), which is responsible for administration, implementation (design, construction and operation) and all day-to-day activities under the loan. Since September 2018, the Investment Program Management Office (IPMO) under UWSCG is Project Management Department, the Head of Department is Mr. Giorgi Archaia. Environmental issues are followed by the Department of Environmental Protection and Permits of UWSCG. The head of the department is Ms. Maka Goderdzishvili. Ms. Ketevan Chomakhidze is the Environmental Specialist of USIIP under the Department of Environmental Protection and Permits.
- 21.** UWSCG as responsible IA for the project recruited a Supervision Consultant (SC) – Hill International N.V. (Netherlands) under T6. The national and international team of

consultants assists UWSCG in the supervision of the construction of subprojects under the USIIP. The SC also provides capacity building training to contractor staff in the management and operation and maintenance of the subprojects. The SC assists

UWSCG in ensuring that the subprojects are implemented according to the specified standards. SC assignment also includes the supervising of the implementation of the environmental management plans.

- 22.** All mitigation measures during construction are implemented by the contractor: “Akkord Industry Construction Investment Corporation” OJSC, under CHI-01 sub-project. Contractor’s EH&S Specialist - Mr. Tamaz Ulumbelashvili is responsible for environmental health and safety issues during construction process. Contractor is monitored by the environmental specialist – Mr. Rezo Ehlukidze of SCt/Hill and Environmental Specialist of UWSCG/USIIP Ms. Ketevan Chomakhidze. Environmental Specialists of SC and UWSCG/USIIP conducted routine observations and surveys of project sites, issues non-conformance notes. ES of SC prepares quarterly environmental reports and submits to UWSCG.
- 23.** The Contractor, prior to the onset of the construction, is obliged to conduct a number of studies and develop environmental plans, including “Site Environment Management Plan” (SEMP). Such plans can be further subdivided into Topic Specific or Site Specific EMP’s. The number of such plans will depend upon the type of project, complexity and sensitivity of the receiving environment.
- 24.** Topic Specific EMPs are developed on a topic by topic basis. For example:

 - Waste Management Plans;
 - Traffic Management Plans;
 - Protected Species Management Plans;
 - Water Management Plans.
- 25.** These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented. A topic specific environmental management plan will cover all of the project.
- 26.** The environmental specialist of UWSCG/USIIP assists and advise the Department of Environmental Protection and Permits of UWSCG for implementation of USIIP in compliance with the ADB Safeguard Policy Statement 2009 and National Legislation, and oversee the work of DCs and SCs in safeguards compliance. ES supports DEPP in EARF implementation, in particular, reviewing IEE/EIA Reports, overseeing implementation of EMPs, Reviewing and approving SEMP’s and carrying out training and capacity-building activities in cooperation with Supervision Company. The ES prepares Semi-annual and annual environmental monitoring reports and submits to ADB.
- 27.** Department of Environmental Protection and Permits of UWSCG is responsible for the implementation of mitigation and monitoring measures during construction and operation of subprojects under USIIP. Currently DEPP is staffed with a Head of Department and 4 specialists, those are responsible for environmental safeguard and construction permission issues.
- 28.** ADB is the donor financing the Investment Program. Environmental management organization is shown in Figure 1 and Figure 2.

Figure 1: Structure Diagram of the Environmental Management Unit of UWSCG

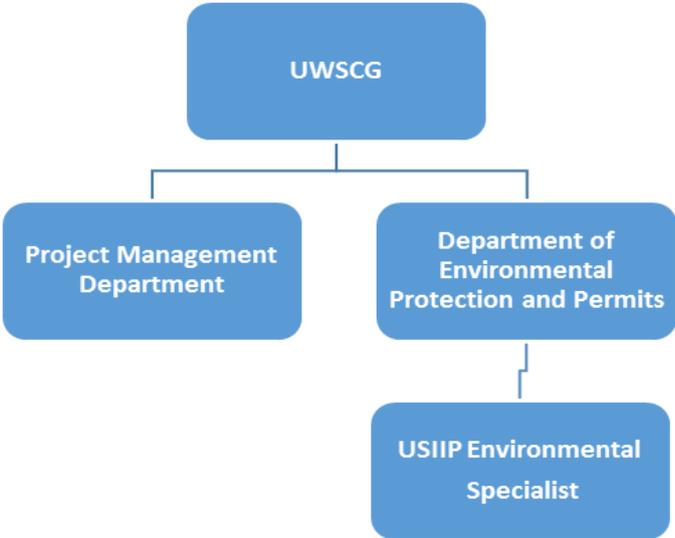
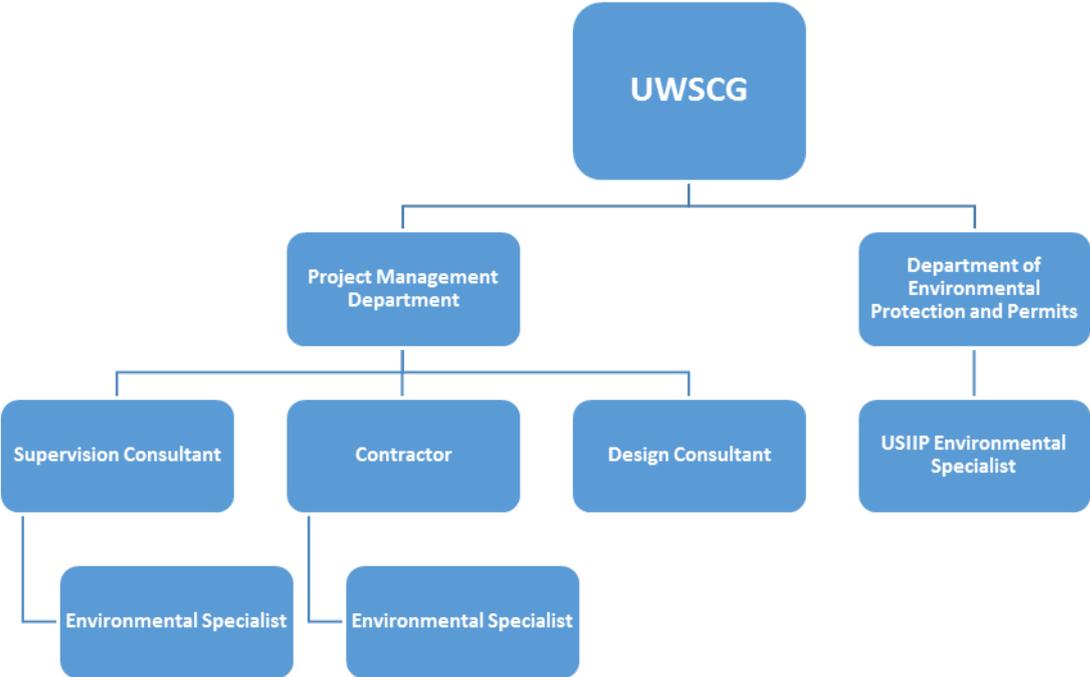


