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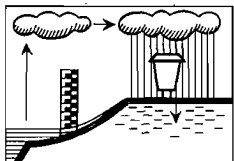
Convention TOGO-ORSTOM
du 26-01-1973

ANNALES HYDROLOGIQUES DU TOGO

depuis la création des stations
jusqu'à l'année hydrologique 1970-71

TOME II

Bassin de la Volta



OFFICE DE LA RECHERCHE SCIENTIFIQUE ET TECHNIQUE OUTRE-MER

BUREAU CENTRAL HYDROLOGIQUE - PARIS

CENTRE O.R.S.T.O.M. DE LOMÉ (TOGO)



Juin 1974

ANNALES HYDROLOGIQUES
DU TOGO

depuis la création des stations
jusqu'à l'année hydrologique 1970-71

TOME II
Bassin de la Volta

Centre ORSTOM de LOME (Togo)

SOMMAIRE (Tome II)

	Pages
- Introduction (Tome II)	4
- Carte du réseau hydrométrique du Togo	5
 <u>BASSIN DE LA VOLTA (code 27)</u>	 6
- Oti à MANDOURI (47 - 27 - 11 - 03)	7
- Oti à SANSANNE-MANGO (" " 11 - 06)	23
- Boualé à ALIHERIDE (" " 63 - 03)	45
- Kara à KPESSIDE (" " 39 - 05)	58
- Kara à IAMA-KARA I (" " 39 - 10)	70
- Kéran à HABOULGOU (" " 40 - 03)	90
- Kéran à TITIRA (" " 40 - 06)	102
- Koinépouarbaga à NAGBENI (" " 42 - 02)	114
- Koumangou à KOUMANGOU (" " 48 - 03)	126
- Koupéni à HABOULGOU (" " 75 - 03)	141
- Kpaya à ATCHANGRADE (" " 78 - 03)	153
- Kpélou à KPESSIDE I (" " 81 - 03)	165
- Laktaou à BARKOISSI (" " 84 - 03)	177

BASSIN DU MOHO (code 40)

voir ANNALES - Tome I

BASSIN DU LAC TOGO (code 34)

voir ANNALES - Tome I

INTRODUCTION (Tome II)

Avec ce deuxième volume, s'achève la publication des annales hydrologiques du Togo.

La présentation est rigoureusement la même que celle du tome I. Nous avons seulement corrigé le dessin de la carte du réseau hydrométrique pour que sa lecture soit plus facile qu'elle ne l'était dans le premier tome.

Du point de vue de la gestion du réseau, il faut signaler, au 1er janvier 1974, la prise en charge par la Direction du Génie Rural du Togo, d'une dizaine de stations antérieurement exploitées par l'O.R.S.T.O.M.

Enfin, il a été décidé, d'un commun accord avec le Génie Rural, que les annuaires hydrologiques seraient dorénavant publiés au Togo, à partir de l'année 1971; chaque gestionnaire ayant la charge d'établir les tableaux des stations qu'il exploite.

Le 20 Mai 1974

Y. L'HOTE

Chef de la section hydrologie,
Centre O.R.S.T.O.M. de LOME.

June 1974

BASSIN DE LA VOLTA

OTI A MANDOURI

Code : 47 27 11 03

bassin versant : 29 100 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M. jusqu'au 1 janvier 1974, date à laquelle elle a été remise au Génie Rural du Togo.

Coordonnées : 10°50' 30" N - 0°51' 20" E

Cote du zéro de l'échelle : 126,85 mètres, en nivellement IGN
(nivellement SOGETEC)

Accès : Terminus de la piste DAPANGO - BORGOU - MANDOURI. Piste difficile d'accès en saison de pluie.

Installations

Station installée le 30 janvier 1959 avec 8 éléments d'échelles, de 1 à 9 mètres.

En décembre 1963, pose d'un élément de 9 à 10 mètres et d'un élément de 0 à 1 mètre, recalage en altitude des éléments de 1 à 2 et de 2 à 3 mètres.

En mars 1966 et mars 1971, remplacement d'un certain nombre d'éléments.

L'échelle des basses eaux, de 0 à 1 mètre, a dû être reposée de nombreuses fois, du fait du déplacement fréquent des bancs de sable à cet endroit.

Les deux éléments de 8 - 9 et de 9 - 10 mètres, situés près du village de MANDOURI (à 3,6 kilomètres des éléments de basses et moyennes eaux) sont décalés d'environ 26 centimètres vers le bas par rapport aux autres éléments, à cote égale.

Les lectures à ces échelles ont été réduites d'autant.

Lectures

Une lecture par jour, puis deux à 7 heures et 18 heures depuis le 26 mai 1967 - Bonne qualité lors de l'étude intensive de la

Plaine de Mandouri, de 1967 - 1970 (cf. Remarque ci-dessous).
Qualité médiocre depuis l'arrêt de ces études.

Jaugeages - Courbes de tarage

Quatre courbes de tarage ont dû être tracées pour la période qui nous intéresse. Ces courbes sont différentes entre elles en basses eaux, en dessous de 60 centimètres à l'échelle.

Quarante jaugeages ont été effectués à MANDOURI :

maximum jaugé : 541 m³/s pour une cote de 7,28m, le 30-9-63

minimum jaugé : 0,059 m³/s pour une cote de 0,02m, le 19-4-68

Remarque :

Cette station a servi de base pour les études de débordement dans la Plaine de Mandouri. Campagnes 1967 à 1970.

cf. Etude Hydrologique de la plaine de Mandouri - Campagne 1967 par J. COLOMBANI - ORSTOM LOME - Mai 1968.

et Etude Hydrologique de la plaine de Mandouri - Campagne 1968 - 1969 - 1970 par J.P. LAMAGAT - ORSTOM LOME Novembre 1970.

CARACTERISTIQUES DU BASSIN

Hypsométrie :

de 518 à 500 m.	2 %
de 500 à 400	4
de 400 à 200	60
de 200 à 128	34

Relief et Géologie

A l'exception de la chaîne de l'Atakora, le relief est plat, avec de nombreuses plaines inondables.

La répartition géologique des terrains est la suivante :

Granites syntectoniques	54 %
Grès et schistes cambriens	21
Quartzites de l'Atacorien	13
Grès et quartzites précambriens	9
Schistes sériciteux	3

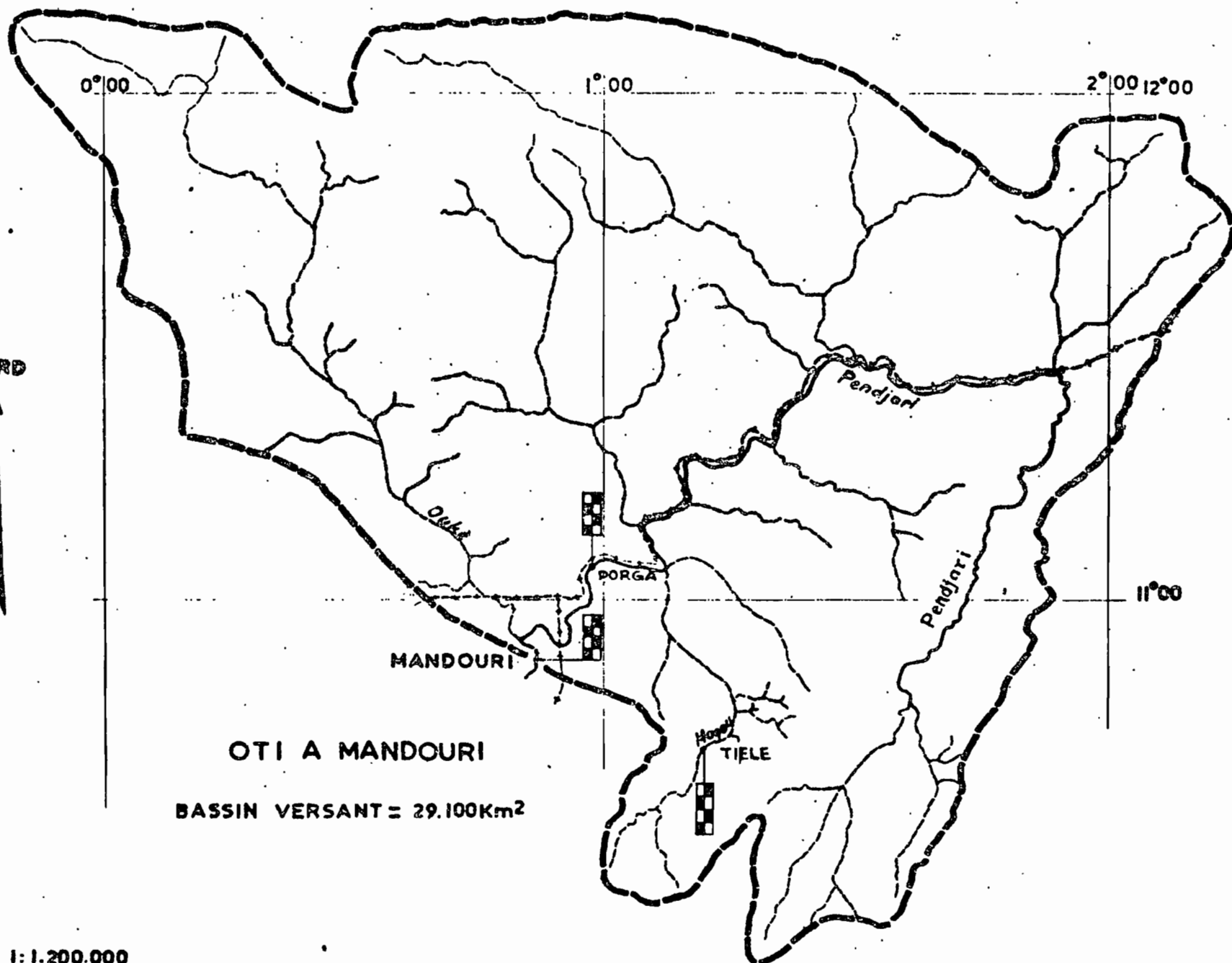
Végétation :

Savane arborée claire, avec quelques flots de forêt sèche dans les Monts de l'ATAKORA et au Nord, en Haute-Volta.

ORSTOM
DATE: 10/6/65
DESSINÉ: M. Sossah
T 271 H

NORD

10



OTI A MANDOURI
BASSIN VERSANT = 29.100Km²

Echelle: 1:1.200.000

STATION : TOGO

VOLTA

OTI

MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1959-1960 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTC	NOVE	DECE	JANV	FEVR
1					13.5	50.8	657.	657.	52.3			
2					13.5	48.7	652.	648.	47.2			
3					13.5	44.2	652.		43.2			
4					13.5	83.5	649.	628.	40.7			
5					13.5	77.8	646.	615.	35.8			
6					13.5	102.		602.	32.4			
7					13.5	126.		579.	31.0			
8					13.5	97.6	643.	553.	27.4			
9					13.5	147.	643.	491.	24.5			
10					13.5	113.	642.	457.	23.0			
11					13.5	205.	640.	434.	19.8			
12					13.5	221.	637.	401.	19.4			
13					13.5	156.	639.	385.	19.1			
14					13.5	138.	637.	361.	18.1			
15					13.5	133.	637.	330.	16.6			
16					13.5	126.	640.	317.	16.1			
17					13.5	146.	691.	297.	15.0			
18					13.5	150.	698.	283.	14.5			
19				61.3	13.5	215.	672.	257.	14.0			
20				107.	24.5	254.	658.	254.				
21				44.7	32.4	306.	649.	245.				
22				37.3	45.7	322.	654.	230.				
23				26.2	77.8	266.	664.	221.				
24				19.1	56.0	385.	683.	202.				
25				16.1	56.0	415.	672.	181.				
26				13.5	62.4	445.	666.	171.				
27				13.5	91.6	754.	675.	140.				
28				13.5	72.8	734.	678.	124.				
29				13.5	66.7	728.	674.	101.				
30				13.5	61.8	700.	672.	66.7				
31					56.0	680.		61.3				
MOY					31.0	270.	657.	353.	13.3			

STATION : TOGO VOLTA OTI MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1960-1961 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	CCTC	NOVE	DECE	JANV	FEVR
1						115.	176.		133.			
2						120.	145.		129.			
3						112.	139.		125.			
4						110.	137.		122.			
5						101.	139.		119.			
6						88.1	175.		115.			
7						81.2	197.		105.			
8						76.1	224.		94.0			
9						78.9	256.		81.2			
10						83.5	281.		75.0			
11						97.6	286.		67.2			
12						126.	304.		60.8			
13					19.1	127.	350.		51.3			
14					29.6	119.	365.		35.8			
15					34.3	107.	412.		29.6			
16					37.3	97.6	495.		18.8			
17					38.7	94.6	619.		16.6			
18					40.7	82.4	613.		15.8			
19					43.2	101.	613.	326.	15.5			
20					51.8	149.	627.	316.	15.5			
21					61.3	121.	636.	300.	15.0			
22					68.9	117.		284.	14.5			
23					97.0	56.0		272.	14.0			
24					87.0	127.		249.				
25					61.3	148.	722.	227.				
26					47.2	167.	733.	208.				
27					77.8	189.	708.	197.				
28					97.6	209.		187.				
29					56.0	222.		170.				
30					120.	220.		158.				
31					129.	216.		145.				
MOY						124.	447.	383.	46.6			

STATION : TOGO

VOLTA

OTI

MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1961-1962 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1					55.5	107.	225.	313.	21.5			
2					62.9	107.	251.	304.	19.8			
3					80.6	110.	264.	296.	18.5			
4					76.1	107.	289.	285.	16.4			
5					71.6	112.	305.	329.	14.7			
6					64.0	160.	345.	256.	14.0			
7					59.2	175.	372.	245.				
8					54.4	199.	422.	238.				
9					48.2	190.	434.	234.				
10					45.7	172.	450.	228.				
11					55.0	154.	483.	219.				
12					62.4	145.	497.	213.				
13					66.7	139.	517.	205.				
14				50.8	77.8	127.	566.	202.				
15				43.2	107.	108.	587.	198.				
16				19.1	129.	105.	625.	197.				
17				31.0	141.	101.	640.	194.				
18				52.3	180.	80.1	695.	168.				
19				54.4	205.	107.	687.	153.				
20				46.2	247.	141.	661.	143.				
21				50.8	181.	149.	646.	131.				
22				56.0	298.	146.	612.	117.				
23				46.7	301.	148.	543.	94.6				
24				43.2	276.	153.	373.	82.4				
25				37.7	229.	164.	474.	76.1				
26				30.5	222.	176.	415.	63.4				
27				33.9	219.	212.	391.	50.3				
28				49.3	179.	225.	359.	37.3				
29				55.0	154.	231.	341.	26.2				
30				50.8	133.	227.	317.	22.6				
31					123.	221.		21.9				
MOY				46.1	136.	152.	460.	172.				

STATION : TOGO

VOLTA

GTI

MANDCURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT.	CCTO	NOVE	DECE	JANV	FEVR
1					20.8	135.	619.	798.	150.	21.5		
2					22.2	159.	642.	701.	146.	20.8		
3					26.2	174.	698.		141.	19.1		
4					31.0	172.	731.		139.	18.1		
5					40.2	168.	741.		136.	16.9		
6					47.7	159.	742.		133.	16.6		
7					50.8	154.	733.	592.	128.	15.0		
8					53.9	153.	727.	571.	123.	14.0		
9					19.1	162.	725.	560.	117.			
10					51.8	173.	725.	542.	109.			
11				20.5	37.7	181.	741.	514.	104.			
12				22.6	36.3	197.	780.	492.	92.8			
13				19.8	34.8	247.	786.	455.	84.7			
14				22.2	56.0	278.	789.	425.	78.4			
15				23.0	139.	304.	811.	407.	74.4			
16				24.5	137.	266.	824.	384.	70.5			
17				29.2	121.	397.	834.	361.	62.9			
18				30.5	109.	415.	831.	345.	57.1			
19				27.4	100.	437.	816.	341.	55.0			
20				26.2	89.3	486.	799.	317.	45.2			
21				22.6	82.4	373.	791.	298.	38.2			
22				22.6	72.8	531.	765.	281.	30.1			
23				21.5		556.	757.	270.	26.6			
24				31.0		592.	749.	260.	26.6			
25				38.7		586.	739.	247.	25.7			
26				35.8	55.0	584.	723.	226.	24.1			
27				35.8	52.9	611.	711.	207.	23.0			
28				32.9	51.8	628.	697.	191.	23.0			
29				26.6	55.5	636.	678.	180.	22.6			
30				25.7	87.0	628.	663.	168.	22.6			
31					127.	616.		156.				
MOY				24.6	64.5	360.	746.	415.	77.0			

STATION : TOGO
NUMERO : 47271103

VOLTA

OTI

MANDCURI

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1						228.	640.		197.	25.3	9.20	4.90
2						225.	640.		189.	24.5	9.00	4.76
3						215.			178.	23.4	8.60	4.63
4					18.8	256.			167.	22.2	8.41	4.50
5					18.8	256.			158.	21.5	8.21	4.50
6					19.4	264.		474.	146.	20.8	8.02	4.36
7					21.9	263.		469.	135.	19.8	7.84	4.36
8					19.1	265.	628.	453.	123.	19.4	7.65	4.23
9					27.4	286.	628.	437.	107.	19.1	7.47	4.23
10					37.3	298.	627.	429.	93.4	18.5	7.29	4.10
11					50.3	312.	625.	422.	81.8	17.8	6.94	3.97
12					49.3	328.	625.	410.	74.4	17.2	6.77	3.84
13					51.3	341.	622.	395.	68.3	16.1	6.60	3.71
14					45.7	339.	621.	385.	66.2	15.8	6.43	3.57
15					40.2	328.	616.	361.	62.4	15.0	6.27	3.44
16					50.8	317.	613.	345.	58.6	14.5	6.11	3.31
17					55.0	296.	609.	330.	55.0	14.0	6.11	3.18
18					82.4	285.	605.	319.	51.8	13.7	5.95	3.05
19					112.	277.	593.	306.	49.3	13.0	5.95	2.91
20					133.	305.	577.	296.	45.7	12.5	5.79	2.91
21					151.	319.	570.	286.	42.2	12.0	5.64	2.78
22					180.	350.	556.	276.	40.7	11.4	5.64	2.65
23					200.	474.	547.	221.	42.7	11.1	5.48	2.65
24					256.	498.	542.	256.	40.7	11.1	5.33	2.52
25					261.	495.	535.	247.	37.7	10.9	5.19	2.52
26					265.	487.	528.	238.	32.4	10.7	5.19	2.39
27					262.	373.	525.	237.	30.5	10.5	5.19	2.39
28					237.	556.	533.	229.	29.2	10.2	5.04	2.26
29					221.	593.	547.	221.	27.9	9.82	5.04	2.26
30					221.	622.	540.	213.	26.6	9.82	4.90	
31					226.	636.		206.		9.40	4.90	
MOY					109.	350.	596.	355.	81.9	15.5	6.52	3.48

STATION : TOGO

VOLTA

OTI

MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1		1.05		3.73	21.5	209.	350.	768.	326.	45.7		
2		1.05		3.58	21.2	217.	266.	752.	301.	43.2		
3		1.05		2.01	24.1	238.	392.	749.	286.	40.7		
4	1.48	.960		1.70	22.6	247.	434.	736.	276.	38.2		
5	1.48	.960		.990	22.2	181.	453.	720.	252.	35.8		
6	1.48	.960		.726	21.9	280.	480.	717.	238.	33.4		
7	1.36			.651	21.2	285.	373.	689.	225.	31.0		
8	1.36			.583	20.1	291.	577.	681.	217.	29.2		
9	1.36			.583	19.1	301.	613.	674.	209.	27.4		
10	1.25				24.5	312.	501.	658.	197.	26.6		
11	1.25				22.6	315.	689.	643.	189.	24.5		
12	1.25	.324			21.9	320.	687.	628.	167.	22.6		
13	1.25	.324		5.45	21.2	323.	687.	613.	153.	20.8		
14	1.15	.324		5.45	20.5	328.	686.	599.	139.	19.1		
15	1.15	.324	.483	5.30	22.2	326.	684.	584.	126.	17.5		
16	1.15	.288	.483	5.14	21.2	323.	681.	556.	120.	16.1		
17	1.05	.288	.483	5.14	19.1	321.	677.	528.	104.			
18	1.05	.288	.483	4.98	18.8	319.	689.	514.	101.			
19	1.05	.288	.483	6.41	11.1	317.	697.	474.	98.2			
20	1.05	.255	.483	7.11	45.7	312.	701.	448.	95.2			
21	1.15	.255	.533	7.11	45.7	306.	705.	422.	92.2			
22	1.25	.255	.533	6.93	58.6	306.	760.	397.	89.3			
23	1.25	.288	.533	5.92	101.	308.	643.	385.	83.5			
24	1.25	.288	2.78	5.45	61.3	310.	831.	367.	80.6			
25	1.25	.288	2.78	5.14	160.	311.	834.	361.	77.8			
26	1.25	.255	2.65	50.8	167.	314.	818.	356.	72.2			
27	1.25	.255	2.52	49.8	167.	317.	809.	352.	69.4			
28	1.15	.255	4.10	45.7	174.	322.	809.	350.	66.7			
29	1.15	.288	4.10	43.2	174.	328.	785.	344.	61.3			
30	1.15	.288	3.97	40.7	113.	333.	776.	339.	53.4			
31	1.15		3.97		113.	339.		337.				
MOY	1.29	.489	1.19	11.0	57.4	299.	636.	540.	152.	10.4		

