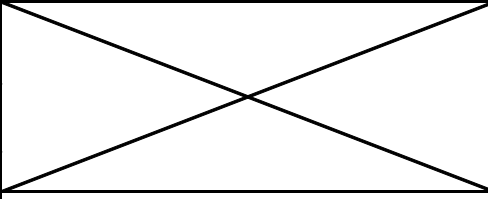
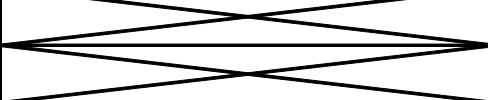


**Environmental Monitoring Form for Construction Stage**

Attachment EN3

Item	Location	Parameter/Mean of Monitoring	Result (Average/Max /Total, etc)	Standard (Legal/International Standard)	Frequency	Remarks
Air quality	construction site	visual inspection of mechanical condition and exhaust gas	colorless gas, no eyes irritation was left		every day before working	In order to avoid air pollution, a watering schedule was drawn up, it was a question of watering the section concerned by the work twice a day.
	construction site	visual observation of dust	No observation of dust in the air. The study was conducted in the rainy season		every day before working	
	storage facilities for dust generating					
	boundary of ROW nearest to construction site	SPM10	9,206 – 28,54	50 µg/m3 (WHO, average 24h)	2 times in dry season and 2times in rainy season	
		SPM2.5	4, 6 766 – 15,206	25 µg/m3 (WHO, average 24h)		
		SO2	0 – 0,013	0.30 mg/m3 (MOE, average 24h)		
NO2		0	0.10 mg/m3 (MOE, average 24h)			
		O3	0 – 0,043			
water quality	rivers including Sanaga river, streams and other public water bodies where construction works are executed	visual observation			every day	The assessment of the baseline situation was carried out every quarter
		analysis using potable pH and turbidity meter				
		pH	4,8 – 5,7	6.5-8.5	when any pollution is suspected	The presence of suspended matter (67.5 mg / L) testifies to the existence in the water of organic and inorganic matter in suspension; the turbidity of this watercourse is 6.4 NTU, slightly higher than the norm (<5 NTU) and a COD (55 mg / L) slightly higher than the norm (<30 mg / L) biodegradable organic matter since a BOD5 of 56.25 mg / L slightly higher than the standard (<50 mg / L) was observed. The heavy metal detected in the water of this river, lead (1.03 x 10 <sup>-3</sup> mg / L) is below the norm (<0.01 mg / L). The value of fecal coliforms detected in this course of water (102 UCF / 100 mL) below the standard (<2000 UCF / 100 mL) could result from faecal contamination of animal origin.
		TSS	2,4 – 7,8	25-100 (mg/l)		
		TURB	6,2 – 63,3	<5 (NTU)		
		MES	12 – 88	50 – 100 (mg/l)		
		COND	0 – 40	<400 (µS.cm <sup>-1</sup> )		
		BOD	12905.00	1-10 (mg/l)		
		COD	4,1 – 33,3	1-8 (mg/l)		
		PLOMB	0	≤0,01 (mg/l)		
		CADMIUM	0	≤0,0005 (mg/l)		
		CHROME	0	≤0,05 (mg/l)		
		ZINC	0	≤3.00 (mg/l)		
		CUIVRE	0	≤ 1 (mg/l)		
CF	12 – 19	< 2000 (UFC/100 ml)				
noise	boundary of land plot nearest to the construction site	Noise level	37,6 – 66,6	60dB(06:00-18:00) 60dB(06:00-18:00) 60dB(06:00-18:00) (MOE, residential area)		
vibration		vibration level	0	65Hz(05:00-17:00) 60dB(17:00-05:00)		
		slurry and other construction waste	discharged amount	176 Kg		

<b>general waste</b>	waste storage at construction site	construction waste	recycled amount	176 Kg		every domain	The measure taken was the recruitment of an approved consultant (SATE SARL) for waste management on the site
			the way of recycle	Storage at the staff housing site in Mangaï and recovery of some for reuse.			
			treated amount				
		location of final disposal	Storage at the staff housing site in Mangaï and recovery of some for reuse; Stabilization with chlorine then evacuation by SATE; Deposit in sites previously approved by the Control Mission.				
		general waste	discharged amount	620 Kg of solid waste and 1850 liter of liquid waste			
			recycled amount	620 Kg of solid waste and 1850 liter of liquid waste			
the way of recycle							
		treated amount					
		location of final disposal					
<b>Hydrology</b>	rivers, streams and reservoirs where construction works are executed	visual inspection on volume and speed of water flow	Number of watercourses not disturbed by the works = 05; Number of watercourses disturbed by the works = 07			every domain	
<b>Ecosystem</b>	lot 1	visual observation of animals, reptiles and amphibious	Palm rats ( <i>Xerus erythropus</i> ), dwarf mongooses ( <i>Helogale parvula</i> ), blue duikers ( <i>Cephalophus monticoles</i> ) and Cob defassa ( <i>Kobus ellipsiprymmus</i> ), common grasscutter ( <i>Thryonomys swinderianus</i> ), porcupine ( <i>Hystrix cristata</i> ), squirrel ( <i>Myosciurus pumilio</i> ), Gambian rat ( <i>Cricetomys gambianus</i> ) and African arthritus ( <i>artherurus africanus</i> ), reptiles (naja, monitor lizards, python, viper). Several species of fish inhabit the rivers of the region, there are species such as Tilapia ( <i>Oreochromis niloticus</i> ), Catfish ( <i>Clarias gariepinus</i> ), Common carp ( <i>Cyprinus carpio</i> ) and Kanga ( <i>Heterotis niloticus</i> )			every half year (1 time in dry season and 1 time in rainy season )	Awareness continued on a quarterly basis by an NGO recruited by the company
	lot 2						
	lot 3						
	lot 4						

\*\*Remarks: Past trend and current status including remedial measures if necessary