Figure 2: Structure Diagram of the Agencies Involved in Investment Program Implementation



29. Main organizations involved in the project and related to environmental safeguard are presented in the table 1 below:

Table 1: List of Main Organizations under USIIP/T6

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Head Office, Environmental Specialist, Portfolio, Results, Safeguards and Gender Unit (PSG), CWRD.	Duncan Lang dlang@adb.org
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili Tel: +995 595 070442 nnadashvili@adb.org
		ADB RETA International-Regional Environmental Consultant	Keti Dgebuadze Tel: +995 577232937 ketdgeb@yahoo.com
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/IPMO Department of Projects Management, Head	Mr. Giorgi Archaia Tel: +995 577 380213 E-mail: G.Archaia@water.gov.ge
Borrower	UWSCG/USIIP/T6	Environmental Specialist	Ms. Ketevan Chomakhidze Tel: +995 577 380309 E-mail: Chomakhidzek@yahoo.com
Supervision Consultant	Supervision Consultant: Hill International N.V. (Netherlands)	Environmental Specialist:	Mr. Rezo Enukidze Tel: +995 599 164 469 E-mail:

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
			r.enukidze@gmail.com
Contractor CHI-01	“Akkord Industry Construction Investment Corporation” OJSC (Azerbaijan)	EH&S Specialist	Environmental Specialist of CC: Name: Mr. Tamaz Ulimbelashvili Tel: +995 591 061 820 E-mail: tamazi.ulumbelashvili@akkord.az
Contractor MAR-01	Akelik Group OJSC (Azerbaijan)	EH&S Specialist	Mr. Vakhtang Burchuladze Tel: +995 577477432 E-mail: v.burchuladze@akelik.ge

2.3 Project Activities During Current Reporting Period

30. During the reporting period, construction work under T6 were carried out only within the framework of the CHI-01 sub-project and therefore in this Semi-annual EMR only CHI-01 project is reported. No construction work was carried out within the framework of MAR-01 sub-project, since the contract was signed at the end of November 2018.

31. Commencement Date for the Works under CHI-01 Contract was 23 October 2017. The Time for Completion is 540 days, with completion due by 15 April 2019. Defects Notification Period (DNP) is 365 days, ending on 14 April 2020.

32. The contract consists of the following works:

- The rehabilitation of the existing WS system by replacing the old pipework;
- Connection of the new pipes to the existing pipes;
- Rehabilitation of the reservoirs Bisi (1,500 m³), Memorial (1,000 m³), Lezhubani (3,000 m³), Rustaveli (350 m³), Perevisi (50 m³) and Tehisa (1,000 m³)
- Construction of two new reservoirs – one in Sachkhere and another one alongside the existing Bisi reservoir
- Rehabilitation of PSs – one in Lezhubani (170 m³/h) and two in Perevisi (105 m³/h)

- Construction of new transmission lines to the reservoirs Sachkhere – Bisi and Perevisi – Tehisa (with the exception of the one going from Central Pumping Station (CPS) to Perevisi reservoir)
- New water supply wells in the neighbouring town of Sachkhere

33. The Contractor's carrying out Works during the reporting period included the following:

- Pipelaying;
- Pipe testing;
- Traffic management for crossing the main roads and for pipelaying parallel to the main road, in the road corridor.

34. The overall progress of the laid pipes at the end of the reporting period is 71.4% for the CHI-01 project. No other work, such as the construction of reservoirs, wells, has not yet started. More detailed information about the construction work performed during the reporting period of the project CHI-01 is presented in Table 2 below.