STATION : TOGO

VOLTA

OTI

MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

MAPS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.107	.093	.140	9.00	26.6	205.	252.	45.7	8.60	1.95	.302
2	.107	.093	.140	13.5	31.0	201.	247.	40.7	8.21	1.95	.302
3	.107	.093	.140	38.2	33.4	193.	243.	35.8	7.83	1.95	.302
4	.107	.107	.170	35.8	35.8	189.	238.	31.0	7.47	1.95	.270
5	.107	.107	.170	31.0	38.2	179.	233.	26.6	7.11	1.95	.270
6	.107	.107	.170	28.7	40.7	170.	229.	22.6	6.75	1.95	.270
7	.107	.107	.170	24.5	43.2	174.	225.	20.5	6.41	1.95	.240
8	.107	.107	.990	21.9	45.7	173.	221.	19.8	6.08	1.95	.240
9	.107	.107	2.01	21.2	13.5	170.	217.	19.1	5.76	1.95	.240
10	.107	.107	2.33	20.1	61.3	167.	213.	18.5	5.45	1.44	.214
11	.107	.107	3.11	19.1	66.7	213.	209.	17.8	5.14	1.31	.214
12	.107	.107	3.89	18.1	72.2	221.	205.	17.2	4.98	1.20	.214
13	.107	.107	4.67	17.5	77.8	238.	201.	16.6	4.83	1.09	.214
14	.107	.107	5.45	16.9	83.5	252.	197.	16.1	4.67	.990	.214
15	.107	.107	6.00	16.4	89.3	262.	193.	15.5	4.51	.895	.214
16	.093	.107	6.75	16.1	95.2	181.	189.	15.0	4.36	.895	.190
17	.093	.107	5.45	22.6	101.	317.	173.	14.5	4.20	.807	.190
18	.093	.107	4.67	24.5	107.	322.	164.	13.5	4.05	.807	.190
19	.093	.107	3.89	26.6	56.0	328.	156.	13.0	3.89	.726	.190
20	.093	.107	3.58	31.0	133.	322.	147.	12.5	3.73	.726	.190
21	.093	.107	6.93	31.0	139.	317.	139.	12.1	3.58	.651	.190
22	.093	.107	3.60	33.4	146.	312.	131.	11.6	3.42	.651	.190
23	.093	.107	11.1	35.8	153.	306.	124.	11.1	3.26	.583	.170
24	.093	.107	10.8	40.7	158.	301.	120.	10.7	3.11	.583	.170
25	.093	.107	5.00	38.2	164.	296.	104.	10.3	2.95	.522	.170
26	.093	.107	6.25	35.8	170.	291.	95.2	9.82	2.80	.522	.170
27	.093	.107	5.45	33.4	173.	286.	87.0	9.41	2.64	.468	.170
28	.093	.107	4.67	31.0	133.	281.	77.8	9.00	2.48	.468	.170
29	.093	.107	2.64	28.7	189.	276.	69.4	8.60	2.33	.420	
30	.093	.107	2.33	26.6	197.	263.	61.3	8.21	2.17	.420	
31		.107		24.5	208.		48.2		2.01	.338	
MOY	.100	.106	4.00	26.2	99.6	247.	168.	17.8	4.67	.900	.217

STATION : TOGO

VOLTA

OTI

MANCOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	CCTO	NOVE	DECE	JANV	FEVR
1		.170	.057	2.40	18.5	64.0	328.	352.	238.	86.4	3.93	1.56
2		.170	.057	3.04	17.5	66.7	327.	350.	233.	83.5	3.69	1.56
3		.170	.057	3.69	16.4	71.1	326.	345.	229.	80.6	3.47	1.56
4		.170	.057	4.80	15.5	75.0	325.	341.	225.	77.8	3.25	1.56
5	.214	.170	.048	9.00	14.7	77.8	323.	339.	221.	75.0	3.04	1.46
6		.170	.048	8.41	13.0	80.6	322.	334.	217.	69.4	2.83	1.46
7		.170	.338	8.02	12.5	83.5	321.	330.	213.	66.7	2.62	1.46
8	.214	.154	.270	7.47	12.1	86.4	320.	328.	205.	64.0	2.51	1.46
9	.214	.154	.214	7.11	11.6	89.3	319.	323.	201.	61.3	2.40	1.46
10	.214	.154	.170	16.1	11.1	92.2	318.	317.	197.	50.8	2.40	1.37
11	.214	.154	.140	17.5	10.7	95.2	317.	313.	181.	48.2	2.40	1.37
12	.214	.154	.107	19.1	10.3	104.	322.	307.	174.	45.7	2.30	1.37
13	.214	.154	.080	19.8	9.82	110.	328.	302.	170.	43.2	2.30	
14	.214	.154	.068	20.8	9.41	56.0	333.	297.	167.	40.7	2.19	
15	.214	.154	.057	20.1	9.00	77.8	339.	293.	163.	38.2	2.09	
16	.214	.140	.583	19.4	8.41	149.	338.	290.	153.	33.4	2.09	
17	.214	.140	.338	19.1	7.83	156.	337.	287.	150.	26.6	2.09	
18	.190	.140	.270	18.5	7.28	163.	335.	283.	146.	24.5	2.09	
19	.190	.140	.214	17.8	6.75	167.	334.	279.	141.	20.8	1.87	
20	.190	.140	.170	17.2	6.25	174.	333.	276.	137.	19.1	1.87	
21	.190	.068	.990	16.6	5.77	113.	332.	271.	132.	17.5	1.87	
22	.190	.068	.807	16.1	5.49	209.	331.	263.	126.	16.1	1.87	
23	.190	.068	.651	24.5	5.21	221.	330.	261.	123.	11.1	1.77	1.02
24	.190	.068	.522	23.0	9.00	234.	337.	258.	120.	10.0	1.77	1.02
25	.190	.068	.420	22.6	13.5	245.	341.	256.	107.	9.00	1.77	.938
26	.190	.068	2.17	21.9	28.7	255.	348.	254.	101.	8.02	1.77	.938
27	.190	.057	1.86	21.2	40.7	181.	356.	252.	98.2	7.11	1.66	.860
28	.170	.057	1.56	20.5	45.7	289.	361.	248.	95.2	6.25		.860
29	.170	.057	1.31	19.8	53.4	305.	359.	247.	92.2	5.49		
30	.170	.057	1.09	19.1	16.1	317.	357.	244.	89.3	4.80		
31	.170		.990		55.5	329.		243.		4.17		
MOY	.198	.125	.507	15.3	16.4	153.	333.	293.	161.	37.3	2.27	1.26

DEBIT MOYEN ANNUEL

84.7 M3/S

STATION : TOGO

VOLTA

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MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.860	.320	.060	1.84	23.6	60.2	231.	488.	153.	15.0	6.41	2.88
2	.784	.320	.060	1.50	24.1	54.4	233.	479.	144.	14.5	6.41	2.78
3	.712	.320	.060	2.11	24.9	46.5	274.	463.	132.	14.0	6.25	2.68
4	.712	.320	.060	2.34	23.8	42.2	309.	453.	112.	13.5	6.08	2.68
5	.712	.280	.060	3.52	22.8	40.0	337.	442.	88.7	12.5	5.92	2.78
6	.712	.280	.060	3.79	21.9	39.0	375.	432.	69.5	12.1	5.77	2.58
7	.644	.320	.060	3.73	22.8	44.7	354.	422.	57.1	11.8	5.49	2.58
8	.644	.280	.060	4.07	22.8	73.3	298.	412.	48.5	11.8	5.35	2.49
9	.580	.217	.060	4.75	21.5	126.	272.	403.	43.4	11.6	5.35	2.39
10	.580	.188	.060	4.56	20.0	141.	288.	391.	40.0	11.1	5.21	2.30
11	.580	.188	.060	4.19	19.8	144.	327.	377.	36.8	10.5	5.08	2.20
12	.520	.188	.060	3.73	19.8	133.	357.	363.	34.8	10.3	4.95	2.11
13	.520	.217	.060	3.29	17.7	125.	399.	346.	32.9	10.5	4.81	2.02
14	.464	.248	.060	2.73	17.7	129.	432.	327.	30.8	11.4	4.56	1.93
15	.464	.217	.060	2.49	17.7	159.	451.	310.	29.4	11.6	4.56	1.84
16	.412	.217	.060	2.11	16.4	152.	458.	294.	27.6	11.1	4.31	1.75
17	.412	.188	.060	14.5	22.2	155.	446.	279.	26.6	10.5	4.19	1.67
18	.412	.188	.060	16.3	22.0	169.	450.	266.	25.3	9.82	4.07	1.58
19	.364	.160	.060	12.5	35.8	186.	422.	255.	24.1	9.41	3.95	1.58
20	.320	.133	.060	12.0	32.7	190.	408.	243.	23.0	9.20	3.84	1.58
21	.320	.133	.060	19.3	35.7	200.	413.	232.	21.9	8.80	3.73	1.50
22	.320	.107	.060	36.3	39.7	192.	418.	222.	20.8	8.41	3.73	1.42
23	.280	.133	.060	26.3	31.5	189.	426.	214.	19.8	8.21	3.61	1.42
24	.280	.107	.060	17.8	25.3	214.	433.	206.	19.1	8.02	3.61	1.34
25	.280	.083	.060	16.6	29.0	242.	437.	199.	18.1	7.65	3.51	1.34
26	.280	.060	.300	15.9	30.1	263.	447.	193.	17.5	7.47	3.40	1.26
27	.280	.060	.492	14.0	30.5	274.	444.	186.	16.9	7.11	3.29	1.18
28	.280	.060	.769	12.5	33.9	280.	443.	180.	16.4	6.93	3.19	1.11
29	.464	.060	1.58	15.0	35.8	252.	460.	173.	15.8	6.75	3.09	1.11
30	.320	.060	2.03	30.8	55.9	232.	475.	166.	15.3	6.58	2.99	
31	.320		1.71		62.6	238.		160.		6.41	2.88	
MOY	.478	.189	.271	10.4	27.7	154.	304.	309.	45.4	10.1	4.50	1.93

DEBIT MOYEN ANNUEL

79.1

M3/S

STATION : TOGO

VOLTA

OTI

MANCOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	CCTO	NOVE	DECE	JANV	FEVR
1	1.03	.255	.092	78.7	58.4	301.	323.	338.	140.	21.9	9.00	4.05
2	.959	.210	.092	72.2	57.9	278.	342.	340.	135.	21.2	8.60	3.93
3	.959	.210	.092	42.2	56.8	263.	366.	343.	125.	20.5	8.41	3.93
4	.889	.210	.909	32.7	46.0	259.	356.	338.	122.	19.8	8.21	3.81
5	.889	.179	7.28	31.6	42.9	254.	350.	334.	116.	19.1	8.02	3.81
6	.889	.179	11.4	36.3	37.0	240.	374.	332.	105.	18.5	7.83	3.69
7	.821	.179	11.1	86.7	32.9	233.	390.	329.	94.6	17.8	7.65	3.69
8	.821	.149	9.31	68.1	30.8	229.	402.	327.	80.6	17.5	7.28	3.58
9	.821	.149	8.21	60.8	51.6	222.	404.	323.	69.7	16.9	7.11	3.58
10	.756	.149	6.68	54.2	44.4	212.	407.	316.	61.6	16.4	6.93	3.47
11	.756	.120	5.63	50.3	48.0	199.	400.	310.	54.4	15.8	6.75	3.36
12	.692	.130	5.35	48.0	71.1	192.	395.	304.	50.8	15.5	6.58	3.25
13	.692	.120	5.28	49.8	61.6	190.	386.	296.	47.2	15.3	6.41	3.14
14	.630	.120	5.21	46.7	60.8	191.	386.	286.	44.7	14.7	6.25	3.14
15	.630	.120	5.70	44.2	95.8	197.	348.	280.	42.9	14.5	6.08	3.04
16	.570		5.56	39.0	75.8	261.	399.	271.	41.2	14.2	5.92	2.93
17	.570		5.15	48.3	96.3	300.	430.	265.	40.2	13.7	5.77	2.83
18	.513		4.25	73.2	156.	291.	425.	258.	38.2	13.3	5.63	2.72
19	.457	.066	4.01	77.0	173.	293.	409.	250.	36.3	12.5	5.49	2.62
20	.457	.066	3.61	63.5	200.	298.	402.	241.	34.3	12.3	5.35	2.51
21	.457	.066	3.56	80.4	234.	286.	389.	232.	32.4	12.1	5.21	2.40
22	.404	.040	9.52	73.3	251.	283.	381.	223.	30.5	11.6	5.07	2.40
23	.404	.040	13.3	82.6	315.	278.	374.	215.	29.2	11.4	4.94	2.19
24	.352	.255	12.3	76.1	355.	272.	369.	205.	27.9	11.1	4.80	2.09
25	.303	.210	7.42	71.1	380.	271.	371.	198.	26.6	10.5	4.67	1.98
26	.303	.179	5.15	65.9	438.	271.	365.	190.	25.7	10.3	4.67	1.87
27	.255	.149	14.2	56.3	523.	268.	359.	182.	24.5	10.0	4.54	1.77
28	.255	.149	21.7	47.0	542.	276.	351.	174.	23.4	9.82	4.54	
29	.210	.092	12.8	41.0	495.	272.	346.	165.	23.0	9.61	4.29	
30	.210	.092	8.51	51.8	425.	280.	338.	155.	22.6	9.41	4.29	
31	.210		31.6		365.	292.		148.		9.20	4.17	
MOY	.566	.138	7.90	58.3	188.	256.	378.	263.	58.2	14.4	6.14	2.95

DEBIT MOYEN ANNUEL

103. M3/S

STATION : TOGO

VOLTA

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MANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.060	.520	1.10	7.02	25.1	100.	493.	630.	205.	39.7	12.5	5.35
2	1.87	.438	1.28	5.36	49.4	98.8	529.	619.	198.	37.5	12.3	5.08
3	1.87	.682	1.10	3.90	43.1	99.4	570.	600.	182.	35.1	11.8	4.95
4	1.77	.492	1.02	2.99	31.5	94.3	598.	577.	166.	33.4	11.4	4.81
5	1.66	.582	.899	2.84	33.4	109.	633.	547.	154.	32.2	11.1	4.69
6	1.56	.978	.822	4.02	36.8	102.	655.	529.	147.	31.2	10.9	4.69
7	1.56	.701	1.19	3.73	92.0	96.1	668.	509.	138.	29.0	10.5	4.56
8	1.46	.822	4.38	4.55	116.	99.1	684.	491.	130.	28.1	10.5	4.43
9	1.37	.644	4.23	4.76	103.	130.	706.	482.	122.	26.8	10.3	4.43
10	1.28	.464	3.52	4.56	97.0	125.	757.	463.	115.	25.9	9.82	4.31
11	1.28	.873	3.31	5.01	93.7	117.	730.	446.	107.	25.1	9.61	4.19
12	1.19	5.01	2.46	5.71	87.0	117.	755.	428.	102.	23.9	9.41	4.07
13	1.19	7.71	1.77	5.01	94.7	114.	781.	412.	96.7	23.4	9.00	3.84
14	1.10	8.13	1.32	4.31	103.	106.	803.	395.	92.8	22.4	8.80	3.73
15	1.10	6.18	1.06	3.56	100.	102.	813.	381.	88.7	21.9	8.41	3.73
16	1.02	4.55	.899	3.51	93.7	106.	812.	365.	86.1	21.2	8.02	3.61
17	1.02	3.41	.748	3.85	84.4	164.	801.	349.	83.5	20.5	7.83	3.51
18	1.02	2.62	1.76	5.58	75.8	188.	792.	334.	81.8	19.4	7.65	3.40
19	.938	2.14	1.82	7.74	72.2	205.	780.	319.	80.4	19.1	7.28	3.40
20	.938	1.82	1.19	8.41	81.8	213.	777.	304.	78.4	18.8	7.11	3.29
21	.860	1.61	1.33	9.41	89.6	201.	766.	290.	76.1	18.5	6.93	3.29
22	.784	1.37	9.37	8.90	89.9	197.	757.	276.	73.0	17.5	6.75	3.19
23	.712	1.28	3.95	8.50	89.9	217.	742.	266.	69.4	16.9	6.58	3.09
24	.644	1.15	2.83	8.31	102.	252.	727.	260.	66.7	16.4	6.41	3.09
25	.644	2.51	2.24	8.90	106.	278.	711.	249.	62.9	15.5	6.25	2.99
26	.644	2.99	1.56	10.3	105.	326.	694.	245.	57.1	15.3	6.08	2.88
27	.580	2.77	1.19	12.2	114.	358.	680.	240.	52.9	15.0	5.92	2.88
28	.580	2.35	.978	12.3	105.	377.	668.	235.	48.2	14.5	5.92	2.68
29	.520	2.03	2.72	15.0	107.	380.	652.	228.	44.9	14.2	5.77	
30	.520	1.62	3.36	14.6	121.	382.	645.	221.	42.4	13.7	5.63	
31	.464		3.53		107.	410.		213.		13.0	5.49	
MOY	1.04	2.28	2.22	6.84	85.5	189.	706.	384.	102.	22.7	8.45	3.86

DEBIT MOYEN ANNUEL

126. M3/S

STATION : TOGO

VOLTA

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HANDOURI

NUMERO : 47271103

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.68	1.26	.255	.288	5.26	65.3	334.			15.5	6.27	2.52
2	2.58	1.18	.210	.255	4.50	70.3	361.			15.3	6.11	2.52
3	2.58	1.11	.179	6.14	3.77	83.0	410.			14.7	5.95	2.39
4	2.49	1.03	.179	8.60	3.18	96.1	459.				5.79	2.39
5	2.39	.959	.179	7.65	3.90	103.	489.				5.79	2.26
6	2.30		.149	6.94	3.31	105.	527.				5.95	2.26
7	2.20		.120	6.19	3.57	107.	555.				6.11	2.12
8	2.20		.120	5.19	6.52	134.					6.11	2.12
9	2.11		.120	3.84	6.11	143.					6.27	1.99
10	2.11		.120	2.91	6.36	183.			53.9		6.43	
11	2.20		.120	1.99	13.1	199.		622.	48.5	10.9	6.60	
12	2.02		.120	1.86	44.5	215.		589.	41.4	10.7	6.77	
13	1.93		.120	1.54	39.7	245.		569.	36.3	10.2	6.94	
14	1.84		.120	1.42	31.8	269.		543.	34.6	9.82	4.10	1.86
15	1.84		.120	1.66	12.5	295.		630.	33.6	9.40	3.97	1.86
16	1.75		.120	1.54	18.5	325.		485.	32.2	9.20	3.97	1.73
17	2.11		32.6	1.36	19.3	377.		459.	30.3	9.00	3.84	1.73
18	1.93		8.71	1.25	40.7	410.		411.	28.7	8.80	3.71	1.73
19	1.75		1.59	2.06	37.3	421.		377.	26.8	8.80	3.57	1.60
20	1.67		1.26	2.39	16.0	434.		337.	25.1	8.60	3.44	1.60
21	1.50		1.07	2.32	17.3	514.	747.	315.	24.1	8.21	3.44	1.48
22	1.42		.959	2.06	19.3	531.	855.	301.	22.6	8.02	3.31	1.48
23	1.34		.724	1.73	20.1	471.	854.	291.	20.6	7.65	3.18	1.36
24	1.34		.692	1.42	22.2	393.	819.	285.	19.9	7.47	3.18	1.36
25	1.26		.692	1.31	22.6	353.	800.	275.	19.3	7.47		1.36
26	1.34		.693	2.19	61.8	349.	788.	268.	18.9	7.29		1.25
27	1.26		.889	1.36	50.0	367.	770.	266.	18.0	7.12		1.25
28	1.34		.559	8.67	37.7	377.	760.		16.8	6.94		1.25
29	1.34		.559	9.12	46.2	383.	752.		16.2	6.77	2.78	
30	1.34	.255	.889	6.12	56.3	364.	749.		15.9	6.60	2.65	
31	1.26		.821		60.0	330.				6.43	2.52	
MOY	1.85	.679	1.80	3.38	23.7	281.	650.	477.	58.4	10.0	4.54	1.83

DEBIT MOYEN ANNUEL

127. M3/S

Code : 47 27 11 06

bassin versant : 35 650 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M.

Coordonnées : 10° 18' N - 0° 28' E.

Cote du zéro de l'échelle

Deux nivellements récents (1974) rattachés au repère matricule 63, altitude 117 m, 840 ont donné la cote 108,05 pour le zéro de l'échelle.

L'ancienne cote de 107,51 m. nous semble erronée.

Accès :

Ancien pont submersible de la route KANDE - MANGO, 4 kilomètres au Sud de MANGO.

Installations

Une première échelle a été installée par l'Administrateur, le 18 mai 1953 au radier de la piste de GANDO, un kilomètre à l'Est de MANGO.

L'échelle actuelle a été installée le 2 avril 1955. Elle comprend aujourd'hui 12 éléments métriques étagés sur la rive droite.

En 1963, l'échelle de 1 à 4 m. fixée sur planche a été remplacée par trois éléments étagés fixés sur IPN de 80 mm.

Le 2-3-1972, après la chute de la pile supportant l'échelle de 0 à 1 m., cet élément a été déplacé. Il en a résulté un net détarage de la station, en basses eaux.

De petits intervalles d'altitude existent entre les différents groupes d'éléments d'échelle. Ces décalages ont été corrigés grâce aux cotes choisies sur les courbes d'étalonnage.