Table 2: Construction progress under CHI-01 project

Chiatura			
July- December 2018			
City	Diameters	Length (m)	Additional comments
Main Transmission Pipeline	500 mm	3,700	3,656 m tested; remainder untested
"	400 mm	4,300	2,000 m tested; remainder untested
<u>Distribution Pipelines</u>			
Navardzeti Area	Various	18,622	2,300 m tested; remainder untested
Chiatura - Memorial Area	Various	8,000	Untested
Chiatura - Bisi Area	Various	8,500	3,000 m tested; remainder untested
Chiatura - Rustaveli Area	Various	5,400	Untested
Chiatura - Tekhisa Area	Various	4,000	1,800 m tested; remainder untested
Chiatura - Perevisi	Various	4,900	Untested

Chiatura			
July- December 2018			
City	Diameters	Length (m)	Additional comments
Area			
<u>Transmission Pipelines</u>			
Memorial P.S. to Navardzeti Res.		1,470	1,250 m tested; remainder untested
CPS to Lezhubani Reservoir		1,700	Tested
CPS to Rustaveli Reservoir		850	Tested
Lezhubani Res. to Lezhubani P.S.		320	Untested
<u>Distribution Pipelines</u>			
Total:		61,762 m	

2.4 Description of Any Changes to Project Design

N/A

2.5 Description of Any Changes to Agreed Construction methods

N/A

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

35. Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis, during the period July-December 2018. Also unscheduled monitoring visits were carried out and on-site verbal instructions have been given to the contractor and its environmental team non-compliance notes has been issued to the contractor as needed. Mitigation measures to reduce major environmental impacts have been instructed to contractors during the monitoring visits.

36. The monitoring activities included:

- The monitoring of compliance of construction activities under CHI-01 project sites to the IEE/EMP requirements;

37. Environmental Monitoring Specialist hired by Contractor under the CHI-01 project conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Hill.
38. Environmental Monitoring Specialist, Ms. Rezo Erukidze was hired by SC under CHI-01 project, USIIP/T6. SC/Hill developed quarterly monitoring reports for UWSCG/USIIP based on the monthly reports submitted by Contractor, and based on environmental site inspection.
39. ES of USIIP performed monitoring of contractor's performance with the approved EMPs and SSEMPs, environmental standards and other environmental commitments of the contractor. ES developed Semi-annual and annual environmental monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
40. The construction activities affecting the environment during the reporting period are as follows:
- Excavation works
 - Removal of Top Soil
 - Removal of Surplus Soil
 - Backfilling of Trenches
41. In accordance with the IEE, and the accompanying Environmental Monitoring Plan (EMP), the Contractor is required to undertake parametric measurements and observations on air quality, noise and socio-cultural resources. The monitoring guidelines were set as shown in the Table 3 below.

Table 3: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks
CHI-01		
Air Quality	Air Quality Monthly Reservoirs, Networks, Transmission Main	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³
Noise	Noise, monthly Reservoirs, Networks, Transmission Main	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm
Incorrect surplus/waste soil management	Monthly during the site Inspection and audit	Utilize surplus/waste soil for beneficial purposes such as in construction or to raise the ground-level of low lying sites. Dispose extra waste soil at special disposal place identified by Municipality
Cultural heritage Disturbance	Every time along the	Contractor shall put in place

Parameters	Frequency & Location	Remarks
to cultural resources	alignment Archaeological & Cultural Properties	<p>a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.</p> <p>Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.</p>

42. There are no protected areas, wetlands, mangroves, or estuaries. Trees, vegetation (mostly shrubs and grasses), and animals in the subproject sites are those commonly found in built-up areas. The geological structure of the area is stable and no potential land subsidence is foreseen.

3.2 Site Audit

43. Regular inspection and monitoring of construction sites under CHI-01 sub-project were conducted by ESs of USIIP and SC/HILL. The schedule of Joint inspection and summary of audits carried out under sub-projects are provided in the Table 4 below.

Table 4. Summary of site audits

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
Continuously during reporting period (July-December 2018)	"Akkord Industry Construction Investment Corporation" OJSC CHI-01	Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili	Day to day monitoring of sites Compliance with Environmental and HES requirements	Poor Housekeeping Safety issues on construction sites, Workers always should use complete PPE	Prepare Monthly Monitoring Reports
10.07.2018		Environmental Specialist of SC Mr. Rezo Enukidze	Regular monitoring of sites	Poor Housekeeping Construction materials remained are not properly stored or disposed	Verbal Instructions given to contractor Quarterly Environmental Monitoring Report

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
					Prepared
24.07.2018		Environmental Specialist of SC Mr. Rezo E nukidze Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili Environmental Specialist of USIIP Ms. Ketevan Chomakhidze	Monthly monitoring of sites	Walls of the deep trenches (>1.5m) are not strengthened by boards to avoid landfall of the soil and accidents Completed	Verbal Instructions given to contractor Quarterly Environmental Monitoring Report Prepared
13.09.2018		Environmental Specialist of SC Mr. Rezo E nukidze Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili	Monthly monitoring of sites	Top soil is not properly stored; Completed Dumping areas for waste soil are not agreed with engineer; Completed Housekeeping at sites is on a very poor level Partially completed	Verbal Instructions given to contractor, corrective actions were required and improved photos of sites to be sent Quarterly Environmental Monitoring Report Prepared
24.09.2018		Environmental Specialist of SC Mr. Rezo E nukidze	Monitoring of improvements on sites	Almost at all site trenches are open and left for more that week without considering security	Verbal Instructions given to contractor and on-site trainings are carried out for

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
				Partially completed	Environmental team of contractor
01.10.2018		<p>Head of DEPP Ms. Maka Goderdzishvili</p> <p>Senior Specialist of DEPP, Ms. Liza</p> <p>Specialist of DEPP, Ms. Salome Gurchiani</p> <p>Environmental Specialist of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Rezo E nukidze</p> <p>Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili</p>	Monitoring and audit of construction sites	<p>Safety signs/tapes around of all open trenches should be installed to avoid accident of population and workers.</p> <p>Construction activities information signs should be installed at each construction segment</p> <p>Walls of the deep trenches (>1.5m) are not strengthened by boards to avoid landfall of the soil and accidents</p> <p>Surplus waste soil should be removed and disposed in a proper place</p> <p>Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses</p> <p>Trench crossing bridges should be</p>	<p>Non-Conformance Notice issued by Ms. Kate Chomakhidze to contractor (see Annex c)</p> <p>ES of USIIP and DEPP prepared explanatory note and send to the IPMO/Department of Project Management and Department of Construction Supervision of UWSCG about the existing situation on sites in terms of environmental and H&S issues</p> <p>On-site training was conducted by ES of USIIP, Kate Chomakhidze for ESs of CC and SC (Please see Photos in Annex B)</p> <p>The deadline for</p>

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
				<p>installed at the perimeter of open trenches. Proper access of the house entrances should be ensured</p> <p>Trenches should be built in small segments and ensure that they do not remain open at night; In unavoidable cases, provide sufficient lighting to prevent accidents.</p>	<p>improvement was given to the contractor by the end of October 2018.</p> <p>Contractor only Partially improved the situation by the end of reporting period.</p>
01.11.2018		<p>Environmental Specialist of USIIP</p> <p>Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Rezo Enukidze</p> <p>Environmental, H&S Specialist of Contractor</p> <p>Mr. Tamaz Ulimbelashvili</p>	Monthly monitoring of sites	<p>Follow standard and safe procedures for all activities – such as provision of shoring in deep trenches (>2 m)</p> <p>Exclude public from the site – enclose construction area, provide warning and sign boards, security personnel</p> <p>Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day</p>	<p>Non-Conformance Notice issued by Ms. Kate Chomakhidze to contractor (see Annex c)</p> <p>On-site training was conducted by ES of SC for contractor</p> <p>The deadline for improvement was given to the contractor by the end of December 2018.</p> <p>Partially completed</p>

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
				<p>No trenches shall be kept open in the night/after work hours</p> <p>Construction waste should be timely removed from the construction site and disposed properly</p> <p>Construction territory should be lighted adequately to avoid accidents</p> <p>Proper warning and information signs should be arranged at the entrance and perimeter of the site</p> <p>Soil (surplus/accumulated soil) for backfilling purposes should be managed/stored properly</p> <p>All construction materials should be properly segregated and stored adequately</p> <p>Provide a flag man to avoid cable damage during earthworks</p>	
19.12.2018		Environmental Specialist of	Monthly monitoring of	Erosion control measures are not	

Date of Visit	Name of Company Name of Contract	Auditors Name	Purpose of audit	Summary of any Significant Findings	
		SC Mr. Rezo Eukidze Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili	sites	considered and rain water is draining to trenches; Construction equipment is in very poor conditions, lubricate oil leaks are permanently recorded at garages and parking areas.	
26.12.2018		Environmental Specialist of SC Mr. Rezo Eukidze Environmental, H&S Specialist of Contractor Mr. Tamaz Ulimbelashvili	Monitoring of improvements on site	On steep streets trenches are not covered with asphalt and rainwater in washing the soil. Completed	Monthly monitoring report prepared by SC December 2018

3.3 Issues Tracking (Based on Non-Conformance Notices)

44. Non-Conformances have been observed during the site visits under CHI-01 sub-project. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send photos of improvements. Environmental team of HILL and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.

45. A summary of the identified environmental issues for July-December 2018 is presented in table 5 below.

Table 5: Summary of Issues Tracking Activity for Current Period

Summary Table CHI-02

Total Number of Issues for Project	19
Issues Opened This Reporting Period	10

Issues Closed This Reporting Period	9
Percentage Closed	54%

3.4 Trends

46. No construction work was carried out during the previous reporting period under CHI-01 sub-project, and therefore only information of current reporting period – July-December 2018 is used in the table 6 below.

Table 6: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
2 July-December 2018	20	54%	46%

47. All major Non-Conformances under USIIP/T6 during the reporting period are provided in an Annex C of this report.

3.5 Unanticipated Environmental Impacts or Risks

Not yet applicable

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

48. During the reporting period Environmental measurements of Noise level and ambient air Quality were carried out by contractor under CHI-01 sub-project.

49. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 7 and 8 below.

Table 7: Noise Level Guidelines

Noise	dB		dB	
	National Regulations		WHO	
Receptor	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

50. Air pollution standards by IFC/WHO 1999, are presented in the Table 10 below.

Table 8: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit) mg/m ³)
1	2
Inorganic dust	(*IFC does not have a standard for "inorganic dust". Instead IFC applies standards for PM2.5 and PM10). PM10 – 0,02/1 Year 0,05/24 Hour PM2,5-0,01/1 Year 0,025/24 Hour
Carbonic monoxide	n/a
Nitrogen dioxide (NO ₂)	0,2/ 1 Hour 0,04/1 Year
Aldehyde	n/a

51. Monitoring measurements of noise, vibration ambient air quality under CHI-01 sub-project were conducted by OJSC "Akkord Georgia". and Ltd "Greentecs" on 3 November 2018. Location and data are included in the table 9 and table 10 below. The next monitoring measurements will be conducted in May 2019 and results will be reflected in the next January-June EMR 2019.

52. According to data received in November 2018 noise level exceeds the standards of the National Regulations and World Health Organization (IFC/WHO),1999 in Chiatura and therefore additional mitigation measures are required and presented in Table11: Recommendations to Address Environmental Issues under CHI-01 sub-project. IFC/WHO standards for Noise and Air pollution are presented in Tables 7 and 8 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 11:10 am to 13:30 pm and no complaints were received from the local population about the noise during the reporting period.