Lectures

Une lecture par jour, le matin - Bonne qualité des observations

Jaugeages - Courbes de tarage

La section étant instable en basses eaux, il a fallu adopter sept courbes de tarage pour la période étudiée dans ces annales. Les relevés de 1953 et 1954 effectués à l'ancienne échelle de la route de Gando, ont été interprétés avec l'étalonnage n° 1 (valable de 1955 à mai 1957), grâce à la corrélation établie entre les deux échelles successives, avec les relevés simultanés de l'année 1955.

A la fin 1971, 62 jaugeages avaient été effectués à cette station :

maximum jaugé : 1 315 m³/s, le 6-10-57, pour une cote de 10 m
minimum jaugé : 0,240 m³/s, le 19-4-66, pour une cote de 0,34 m

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 518 à 500 m.	0,9 %
500 à 400	4,0
400 à 320	4,4
320 à 200	59,5
200 à 109	31,2

altitude moyenne du bassin : 240 mètres

Relief et Géologie

A l'exception de la chaîne de l'ATAKORA, le relief est plat, avec de nombreuses plaines inondables et des marécages.

La constitution géologique imprime une orientation générale N.E. - S.W au cours de l'Oti. Les roches sont en effet dis-

posées en bandes parallèles à cette direction ; on trouve du Nord au Sud :

- des granites calco-alcalins
- schistes et grès du Cambrien (bande occupée par la vallée de l'Oti)
- grès et quartzites du Buem - Famélien
- schistes sériciteux de la série de Kandé - Boukombé
- micaschistes et quartzites de l'Atacorien (vallée supérieure de la Pendjari).

Dans les vallées, ces roches sont souvent recouvertes d'alluvions récentes.

Végétation

La savane arborée claire de type soudanien couvre la majeure partie du bassin, avec quelques flots de forêt sèche dans les Monts de l'Atakora et au Nord du bassin, en Haute-Volta. Le Sud et l'Ouest du bassin présentent une zone de 5 000 km² environ de sols et de végétation fortement dégradés par la culture et l'élevage.

GEOSTROY

DATE:

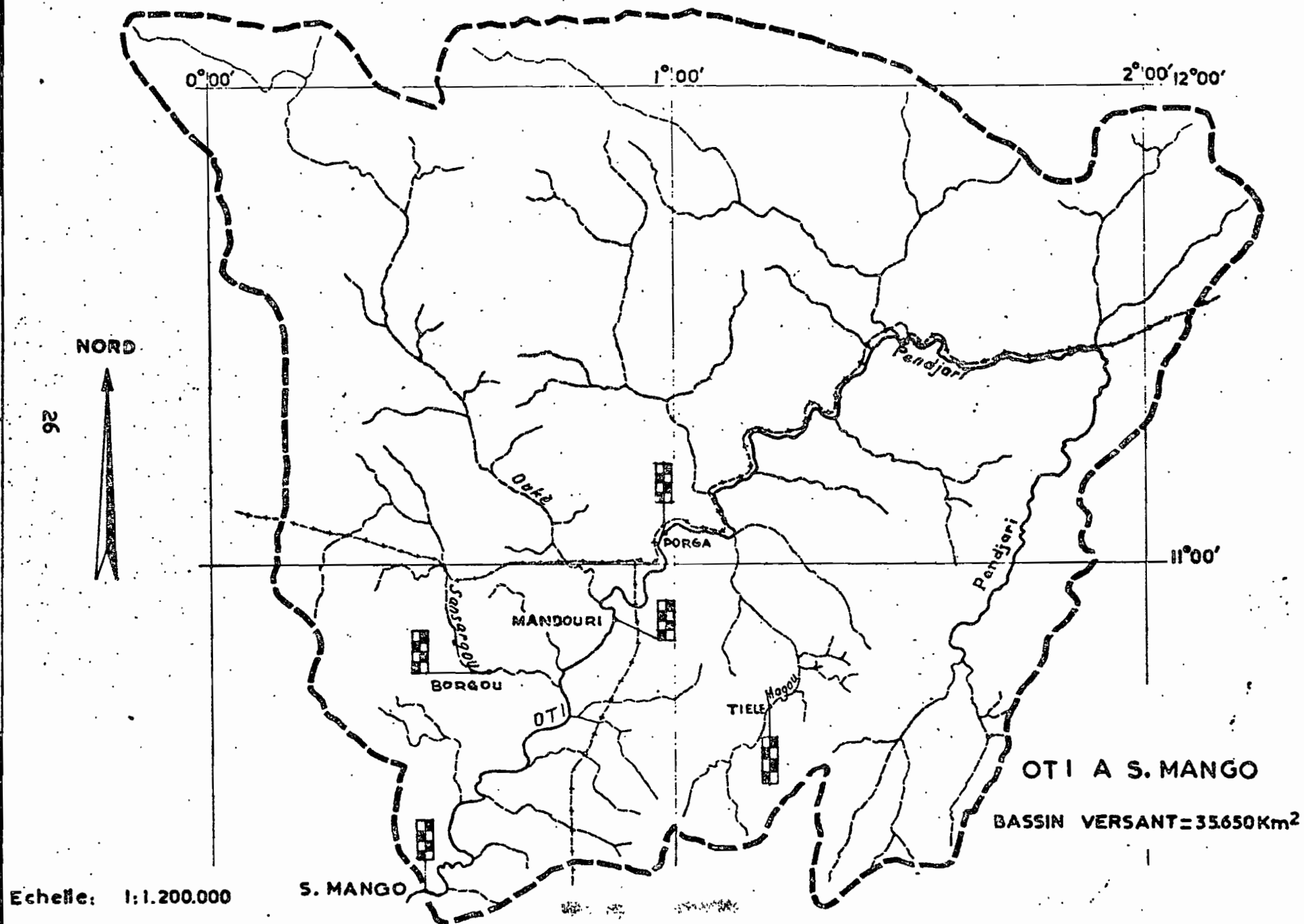
0/6/65

DESSINÉ:

M. Sossoh

T

270 H



Echelle: 1:1.200.000

S. MANGO

OTI A S. MANGO

BASSIN VERSANT=35650Km²

STATION : TOGO VOLTA OTI MANGO
 NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1953-1954 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				161.	32.9	207.	441.	812.	215.	25.2		
2				210.	30.1	236.	523.	800.	207.	23.0		
3				218.	63.1	285.	627.	796.	198.	23.0		
4				233.	66.4	334.	691.	796.	191.	21.1		
5				270.	66.4	360.	730.	790.	179.			
6				321.	79.6	381.	756.	787.	165.			
7				338.	71.0	395.	773.	778.	143.			
8				338.	61.1	409.	773.	769.	125.			
9				315.	59.8	402.	849.	756.	106.			
10				258.	56.5	378.	968.	744.	93.0			
11				241.	61.1	340.	1150	730.	83.0			
12				231.	69.7	319.	1320	714.	74.3			
13				193.	67.7	285.	1360	703.	69.7			
14				151.	63.1	243.	1340	691.	66.4			
15				140.	64.4	207.	1270	676.	63.1			
16				127.	69.7	189.	1230	659.	59.8			
17				113.	91.0	175.	1200	640.	59.8			
18			21.5	101.	117.	167.	1130	618.	56.5			
19			19.9	91.0	118.	161.	1080	591.	56.5			
20			16.8	79.6	106.	151.	1070	557.	53.3			
21			14.3	69.7	111.	143.	1050	518.	46.1			
22			13.7	59.8	142.	142.	1030	464.	42.5			
23			13.7	50.0	146.	151.	989.	416.	40.4			
24			13.3	43.9	132.	153.	947.	367.	35.9			
25			12.3	50.0	110.	157.	927.	331.	35.9			
26			11.8	67.7	99.6	201.	899.	301.	32.9			
27			9.00	59.8	131.	201.	887.	280.	30.1			
28			19.6	51.3	151.	253.	879.	263.	27.5			
29			18.7	43.9	165.	295.	860.	248.	27.5			
30			81.0	37.1	183.	315.	841.	238.	25.2			
31			134.		191.	340.		224.				
MOY			24.5	155.	96.0	257.	953.	582.	86.9			

STATION : TOGO
NUMERO : 47271106

VOLTA

OTI

MANGO

DEBITS MOYENS JOURNALIERS EN 1954-1955 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				69.7		50.0	301.	490.	108.			
2				71.0	40.4	30.1	309.	469.	103.			
3				71.0	37.1	21.1	331.	437.	97.6			
4				74.3	28.5	14.3	358.	409.	91.0			
5				76.3	23.8	12.3	374.	385.	83.0			
6				66.4		12.3	378.	360.	76.3			
7				47.7	25.2	12.7	385.	347.	73.0			
8				39.1	35.9	14.3	392.	334.	69.7			
9				31.2	46.1	18.1	427.	315.	66.4			
10				26.1	40.4	18.7	427.	303.	63.1			
11				21.8	31.2	16.8	420.	297.	54.6			
12					26.1	25.2	420.	289.	51.3			
13					23.0	53.3	413.	301.	64.4			
14					23.0	63.1	406.	315.	64.4			
15					25.2	64.4	413.	331.	63.1			
16					27.5	63.1	420.	328.	59.8			
17					25.2	57.9	427.	303.	56.5			
18					21.8	59.8	430.	278.	53.3			
19					19.6	71.0	437.	246.	50.0			
20					16.8	71.0	441.	222.	46.1			
21					16.0	83.0	441.	197.	42.5			
22					15.5	83.0	455.	177.	39.1			
23					16.0	127.	457.	167.	37.1			
24					18.1	191.	444.	161.	32.9			
25					20.2	222.	423.	163.	30.1			
26					10.7	263.	406.	151.	28.5			
27					14.8	301.	448.	142.	27.5			
28					13.7	325.	534.	129.	25.2			
29					14.8	325.	515.	118.	25.2			
30					17.3	325.	500.	117.	23.0			
31					39.1	315.		113.				
MOY					25.3	107.	418.	271.	56.8			

STATION : TCGO

VOLTA

CTI

SANSANNE MANGO

ALMEFO : 47271106

DEBITS MOYENS JOURNALIERS EN 1955-1956 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.650	22.0	17.8	565.	1320	1050	257.	29.0	9.03	5.56
2		.755	.601	12.9	15.9	584.	1240	1030	243.	27.0	9.03	5.33
3		.755	.601	10.3	14.0	595.	1200	1020	228.	25.2	8.72	5.33
4		.701	.555	10.3	12.2	602.	1180	1010	215.	24.3	8.72	5.33
5		.650	.512	7.30	9.65	610.	1150	1020	201.	22.9	8.43	5.11
6		.601	.471	7.30	9.65	611.	1170	1010	191.	22.0	8.43	5.11
7		.701	.397	7.30	9.65	607.	1160	990.	182.	21.2	8.14	5.11
8		.701	.323	9.65	9.65	570.	1140	971.	179.	20.3	8.14	4.90
9		.755	.280	10.3	9.65	545.	1130	947.	170.	19.5	8.14	4.90
10		.755	.755	9.97	9.65	537.	1100	909.	163.	18.7	7.85	4.90
11		.701	.701	9.65	9.65	561.	1110	869.	150.	17.8	7.85	4.66
12		.701	.650	9.65	9.65	570.	1130	838.	143.	17.4	7.57	4.66
13		.650	.555	9.65	21.6	580.	1150	805.	128.	16.7	7.57	4.66
14		.650	.471	9.65	22.9	588.	1170	793.	111.	15.9	7.30	4.43
15		.650	.755	9.65	37.2	600.	1180	775.	95.0	15.1	7.30	4.43
16		.650	1.06	9.65	42.8	617.	1180	754.	83.4	14.4	7.03	4.21
17		.650	1.21	9.34	54.9	639.	1170	735.	75.4	13.6	7.03	4.21
18		.871	1.28	9.34	70.9	649.	1150	717.	69.2	12.9	6.77	3.99
19		.871	1.13	8.72	81.1	657.	1140	701.	64.2	12.6	6.77	3.99
20		.812	.997	8.14	85.1	673.	1120	683.	60.3	12.2	6.52	3.99
21		.812	.932	7.85	96.1	691.	1110	665.	56.5	10.3	6.52	3.78
22		.755	.812	7.30	118.	730.	1110	637.	53.2	10.3	6.27	3.78
23		.755	.812	7.03	126.	801.	1110	592.	50.5	10.3	6.27	3.78
24		.997	.812	7.03	139.	966.	1090	561.	46.9	10.3	6.02	3.57
25		.932	.755	6.77	181.	1220	1100	515.	44.0	10.3	6.02	3.57
26		.871	1.28	6.77	213.	1440	1100	467.	41.7	10.3	6.02	3.57
27		.755	3.99	6.77	341.	1540	1100	408.	38.9	10.3	5.79	3.78
28		.701	4.43	7.57	500.	1540	1100	349.	36.7	10.3	5.79	3.78
29			3.99	26.1	487.	1510	1080	321.	34.5	9.97	5.79	3.57
30			3.99	23.8	491.	1430	1070	295.	31.5	9.65	5.56	
31			18.7		534.	1380		275.		9.34	5.56	
MOY 1.98	.745	1.76	10.3	122.	814.	1140	732.	115.	15.8	7.16	4.41	

DEBIT MOYEN ANNUEL

248. M3/S

STATION : TOGO

VOLTA

OTI

SANSANNE MANGO

ALMEFO : 47271106

DEBITS MOYENS JOURNALIERS EN 1956-1957 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOÛT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	3.37	1.54	1.54	.755	28.0	95.0	375.	570.	76.0	10.3	6.02	2.45
2	3.17	1.54	1.28	.812	25.2	115.	406.	555.	65.3	10.3	5.79	2.28
3	2.98	1.54	1.06	.812	26.1	141.	424.	537.	58.1	10.3	5.56	2.12
4	2.98	1.41	.932	.932	29.5	147.	450.	518.	52.7	9.97	5.56	2.12
5	2.80	1.41	.812	6.77	22.5	120.	471.	506.	48.8	9.97	5.33	1.97
6	2.62	1.28	1.06	6.77	16.7	111.	483.	498.	45.2	9.65	5.11	1.97
7	2.45	1.28	.997	6.02	13.3	98.9	487.	493.	41.7	9.65	4.90	1.82
8	2.28	1.21	.871	4.90	10.3	90.3	497.	487.	39.4	9.65	4.90	1.82
9	2.28	1.21	.812	4.90	10.3	90.3	516.	477.	36.7	9.34	4.66	1.68
10	2.12	1.13	.755	3.78	10.3	100.	531.	461.	34.5	9.34	4.43	1.68
11	1.97	1.06	.997	10.3	10.3	139.	538.	443.	33.0	9.34	4.21	1.54
12	1.97	.997	.812	14.4	10.3	154.	543.	418.	30.9	9.03	3.99	1.54
13	1.97	.997	.650	10.3	50.5	140.	557.	391.	29.0	9.03	3.99	1.41
14	1.82	1.68	1.68	10.3	15.1	149.	570.	366.	27.0	8.72	3.99	1.41
15	1.92	5.56	1.54	16.3	44.0	181.	580.	346.	25.6	9.43	3.78	1.28
16	1.68	5.11	1.54	10.3	44.0	181.	584.	328.	23.8	8.14	3.78	1.28
17	1.68	3.99	1.41	10.3	63.6	182.	595.	312.	22.5	7.57	3.57	1.28
18	1.68	3.17	1.28	9.34	92.1	219.	600.	299.	21.2	7.57	3.57	1.21
19	1.54	2.80	1.28	9.65	149.	251.	610.	286.	19.9	7.57	3.37	1.21
20	1.54	2.45	1.28	10.3	157.	275.	616.	274.	18.7	7.57	3.37	1.21
21	1.54	2.12	1.28	39.4	137.	292.	616.	261.	17.8	7.57	3.37	1.21
22	1.41	1.82	1.28	61.4	101.	302.	614.	249.	16.3	7.57	3.37	1.13
23	1.41	1.68	1.28	44.0	107.	302.	614.	237.	15.9	7.30	3.17	1.13
24	1.41	1.41	1.28	42.8	98.9	300.	614.	225.	15.1	7.30	3.17	1.13
25	1.28	1.28	1.28	58.7	88.0	296.	613.	213.	14.7	7.03	2.98	1.13
26	1.28	1.21	1.28	50.0	74.3	277.	608.	200.	13.6	7.03	2.98	1.13
27	1.28	1.06	1.28	51.1	67.5	251.	605.	182.	12.6	6.77	2.80	1.06
28	1.28	.997	1.28	40.0	62.0	237.	602.	164.	11.8	6.52	2.80	1.06
29	1.21	1.13	.701	28.5	60.9	260.	594.	133.	10.3	6.52	2.62	
30	1.68	1.28	.812	26.6	79.9	283.	583.	102.	10.3	6.27	2.62	
31	1.68		.755		102.	328.		85.7		6.27	2.45	
MCY	1.94	1.84	1.13	19.7	58.3	197.	550.	342.	29.6	8.31	3.94	1.51

DEBIT MOYEN ANNUEL

102. M3/S

STATION : TCGO

VCLTA

CTI

SANSANNE MANGO

ALMEFO : 47271106

DEBITS MOYENS JOURNALIERS EN 1957-1958 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.06	.812	.650	162.	72.0	55.4	750.	1520	263.	38.9	10.3	8.48
2	1.06	.755	.512	119.	66.4	52.7	750.	1480	245.	37.2	10.3	8.24
3	1.06	.701	.471	96.7	61.4	50.5	754.	1450	229.	35.6	10.3	8.24
4	.997	.701	.432	83.4	62.0	52.7	763.	1400	216.	34.0	10.3	8.02
5	.997	.812	.397	73.7	55.4	63.6	787.	1370	204.	33.0	10.3	7.80
6	1.21	.755	.364	73.7	63.6	87.4	838.	1320	189.	32.0	10.3	7.59
7	1.21	.755	.305	76.5	92.7	104.	887.	1240	181.	30.9	10.3	7.38
8	1.13	.701	.280	82.2	120.	106.	937.	1200	172.	29.5	10.3	7.19
9	1.06	.755	.280	77.1	117.	115.	1000	1150	159.	28.0	10.3	7.00
10	1.06	.755	.280	72.0	119.	136.	1060	1100	147.	26.6	10.3	7.00
11	1.06	.755	.280	66.4	107.	182.	1100	1050	134.	25.6	10.3	6.81
12	1.06	.755	.397	57.6	90.9	277.	1160	1010	121.	24.3	10.3	6.81
13	.997	.755	.432	48.2	78.2	332.	1230	942.	110.	23.4	10.0	6.81
14	.997	.755	.432	44.6	67.5	359.	1290	896.	102.	22.0	10.0	6.64
15	.997	.755	.397	52.2	62.5	376.	1320	838.	93.8	21.2	10.0	6.64
16	.997	.755	.364	65.9	113.	405.	1320	809.	86.8	20.3	9.74	6.64
17	.932	.650	.333	84.0	48.8	438.	1320	793.	81.1	19.5	9.74	6.47
18	.932	.650	.333	104.	50.0	469.	1350	769.	75.4	19.1	9.74	6.47
19	.997	.701	.997	93.8	59.8	487.	1420	744.	70.9	17.8	9.48	6.30
20	.997	.650	2.80	101.	58.7	505.	1460	712.	66.4	16.7	9.48	6.15
21	.932	.650	2.45	87.4	64.7	522.	1440	676.	63.1	15.9	9.48	6.00
22	.932	.601	3.78	86.8	91.5	542.	1500	633.	59.8	15.1	9.22	6.00
23	.932	.555	7.85	81.1	112.	566.	1500	573.	57.0	14.4	9.22	6.00
24	.871	.512	7.57	74.3	126.	580.	1460	512.	54.3	14.0	9.22	6.00
25	.871	.512	4.43	67.0	114.	649.	1460	455.	52.2	13.3	8.96	6.00
26	.812	.512	2.80	57.6	87.4	671.	1500	400.	50.0	12.6	8.96	6.00
27	.871	.471	6.27	52.2	72.6	684.	1570	367.	47.6	11.8	8.96	6.00
28	.812	.471	47.6	62.5	65.3	707.	1620	348.	45.2	10.3	8.72	6.00
29	.812	.471	81.1	70.3	61.4	726.	1580	330.	42.8	10.3	8.72	
30	.755	.471	51.1	66.4	60.9	741.	1540	306.	40.5	10.3	8.72	
31	.932		124.		59.8	750.		283.		10.3	8.48	
MOY	.979	.664	11.3	78.0	80.1	380.	1220	861.	115.	21.7	9.69	6.81