Table 9: Environmental Quality Measurement Noise, Vibration, Dust

Measurement Point	Measurement Results									
	Location	Coordinates	Noise dB	Vibro Speed		Vibro Acceleration		Dust Mg/M ³		
				mm/s	db	m/s ²	db	PM ₂₅	PM ₁₀	Total
"Sahkere Autopark"	38T0367429 4687924	76.2	0.3	76	0.8	118	0.083	0.126	0.210	
Chiatura, Prangishvili Str.58	38T0358302 4682253	80.1	0.4	78	1.1	121	0.053	0.096	0.164	
Chiatura, Prangishvili Str.50	38T358226 4682182	64.2	0.2	72	0.7	114	0.049	0.071	0.118	

Table 10: Environmental Quality Measurement of Ambient Air Quality, CHI-01

Measurement Point	Measurement Results				
	Mg/m ³				
Location	Coordinates	Nitrogen Dioxide NO ₂	Sulfur Dioxide SO ₂	Carbon Monoxide CO	Total Hydrocarbon
"Sahkere Autopark"	38T0367429 4687924	0.008	0.01	1.54	0.1
Chiatura, Prangishvili Str.58	38T0358302 4682253	0.011	0.02	1.89	0.2
Chiatura, Prangishvili Str.50	38T358226 4682182	0.009	0.01	1.12	0.1

4.2 Trends

53. All mitigation measures identified within the IEE/EMP, SEMP's under CHI-01 project are effective and no additional measures are required.

4.3 Summary of Monitoring outcomes

54. Noise level during the construction period under CHI-01 sub-project exceeds the existing standards of IFC/WHO and therefore the following additional mitigations measures are required: Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance; Noisy construction activities will be avoided during night time; All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions. Detailed mitigation measures to improve the situation on site are provided in Table 11 below. SC and UWSCG/USIIP will monitor the improvements under CHI-01 sub-project and reflect findings in the next Semi-annual EMR in January-June 2019.

4.4 Material resources Utilization

4.4.1 Current Period

55. Despite the numerous requests from UWSCG to contractors and the supervision consultant to provide information on material resources used during the reporting period, no information was provided on the use of water resources, electricity, etc. The UWSCG will hold additional meetings with SC and CC to ensure providing of necessary information by the end of the next reporting period - June 2019 and this information will be reflected in the next Semi-annual EMR in January-June 2019.

4.4.2 Cumulative Resources Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

56. At the construction sites there are mainly produced household, construction (inert, surplus soil) and hazardous waste.
57. Mainly household waste is collected in municipal containers which are served by the local cleaning service. There is need of routine organization and cleaning of sites. Contractors always have separate containers for household and hazardous waste with proper labelling at the construction site.
58. In most cases waste/surplus soil is removed from the construction site for further use in agreement with municipality or it stays at the construction site for its future use.
59. The construction waste that is allocated at the construction site is removed for its final disposal that is managed by formal agreement with local municipality or Ltd "Solid Waste Management Company".
60. Hazardous waste (lubricant residues and etc) were stored according to all the safety norms after the strong instruction given by SC and UWSCG. In the case of formation such kind of waste, contractor has to write to the management of the municipality or the company who is licensed to recycle/decontaminate such kind of waste. Also contractors have special container with proper labelling at the construction site.

61. Despite the numerous requests from UWSCG/USIIP to contractors and SC to provide quantity of waste during the construction in accordance with the requirements of the new Semi-annual EMR format, the contractor did not provide any information on this issue. The UWSCG will hold additional meetings and conduct trainings for contractors and SC and to ensure providing the information about the quantity of waste generated during the construction. This information will be provided in the next Semi-annual EMR in January-June 2019.

4.5.2 Cumulative Waste Generation

Not yet applicable.

4.6 Health and Safety

4.6.1 Community Health and Safety

62. No community incidents have been reported by SC during reporting period under CHI-01 sub-project.

4.6.2 Worker Safety and Health

63. There have no accidents or incidents recorded during the reporting period.
64. Environmental H&S specialist of contractor Mr. Tamaz Ulumbelashvili was performing day-to-day monitoring of Health & Safety on the Sites and press the Contractor to improve the provision of trench barriers in roads and to provide suitable work boots for the labour force.
65. Health & safety and environment issues which were covered during the reporting period are as follows:
- PPE;
 - Housekeeping;
 - Reinforcement;
 - Ground works;
 - Manual works;
 - Removal waste;
 - Induction all visitors
 - Dust and Noise Measurements
 - Upgrade Safety Hard and Warning Barricade
66. Contractor under CHI-01 sub-project was working on compilation of statistics information (incidents, near misses, trainings) during reporting period a swell. As it was mentioned above no workers incidents have been reported during reporting period under CHI-01 project.
67. The following Near-Misses were reported by SC under CHI-02 sub-project, which may be resulted in community and workers' Health and Safety problems:
- The poor state of Health & Safety exercised on the Site, with the absence of barriers to trenches, bridges across trenches for pedestrian use – the latter may result in residents unable to get out of their houses, and the general lack of care and consideration displayed by the Contractor;

- Traffic Management in relation to the wholly inadequate warning signage provided during excavation in the main Gomi-Sachkhere-Chiatura-Zestafoni road corridor;
- Single row of plastic security tape acting as a fence which is inadequate and ineffective. In addition, no night warning lamps are being used for the open trenches;
- Safety issues on construction sites, Workers always should use complete PPE

68. During the reporting period, no Near-Misses forms were filled within the framework of the CHI-01 subproject. SC and UWSCG / USIIP strictly requested from contractor and SC to adequately fill the near misses forms and reflect in the next Semi-Annual EMR – January-June 2019.