DEBIT MOYEN ANNUEL

233. M3/S

STATION : TCGO

VOLTA

CTI

SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1958-1959 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	6.00	2.10	6.00	5.16	6.81	8.24	388.	325.	23.4	1.48	2.46	2.33
2	6.00	3.10	5.16	4.40	6.81	7.00	375.	338.	21.2	1.48	2.72	2.20
3	6.00	2.97	4.40	4.40	6.81	6.47	333.	334.	20.3	1.40	2.99	2.20
4	6.00	2.36	2.48	4.40	6.64	6.15	266.	316.	18.7	1.40	3.12	2.08
5	6.00	2.36	1.49	4.40	6.64	5.83	250.	296.	17.0	1.24	3.40	2.08
6	6.00	1.94	1.12	5.16	6.64	5.66	256.	280.	17.0	1.10	3.26	2.08
7	6.00	1.84	1.12	6.81	6.47	5.32	270.	266.	15.1	1.10	3.26	2.08
8	6.00	1.75	6.00	7.80	6.30	5.66	293.	252.	15.1	1.10	3.26	2.08
9	4.55	1.94	1.94	7.80	6.00	10.3	305.	239.	15.1	1.10	3.12	1.95
10	4.70	1.94	1.94	8.96	5.83	22.9	317.	228.	14.7	1.17	3.12	1.95
11	4.70	1.94	1.94	6.81	5.66	58.7	349.	212.	14.0	1.17	3.12	1.95
12	4.40	1.94	1.94	6.81	5.66	82.2	356.	192.	14.0	1.24	2.99	2.08
13	4.40	1.94	1.94	6.81	5.49	95.0	370.	179.	13.3	1.32	2.99	2.08
14	4.40	1.94	8.96	6.00	5.66	107.	381.	168.	12.6	1.40	2.99	2.20
15	4.40	1.94	6.00	5.16	6.47	123.	381.	112.	10.3	1.48	2.99	2.20
16	3.34	1.94	6.00	5.16	6.15	127.	370.	103.	10.3	1.48	2.85	2.08
17	3.46	1.84	6.00	5.16	6.15	112.	370.	96.7	10.3	1.60	2.85	2.08
18	3.10	1.84	6.00	6.00	6.00	121.	371.	92.1	9.97	1.60	2.85	1.95
19	3.10	1.84	5.16	8.96	5.66	132.	385.	86.8	8.77	1.48	2.85	1.95
20	3.10	1.94	5.16	7.80	5.66	121.	409.	74.8	8.77	1.60	2.72	1.93
21	3.10	1.94	5.16	7.80	5.49	92.1	432.	66.4	8.23	1.71	2.72	1.71
22	3.10	1.94	3.10	8.96	5.49	103.	440.	60.3	8.23	1.71	2.72	1.60
23	3.10	1.94	3.10	33.0	5.32	151.	442.	52.2	7.73	1.71	2.72	1.48
24	3.10	1.94	1.12	50.0	5.16	181.	436.	43.4	6.47	1.71	2.59	1.48
25	3.10	1.94	1.12	50.0	5.00	192.	419.	35.6	5.53	1.95	2.59	1.48
26	3.10	1.94	1.12	50.0	7.38	226.	387.	29.5	4.43	1.95	2.59	1.48
27	3.10	1.94	5.16	7.80	31.5	267.	359.	29.5	2.99	1.95	2.46	1.40
28	3.10	1.84	1.94	7.80	25.2	305.	331.	29.0	2.99	2.08	2.46	1.40
29	3.10	1.84	1.94	7.80	15.5	341.	320.	24.7	2.08	2.20	2.46	
30	3.10	1.75	3.71	7.38	10.3	364.	321.	22.9	1.48	2.20	2.33	
31	3.10		5.16		10.3	379.		23.8		2.46	2.33	
MOY	4.18	2.05	3.66	11.8	8.07	121.	356.	149.	11.3	1.57	2.83	1.91

DEBIT MOYEN ANNUEL

56.1

M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1959-1960 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.40	.776	1.48	.245	9.99	63.1	616.	1160	85.7	10.3	3.96	1.93
2	1.40	.719	1.24	.222	9.38	57.0	656.	1110	77.7	10.3	3.96	1.93
3	1.32	.666	.896	.222	8.80	50.0	689.	1070	69.8	10.3	3.78	1.93
4	1.32	.614	.719	.202	8.24	50.0	721.	1030	64.7	10.3	3.62	1.93
5	1.32	.566	.566	.170	6.92	61.4	750.	980.	58.1	9.99	3.62	1.93
6	1.32	.520	.520	.329	6.44	85.1	777.	937.	56.0	9.09	3.62	1.82
7	1.32	.520	.520	.298	17.4	97.8	793.	887.	52.2	8.52	3.46	1.71
8	1.24	.520	.477	.298	22.5	132.	803.	838.	48.2	8.24	3.46	1.71
9	1.24	.520	.477	.566	17.4	140.	805.	803.	45.2	7.43	3.46	1.60
10	1.24	.477	.436	.436	37.2	145.	805.	775.	41.7	7.43	3.30	1.71
11	1.24	.477	.398	.614	61.4	176.	801.	752.	38.3	7.18	3.30	1.60
12	1.24	.436	.398	.398	108.	215.	793.	721.	34.0	6.92	3.15	1.60
13	1.17	.398	.398	.329	123.	242.	795.	688.	30.9	6.92	2.99	1.50
14	1.17	.362	.362	.776	121.	231.	795.	643.	27.5	6.68	2.99	1.50
15	1.17	.329	.329	.896	103.	219.	793.	605.	25.2	6.68	2.85	1.50
16	1.17	.298	.329	.960	85.7	188.	795.	563.	22.9	6.44	2.85	1.40
17	1.17	.270	.298	1.83	94.4	172.	803.	498.	21.6	6.20	2.70	1.40
18	1.17	.520	.298	3.54	92.1	162.	830.	446.	20.7	5.97	2.70	1.40
19	1.10	.436	.298	4.43	103.	168.	864.	372.	19.1	5.74	2.70	1.40
20	1.10	.398	.362	4.12	105.	188.	887.	329.	17.0	5.31	2.57	1.22
21	1.10	.398	.329	32.0	106.	214.	937.	300.	15.9	5.10	2.57	1.22
22	1.10	.398	.362	40.5	90.9	246.	1010	274.	15.1	5.10	2.57	1.22
23	1.03	.362	.436	37.2	87.4	287.	1060	264.	13.6	5.10	2.43	1.22
24	1.03	.520	.362	29.0	85.1	367.	1100	245.	12.6	4.90	2.43	1.13
25	.960	.436	.362	22.5	81.1	446.	1140	234.	12.2	4.90	2.30	1.22
26	.960	.398	.362	25.6	72.0	481.	1160	214.	11.8	4.70	2.30	1.22
27	.896	.362	.329	20.3	67.5	494.	1190	200.	10.3	4.50	2.30	1.22
28	.896	.329	.298	14.7	73.7	513.	1220	182.	10.3	4.50	2.30	1.13
29	.834	.520	.270	14.4	64.7	536.	1210	147.	10.3	4.32	2.17	1.13
30	.834	.960	.520	10.3	58.7	565.	1190	115.	10.3	4.32	2.17	
31	.776		.270		57.0	590.		91.5		4.13	2.05	
MOY	1.14	.483	.474	8.91	64.0	245.	893.	564.	32.6	6.69	2.92	1.50

DEBIT MOYEN ANNUEL

152. M3/S

STATION : TOGO

VOLTA

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SANSANNE MANGO

ALMEFG : 47271106

DEBITS MOYENS JOURNALIERS EN 1960-1961 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.05	.489	1.22	4.13	10.3	118.	217.	1240	213.	13.6	4.70	2.30
2	1.05	.448	1.31	3.30	9.99	121.	200.	1230	188.	12.9	4.50	2.30
3	.969	.448	1.13	3.15	9.99	124.	182.	1230	181.	12.6	4.50	2.17
4	.969	.448	.825	2.99	9.68	124.	188.	1190	165.	12.2	4.50	2.05
5	.969	.410	.759	2.85	9.99	124.	201.	1130	130.	11.8	4.32	2.05
6	.895	.410	.697	2.85	9.99	117.	200.	1100	103.	10.3	4.32	1.93
7	.895	.375	.639	2.85	9.68	110.	190.	1130	81.7	9.99	4.32	1.93
8	.895	.342	.585	2.85	9.99	95.0	190.	1060	70.9	9.99	4.32	1.93
9	.895	.311	.535	30.4	9.99	88.0	234.	985.	61.4	9.68	4.13	1.93
10	.825	.282	.489	17.0	9.99	83.4	262.	937.	58.1	9.68	4.13	1.82
11	.825	.448	.448	11.8	10.3	84.0	311.	891.	52.7	9.38	3.78	1.82
12	.825	.410	.410	9.99	10.3	89.7	350.	847.	48.8	9.38	3.62	1.82
13	.825	.410	.410	32.0	10.3	115.	388.	805.	44.6	9.09	3.62	1.71
14	.759	.410	.375	21.2	63.6	123.	451.	799.	43.4	9.09	3.46	1.71
15	.759	.375	.375	20.3	69.2	124.	486.	765.	37.8	9.09	3.46	1.71
16	.759	.375	.342	9.99	73.7	97.8	513.	737.	33.0	8.80	3.30	1.71
17	.697	.375	.410	9.38	53.2	97.2	545.	728.	32.5	8.80	3.15	1.60
18	.697	.342	.585	7.43	53.2	97.2	574.	724.	31.5	8.52	3.15	1.60
19	.697	.342	5.10	9.38	61.4	97.8	619.	679.	30.4	8.52	3.15	1.60
20	.697	.375	4.32	9.99	63.6	115.	686.	617.	26.6	8.24	2.99	1.60
21		.342	3.96	7.18	97.8	158.	724.	595.	23.4	7.96	2.85	1.60
22		.535	3.62	7.70	80.5	149.	737.	546.	22.5	7.70	2.70	1.50
23		.895	3.46	14.4	79.9	139.	773.	513.	21.2	7.18	2.70	1.50
24		1.60	3.15	17.4	78.2	123.	795.	472.	20.3	6.92	2.70	1.50
25		1.50	2.85	14.7	98.9	127.	803.	426.	19.1	6.68	2.57	1.50
26		1.40	2.17	10.3	77.7	160.	887.	361.	18.2	6.20	2.57	1.40
27		1.60	2.17	9.99	60.9	181.	928.	317.	17.4	5.97	2.57	1.40
28		1.40	2.05	9.99	54.9	218.	1060	308.	16.7	5.74	2.57	1.40
29		1.22	2.05	9.99	23.4	238.	1120	238.	15.1	5.31	2.57	
30		1.05	1.93	10.3	21.2	242.	1190	236.	14.4	5.10	2.57	
31			2.85		104.	238.		227.		4.90	2.43	
MOY	.755	.645	1.65	10.9	43.4	133.	534.	744.	60.7	8.75	3.43	1.75

DEBIT MOYEN ANNUEL

129. M3/S

STATION : TOGO

VOLTA

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SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1961-1962 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.31	.759	.448	1.93	5.10	165.	182.	659.	28.0	7.96	2.99	1.40
2	1.31	.759	.448	2.70	5.31	158.	181.	646.	28.0	7.70	2.99	1.40
3	1.31	.759	.448	2.70	5.52	154.	231.	637.	27.5	7.43	2.99	1.40
4	1.22	.759	.489	2.85	7.43	152.	235.	570.	27.5	7.18	2.85	1.31
5	1.22	.759	.489	2.85	7.96	149.	298.	527.	25.6	6.92	2.85	1.31
6	1.22	.697	.489	2.85	7.96	147.	319.	465.	23.4	6.68	2.85	1.31
7	1.22	.697	.489	2.99	8.52	136.	355.	415.	22.5	6.20	2.70	1.31
8	1.13	.697	.489	2.99	8.80	136.	369.	382.	21.2	6.20	2.70	1.31
9	1.13	.697	.448	3.15	9.09	135.	400.	377.	16.7	5.97	2.57	1.31
10	1.13	.639	.448	3.15	9.68	134.	418.	349.	16.3	5.97	2.43	1.31
11	1.05	.639	.448	3.46	9.99	133.	475.	329.	15.5	5.97	2.43	1.31
12	1.05	.639	.410	3.46	13.3	136.	554.	303.	15.1	5.74	2.30	1.22
13	1.05	.639	.410	3.62	15.1	142.	570.	289.	15.1	5.74	2.30	1.22
14	1.05	.585	.410	3.62	25.6	155.	605.	277.	14.7	5.10	2.30	1.22
15	.969	.585	.375	3.62	26.6	175.	659.	243.	14.7	4.90	2.30	1.22
16	.969	.585	.375	3.62	59.2	182.	693.	211.	14.4	4.70	2.30	1.22
17	.895	.585	.375	3.78	88.0	182.	726.	173.	14.4	4.70	2.17	1.22
18	.895	.585	.410	3.78	96.7	179.	733.	170.	14.0	4.50	2.17	1.13
19	.895	.535	.410	3.78	117.		737.	168.	14.0	4.50	2.17	1.13
20	.895	.535	.448	3.96	167.	152.	741.	168.	12.9	4.32	2.05	1.13
21	.825	.535	.489	3.96	201.	175.	741.	136.	12.6	4.13	2.05	1.05
22	.825	.535	.639	4.32	268.	178.	746.	129.	11.8	3.96	1.93	1.05
23	.825	.535	.825	4.32	274.	154.	750.	106.	10.3	3.78	1.93	.969
24	.825	.499	.895	4.32	270.	145.	761.	78.8	9.99	3.78	1.93	.969
25	.825	.489	.969	4.50	270.	154.	765.	55.4	9.99	3.62	1.82	.969
26	.825	.489	1.05	4.50	271.	165.	769.	53.2	9.68	3.30	1.82	.969
27	.825	.489	1.22	4.70	265.	205.	765.	50.0	9.68	3.15	1.82	.969
28	.759	.489	1.40	4.70	234.	235.	752.	46.9	9.38	3.15	1.71	.969
29	.759	.489	1.71	4.70	182.	223.	731.	41.1	9.09	3.15	1.60	
30	.759	.448	1.71	4.90	181.	214.	676.	40.0	8.80	2.99	1.50	
31	.759		1.82		175.	196.		40.0		2.99	1.40	
MOY	.990	.604	.693	3.66	106.	165.	565.	262.	16.1	5.04	2.26	1.19

DEBIT MOYEN ANNUEL

94.2

M3/S

STATION : TCGO

VOLTA

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SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.969	.342	.410	2.17	29.0	91.5	767.	1060	192.	29.0	9.09	4.13
2	.969	.342	.535	1.93	30.9	98.3	793.	1010	177.	27.5	8.80	4.13
3	.969	.342	.639	1.93	29.0	135.	847.	961.		26.6	8.52	4.13
4	.969	.311	.639	2.57	33.5	168.	878.	932.	153.	24.7	8.52	3.96
5	.969	.311	.639	2.70	51.1	173.	900.	882.	140.	23.8	8.24	3.96
6	.895	.311	.639	3.62	79.9	181.	914.	851.	137.	22.9	7.96	3.78
7	.895	.282	.585	4.70	109.	229.	942.		115.	21.6	7.43	3.62
8	.895	.282	.535	4.90	138.	254.	980.	793.	102.	20.7	7.43	3.62
9	.825	.254	.535	6.92	134.	291.	1000	769.	92.1	19.5	7.43	3.62
10	.825	.254	.489	5.52	135.	306.	1030	759.	85.1	18.7		3.62
11	.759	.254	.448	5.31	110.	315.	1240	739.	78.8	17.8	6.92	3.62
12	.697	.228	.375	4.90	101.	299.	1260	728.	73.7	17.0	6.68	3.46
13	.639	.228	.375	4.32	92.7	273.	1340	707.	71.4	16.3	6.44	3.46
14	.639	.228	.410	4.50	120.	260.	1340	691.	66.4	15.5	6.44	3.46
15	.639	.228	1.71	4.13	164.	192.	1360	676.	62.0	14.7	6.20	3.30
16	.639	.228	2.95	3.96	213.	325.	1390	659.	59.8	14.0	5.97	3.30
17	.639	.410	2.70	4.70	199.	381.	1430	617.	56.0	13.6	5.97	3.30
18	.639	.639	2.30	8.80	179.	442.	1540	557.	52.7	12.9	5.74	3.30
19	.585	.759	2.05	9.99	154.	478.	1660	537.	50.5	12.2	5.74	3.46
20	.585	.697	1.93	15.9	138.	504.	1740	487.	48.2	10.3	5.52	2.85
21	.535	.697	1.71	14.4	117.	527.	1750	463.	45.8	10.3	5.31	2.70
22	.489	.639	1.50	19.5	111.	551.	1690	411.	44.0	10.3	5.31	2.70
23	.489	.535	1.50	21.2	104.	565.	1610	357.	42.2	10.3	5.10	2.70
24	.489	.535	1.40	23.4	93.8	584.	1450	330.	41.1	10.3	5.10	2.57
25	.448	.489	1.22	26.6	85.1	602.	1410	325.	38.9	10.3	5.10	2.57
26	.448	.448	1.22	28.0	77.7	616.	1350	288.	37.2	10.3	4.70	2.57
27	.448	.448	1.31	32.0	98.9	652.	1300	264.	35.6	9.99	4.70	2.99
28	.410	.410	1.40	35.1	97.8	670.	1140	257.	34.0	9.99	4.50	2.70
29	.410	.410	1.71	34.5	95.6	688.	1130	230.	32.0	9.99	4.50	
30	.375	.410	2.05	32.5	103.	707.	1110	210.	30.9	9.68	4.32	
31	.342		1.93		99.4	735.		200.		9.38	4.32	
MCY	.662	.398	1.22	12.3	107.	397.	1240	600.	78.7	15.8	6.30	3.34

DEBIT MOYEN ANNUEL

205. M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.57	1.71	4.50	2.99	12.9	256.	909.		267.	35.6	10.3	4.70
2	2.70	1.71	9.68	3.15	15.1	277.	932.	651.	264.	33.0	10.3	4.50
3	2.85	1.60	26.6	3.30	13.3	300.	937.	646.		30.0	10.3	4.50
4	2.99	1.50	14.0	9.99	29.5	321.	928.	648.	229.	28.5	9.99	4.32
5	2.99	1.40	10.3	9.38	37.8		919.	646.	213.	27.0	9.99	4.13
6	2.99	1.40	15.1	7.18	38.9	424.	919.	656.	200.	26.6	9.99	4.13
7	2.70	1.31	17.8	6.44	42.8	451.	914.	660.	174.	25.6	9.68	3.96
8	2.70	1.31	14.7	5.10	68.6	474.	923.	659.	165.	24.7	9.68	3.96
9	2.57	1.22	10.3	4.70	158.	481.	942.	654.	160.	23.8	9.38	3.78
10	2.57	1.22	26.6	4.13	158.	485.	961.	646.	136.	22.9	9.38	3.62
11	2.43	1.13	28.5		124.	491.	971.	642.	121.	22.0	9.38	
12	2.30	1.13	23.4		97.8	484.	976.	634.	109.	21.6	9.09	
13	2.17	1.05	15.5	3.30	90.3	486.	971.	616.	99.4	20.7		
14	2.05	.969		3.15	89.2	496.	961.	613.	92.7	19.1		3.62
15	2.05	.895		2.99	127.	536.	947.	607.	86.8	18.2	9.09	3.46
16	2.05	.969	9.09	2.70	135.	574.	937.	583.	82.2	17.8	8.80	3.46
17	1.93	1.13	7.43	3.62	137.	595.	923.	576.	60.9	17.0	8.52	3.46
18	1.82	1.13	6.20	4.32		598.	896.	563.	59.8	16.3	7.96	3.30
19	1.82	1.13	5.52	6.44	238.	591.	869.	550.	55.4	16.3	7.43	3.30
20	1.71	1.05	5.10	8.80	234.	576.	834.	526.	54.9	15.9	6.92	3.30
21	1.71	1.05	4.90	8.24	248.	585.	801.	487.	50.0	14.7	6.44	3.15
22	1.71	.969	4.50	7.70	279.	605.	789.	463.	49.4	14.0	6.20	3.15
23	1.71	1.05	4.13	9.09	322.	662.	773.	440.	46.9	13.6	5.52	3.15
24	1.93	1.13	3.62	9.99	359.	695.	754.		46.3	13.3	5.31	2.99
25	1.93		3.46	9.99	363.	719.	742.	394.	44.0	13.3	5.10	2.99
26	1.93		3.30	9.38	370.	769.	721.	375.	43.4	12.6		2.99
27	1.82		2.99	12.9	372.	797.	710.	346.	42.8	12.2		2.85
28	1.82	.825	3.15	12.6	368.	822.	696.	316.	41.1	11.8	5.10	2.85
29	1.82	.969	3.15	26.1	350.	860.	688.	298.	37.2	10.3	4.50	2.85
30	1.82	.969	3.15	30.9	344.	878.	678.	282.	36.7	10.3	4.90	
31	1.71		2.99		337.			271.		10.3	4.90	
MOY	2.19	1.16	10.1	7.87	186.	566.	864.	533.	110.	19.3	7.82	3.56