4.7 Training

69. On site environmental safeguard training were conducted for environmental teams of CHI-01 project on a regular bases during the site visits. Environmental specialists of contractors were introduced with all necessary safeguard requirements of ADB/SPS 2009.

70. The main issues of discussion were the obligations of contractor in terms of environmental safeguards and issues that are to be managed during construction process.

5. FUNCTIONING OF THE SEMP

5.1 SEMP Review

71. The following SEMP's have been prepared and approved under CHI-01 sub-project during the reporting period, July-December 2018.

- SEMP for CAMP site (approved in August 2018)
- SEMP for Sachkhere Reservoir (approved in August 2018);
- SEMP for Bisi Reservoir (approved in September 2018);
- SEMP for Lezhubani Reservoir (approved in September 2018);
- SEMP for Navardzeti Reservoir (approved in September 2018);
- SEMP for Perevisy Reservoir (approved in September 2018);
- SEMP for Rustaveli reservoir (approved in September 2018);
- SEMP for Tekhisa Reservoir (approved in September 2018);
- SEMP for Chiatara Well fields (approved in November 2018)

72. All SEMP's were prepared by Contractor, endorsed by SC and approved by UWSCG. SEMP's were reviewed/commented by the RETA International Environmental Consultant of ADB under RETA 8663 - Ms. Ketii Dgebuadze.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

Not yet applicable.

6.2 Opportunities for Improvement

Not yet applicable.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

- 73.** During the reported period construction activities were implemented under CHI-01 sub-project. Contractors have intensified all activities to improve the progress of the works on sites. Individual and Joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC/HILL and UWSCG/USIIP on a regular basis.
- 74.** Day-to-day monitoring of the construction sites were carried out by the environmental Specialists of Contractor, monthly monitoring reports were developed and sent to Supervision Consultant.
- 75.** Environmental Monitoring Specialist of Hill, Mr. Rezo Enukidze conducted monthly monitoring of project sites under T6 and developed Non-Conformance Notice were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
- 76.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under CHI-01 sub-project.
- 77.** Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMPs, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and results of monitoring of construction sites.
- 78.** Also unscheduled monitoring visits were carried out and Non-Conformance Notice has been issued to the contractor by the environmental specialist of UWSCG/USIIP if needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.
- 79.** In accordance with the IEE, and the accompanying Environmental Monitoring Plan (EMP), the Contractor is required to undertake parametric measurements and observations on air quality and noise.
- 80.** Noise level exceeded the existing standards of national and international regulations under CHI-01 sub-project. Additional mitigation measures to improve the situation is provided in the Table 11 below.

7.2 Recommendations

- 81.** The following activities are recommended for the next reporting period, January-June 2019:
- 82.** During the reporting period, from July to December 2018, the T6 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.
- 83.** CC and SC to consider issue of hiring of separate H&S Officer;
- 84.** More detailed recommendations for the implementation of T6 during the next reporting period January-June 2019 are provided in the table 11 below:

Table 11: Recommendations to Address Environmental Issues under CHI-01 sub-project

Recommendations CHI-01 sub-project	
Recommendations CHI-01	Implementation status and date
Safety signs/tapes around of all open trenches should be installed to avoid accident of population and workers.	The contractor is given a strong instruction to improve the situation by the mid. January 2019 and constantly maintain an improved standard.
Construction activities information signs should be installed at each construction segment	
Walls of the deep trenches (>1.5m) are not strengthened by boards to avoid landfall of the soil and accidents	
Trenches should be built in small segments and ensure that they do not remain open at night; In unavoidable cases, provide sufficient lighting to prevent accidents.	
Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).	<p>Instruction are given to contractor to improve the situation and to conduct following mitigation measures by the January 2019:</p> <p>Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance;</p> <p>Noisy construction activities will be avoided during night time;</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions;</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive</p>

Recommendations CHI-01 sub-project

	<p>receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise.</p> <p>Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.</p>
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- 85.** Conduct monitoring of Noise and Air quality under CHI-01 project at the nearest sensitive receptors on the quarterly basis. The schedule of environmental quality measurements to be carried out during the next reporting period, January-June 2019 is presented in the table 12 below.

Table 12: Conduct Monitoring of Environmental Quality under CHI-01 project

Parameters	Quarterly measurement
Dust	January, April 2019
Vibration	January, April 2019
Carbon monoxide	January, April 2019
Nitrogen dioxide	January, April 2019
Noise	January, April 2019

- 86.** Conduct baseline and quarterly monitoring of Noise and Air quality under MAR-01 project at the nearest sensitive receptors. The schedule of environmental quality measurements to be carried out during the next reporting period, January-June 2019 is presented in the table 13 below.