DEBIT MOYEN ANNUEL

193. M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

ALMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.85	1.13		1.71	20.3	232.	382.	1350	191.	27.5	5.97	4.32
2	2.85	1.05	.855	3.15	15.9	241.	444.	1390		27.5	5.74	4.13
3	2.85			4.32	18.2	270.	484.	1390		25.6	5.74	4.13
4	2.70			5.52	19.1	284.	512.	1430	148.	23.8	5.74	4.13
5	2.70	1.05	.855	5.10	39.4	283.	537.	1320	137.	22.5	5.74	3.96
6	2.57	1.50	.825	6.20	23.8	281.	576.	1090	136.	21.2	5.52	3.96
7		1.40	.825	5.57	15.1	297.	605.		124.	19.9	5.52	3.96
8		1.40	.759		21.2	306.	639.	882.	109.	19.5	5.52	3.78
9	2.57	1.31	.759	4.13	24.3	325.	676.	793.	101.	19.1	5.52	3.78
10	2.43		.759	3.96	30.9	330.	708.	769.	94.4		5.31	3.62
11	2.30		.657	3.78	26.1	344.	737.	761.	84.0	17.0	5.31	3.46
12	2.17	1.31	.657	3.30	23.4	349.	756.	728.	78.8	15.9	5.31	3.46
13	2.17	1.13	.657	2.85	22.9	350.	769.	728.	72.0	15.9	5.31	3.30
14	1.93		.639	3.30	24.7	351.	795.	655.	70.9	13.3	5.10	3.30
15	1.93			2.57	23.4	358.	805.	684.	66.4		5.10	3.15
16	1.93	1.13		2.43	23.4	360.	826.	645.	61.4	9.99	5.10	2.99
17	1.82	1.40	.639	2.17	21.6	361.	900.	616.	53.8	9.68	5.10	2.99
18		1.31	.585		19.1	365.	947.	591.	50.5	9.09	4.90	2.99
19	1.60	1.22	.585		17.0	368.	1010	534.	50.0	8.80	4.90	2.85
20	1.60		.657	7.43	15.9	371.	1040	491.	46.9	8.52	4.90	2.85
21	1.60		.639	6.68		382.	1140	453.	46.3	7.96	4.90	2.70
22	1.40	1.22			14.4	392.	1140	421.	45.2	7.43	4.90	2.70
23	1.31	1.13		11.8	70.9	393.	1160	397.	43.4	7.43	4.90	2.57
24		1.13	.639	14.7	70.9	405.	1170	337.	38.3	6.92	4.70	2.43
25		1.13	.585	10.3	77.1	405.	1190	320.	37.8	6.92	4.70	2.30
26	1.31	1.05	.535	18.7	90.3	385.	1230	281.	35.1	6.92	4.70	2.17
27	1.22			23.4	125.	380.		260.	33.0	6.20	4.70	2.17
28				37.2	153.	370.	1240	233.	31.5	5.97	4.50	2.05
29		1.05		44.6	232.	338.	1260	219.	28.0	5.52	4.32	
30	1.22	.969	.535	29.0	236.	357.	1310	208.	28.0	5.10	4.32	
31	1.13		.489		227.	349.		204.		5.10	4.32	
MCY	1.94	1.18	.686	9.60	56.7	341.	874.	684.	79.3	13.4	5.11	3.22

DEBIT MOYEN ANNUEL

173. M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

ALMEFC : 47271106

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.05	1.05	.639	2.17	29.1	59.8	341.	316.	48.9	13.5	5.16	2.02
2	2.05	1.05	.639	2.30	30.9	54.3	342.	309.	45.0	13.2	4.83	1.85
3	1.93	.969	.585	2.70	29.6	85.1	343.	298.	43.4	12.9	4.83	1.85
4	1.93	.969	.585	2.43	27.1	111.	343.	290.	39.3	12.6	4.50	1.85
5	1.93	.895	.585	2.17	25.8	106.	342.	287.	37.8	12.0	4.23	1.69
6	1.93	.895	.585	1.93	25.8	99.4	337.	284.	36.9	11.7	3.96	1.69
7	1.93	.825	.585	1.71	26.2	100.	335.	279.	35.4	11.7	3.96	1.54
8	1.82	.825	.535	1.60	26.2	97.2	333.	270.	33.6	11.1	3.96	1.54
9	1.82	.825	.535	1.50	26.2	95.0	319.	267.	30.0	10.8	3.96	1.54
10	1.82	.825	.489	1.50	25.8	89.7	317.	259.	29.1	10.5	3.71	1.40
11	1.71	.759	.489	1.50	25.4	93.2	307.	247.	27.9	10.5	3.71	1.40
12	1.60	.759	.448	1.50	25.4	84.5	310.	234.	26.6	10.2	3.47	1.27
13	1.60	.759	.448	1.71	24.7	78.2	326.	226.	25.8	9.92	3.47	1.27
14	1.50	.697	.448	2.43	24.3	77.1	337.	213.	24.7	9.61	3.47	1.27
15	1.93	.697	.410	3.46	23.5	104.	341.	198.	23.9	8.99	3.23	1.15
16	1.82	.697	.410	10.3	22.8	145.	357.	188.	23.1	8.68	3.23	1.15
17	1.71	.697	.535	8.80	22.0	155.	370.	176.	22.4	8.36	3.23	1.15
18	1.60	.639	.535	7.43	20.2	174.	394.	172.	21.3	8.05	3.23	1.03
19	1.50	.639	.535	7.18	18.2	206.	406.	161.	20.6	8.05	3.01	1.03
20	1.50	.585	.639	7.18	16.9	230.	385.	151.	19.2	7.73	3.01	1.03
21	1.40	.585	.825	12.2	15.5	213.	374.	134.	18.5	7.73	3.01	.931
22	1.40	.535	.759	8.80	18.5	194.	368.	121.	18.9	7.73	2.79	.931
23	1.31	.535	.759	9.99	34.5	182.	357.	103.	17.9	7.73	2.79	.931
24	1.31	.489	.895	9.38	39.3	200.	354.	97.8	16.9	7.42	2.58	.838
25	1.31	.489	1.13	10.3	54.9	206.	349.	95.0	15.5	7.42	2.58	.838
26	1.22	.489	1.31	15.9	59.8	209.	344.	90.3	13.8	7.42	2.58	.754
27	1.22	.969	1.22	16.9	69.2	302.	342.	85.1	13.5	7.42	2.39	.754
28	1.22	.895	1.31	17.9	84.5	314.	337.	68.6	13.5	7.10	2.39	.679
29	1.13	.759	1.31	16.9	103.	324.	329.	62.5	13.5	6.13	2.20	
30	1.13	.639	1.40	25.1	84.5	328.	354.	59.2	13.5	5.81	2.20	
31	1.13		1.93		67.0	336.		51.1		5.48	2.02	
MOY	1.59	.748	.758	7.16	36.4	163.	346.	187.	25.7	9.28	3.34	1.26

DEBIT MOYEN ANNUEL

65.4 M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

NUMERO : 47271106

DEBITS PEYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOÛT	SEPT	OCTO	NOVE	DECE	JANV	FEBV
1	.679	.393	1.40	4.50	23.5	35.4	400.	414.	199.	23.9	9.61	3.23
2	.679	.367	1.54	7.73	22.8	40.3	406.	421.	179.	22.4	9.30	3.23
3	.614	.367	1.85	13.8	20.6	41.4	409.	429.	168.	21.3	8.99	3.23
4	.614	.342	1.54	18.9	18.5	34.5	399.	428.	158.	20.6	8.68	3.01
5	.614	.342	1.27	13.5	16.6	33.1	382.	425.	146.	20.2	8.05	3.01
6	.558	.317	1.03	13.2	13.5	25.8	368.	423.	135.	19.2	8.05	3.01
7	.558	.317	1.15	13.5	13.8	30.0	341.	404.	124.	18.5	7.73	2.79
8	.558	.294	1.85	13.5	13.8	44.5	314.	387.	110.	18.5	7.42	2.79
9	.558	.294	2.58	22.8	13.8	50.5	298.	385.	97.8	17.2	7.10	2.79
10	.558	.317	2.02	22.0	13.8	48.3	294.	381.	86.3	16.6	7.10	2.79
11	.511	.294	1.40	30.9	12.9	92.1	306.	376.	76.0	16.3	6.78	2.58
12	.511	.294	1.27	24.7	11.7	128.	318.	375.	68.1	15.5	6.78	2.58
13	.511	.271	1.15	20.6	11.7	138.	324.	393.	62.0	13.8	6.46	2.39
14	.474	.271	1.03	16.6	12.3	143.	327.	414.	58.1	13.8	6.46	2.39
15	.474	.271	.931	20.9	13.8	139.	328.	422.	53.2	13.8	6.13	2.39
16	.446	.271	.838	27.9	21.3	125.	342.	408.	50.0	13.8	6.13	2.20
17	.446	.271	.838	35.4	23.5	133.	358.	400.	46.7	13.8	5.81	2.20
18	.446	.250	.931	32.6	19.6	166.	369.	376.	44.0	13.8	5.48	2.20
19	.428		.931	25.4	16.0	182.	396.	365.	41.9	13.5	5.48	2.02
20	.428		3.01	18.9	13.8	194.	418.	343.	39.3	13.2	5.16	2.02
21	.419	.294	3.71	17.9	13.8	243.	440.	324.	36.9	12.9	5.16	1.85
22	.419	.294	3.23	24.7	13.8	277.	450.	304.	35.0	12.6	4.83	1.85
23	.419	.294	3.01	22.0	13.5	278.	446.	295.	33.1	12.3	4.83	1.69
24	.446	.342	2.39	18.5	13.5	274.	439.	284.	31.3	12.0	4.50	1.69
25	.446	.393	2.02	20.6	13.2	290.	428.	270.	30.0	11.4	4.23	1.54
26	.428	.428	1.85	26.6	27.5	329.	414.	264.	29.1	11.1	4.23	1.54
27	.428	.420	2.58	23.9	34.5	359.	398.	254.	27.9	10.8	3.96	1.54
28	.419	.420	3.47	22.8	27.9	369.	394.	245.	26.6	10.8	3.71	1.40
29	.419	.446	4.83	24.3	46.7	379.	391.	236.	25.8	10.5	3.71	
30	.420	.428	5.81	24.3	54.9	382.	408.	225.	24.7	10.2	3.47	
31	.420		5.16		41.9	383.		213.		9.61	3.47	
MOY	.495	.328	2.15	20.8	20.3	174.	377.	351.	74.8	15.0	6.09	2.35

DEBIT MOYEN ANNUEL

87.4 M3/S

STATION : TOGO

VOLTA

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SANSANNE MANGO

NUMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOÛT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.40	.754	.419	6.68	20.9	70.3	406.	640.	164.	18.5	9.30	3.96
2	1.40	.679	.420	6.46	24.3	76.0	371.	651.	161.	17.2	8.99	3.71
3	1.27	.614	.367	5.48	29.6	76.5	355.	643.	149.	16.6	8.68	3.71
4	1.27	.614	.420	5.81	28.7	70.9	337.	636.	145.	16.3	8.68	3.71
5	1.27	.558	.428	5.48	27.9	65.9	354.	619.	135.	15.5	8.36	3.71
6	1.15	.614	.420	4.63	27.9	66.4	372.	605.	114.		8.36	3.71
7	1.15	.614	.420	4.23		67.5	409.	585.	97.8		8.05	3.47
8	1.03	.614	.393	3.96	23.1	74.8	440.	567.	88.0		8.05	3.47
9	1.03	.558	.367	3.96	21.7	89.2	469.	547.	70.3		7.73	3.47
10	1.03	.558	.419		21.3	115.	487.	533.	59.8		7.73	3.47
11	1.03	.511	.420	3.47	20.6	145.	487.	523.	53.8		7.42	3.23
12	.931	.474	.393	5.48	20.2	176.	487.	487.	47.2		7.42	3.23
13	.931	.474	.428	11.1	19.9	198.	494.	481.	45.0	13.8	7.10	3.01
14	.931	.638	.428	10.8	24.3	214.	501.	445.	41.9		7.10	3.01
15	.838	.754	.419	9.61	23.1	225.	506.	418.	39.3		6.78	2.79
16	.638	.558	.393	7.10	20.9	233.	511.	391.	36.9		6.46	2.79
17	.638	.474	.367	7.42	17.9	284.	522.	354.	34.5		6.46	2.58
18	.838	.474	.317	10.2	16.9	318.	537.	331.	33.6	13.8	6.13	2.58
19	.931	.511	.294	11.1	18.5	331.	554.	325.	31.3	13.5	5.81	2.58
20	.638	.446	.294	13.2	24.7	328.	569.	302.	29.1	13.2	5.81	2.39
21	.931	.428	.271	25.8	36.9	326.	578.	281.	27.9	12.9	5.48	2.39
22	.931	.419	.271	38.8	41.9	357.	604.	266.	26.6	12.3	5.48	2.39
23	.638	.419	.393	50.0	43.4	372.	610.	247.	25.4	11.7	5.16	2.20
24	.838	.428	.419	55.4	44.5	381.	605.	237.	24.7	11.4	5.16	2.20
25	.638	.428	.420	47.2	38.8	387.	619.	225.	23.1	11.1	4.83	2.20
26	.638	.428	.419	35.3	32.2	398.	598.	214.	22.0	10.8	4.83	2.02
27	.754	.428	.511	29.1	33.6	418.	600.	204.	21.3	9.92	4.50	2.02
28	.754	.446	1.54	22.8	40.8	436.	604.	221.	20.2	10.2	4.50	1.85
29	1.03	.428	3.23	19.9	41.4	450.	614.	179.	19.6	9.92	4.23	1.69
30	.931	.419	5.48	19.6	41.9	449.	620.	174.	18.9	9.61	4.23	
31	.838		5.61		60.3	447.		168.		9.30	3.96	
MOY	.983	.532	.581	16.3	29.5	247.	507.	403.	60.2	13.4	6.54	2.88

DEBIT MOYEN ANNUEL

108. M3/S

STATION : TOGO

VOLTA

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SANSANNE MANGO

NUMÉRO : 47271100

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.69	.931	.446		47.2	715.	447.	512.	155.	26.0	10.0	4.41
2	1.54	.931	.446		50.5	714.	462.	510.	147.	25.2	10.0	4.41
3	1.54	.838	.474	63.6	64.2	705.	469.	504.	139.	24.0	9.60	4.23
4	1.54	.754	.474	73.1	64.2	686.	478.	491.	134.	22.8	9.20	4.23
5	1.54	.679	.446	53.8	68.6	667.	486.	485.	127.	22.0	8.80	4.05
6	1.54	.558	.446	41.9	62.5	617.	491.	484.	123.	21.2	8.40	4.05
7	1.54	.511	.419	39.3	63.6	559.	499.	481.	117.	20.4	8.00	4.05
8	1.54	.474	.420	62.5	65.9	508.	505.	472.	109.	19.6	7.60	3.88
9	1.40	.446	.367	68.6	68.4	465.	512.	459.	99.4	18.8	7.20	3.88
10	1.40	.446	.342	76.5	61.4	429.	528.	442.	88.6	18.0	7.20	3.88
11	1.27	.428	7.10	66.4	72.0	397.	550.	428.	78.8	17.2	6.80	
12	1.27	.446	7.42	58.7	98.1	372.	561.	421.	71.4		6.80	3.71
13	1.15	.446	7.73	53.2	114.	355.	569.	404.	64.7		6.40	3.71
14	1.15	.446	7.10	49.4	107.	334.	576.	391.	59.8		6.40	3.71
15	1.03	.446	7.10	49.4	101.	319.	578.	370.	55.4		6.00	3.54
16	1.03	.428	6.78	50.0	108.	343.	583.	351.	52.7		6.00	3.54
17	1.03	.838	6.13	45.6	164.	369.	577.	332.	50.0	14.0	5.79	3.38
18	.931		6.13	48.3	223.	307.	570.	314.	47.2	14.0	5.58	3.38
19	.931	1.15	8.38	63.1	383.	426.	563.	300.	44.5	14.0	5.58	3.38
20	.838	.838	11.1	55.0	355.	450.	555.	290.	42.4	13.6	5.37	3.22
21	.838	.614	10.2	101.	417.	478.	547.	275.	41.3	13.2	5.37	3.07
22	.754	.446	8.05	92.1	438.	468.	540.	265.	39.3	13.2	5.17	3.07
23	.754	.428	6.13	95.6	508.	504.	527.	254.	37.3	12.8	5.17	2.92
24	.679	.428	6.13	95.0	537.	487.	528.	245.	35.4	12.8	4.97	2.92
25	.679	.446	10.6	92.7	608.	472.	523.	231.	33.6	12.4	4.97	2.92
26	.614	.446	10.5	87.4	628.	444.	517.	219.		12.4	4.97	2.78
27	.614	.511	13.9	78.9	694.	421.	503.	207.	30.0	12.0	4.78	2.78
28	.558	.814	13.2	73.1	731.	391.	504.	197.	28.8	11.6	4.59	2.64
29	.558	.558	12.3	63.1	714.	377.	509.	181.	27.6	11.2	4.59	
30	1.03	.474	11.4	63.2	717.	383.	515.	172.	28.4	10.8	4.59	
31	1.03		13.2		717.	424.		163.		10.4	4.41	
MOY.	1.10	.600	6.24	66.3	289.	476.	526.	350.	71.2	16.2	6.46	3.55

CREDIT MOYEN ANNUEL

152. M3/S

STATION : TOGO VOLTA CTI SANSANNE MANGO
 NLMERO : 47271106

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEBV
1		1.17	2.52		13.6	120.	437.	1030	234.	49.5	12.0	7.47
2		1.08	2.92	3.88	19.2	111.	479.	980.	229.	46.7	12.0	7.22
3	2.50	1.55	2.64	8.40	29.2	105.	522.	937.	223.	44.3	12.0	6.97
4	2.37	1.35		8.80	39.8	105.	550.	914.	213.	41.9	12.0	6.97
5	2.37	1.26	2.50	7.20	54.3	107.	562.	860.	201.		12.0	6.71
6	2.24	1.17	2.37		46.1	111.	592.	826.	179.	37.2	11.9	6.44
7		1.08	2.24	4.97	38.8	117.	616.	795.	169.	35.7	11.7	5.44
8	2.24	1.08	1.99	4.41	63.6	110.	675.	773.	160.	33.8	11.5	6.44
9	2.24	1.17	1.99	4.05	103.	106.	715.	752.	148.	32.4	11.2	5.44
10	2.11	1.17	1.87	4.05	130.		746.	708.	139.	31.0	11.2	6.18
11	1.99	1.17	1.65	4.78	121.	129.	791.	684.	127.	29.6	11.0	6.18
12	1.99	1.08	1.65	5.17	110.	137.	856.	662.	120.	28.1	10.9	5.90
13	1.87	1.17		4.78	107.	144.	896.	620.	111.	27.2		5.90
14	1.87	1.17	3.38	4.59	101.	144.	1040	594.	105.	25.8		5.90
15	1.87	1.26	3.71	4.59	107.	139.	1230	558.	100.	24.8	10.1	5.62
16	1.76	4.78	3.22	4.78	108.	144.	1300	518.	96.1	23.9	9.94	5.62
17	1.76		2.92	4.59	107.	149.	1340	493.	93.2	22.9	9.73	5.62
18	1.65		2.64	4.23	100.	155.	1440	467.	90.3	22.0	9.53	5.34
19	1.65	5.17	2.37	3.88	96.7	181.	1510	446.	87.4	21.5	9.32	5.34
20	1.55	4.78	2.24	3.88	101.	212.	1510	426.	85.7	20.1	9.10	5.06
21	1.55	4.41	2.24	3.71	95.0	228.	1470	399.	84.0	19.1	8.88	5.06
22	1.45	4.05	2.24	4.41	93.2	226.	1410	370.	81.7	18.2	8.88	4.76
23	1.45	3.38	2.24	5.17	97.8	217.	1370	350.	77.7	16.7	8.66	4.76
24	1.45	3.38	6.40	5.58	95.0	219.	1350	331.	74.8	15.8	8.43	4.47
25	1.45	3.07	13.2	6.00	93.8	236.	1320	305.	72.6	13.9	8.20	4.47
26	1.35	3.07	11.6	6.80	102.	257.	1240	287.	70.9	12.9	8.20	4.17
27	1.35	2.64	8.00	6.40	101.	315.	1200	278.	65.9	12.0	7.96	4.17
28	1.35	2.64	9.20	8.00	108.	349.	1150	265.	60.9	12.0	8.20	4.17
29	1.45	2.50	8.00	10.0	126.	370.	1090	269.	56.5	12.0	8.20	
30	1.26	2.92	6.40	12.0	126.	390.	1050	256.	52.2	12.0	7.96	
31	1.17		6.00		121.	409.		242.		12.0	7.72	
MOY	1.83	2.49	4.06	5.67	88.9	189.	1010	561.	120.	25.6	9.98	5.71

DEBIT MOYEN ANNUEL

169. M3/S

STATION : TOGO

VOLTA

CTI

SANSANNE MANGO

ALMEFO : 47271106

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	3.86	1.69	.664	2.60	5.73	136.	529.	1410	181.	14.8	10.1	6.18
2	3.86	1.69	.664	2.38	11.5	129.	566.	1340	168.	13.4	9.94	5.90
3	3.55	1.69	.599	2.49		118.	614.	1290	152.	12.0	9.94	5.90
4	3.55	1.60	.599	2.18	9.32	127.	649.	1220	127.	12.0	9.73	5.62
5	3.24	1.60	.536	2.07	8.43	122.	696.	1190	104.	12.0	9.53	5.62
6	3.24	1.60	.536	2.60	7.72	121.	726.		88.0	12.0	9.32	5.34
7	2.92	1.60	.475	2.38	6.97	134.	758.	1150	77.7	12.0	9.10	5.34
8		1.60	.475	5.34	5.90	129.	777.	1120		12.0	8.38	5.06
9	2.92	1.65	.475	7.47	5.06	142.	783.	1090	63.6	12.0	8.38	5.06
10	2.60	1.51	.664	7.72	6.18	156.	791.	1060	58.1	12.0	8.66	5.06
11	2.92	1.51	.731	7.22	10.1	163.	822.	1020	53.2	12.0	8.43	6.18
12	3.24	1.42	.599	6.44	11.7	176.	887.	971.	49.0	12.0	8.43	5.90
13	2.92	1.34	.475	5.62	32.4	205.	914.	923.	45.7	12.0		5.62
14		1.26	1.02	5.06	47.1	236.	932.	878.	42.9	12.0	8.20	5.34
15	2.60	1.17	.871	4.47	33.4	265.	947.	826.	40.5	11.9	7.96	5.06
16	2.49	1.10	1.69	3.86	19.1	286.	971.	795.	37.2	11.7	7.72	4.76
17	2.38	1.26	1.60	3.55	12.0	307.	1000	763.	34.8	11.5	7.72	4.47
18	2.38	1.17	1.42		17.2	329.	1030	737.	33.4	11.5	7.72	4.17
19	2.28	1.17	1.17	3.24	25.8	351.	1070	700.	31.0	11.4	7.47	4.17
20	2.28	1.17	36.7	2.92	52.7	369.	1090	662.	29.6		7.47	3.86
21	2.28	1.10	37.2	2.92	41.9	379.	1100	610.	28.1	11.2	7.22	3.86
22	2.28	1.10	19.1	2.60	28.1	397.	1130	562.	26.2	11.2	7.22	3.55
23	2.28	1.02	13.9	2.49	34.8	418.	1160	487.	25.3	11.0	6.97	3.55
24	2.18	.944	9.73	2.60	27.2	436.	1210	414.	24.8	10.9	6.97	3.24
25	2.18	.944	7.22	2.60	25.8	469.	1480	351.	22.9	10.9	6.71	3.24
26	2.07	.944	6.44	2.92	28.6	494.	1680	300.	21.5	10.7	6.71	2.92
27		.871	5.62	3.24	31.0	511.	1710	269.	20.1	10.7	6.44	2.92
28	1.98	.800	5.06	3.24	88.6	513.	1660	251.	18.6	10.5	6.44	2.60
29	1.88	.800	3.86	3.55	86.3	518.	1580	233.	17.2	10.3	6.44	
30	1.78	.731	3.24	4.47	69.8	518.	1480	216.	15.8	10.3	6.18	
31	1.69		2.92		91.5	519.		202.		10.1	6.18	
MOY	2.63	1.27	5.36	3.79	28.9	296.	1020	781.	57.0	11.6	7.97	4.66

DEBIT MOYEN ANNUEL

186. M3/S

BOUALE A ALEHERIDE

Code : 47 27 63 03

bassin versant : 32,9 km²

CARACTERISTIQUES DE LA STATION

Station anciennement exploitée par l'O.R.S.T.O.M. . Les lectures à cette station ont été abandonnées en décembre 1969, avec la mise en eau du barrage servant à l'alimentation en eau de SOKODE.