Table 13: Conduct Monitoring of Environmental Quality under MAR-01 project

Parameters	Quarterly measurement
Dust	January, April 2019
Vibration	January, April 2019
Carbon monoxide	January, April 2019
Nitrogen dioxide	January, April 2019

ANNEXES

ANNEX A: ENVIRONMENTAL QUALITY MEASUREMENT DATA

		Construction of Water Supply System in Chiatura		
TRANSMITTAL of DRAWINGS/DOCUMENTS/REPORTS (TDDR)				
TDDR No TDDR-0154		Date of Received 21/11/2018/15:54		
Subject Quarterly Environmental Report on Measurements of Air, Noise and Vibration, November, 2018				
Submitted by Vugar Dushurov		To: Engineer		
Signature 		Received K GAPRINDASHVILI OFFICE MANAGER, CHIATURA		
		Submitted for: <input type="checkbox"/> Review and Comment <input checked="" type="checkbox"/> Approval <input type="checkbox"/> Your Information		
SI No	Description	Rev	Doc Type	Quantity /Pages
1	Environmental Report	0	Report	1x3 pages
2				
3				
4				
5				
Engineer's Comments : <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>				
Status of Transmittal <input type="checkbox"/> Approved <input type="checkbox"/> Approved as Noted <input type="checkbox"/> Rejected <input type="checkbox"/> Revise and Re-Submit <input type="checkbox"/> For info & Records				
Engineer's Representative : Signature:		Date:/...../..... Time:		
Approval shall not relieve Contractor of his liabilities under the Contract or constitute authorization of any change to Contract Documents.				
Received by Contractor, Signature :		Date :/...../..... Time:		
Document No: SGE-002-PP-02-07-FM				



საქართველო, 0131, თბილისი, ვ. ბრჭყვინძაძის ქ. 21, ბ.12. ტელ: 995 30-01-24, E-mail: waterdept_int@yahoo.com
12, No21, G. Brtskvinale str, Tbilisi, 0131, Georgia, Tel (+995) 95-30-01-24, E-mail: waterdept_int@yahoo.com

ღია სააქციო საზოგადოების "აკორდ ინდუსტრიული სამშენებლო საინვესტიციო კორპორაციის" წარმომადგენლობა საქართველოში "აკორდ ჯორჯია"

Open Joint Stock Company "Akkord Industrial Construction Investment Corporation" in Georgia "Akkord Georgia" ჰაერის

მტვერით დაზინძურების, ხმაურის და ვიბრაციის გაზომვების შედეგები 03.11.2018 წ. 11⁰⁰ - 13⁰⁰

Dust air pollution, noise and vibration measurements on 03.11.2018. 11⁰⁰ - 13⁰⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები Measurement results								
	ადგილ- მდებარეობა Location	კოორდი- ნატები Coordinates	ხმაუ- რი A _{max} დბ Noise A _{max} db	ვიბრო- სიჩქარე Vibro Speed Vibro acceleration				მტვერი მგ/მ ³ Dust mg/m ³			
				მმ/წმ mm/s		დბ db		მგ/მ ³ mg/m ³	მგ/მ ³ mg/m ³	დბ db	Total
				მგ/მ ³ mg/m ³	მგ/მ ³ mg/m ³	მგ/მ ³ mg/m ³	მგ/მ ³ mg/m ³				
1	სახურე, „ავტოპარკი“ Sachkhere "Autopark"	38T0367429 4687924	76.2	0.3	76	0.8	118	0.083	0.126	0.210	
2	ჭიათურა, ფრანგიშვილის ქ. 58 (T07) Chiatura, Frangishvili str.58 (T07)	38T0358302 4682253	80.1	0.4	78	1.1	121	0.053	0.096	0.164	
3	ჭიათურა, ფრანგიშვილის ქ. 50 (T06) Chiatura, Frangishvili str.50 (T06)	38T358226 4682182	64.2	0.2	72	0.7	114	0.049	0.071	0.118	

Nitrogen and sulfur dioxide, carbon monoxide and total hydrocarbon air pollution measurement results 03.11.2018 წ. 11⁰⁰ - 13⁰⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები მგ/მ ³ Measurement results mg/m ³			
	ადგილ მდებარეობა Location	კოორდინატები Coordinates	აზოტის დიოქსიდი nitrogen dioxide	გოგირდის დიოქსიდი sulfur dioxide	ნახშირბადის მონოოქსიდი carbon monoxide	ჯამური ნახშირწყალბადები total hydrocarbon
1	საჩხერე, „ავტოპარკი“ Sachkhere "Autopark"	38T0367429 4687924	0.008	0.01	1.54	0.1
2	ჭიათურა, ფრანგიშვილის ქ. 58 (T07) Chiatura, Frangishvili str.58 (T07)	38T0358302 4682253	0.011	0.02	1.89	0.2
3	ჭიათურა, ფრანგიშვილის ქ. 50 (T06) Chiatura, Frangishvili str.50 (T06)	38T358226 4682182	0.009	0.01	1.12	0.1

გაზომვის დროს გამოყენებულია ხელსაწყოები: During measurement tools used:

ხმაური/Noise - Mini Sound Level Meter N05CC;

ვიბრაცია/Vibration- Smart Sensor ® AR63B Vibration Meter;

დამტვერიანობა/ Dust- Portable Dust Detector model LB-HD08

და Gasella Mikro Dust Pro (თვითკალიბრაცია წულღეანი და ოპტიკური ფილტრით./Self-calibration zero and optical filter.). აზოტის დიოქსიდის და ნახშირბადის მონოოქსიდის - nitrogen dioxide and carbon monoxide - შიგნით CO/NO;

ჯამური ნახშირწყალბადების - total hydrocarbon MiniRae 7600;

გოგირდის დიოქსიდის - sulfur dioxide - WASP-XM-E-SO2.

2001 წლის 16 აგვისტოს, საქართველოს შრომის, ჯანმრთელობისა და სოციალური დაცვის
მინისტრის ბრძანება №297/ნ, გარემოს ხარისხობრივი მდგომარეობის ნორმების დამტკიცების
შესახებ: / August 16, 2001, the Ministry of Labor, Health and Social Affairs of Georgia №297 / N,
approval environmental quality of the norms:

დამტვერიანობის ნორმა შეადგენს 0.5 მგ/მ³; / Dust norm is 0.5 mg / m³;

აზოტის დიოქსიდის ნორმა შეადგენს 0.2 მგ/მ³; / nitrogen dioxide norm is 0.2 mg/m³;

გოგირდის დიოქსიდის ნორმა შეადგენს 0.5 მგ/მ³; / sulfur dioxide norm is 0.5 mg/m³;

ნახშირბადის მონოქსიდის ნორმა შეადგენს 0.5 მგ/მ³; / carbon monoxide norm is 0.5 mg/m³;

ჯამური ნახშირწყალბადების ნორმა შეადგენს 1 მგ/მ³; / total hydrocarbon norm is 1
mg/m³;

ვიბრაციის ნორმა შეადგენს 112 დბ; / Vibro-speed norm is 112 db;

ვიბროაჩქარების ნორმა სპეციალური დამცავი საშუალებების გამოყენების გარეშე - 126
დბ. / Vibro acceleration norm special protective outlets without using - 126 db.

შპს "გრინტეკსი"-ს დირექტორი

LTD „Greentecs“ – Director

ი. მცხვეთაძე

I. Mtskhvetadze



ANNEX B: PHOTOS OF SITES

CHI-01 Project - Construction of transmission main and network





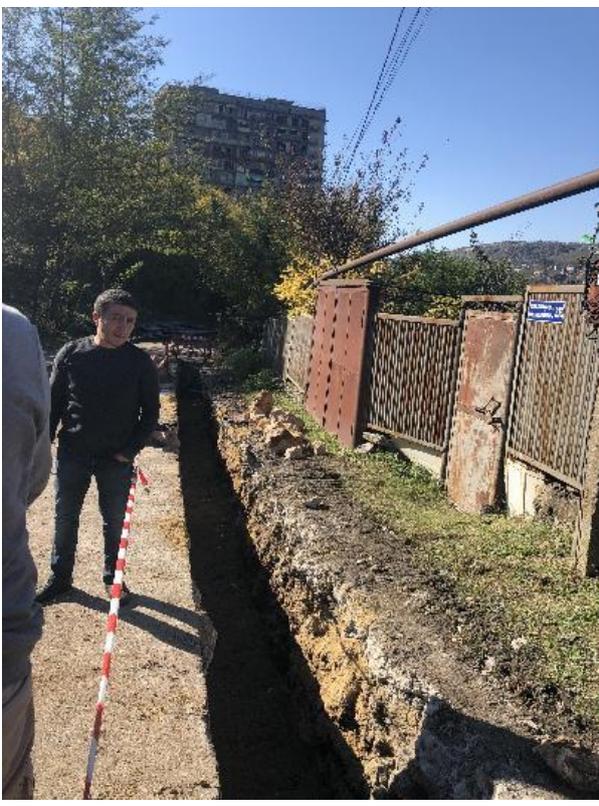
On site training conducted by ES of USIIP for ES of SC – Mr. Rezo Enukidze and CC – Mr. Tamaz Ulumbelashvili

Non-Compliance Notice

Project: USIIP	Non-compliance Notice Chiatura
Contract No: CHI-01	
Reference: Chiatura – Camp site and networks	

This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented **urgently**.

- Safety signs/tapes around of all open trenches should be installed to avoid accident of population and workers.
- Construction activities information signs should be installed at each construction segment
- Walls of the deep trenches (>1.5m) are not strengthened by boards to avoid landfall of the soil and accidents
- Surplus waste soil should be removed and disposed in a proper place
- Construction materials should be brought when needed to avoid its long time disposal in the streets and disturbance of residents and businesses
- Trench crossing bridges should be installed at the perimeter of open trenches. Proper access of the house entrances should be ensured
- Trenches should be built in small segments and ensure that they do not remain open at night; In unavoidable cases, provide sufficient lighting to prevent accidents.
- Workers always should use complete PPE



1 October 2018. Kate Chomakhidze, ES of USIP

Non-Compliance Notice

Project: USIIP	Non-compliance Notice Chiatura
Contract No: CHI-01, T6	
Contractor: Akkord Supervision Company: Hill	
Reference: Chiatura – Water Supply Network	

This notice is to instruct you, the Contractor and Supervision Company, on the referenced Contracts, of the following notice on environmental, H&S measures to be implemented **urgently**.

NON-COMPLIANCE IN CHIATURA

Chiatura Network

- Follow standard and safe procedures for all activities – such as provision of shoring in deep trenches (>2 m)
- Exclude public from the site – enclose construction area, provide warning and sign boards, security personnel
- **Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day**
- **No trenches shall be kept open in the night/after work hours**
- Construction waste should be timely removed from the construction site and disposed properly
- Construction territory should be lighted adequately to avoid accidents
- Proper warning and information signs should be arranged at the entrance and perimeter of the site
- Soil (surplus/accumulated soil) for backfilling purposes should be managed/stored properly
- All construction materials should be properly segregated and stored adequately
- Provide a flag man to avoid cable damage during earthworks





All these conditions have to be remedied within two days (4 October, 2018) by the Contractor

Date of site visits: 02.11.2018

Participants of Site visit
 Ketevan Chomakhidze, Environmental Consultants,
 UWSCG/USIIP
 Maka Goderdzishvili, Head, Department of
 Environmental protection and Permits of UWSCG
 Liza Chovelidze, Department of Environmental
 protection and Permits of UWSCG
 Salome Gurchiani, Department of Environmental
 protection and Permits of UWSCG

Prepared by Ketevan Chomakhidze

Date: 2 November, 2018