Coordonnées : 9° 12' N - 1° 13' E.

Cote du zéro de l'échelle : 470 m environ, en nivellement I G N.

Accès :

Région de SOKODE - Ancienne piste ALEHERIDE - KEMINI. Le site de l'ancienne station est aujourd'hui noyé par les eaux du barrage.

Installations

La station avait été implantée le 26 janvier 1959, elle comprenait deux mètres d'échelle sur une planche scellée sur le radier, en aval de celui-ci. L'échelle de 2 à 3 mètres était fixée sur fers cornières, sur la rive droite.

Lectures

Deux lectures par jour.

Jaugeages - Courbes de tarage

Trois courbes de tarage ont été retenues. Elles ont été tracées avec 29 mesures de débit :

maximum jaugé : 2,13 m³/s le 19-8-66 (cote : 92 centimètres)

minimum jaugé : 23 litres/s le 7-2-62 (cote : 37 centimètres)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 850	à 800 m.	0,5 %
800	à 700	18,6
700	à 600	12,4
600	à 500	55,8
500	à 480	8,2
480	à 470	4,5

Géologie

Bassin entièrement situé sur les quartzites micacées de l'Atacorien.

Végétation

Savane arborée - Forêt sèche - Galerie forestière le long du Boualô, qui est un ruisseau permanent.

BOUALE A ALEHERIDE

BASSIN VERSANT = 32,9 Km²

NORD



9°20'

9°15'

9°10'

ALEHERIDE

Pers Soudi

Pers Loo-Koro

BOUALE



ECHELLE : 1 : 100.000

47

1°10'

1°15'

ORSTOM

DATE : 4 / 8 / 65

DESSINÉ : M. Sossah

T 284 H

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1959-1960 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.023	.040	.029	.033	.082	.383	.647	.850	.155	.107	.046	.046
2	.023	.036	.033	.040	.046	.520	.560	.695	.145	.107	.053	.046
3	.029	.040	.029	.040	.183	.354	.603	.850	.238	.107	.053	.040
4	.026	.040	.029	.033	.082	.354	1.63	.744	.168	.098	.053	.040
5	.026	.040	.040	.033	.060	.354	.919	.647	.183	.107	.053	.040
6	.026	.029	.040	.036	.098	.328	1.22	.603	.168	.107	.053	.036
7	.020	.029	.036	.036	1.54	.260	.850	.603	.145	.098	.046	.036
8	.020	.026	.046	.029	.414	.218	1.14	.695	.145	.098	.046	.036
9	.017	.026	.040	.029	1.72	.283	1.22	.647	.135	.090	.053	.036
10	.017	.026	.040	.026	.304	.354	.850	.850	.116	.090	.053	.036
11	.017	.023	.036	.026	.260	.260	1.63	.850	.116	.082	.053	.036
12	.017	.023	.033	.029	.145	.183	1.22	.560	.116	.082	.414	.036
13	.017	.026	.033	.029	13.9	.383	2.19	.482	.116	.082	.090	.036
14	.040	.023	.029	.029	1.22	.155	1.54	.414	.107	.082	.074	.033
15	.647	.023	.033	.036	2.09	.145	1.14	.354	.107	.082	.053	.033
16	.053	.023	.036	.033	.919	.125	.990	.520	.060	.074	.046	.033
17	.074	.026	.033	.033	.520	.125	.744	.383	.125	.067	.090	.033
18	.060	.060	.033	.029	.520	.116	3.16	.383	.125	.067	.082	.033
19	.046	.040	.040	.033	.560	.116	1.99	.354	.125	.060	.074	.033
20	.060	.033	.036	.074	.354	.116	1.37	.328	.107	.060	.060	.033
21	.046	.029	.033	.145	.283	.107	2.19	.304	.098	.060	.053	.033
22	.040	.029	.029	.060	.414	.125	1.63	.304	.090	.060	.046	.033
23	.040	.026	.029	.053	.482	.145	1.14	.283	.098	.060	.046	.033
24	.053	.029	.029	.046	18.7	.447	1.06	.283	.090	.060	.046	.033
25	.046	.029	.029	.040	12.5	.850	1.22	.260	.850	.060	.053	.033
26	.040	.029	.040	.040	.850	.744	.850	.238	1.06	.053	.060	.033
27	.060	.029	.082	.060	.647	.990	1.22	.218	.183	.053	.053	.033
28	.053	.026	.046	.053	.520	.647	.850	.183	.183	.053	.053	.033
29	.040	.033	.040	.040	.447	3.40	2.09	.155	.155	.053	.053	.033
30	.026	.029	.036	.036	.414	1.06	.850	.155	.135	.053	.053	
31	.033		.033		.414	.796		.155		.046	.046	
MCY	.056	.031	.037	.042	1.96	.466	1.29	.463	.188	.076	.068	.035

DEBIT MOYEN ANNUEL

.395 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1960-1961 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.023	.033	.053	.060	1.22	.744	18.0	2.09	.603	.135	.090	.060
2	.023	.023	.040	.040	.560	.695	1.99	1.22	.603	.135	.090	.053
3	.023	.033	.125	.145	.603	.647	1.63	1.90	.603	.145	.090	.053
4	.029	.029	.067	.090	1.99	.560	1.54	1.14	.603	.200	.082	.053
5	.029	.029	.046	.082	1.22	.283	1.37	1.14	.647	.200	.082	.053
6	.026	.029	.046	.060	.603	.283	1.22	1.06	.603	.183	.082	.053
7	.026	.029	.082	.107	.603	.695	1.22	1.14	.603	.168	.082	.053
8	.026	.029	.082	.116	1.06	1.22	1.22	1.06	.560	.155	.082	.053
9	.026	.029	.414	.098	.603	1.37	1.37	.850	.383	.145	.074	.053
10	.026	.029	.145	.098	.603	16.9	3.16	.796	.354	.145	.074	.053
11	.026	.046	.107	.218	.850	1.22	1.63	1.14	.354	.135	.074	.046
12	.026	.036	.074	.082	.850	1.06	1.37	.850	.328	.135	.074	.046
13	.026	.033	.060	.067	.603	.850	1.22	.796	.328	.135	.074	.046
14	.026	.090	.040	.060	.850	.744	1.22	1.14	.304	.125	.074	.046
15	.183	.060	.040	.082	.520	.744	1.63	.850	.260	.125	.074	.046
16	.046	.046	.046	.116	.482	.744	2.09	.796	.238	.125	.074	.046
17	.046	.046	.046	.116	.447	.695	1.22	.850	.238	.125	.074	.046
18	.046	.046	.046	.067	20.7	.695	2.09	.796	.183	.125	.074	.046
19	.082	.040	.046	.082	4.37	.603	1.72	.603	.168	.125	.074	.046
20	.060	.036	.046	.074	1.22	.603	1.63	.603	.168	.125	.074	.046
21	.040	.033	.046	.082	15.3	.520	1.63	.560	.168	.116	.074	.046
22	.046	.033	.046	.520	2.09	.850	1.63	.603	.168	.116	.074	.046
23	.155	.033	.046	.354	.850	.603	.796	.603	.168	.107	.082	.046
24	.090	.033	.046	1.22	.796	.520	.744	.603	.155	.107	.082	.040
25	.082	.125	.046	.850	.695	20.1	.850	.603	.155	.107	.082	.040
26	.053	.067	.040	.850	1.22	1.22	1.63	.560	.155	.107	.074	.040
27	.040	.060	.107	.647	3.87	1.22	1.22	.560	.145	.098	.074	.040
28	.036	.040	.082	.383	1.22	.850	1.06	.560	.145	.098	.074	.036
29	.033	.036	.067	.260	1.46	.796	1.22	.695	.145	.098	.067	
30	.033	.060	.082	3.75	1.22	2.09	1.63	.603	.145	.098	.067	
31	.033		.060		.919	.990		.603		.090	.060	
MOY	.048	.043	.075	.359	2.24	1.97	2.03	.883	.323	.130	.077	.048

DEBIT MOYEN ANNUEL

.691 M3/S

STATION : TOGO VOLTA BOUALE ALEHERIDE

ALMEFO : 47276303

DEBITS MOYENS JOURNALIERS EN 1961-1962 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.036	.033	.060	.090	.238	.990	.283	.647	.200	.060	.046	.036
2	.033	.033	.046	.067	.238	.796	.304	1.37	.200	.053	.046	.036
3	.033	.033	.046	.060	.560	.796	.283	.695	.155	.053	.040	.036
4	.033	.033	.046	.053	.520	.744	.414	.560	.145	.053	.040	.036
5	.033	.074	.036	.200	.283	.603	.447	.520	.135	.053	.040	.036
6	.033	.074	.033	.135	.482	.603	1.54	.482	.135	.053	.040	.036
7	.033	.036	.033	.116	.560	.560	.603	.603	.125	.053	.040	.036
8	.029	.036	.074	.082	.414	.414	.603	.850	.125	.053	.040	.036
9	.029	.036	.067	.074	.283	.919	.603	.603	.116	.053	.040	.036
10	.029	.074	.046	.125	.990	.647	.560	.603	.107	.053	.040	.036
11	.029	.053	.046	.090	.850	.603	.414	.520	.107	.053	.040	.036
12	.029	.046	.046	.107	.447	.447	.414	1.14	.098	.053	.040	.036
13	.029	.046	.046	.090	.482	.560	.414	.560	.090	.053	.040	.036
14	.029	.046	.850	.082	18.0	.520	.354	.520	.090	.053	.040	.036
15	.029	.046	.107	.074	1.22	.383	.354	.447	.090	.053	.040	.036
16	.026	.046	.067	.074	.919	.796	.328	.414	.090	.053	.040	.036
17	.026	.040	.060	.067	.744	.482	.414	.414	.090	.053	.040	.036
18	.029	.040	.060	.090	.919	.414	.414	.383	.090	.053	.040	.036
19	.029	.040	.053	.098	.850	.447	.383	.354	.090	.053	.040	.036
20	.029	.040	.046	1.22	.850	.414	.354	.328	.090	.053	.040	.036
21	.029	.036	.053	.447	.560	.383	1.54	.283	.090	.053	.040	.036
22	.029	.036	.053	.260	.560	.354	1.22	.260	.082	.053	.036	.036
23	.029	.036	.053	.447	.520	.283	.850	.238	.082	.040	.036	.036
24	.029	.053	.053	.283	.447	.283	.796	.218	.082	.040	.036	.033
25	.029	.053	.046	.218	.520	.383	.744	.183	.082	.046	.036	.033
26	.029	.046	.040	.145	1.63	.447	.695	.168	.082	.046	.036	.033
27	.029	.046	.040	.145	1.22	.414	.560	.260	.082	.046	.036	.033
28	.029	.067	.046	.414	1.06	.383	.447	.260	.060	.046	.036	.033
29	.036	.060	.040	.520	.919	.383	.383	.260	.060	.046	.036	
30	.033	.060	.383	.304	1.63	.354	.482	.260	.060	.046	.036	
31	.029		.036		1.06	.328				.046	.036	
MOY	.030	.047	.087	.206	1.29	.520	.573	.472	.104	.051	.039	.036

DEBIT MOYEN ANNUEL .291 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.033	.026	.082	.107	.603	.482	1.22	.919	.447	.414	.107	.090
2	.040	.026	.383	.060	.603	1.63	.850	.695	.560	.283	.107	.082
3	.040	.023	.082	18.7	.744	.603	.919	.850	.414	.283	.107	.074
4	.040	.023	.074	.090	.520	.744	1.54	.283	.520	.283	.107	.074
5	.040	.023	.304	1.99	.560	.304	.990	.603	.482	.283	.107	.074
6	.040	.023	.067	.560	.850	.560	.919	1.54	.328	.260	.107	.074
7	.036	.036	.098	.283	.603	.482	.603	.603	.283	.260	.107	.067
8	.036	.036	.074	.603	.647	.447	.990	.850	.414	.520	.107	.067
9	.036	.036	.414	.520	.560	.447	2.60	.603	.447	.520	.107	.067
10	.023	.036	.183	.328	.520	.414	1.81	1.06	.796	.447	.107	.067
11	.033	.036	.098	.560	.482	.283	.603	1.22	.603	.238	.107	.067
12	.023	.036	.090	.354	.447	.283	.990	.850	1.14	.238	.098	.067
13	.023	.033	.082	1.06	.414	1.54	1.63	.850	.990	.520	.098	.067
14	.023	.033	.107	.520	.383	.850	.603	.850	1.22	.238	.098	.067
15	.036	.033	.107	.354	.383	.695	.919	.796	1.14	.238	.098	.067
16	.036	.029	.155	.283	.283	1.14	.919	.919	.850	.238	.098	.067
17	.036	.036	.098	.238	.354	.695	.603	.850	.603	.238	.098	.067
18	.026	.036	.090	.183	.328	.647	1.63	.603	.560	.155	.098	.067
19	.033	.036	.145	.796	.304	.520	1.22	.447	.560	.155	.098	.067
20	.033	.036	.098	.447	.304	2.09	.919	.850	.520	.155	.098	.067
21	.023	.036	.060	18.0	.354	1.81	2.60	.796	.520	.155	.098	.090
22	.046	.036	.053	24.2	.354	1.63	1.37	.850	.482	.155	.098	.090
23	.036	.036	.060	1.06	.304	1.06	1.14	.850	.482	.155	.098	.067
24	.033	.850	.060	.796	.304	1.46	.850	1.63	.482	.155	.098	.155
25	.033	.082	.060	.796	.283	2.60	.283	1.54	.283	.155	.098	.107
26	.033	.090	.090	.990	.260	2.09	1.81	1.54	.283	.155	.098	.107
27	.033	.082	.053	.647	.283	16.6	.603	.328	.447	.155	.098	.107
28	.026	.447	.053	.520	.283	1.54	.850	.354	.482	.155	.098	.046
29	.026	1.63	.046	.520	.283	1.22	.919	.283	.560	.155	.098	
30	.026	.200	.046	.447	.283	1.06	.990	.560	.447	.125	.098	
31	.026		.200		.283	1.29		.560		.125	.098	
MCY	.034	.137	.117	2.53	.425	1.52	1.13	.824	.578	.246	.101	.078

DEBIT MOYEN ANNUEL

.643 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.125	.090	.067	.125	.520	9.06	2.04	1.10	2.11	.603	.354	.218
2	.107	.082	.125	.125	.482	1.42	1.63	1.86	1.63	.603	.354	.218
3	.107	.090	.116	.155	.283	2.11	1.81	1.63	1.63	.603	.354	.218
4	.098	.082	.107	.125	.238	9.36	1.42	1.63	1.63	.560	.328	.218
5	.098	.074	.098	.145	.260	1.86	2.69	1.22	1.10	.520	.328	.200
6	.098	.082	.107	.145	.238	1.50	1.42	1.42	1.14	.520	.304	.200
7	.098	.125	.082	.125	.203	2.36	1.63	1.22	1.14	.520	.304	.200
8	.125	.107	.074	.107	1.59	1.54	2.69	1.42	.990	.520	.304	.183
9	.107	.082	.155	.098	.430	1.22	2.11	1.22	.919	.520	.304	.183
10	.082	.082	.283	.098	.348	1.86	2.03	1.22	.919	.520	.304	.183
11	.082	.082	.107	.098	.567	1.42	2.82	1.22	.919	.520	.304	.168
12	.074	.090	.107	.383	.605	1.50	2.71	3.48	.850	.520	.304	.155
13	.074	.145	.098	.168	.471	1.46	2.22	2.06	.850	.520	.304	.145
14	.074	.090	.090	.168	1.03	10.2	2.11	1.38	.850	.520	.304	.135
15	.067	.090	1.29	.383	3.43	1.63	2.35	1.22	.850	.520	.304	.135
16	.067	.107	.098	.107	2.11	1.42	1.63	2.88	.850	.482	.304	.135
17	.067	.070	.090	.107	.761	1.10	1.63	1.42	.850	.447	.304	.135
18	.098	.090	.082	.098	.285	.955	1.63	1.22	.850	.447	.304	.135
19	.046	.074	.183	.046	.673	2.66	1.42	1.22	.796	.447	.283	.135
20	.046	.074	.125	.183	.893	1.86	1.22	11.3	.796	.414	.283	.135
21	.116	.074	3.75	.116	.719	1.59	1.22	3.18	.796	.414	.283	.135
22	.040	.074	.447	.107	2.60	2.04	1.22	2.88	.796	.414	.283	.135
23	.040	.067	.520	.098	2.09	1.60	1.22	1.22	.796	.414	.260	.135
24	.046	.082	.560	.082	1.12	3.39	1.22	1.22	.603	.383	.218	.135
25	.046	.067	.260	.082	.823	1.95	1.22	1.65	.603	.383	.200	.135
26	.040	.060	.850	1.22	3.00	2.02	1.22	1.63	.603	.383	.200	.135
27	3.75	.098	.238	.218	1.42	3.34	1.59	1.63	.603	.383	.183	.135
28	.200	.082	.183	.238	1.34	2.25	1.76	1.63	.603	.383	.183	.135
29	.183	.082	.183	.283	1.03	3.04	1.22	1.63	.603	.383	.183	.135
30	.116	.074	.145	.304	.823	1.59	1.22	1.22	.603	.383	.183	
31	.107		.168		1.83	2.11		1.42		.383	.183	
MCY	.207	.086	.348	.191	1.06	2.63	1.74	1.95	.945	.472	.278	.160

DEBIT MOYEN ANNUEL

.644 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.155	.200	.074	.082	.098	.414	1.22	.919	.603	.482	.354	.354
2	.155	.200	.082	.354	.283	.560	1.37	1.14	.603	.482	.354	.354
3	.155	.125	.125	.283	.168	.447	1.63	.919	.603	.482	.354	.328
4	.155	.116	.125	.116	.200	.414	1.46	.850	.603	.447	.354	.328
5	.155	.107	.125	.116	.238	.383	2.29	.796	.603	.447	.354	.304
6	.155	.098	.125	.116	.155	.647	1.37	1.22	.603	.447	.560	.304
7	.155	.098	.116	.107	.200	.560	2.09	1.63	.603	.447	.482	.283
8	.155	.098	.107	.107	.155	.796	1.14	1.22	.603	.447	.447	.283
9	.155	.090	.098	.107	.168	.603	1.29	1.14	.603	.447	.414	.283
10	.155	.090	.098	.218	.482	1.14	1.37	.850	.603	.447	.414	.283
11	.155	.090	.098	.200	.447	.850	1.63	.744	.603	.414	.414	.414
12	.155	.098	.098	.383	.125	.744	1.63	.695	.603	.414	.414	.283
13	.145	.098	.098	.283	.238	.603	1.81	.695	.603	.383	.414	.283
14	.145	.098	.098	.238	.200	.560	1.22	.520	.603	.383	.414	.283
15	.145	.090	.098	.200	.482	.520	.990	.520	.560	.354	.414	.283
16	.145	.082	.098	.116	.283	.520	.919	.520	.560	.354	.414	.283
17	.155	.260	.098	.107	.238	.482	.850	.603	.560	.354	.414	.260
18	.155	.125	.098	.107	.238	.482	1.14	.603	.560	.414	.383	.304
19	.145	.218	.098	.107	.218	.482	1.14	.603	.560	.414	.383	.304
20	.145	.125	.098	.238	.200	.520	1.37	.603	.520	.414	.383	.304
21	.145	.125	.183	.200	.260	.796	1.72	.560	.520	.414	.383	.283
22	.145	.125	.107	.260	.218	.744	1.22	.560	.520	.383	.354	.283
23	.145	.098	.098	.260	.260	.695	1.22	.603	.482	.383	.354	.260
24	.354	.098	.098	.125	.414	.603	1.63	.603	.482	.383	.354	.260
25	.283	.098	.098	.098	.183	2.09	1.22	.603	.482	.383	.354	.283
26	.260	.098	.098	.090	.238	1.37	1.22	.603	.482	.383	.354	.283
27	.283	.082	.090	.098	.238	1.22	1.22	.603	.482	.383	.354	.238
28	.354	.082	.090	.098	.200	1.63	1.22	.695	.482	.383	.354	.238
29	.283	.082	.082	.098	.283	1.37	1.14	.647	.482	.383	.354	
30	.260	.074	.082	.098	.304	1.29	1.06	.603	.482	.383	.354	
31	.218		.082		.447	1.22		.647		.354	.354	
MOY	.186	.116	.102	.167	.254	.799	1.36	.758	.555	.409	.389	.294

DEBIT MOYEN ANNUEL

.449 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

ALMEFO : 47276303

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.218	.067	.183	.125	.297	.329	.297	.730	.267		.070	.011
2	.218	.067	.125	.125	1.10	1.98	.730	.730	.267		.070	.011
3	.218	.067	.155	.125	1.02	.482	1.02	.730	.267		.070	.011
4	.238	.067	.135	.183	1.52	.440	.730	.730	.240		.070	.011
5	.238	.060	.125	.135	.730	.297	.730	.730	.240		.070	.011
6	.218	.200	.116	.046	.675	.363	.730	.801	.216		.070	.011
7	.218	.082	.107	.046	1.10	.297	1.52	.730	.216		.070	.011
8	.200	.074	.107	.116	.482	.267	2.49	.730	.153		.070	.011
9	.200	.074	.107	.135	.267	.267	.730	.526	.153		.070	.011
10	.200	.074	.107	.125	.033	.267	1.26	.482	.153		.070	.011
11	.218	.074	.107	.107	.730	.240	.948	.440	.133		.070	.011
12	.218	.074	.125	.098	1.52	.240	.730	.440	.115		.070	.011
13	.218	.074	.107	.090	1.98	.801	.623	.400	.098		.070	.010
14	.218	.074	.107	.183	1.52	.440	.730	.400	.083		.070	.011
15	.183	.074	.107	.046	.874	1.10	.730	.363	.070		.070	.011
16	.107	.074	.107	.603	.730	.440	.801	.400	.058		.070	.011
17	.082	.074	.107	.560	1.10	.801	1.52	.400	.048		.070	.011
18	.067	.074	.107	.260	.730	.623	1.02	.363	.033		.070	.011
19	.067	.060	.135	1.14	.175	.440	1.79	.363	.033		.070	.011
20	.067	.060	.116	.796	1.02	.400	.948	.329	.033		.048	.011
21	.067	.060	.107	.695	.730	.240	.730	.329	.033	.070	.048	.011
22	.067	.200	.107	.695	1.18	.216	.730	.329	.031	.070	.048	.011
23	.067	.193	.125	.850	.874	.730	.675	.297	.031	.070	.048	.011
24	.067	.145	.107	.796	1.10	1.02	.801	.482	.031	.070	.040	.011
25	.067	.200	.238	3.04	.801	1.10	.730	.440	.031	.070	.040	.011
26	.067	.183	.304	1.14	.730	.675	.730	.329	.031	.070	.040	.011
27	.067	.168	.520	1.22	.573	.297	.730	.329	.031	.070	.040	.011
28	.067	.163	.414	.990	.482	.297	.730	.297	.031	.070	.040	.011
29	.067	.125	.238	.796	.482	.216	.623	.297	.031	.070	.040	
30	.067	.125	.218	.560	.440	1.10	.482	.297	.031	.070	.040	
31	.067		.447		.400	.675		.297		.070	.040	
MOY	.140	.103	.168	.527	.820	.551	.902	.469	.106	.057	.059	.011

DEBIT MOYEN ANNUEL

.328 M3/S

STATICK : TOGO

VOLTA

BOUALE

ALEHERIDE

ALMEFC : 47276303

CEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MAFS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.017	.297	.801	.033	.440		2.08	.482	.400	.175	.194	.175
2	.017	.240	.730	.297	.363		1.79	.724	.400	.175	.194	.175
3	.017	.175	.440	.175	.297		1.52	.623	.363	.175	.194	.175
4	.016	.153	.363	.153	.363		1.43	.573	.329	.153	.194	.175
5	.014	.083	.240	.083	.297		1.26	1.03	.329	.153	.194	.175
6	.014	.048	.115	2.93	.267		1.18	.623	.329	.153	.194	.153
7	.014	.030	.098	2.49	.363		1.98	.573	.329	.153	.194	.153
8	.014	.025	.240	1.10	.329		1.52	.573	.297	.175	.194	.153
9	.014	.194	.153	.482	.267		1.52	.526	.297	.175	.194	.133
10	.014	.153	.133	.440	.240		1.98	.550	.329	.153	.194	.133
11	.014	.297	.115	.363	.240		1.43	.526	.329	.153	.175	.133
12	.013	.153	.098	.297	.297		1.02	.526	.329	.133	.175	.133
13	.013	.070	.098	2.49	.267		.874	.463	.297	.133	.175	.133
14	.013	.115	.083	1.70	.240		3.04	.482	.297	.133	.175	.133
15	.013	.070	.098	.948	.240		1.10	.420	.297	.098	.175	.133
16	.013	.040	.098	1.98	.329		1.02	.400	.267	.098	.175	.133
17	.033	.033	.098	1.10	.267		.766	.382	.267	.098	.175	.133
18	.031	.031	.083	.730	.267		.652	.351	.267	.194	.175	.133
19	.013	.028	.070	.623	.363	2.38	1.11	.382	.267	.194	.175	
20	.013	.033	.070	.948	.297	1.10	.738	.346	.267	.194	.175	
21	.013	.175	.070	.675	.175	1.02	.482	.384	.267	.194	.175	
22	.013	.153	.194	.948	.175	.801	2.57	.346	.267	.194	.175	.098
23	.013	.070	.175	.730	.623	7.00	.988	.329	.267	.194	.175	.098
24	.013	.083	.175	4.24	.730	1.70	1.03	.329	.267	.194	.175	.098
25	.011	.070	.297	1.10	.573	1.61	.652	.329	.240	.194	.175	.098
26	.011	.070	.133	.801	.440	1.52	2.09	.329	.240	.194	.175	.098
27	.011	.070	.083	.948	.297	.730	.911	.405	.216	.194	.175	.098
28	.011	.058	.058	.730	.801	.329	.801	.288	.216	.194	.175	.098
29	.011	.058	.175	.482	.440	.175	.730	1.08	.194	.194	.175	
30	.011	1.70	.153	.440	.400	7.00	.675	.461	.194	.194	.175	
31	.175		.153		.482	2.28		.382		.194	.175	
MCY	.020	.159	.190	1.02	.360	1.72	1.30	.491	.288	.168	.181	.132

DEBIT MOYEN ANNUEL

.503

M3/S

STATION : TCGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.098	.115	.124	.098	.490	1.11	.753	1.48	.658	.542	.628	.515
2	.098	.098	.098	.098	.617	1.01	1.77	1.25	.628	.643	.628	.515
3	.098	.098	.098	.461	.658	1.28	1.48	.995	.728	1.40	.628	.515
4	.098	.133	.231	.154	.529	1.08	.965	.958	.615	.704	.599	.489
5	.098	.098	.115	.098	.490	.940	1.04	1.03	.768	.689	.599	.489
6	.098	.098	.115	.098	.568	.869	.978	.958	.704	.689	.599	.489
7	.098	.083	.098	.154	.650	.818	1.09	1.99	.673	.689	.599	.489
8	.098	.098	.091	.124	.571	.720	1.04	1.32	.689	.689	.599	.489
9	.098	.098	.083	.098	.827	.704	1.98	1.08	.689	.628	.570	.489
10	.098	.153	.083	.091	.769	.720	2.42	.958	.689	.628	.570	.416
11	.098	.115	.091	.083	.663	.925	1.56	.887	.689	.628	.570	.416
12	.083	.153	1.07	.083	.557	.904	1.08	1.03	.689	.628	.570	.416
13	.083	.115	.254	.083	1.06	2.30	1.47	.922	.689	.628	.570	.416
14	.083	.098	.236	.199	.720	.904	1.19	.852	.689	.628	.570	.416
15	.083	.098	.164	.145	1.17	1.38	1.48	.818	.689	.628	.570	.416
16	.098	.098	.143	.261	.818	.940	1.22	1.25	.689	.628	.570	.416
17	.098	.098	.106	.174	.752	2.45	2.92	1.10	.628	.599	.515	.416
18	.098	.115	.196	.252	.704	1.17	2.82	1.17	.628	.599	.515	.416
19	.083	.115	.143	.106	.904	.996	1.90	.958	.599	.599	.515	.489
20	.083	.098	.106	.098	.852	1.87	1.48	.922	.570	.599	.515	.489
21	.194	.175	.098	.407	.785	1.48	1.48	.869	.570	1.44	.515	.440
22	.175	.115	.126	.241	.673	1.26	1.22	.888	.542	.842	.515	.440
23	.175	.115	.106	.106	.643	1.08	1.72	.922	.542	.689	.515	.440
24	.123	.133	.098	.164	.673	.904	1.29	.869	.542	.689	.515	.440
25	.175	.098	.106	.157	.801	1.04	1.40	.818	.542	.689	.515	.416
26	.132	.098	.307	.137	1.06	1.06	1.01	.818	.542	.689	.515	.416
27	.175	.115	.115	.657	.977	1.45	4.67	.785	.542	.673	.515	.416
28	.115	.083	.123	.185	1.06	.977	3.28	.871	.542	.658	.515	.416
29	.526	.083	.124	.208	1.06	.904	1.52	.785	.542	.658	.515	.416
30	.194	.240	.115	.185	.978	.801	1.20	.752	.542	.628	.515	
31	.175		.098		1.00	.736		.704		.628	.515	
MCY	.130	.114	.164	.180	.776	1.12	1.65	1.00	.628	.702	.554	.450

DEBIT MOYEN ANNUEL

.623 M3/S

STATION : TOGO

VOLTA

BOUALE

ALEHERIDE

NUMERO : 47276303

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.416	.221	.257	.453	.584	1.32	1.95	1.44	1.01	.452	.464	.212
2	.416	.196	.221	.351	.556	4.43	1.16	1.44	.960	.416	.489	.212
3	.416	.173	.195	.296	.556	1.81	1.01	2.43	.958	.440	.440	.212
4	.416	.158	.180	.267	.542	1.08	3.23	1.64	.922	.416	.464	.212
5	.529	.152	.708	.957	.783	.852	1.26	1.52	.904	.393	.440	.212
6	.515	.165	.452	.674	1.29	.768	1.85	1.22	.869	.440	.393	.212
7	.464	.173	.361	.628	.673	.658	1.61	1.06	.785	.464	.416	.212
8	.477	.259	.230	.515	.628	.599	2.09	1.03	.752	.416	.370	.212
9	.529	.187	.195	.489	1.59	1.57	1.73	1.52	.659	.393	.370	.212
10	.477	.180	.173	.440	1.28	1.08	2.05	1.36	.570	.466	.370	.212
11	.464	.196	.158	.568	.887	.870	1.78	1.40	.570	.429	.370	.195
12	.416	.259	1.37	.489	.723	.737	1.64	1.19	.570	.404	.348	.230
13	.416	.296	.375	.464	.540	.613	1.33	1.10	.599	.405	.348	.212
14	.416	.941	.230	.440	.852	1.79	2.24	1.03	.628	.440	.327	.212
15	.416	.221	.180	.888	1.22	1.95	1.68	.955	.599	.416	.327	.212
16	.416	.189	.180	.752	.704	.940	1.48	.958	.599	.440	.306	.248
17	.416	.165	.180	.613	.846	.835	1.29	.922	.543	.440	.306	.230
18	.416	.145	.180	.502	.836	.768	1.10	.922	.419	.464	.306	.230
19	.416	.132	.180	.428	.736	4.94	1.08	.922	.405	.416	.286	.230
20	.416	.126	.180	.417	.768	1.95	1.08	.922	.440	.440	.286	.230
21	.416	.126	.180	2.15	.704	2.27	1.08	.887	.416	.464	.286	.230
22	.416	.737	.180	.680	.643	1.73	1.01	.887	.404	.440	.286	.212
23	.416	.370	.499	.705	.923	1.25	1.06	.818	.393	.393	.286	.212
24	.440	.329	.704	.658	.737	1.64	.996	.785	.428	.464	.286	.212
25	.440	.230	.197	.613	.599	1.37	2.04	.818	.416	.489	.286	.212
26	.248	.187	.165	.633	.570	.996	1.85	.955	.404	.464	.286	.212
27	.248	.233	.212	.629	.515	.835	2.87	.958	.370	.440	.286	.212
28	.248	.423	.230	.556	.589	1.13	2.04	.852	.382	.464	.267	.212
29	.230	.408	.180	.690	.599	.977	1.13	.785	.370	.464	.267	
30	.212	1.66	.180	.613	.571	1.01	6.68	.752	.393	.489	.267	
31	.212		.180		.772	4.96		.922		.515	.248	
MCY	.400	.308	.293	.619	.781	1.54	1.78	1.11	.592	.441	.338	.216

DEBIT MOYEN ANNUEL

.704 M3/S

KARA A KPESSIDE

Code : 47 27 39 05
bassin versant : 2 790 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M.

Coordonnées : 9° 37' N - 0° 57' E.

Altitude du zéro de l'échelle : 180 m environ, en nivellement IGN

Accès :

Piste cyclable, débouchant 500 mètres avant KPESSIDE, en allant vers le Nord. Piste difficile d'accès en saison de pluie.

Installations

La station a été implantée le 12 décembre 1961 avec 8 mètres d'échelle montés sur fers cornières, étagés sur la rive droite.

En janvier 1964, pose d'un élément de 8 à 9 m.

Le 2 mars 1966, installation d'un élément négatif, de 0 à -0,50m

Le 20 octobre 1970, pose d'un élément de 9 à 10 m.

Ces différents éléments d'échelle doivent être remis en place assez souvent, du fait de leur destruction fréquente lors des crues.

Lectures

Une lecture par jour, le matin. Qualité des observations satisfaisante.

Jaugeages - Courbes de tarage

Une courbe de tarage unique a été tracée pour la période qui nous intéresse. La stabilité de la courbe de tarage dans le temps est à mettre en relation avec l'existence de bancs rocheux situés à l'aval de la station.

Vingt deux jaugeages ont été utilisés pour établir cette courbe :

maximum jaugé : 352 m³/s le 11-9-1964 (cote moyenne 4,95 m)
minimum jaugé : 16 litres/s le 2-3-1966 (cote : -0,12 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 779 à 400 m.	35,8 %
400 à 320	44,9
320 à 180	19,3

Géologie

On trouve la série géologique suivante, en allant d'Est en Ouest (d'après feuille de Parakou Est - 1/500 000) :

- Gneiss (groupes de Djougou et du Kabré)	41 %
- Granites calco-alcalins à deux micas	30
- Quartzites et micaschistes de l'Atacorien	28
- Schistes sériciteux (série de Kandé)	1

Végétation

Savane arborée - Galerie forestière le long de la Kara, principalement sur la rive gauche.

STATION : TOGO VOLTA KARA KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1		.118	3.83	22.3	77.1	230.	202.	48.3	14.0	.200		1.78
2		.100	2.35	8.18	75.6	155.	259.	42.6		.100		
3		.100	3.02	4.59	163.	230.	128.	25.4				
4		.100	3.20	36.5	152.	362.	202.	108.				
5		.100	2.35	39.5		219.	152.	202.				
6		.158	5.70	55.6	135.	76.3	143.	163.	3.20			
7		.246	3.50	81.1	70.2	152.	184.	55.6	1.92			
8		2.51	2.67	85.1	62.8	149.	135.	90.0	1.30			
9		.433		64.2	52.2	55.6	540.	72.5	.693			
10		.320	22.3	25.4	62.8	48.9	253.	72.5	4.01			
11		.246	10.9	59.9	70.2	45.7	152.	55.6	2.35			
12		.200	8.82	56.3	62.8	42.6	129.	57.0	1.92			
13		.178	5.01	25.4	70.2	39.5	236.	70.2	2.67			
14		.158	9.82	25.4	66.4	48.9	176.	141.	14.0			
15		.118	3.66	20.2	55.6	45.7	107.	89.2	3.02			
16	.100	1.30	4.01	31.9	70.2	38.3	106.	25.4	2.84			
17	.158	.138	7.29	71.7	62.8	94.2	84.3	141.	.693			
18	1.20	.178		80.3	70.2	62.8	188.	25.4	2.06			
19	.433	.222	7.00	72.5	62.8	55.6	95.9	25.4	.920			
20	.433	.200	3.66	81.9	70.2	130.	105.	25.4	1.65			
21	.320	.158	3.02	115.	66.4	196.	522.	25.4	.693			
22	.294	.158	2.20	183.	70.2	166.	163.	25.4	4.20			
23	.246	.158	1.65	216.	77.9	76.3	167.	25.4	1.65			
24	.246	2.84	1.92	184.	70.2	135.	116.	55.6	.920			
25	.222	12.7	1.53	65.7	55.6	253.	95.9	80.3	1.65			
26	.200	4.59	1.53	36.5	70.2	277.	77.9	25.4	.693			
27	.178	2.20	1.20	26.4	327.	267.	109.	25.4	.520			
28	.158	1.53	1.30	20.2	154.	449.	79.5	25.4	.370			1.65
29		1.20	1.01	10.2	85.9	130.	48.9	25.4	.370			
30		9.14	11.8	3.20	70.2	182.	55.6	25.4	.399			
31			8.50		169.	141.		25.4				
MOY	.150	1.39	5.07	60.3	92.7	147.	167.	61.2	3.44	.050	.020	.120

DEBIT MOYEN ANNUEL

45.1 M3/S

STATION : TOGO VOLTA KARA KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.118	.520	1.10	1.53	16.4							
2	.100	.474	2.51	2.06	15.4							
3	.100	.399	2.06	2.84	7.58							
4	.100	.399	.920	2.35	25.4							
5	.100	.399	1.01	1.65	202.							
6	.100	1.92	1.10	1.65	319.							
7	.100	5.23	.838	1.65	62.8							
8	.100	3.66	1.65	1.41	25.4							
9	.100	2.67	1.10	1.65	25.4							
10	.100	1.53	.520	3.83	25.4							
11	.100	1.10	.474	2.35	25.4							
12	.474	.838	.693	3.83	81.9							
13	.399	.474	7.29	2.84	99.3							
14	.399	.348	7.29	2.51	176.							
15	.433	.331	1.92	2.67	202.							
16	.572	25.4	4.01	1.78								
17	.348	26.4	3.83	1.65								
18	.331	8.82	2.06	1.10								
19	.331	4.39	1.92	.630								
20	.320	2.67	4.39	20.2								
21	.294	2.51	4.80	6.73								
22	.294	1.65	2.35	4.20								
23	.294	1.01	2.35	4.01								
24	.320	1.01	4.20	3.02								
25	1.10	1.01	6.20	1.41								
26	.520	4.01	2.35	22.8								.474
27	.474	2.20	2.51	11.8								.474
28	.920	1.30	1.65	34.2								.474
29	.920	.920	1.78	42.6								.474
30	.920	.838	1.53	15.0								
31	.763		1.65									
MOY	.372	3.48	2.52	6.86								

STATION : TOGO

VOLTA

KARA

KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.399	1.92	.920	2.20	17.8	87.2	171.	94.7	12.2	1.53	.474	.270
2	.399	1.41	.920	1.92	17.3	56.0	165.	91.0	10.2	1.53	.474	.270
3	.370	1.10	.693	1.78	9.48	48.0	490.	66.1	9.82	1.41	.474	.270
4	.370	4.59	.630	2.20	5.01	28.1	284.	49.6	9.14	1.41	.572	.270
5	.348	10.9	1.41	1.65	4.39	31.8	449.	44.5	8.18	1.30	.572	.246
6	.331	3.50	1.01	1.65	4.39	83.5	205.	38.0	7.58	1.30	.838	
7	.331	2.06	1.92	1.92	3.35	50.0	200.	42.9	7.00	1.30	1.41	
8	.331	1.53	1.65	2.51	5.01	79.1	157.	35.7	5.01	1.30	1.10	
9	.331	1.10	1.53	1.92	5.01	41.1	168.	30.0	5.01	1.20	1.01	
10	.331	1.01	15.0	1.78	5.01	48.0	124.	25.4	5.01	1.20	1.01	
11	.320	.838	3.83	5.01	5.01	56.3	339.	23.3	4.80	1.10	.920	
12	.320	.630	3.50	4.80	18.3	50.0	314.	20.5	5.01	1.10	.693	
13	.320	.520	4.39	7.88	16.8	32.1	307.	19.0	5.01	1.01	.693	.572
14	.320	.433	3.35	3.02	5.01	33.6	163.	20.5	4.59	.920	.630	.433
15	.320	.370	2.20	2.06	25.4	24.6	137.	17.5	4.39	.838	.572	.348
16	.158	.348	2.20	1.65	25.4	30.8	214.	19.0	4.01	.838	.520	.320
17	.158	.348	2.06	1.65	19.7	27.3	153.	19.3	3.66	.763	.433	.294
18	.370	2.35	1.53	2.35	11.8	25.4	109.	13.3	3.35	.763	.433	.270
19	.520	24.8	1.20	1.78	5.01	23.3	126.	12.7	3.20	.763	.399	.246
20	.520	10.9	.920	8.82	7.58	18.8	93.9	9.66	3.02	.763	.370	.222
21	1.01	4.80	.838	5.46	5.01	39.2	104.	10.7	2.84	.693	.348	.222
22	.693	3.02	1.53	3.02	5.01	28.9	90.0	9.20	2.67	.693	.348	.222
23	.520	3.20	5.01	3.83	5.01	21.0	94.4	15.4	2.51	.693	.331	.178
24	.474	2.20	13.1	1.92	10.7	17.5	193.	21.2	2.51	.630	.331	.178
25	.370	1.78	15.4	5.01	10.0	184.	187.	17.1	2.20	.630	.331	.158
26	.331	1.41	24.3	4.01	4.90	83.7	103.	22.8	2.06	.630	.320	.158
27	.331	1.41	8.50	2.67	7.25	68.8	130.	37.2	1.92	.630	.320	.158
28	.320	1.30	5.01	5.01	16.7	148.	112.	23.8	1.78	.572	.294	.158
29	.320	.920	4.01	3.66	18.8	438.	164.	18.0	1.78	.572	.294	
30	1.53	.920	3.20	55.6	14.7	322.	96.3	12.9	1.65	.572	.294	
31	3.02		2.51		289.	230.		13.3		.520	.294	
MOY	.509	3.06	4.33	4.96	19.5	79.2	188.	28.8	4.74	.942	.552	.297

DEBIT MOYEN ANNUEL

27.9 M3/S

STATION : TOGO

VOLTA

KARA

KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.138		1.10	3.50	5.01	26.4	78.7	25.4	5.01	.520		.246
2	.138		.572	2.35	45.1	68.7	89.2	25.4	5.01	.474		.222
3	.138		1.30	1.65	34.8	37.1	116.	25.4	4.59	.433		.222
4	.138		.630	1.20	36.5	25.4	69.4	24.3	4.01	.399		.222
5	.118		.433	.838	22.3	24.3	54.2	23.3	3.66	.399		.200
6	.100		1.20	.693	17.8	15.9	43.8	16.4	3.20	.399	.222	.178
7			1.01	.572	48.3	18.8	94.2	15.4	3.02	.370	.222	.158
8			.763	.520	22.8	16.4	94.2	14.5	2.84	.370	.222	.150
9		.118	.630	3.20	25.4	94.2	362.	14.0	2.67	.370	.222	.150
10		.100	.520	19.7	21.7	42.0	195.	12.7	2.35	.348	.200	.140
11		1.20	.399	5.01	47.0	31.9	110.	11.8	2.06	.348	.200	.140
12		.693	2.20	3.83	285.	22.3	74.0	10.9	1.65	.348	.200	.130
13		.520	1.30	37.1	192.	300.	94.2	9.48	1.41	.348	.178	.130
14		.370	.693	15.9	70.2	90.0	85.9	8.50	1.78	.331	.178	.120
15		.320	.520	7.58	92.5	134.	194.	7.58	1.65	.331	.178	.110
16		.294	.433	4.59	52.2	69.4	119.	53.6	1.41	.331	.178	.110
17		.270	2.51	25.4	100.	157.	171.	17.3	1.30	.331	.178	.100
18		.222	5.01	17.3	56.3	94.2	85.1	15.4	1.20	.320	.178	.100
19		.200	3.35	5.01	41.4	59.9	70.2	17.3	1.10	.320	.178	.090
20		.178	3.20	5.01	97.6	52.9	85.9	11.8	.920	.320	.178	.090
21		.158	3.02	21.7	58.4	49.6	71.7	12.2	.838	.320	.178	.080
22		.138	2.67	15.4	111.	45.7	74.0	10.5	.763	.320	.178	.070
23		.118	94.2	13.1	100.	125.	69.4	10.2	.693	.320	.178	.070
24		1.01	5.01	7.29	55.6	45.7	52.2	7.58	.693	.320	.294	.060
25		5.01	3.20	157.	45.7	85.9	54.2	8.82	.630	.294	.294	.060
26		3.50	19.7	37.7	62.8	78.7	42.6	15.0	.630	.294	.294	.050
27		2.20	7.58	116.	47.0	62.8	48.9	14.5	.572	.294	.270	.050
28		1.30	15.0	40.1	40.1	88.4	58.4	15.4	.572	.294	.270	.040
29		1.01	14.5	25.4	36.5	132.	48.9	12.7	.520	.294	.270	
30		.693	14.0	22.8	25.4	90.8	25.4	9.48	.520	.294	.270	
31			5.01		37.1	67.9		7.29		.270	.270	
MOY	.050	.650	6.83	20.6	62.4	72.7	94.3	15.6	1.91	.346	.201	.124

DEBIT MOYEN ANNUEL

23.1 M3/S

STATION : TOGO VOLTA KARA KPESSIDE
 NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.040	.003	2.20	24.3	20.2	25.4	250.	75.6	50.9	3.50		
2	.030	.003	9.14	7.58	22.3	33.6	105.	124.	41.4	3.35		
3	.030	.331	15.4	4.59	11.8	65.0	85.9	141.	28.0	3.20		
4	.030	.222	4.01	5.01	10.5	25.4	91.7	121.	25.4	3.02		
5	.026	.158	2.84	5.01	20.2	55.6	81.9	112.	25.4	2.84		
6	.022	.067	1.65	10.2	25.4	25.4	66.4	73.2	24.8	2.84		
7	.022	.086	1.20	5.01	44.5	24.8	90.0	49.6	24.3	2.67		
8	.017	.074	.763	14.0	17.3	20.2	94.2	74.0	23.3	2.67		
9	.017	.074	.572	11.3	10.5	15.4	202.	77.1	19.2	2.67		
10	.017	.080	.520	10.9	5.01	44.5	123.	62.8	19.7	2.67		
11	.017	.093	.433	9.82	17.8	98.4	250.	66.4	17.3	2.51		
12	.014	1.01	.399	8.82	13.1	93.3	92.5	272.	15.0	2.51		
13	.014	.838	.370	19.7	39.5	116.	77.9	141.	13.1	2.35		
14	.014	5.01	.331	15.4	12.7	58.4	146.	90.8	11.8	2.20		
15	.010	4.80	.331	13.1	9.82	294.	105.	77.9	10.9	2.20		
16	.010	3.20	.320	10.9	25.4	129.	107.	72.5	12.7	1.92		
17	.010	1.78	.433	12.2	25.4	85.1	112.	65.0	10.9	1.78		
18	.010	1.20	.331	19.7	10.9	72.5	83.5	141.	9.14	1.65		
19	.010	1.92	.320	12.7	9.82	934.	146.	67.9	9.14	1.65		
20	.010	.920	.294	40.7	21.2	202.	94.2	48.9	7.58	1.53		
21	.006	.630	.270	42.6	11.3	142.	71.0	47.6	7.00	1.53		
22	.006	2.84	.572	115.	68.7	94.2	77.9	70.2	6.46	1.41		
23	.006	3.66	.433	36.0	53.6	872.	98.4	52.2	6.20	1.41		.222
24	.006	1.30	.348	60.6	45.7	202.	105.	25.4	5.46	1.30		.200
25	.006	1.20	57.7	37.1	108.	362.	92.5	25.4	5.01	1.30		.200
26	.006	2.20	22.8	20.2	94.2	202.	121.	43.2	4.80			.178
27	.006	1.78	4.01	41.4	77.9	188.	141.	36.5	4.59			.178
28	.003	.838	4.39	19.2	47.0	138.	123.	25.4	4.39			.178
29	.003	.763	3.50	12.2	36.5	125.	162.	449.	4.20			
30	.000	1.65	5.01	8.82	25.4	634.	107.	94.2	3.83			
31	.003		7.88		25.4	152.		55.6				
MOY	.016	1.29	4.80	21.8	31.2	178.	117.	92.8	15.1	2.05		

STATION : TOGO

VOLTA

KARA

KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.158	2.35	.520	3.35	18.8	94.2	37.7	132.	21.7	3.02	2.20	.838
2	.158	1.65	.474	1.41	5.01	70.2	51.6	122.	19.7	2.67	1.92	.838
3	.138	1.20	.433	1.92	137.	120.	94.2	98.4	17.3	21.2	1.78	.763
4	.118	.920	.399	7.58	86.7	115.	109.	223.	19.7	14.5	1.53	.693
5	.118	.693	.370	2.20	52.2	169.	103.	154.	19.7	9.48	1.41	.693
6	.118	.572	.630	.693	22.8	83.5	94.2	130.	16.4	5.23	1.53	.693
7	.093	.920	.520	3.20	15.4	63.5	103.	202.	13.6	5.01	1.53	.630
8	.086	1.10	.474	15.4	25.4	75.6	128.	174.	12.2	4.80	1.53	.630
9	.086	.838	.433	4.59	12.2	50.9	456.	138.	11.3	4.80	1.53	.630
10	.080	2.06	.399	3.20	66.4	149.	174.	91.7	10.2	4.59	1.53	.572
11	.080	1.78	.433	1.92	25.4	202.	135.	82.7	10.2	4.39	1.41	.572
12	.074	1.10	.399	1.30	13.6	136.	138.	112.	9.48	9.48	1.30	.572
13	.074	64.2	.399	1.20	8.02	362.	253.	70.2	8.18	5.01	1.20	.572
14	.074	24.8	.433	.920	27.5	104.	153.	57.7	7.29	4.59	1.20	.520
15	.074	3.66	.399	1.10	51.6	94.2	113.	84.3		4.39	1.20	.474
16	.074	2.35	.399	1.10	48.9	70.2	202.	152.	6.46		1.10	.433
17	.067	1.65	.348	1.65	55.6	113.	500.	130.	6.20	3.02	1.10	.399
18	.062	1.10	1.92	5.01	41.4	77.1	192.	103.	5.95	2.84	1.01	.399
19	.056	.838	5.01	15.0	300.	60.6	294.	63.5	5.46	2.67	1.01	.348
20	.158	.693	2.06	7.58	85.9	51.6	160.	71.7	5.46	2.67	.920	.399
21	.093	.763	1.78	9.48	54.2	285.	141.	85.9	5.01	2.51	.838	.399
22	.086	1.01	1.10	5.01	38.9	160.	202.	45.7	4.80	5.01	.838	.399
23	.086	2.06	1.10	4.39	30.8	103.	120.	39.5	4.80	4.59	.838	.370
24	.074	1.41	1.20	3.02	25.4	85.9	202.	36.5	4.59	3.83	.838	.348
25	.067	.920	2.84	2.67	176.	105.	433.	29.7	4.20	3.83	.838	.348
26	.067	.693	1.65	2.84	94.2	126.	124.	25.4	3.83	3.20	.838	.348
27	2.67		2.84	5.01	94.2	92.5	138.	25.4	3.66	2.67	.838	.348
28	1.65	.572	2.35	16.8	55.6	85.9	583.	25.4	3.35	2.51	.838	.348
29	1.78	.474	2.06	8.50	128.	73.2	295.	23.8	3.35	2.51	.838	.320
30	6.73	.433	1.41	6.46	66.4	53.6	196.	19.7	3.35	2.35	.838	
31	3.20		.920		261.	47.6		29.7		2.20	.838	
MOY	.595	4.12	1.15	4.82	68.6	112.	197.	89.6	9.15	4.95	1.20	.514

DEBIT MOYEN ANNUEL

41.2 M3/S

STATION : TOGO VOLTA KARA KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.320	.399	3.83	22.3	29.7	94.2	176.	121.	58.4	3.50	1.10	.399
2	.320	.370	3.50	15.4	22.3	77.9	149.	70.2	52.9	3.50	1.10	.370
3	.294	.630	3.20	7.58	24.8	105.	118.	130.	47.6	3.35	1.01	.370
4	.294	.474	2.20	24.3	17.3	202.	115.	85.1	37.1	3.20	1.01	.370
5	.294	.399	72.5	62.8	60.6	121.	104.	143.	36.0	3.20	1.01	.370
6	.572	.520	30.8	25.4	52.2	94.2	81.9	100.	23.8	3.02	.920	.370
7	.630	.572	6.73	20.2	43.8	77.9	138.	76.3	21.2	2.84	.920	.348
8	.572	.520	4.59	60.6	42.0	56.3	119.	60.6	17.8	2.84	.838	.348
9	.693	.520	4.01	19.2	38.9	52.2	202.	74.8	14.0	2.84	.763	.348
10	1.41	1.41	3.02	17.3	157.	47.6	503.	62.8	13.1	2.84	.763	.348
11	1.65	17.3	1.92	10.9	70.2	34.8	202.	44.5	12.2	2.67	.763	.348
12	1.10	7.58	36.0	36.5	47.0	94.2	182.	41.4	10.9	2.67	.693	.348
13	.838	2.35	8.18	27.5	50.2	111.	332.	40.1	10.2	2.67	.693	.348
14	.763	7.58	6.73	22.8	62.8	75.6	143.	38.9	9.48	2.67	.693	.331
15	.630	7.29	5.01	634.	57.7	91.7	202.	33.6	8.82	2.67	.693	.331
16	.572	4.80	3.83	86.7	45.1	77.9	123.	25.4	8.18	2.51	.693	.320
17	.474	3.35	2.20	169.	352.	74.0	99.3	24.3	7.58	2.35	.693	.320
18	.433	2.84	2.84	81.1	130.	48.9	90.0	23.3	7.00	2.06	.693	.320
19	.370	2.51	2.06	50.2	112.	94.2	188.	20.7	6.46	2.06	.630	.294
20	.370	1.53	1.53	33.1	85.9	85.1	139.	20.7	5.95	2.06	.572	.294
21	.348	1.30	1.20	37.1	362.	103.	104.	20.7	5.70	1.78	.572	.270
22	.348	5.46	1.01	49.6	90.0	94.2	90.8	24.8	5.46	1.65	.572	.270
23	.348	7.29	36.5	94.2	80.3	77.1	57.7	20.2	5.01	1.65	.572	.246
24	2.20	3.50	3.66	62.8	94.2	65.7	54.2	17.3	5.01	1.53	.572	.246
25	1.65	3.02	3.20	36.5	91.7	94.2	74.0	33.6	5.01	1.41	.572	.222
26	1.41	2.67	5.01	31.4	81.9	65.7	64.2	55.6	4.59	1.30	.520	.222
27	.763	7.88	10.9	25.4	106.	84.3	49.6	31.9	4.59	1.20	.474	.200
28	.520	17.8	7.88	25.4	74.0	202.	94.2	25.4	4.01	1.20	.474	.200
29	.630	6.73	6.46	77.1	67.9	67.9	74.0	19.2	3.83	1.20	.433	
30	.572	4.59	5.70	25.4	215.	65.0	106.	16.4	3.83	1.20	.399	
31	.474		5.01		178.	362.		14.5		1.20	.399	
MOY	.706	4.11	9.39	63.1	94.9	96.6	139.	48.9	15.2	2.29	.703	.313

DEBIT MOYEN ANNUEL

39.8 M3/S

STATION : TOGO

VOLTA

KARA

KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.200	.331	.433	3.35	85.1	48.9	94.2	118.	51.6			
2	.178	.294	.348	4.80	25.4	94.2	362.	94.2	319.			
3	.178	.200	.763	2.84	22.8	307.	294.	81.1	46.4			
4	.178	.200	5.01	2.06	14.5	103.	174.	130.	39.5			
5	.178	.222	23.3	1.65	13.1	77.9	93.3	103.	55.6			
6	.200	.200	9.82	1.30	9.82	64.2	120.	78.7	74.0			
7	.200	.348	5.01	1.10	20.2	188.	90.8	68.7	57.0			
8	.178	.331	3.02	1.10	18.3	141.	1150	65.7	44.5			
9	.178	.331	2.06	1.01	10.9	104.	294.	62.8	36.0			
10	.178	.838	1.65	5.01	34.2	67.9	202.	59.9	33.1			
11	.200	21.2	1.30	3.50	33.1	233.	512.	44.5	25.4			
12	.200	25.4	1.01	2.20	28.0	156.	188.	94.2	22.8			
13	.294	5.01	7.88	1.30	25.4	202.	163.	58.4	20.7			
14	.370	3.02	5.70	.693	23.8	133.	362.	51.6	15.9			
15	.320		64.2	.520	20.7	136.	166.		15.4			
16	.270	1.41	19.2	.520	36.5	94.2	122.		15.4			
17	.222	1.20	5.01	.763	69.4	168.	204.		14.5			
18	.222	.763	3.20	1.41	85.1	103.	310.	59.1	13.1			
19	.178	.572	2.35	3.83	94.2	98.4	184.	61.3	12.2			
20	.178	25.4	8.82	4.20	92.5	94.2	103.	236.	10.9			
21	.158	4.59	5.01	5.23	85.1	76.3	102.	152.	10.2			
22	.138	2.84	4.39	9.82	103.	69.4	285.	116.	9.48			
23	.138	2.20	3.83	10.9	362.	122.	194.	81.9	8.82			
24	.138	1.53	3.35	8.50	118.	125.	141.	62.8	8.18			
25	.118	1.10	15.4	11.8	94.2	202.	108.	59.1	7.58			
26	.118	1.01	10.9	8.18	66.4	153.	86.7	57.0				
27	.093		5.01	4.39	60.6	976.	71.7	83.5				
28	.093	.920	5.01	2.51	43.8	332.	103.	165.				
29	.138	.763	8.82	2.06	41.4	159.	110.	89.2				
30	.200	.630	3.83	1.65	44.5	133.	132.	71.7				
31	.270		4.01		40.7	123.		65.7				
MOY	.190	3.53	7.73	3.61	58.8	164.	217.	85.0	32.0			

STATION : TOGO VOLTA KARA KPESSIDE

NUMERO : 47273905

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1						96.7	96.7	132.	9.48			
2						116.	1150	134.	9.14			
3						62.0	270.	121.	8.82			
4						53.6	294.	103.	8.50			
5						42.6	132.	77.9	8.18			
6						134.	262.	57.0	7.58			
7						113.	135.	49.6				.158
8						103.	91.7	47.0				.158
9						92.5	202.	45.1				.138
10					11.8	38.9	501.	42.6				.138
11					46.4	31.9	305.	35.4				.138
12					17.3	130.	202.	30.8				.158
13					39.5	81.9	195.	25.4				.178
14					13.6	55.6	81.9	30.8				3.20
15					10.9	362.	121.	28.6				2.35
16					20.2	141.	93.3	25.4				1.65
17					39.5	81.9	77.1					.920
18					35.4	55.6	153.					.572
19					29.7	76.3	531.					.433
20					14.0	62.8	159.					.348
21					10.5	52.2	141.	19.2				.320
22					14.5	42.0	112.	17.8				.270
23					9.48	35.4	130.	15.4				1.01
24					8.18	77.1	307.	15.9				.630
25					24.3	94.2	116.	24.3				.474
26					9.48	362.	503.	22.8				.399
27					8.82	223.	305.	19.7				.320
28					7.58	163.	261.	17.3				.200
29					28.6	155.	163.	15.0				
30					20.7		141.	11.3				
31					37.7	62.0		9.48				
MOY						107.	241.	40.7				.543

KARA A LAMA-KARA I

Code : 47 27 39 10

bassin versant : 1 560 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M.

Coordonnées : 9° 32' N - 1° 11' E.

Altitude du zéro de l'échelle : 270 m environ, en nivellement IGN

Accès :

Echelle installée sous le pont de la route SOKODE - LAMA-KARA, à l'entrée de cette dernière ville.

Installations

Station implantée le 5 juillet 1954, avec 10 mètres d'échelle scellés sur les piles du pont.

Les éléments inférieurs (0 à 2 m.) ont été restaurés ou déplacés en avril 1955, novembre 1960, avril 1965 et en février 1972.

Une deuxième série d'échelles, portant le nom de LAMA-KARA II a été implantée le 8-4-1965 à 500 mètres environ en amont du pont (station de LAMA-KARA I). Cette deuxième station, située à l'emplacement des jaugeages de hautes-eaux, permet de surveiller la cote du plan d'eau lors de ces jaugeages.

Les deux stations ont fait l'objet de lectures quotidiennes jusqu'en 1973 ; depuis le 1-1-1974, on ne lit plus qu'une fois par semaine. l'échelle de LAMA-KARA II (excepté en crues : lectures quotidiennes).

Lectures

Deux lectures par jour, de bonne qualité. La lecture de l'échelle de 1 à 2 mètres est rendue difficile par la présence de remous (rochers).

Jaugeages - Courbe de tarage

La station étant stable (fond du lit rocheux), une seule courbe de tarage a été tracée. Le danger d'effectuer des mesures de débit au moulinet pour des cotes supérieures à 4 m. à l'échelle, a obligé à extrapoler la courbe de 3,62 mètres à 8 mètres.

Vingt quatre jaugeages ont été utilisés pour tracer la courbe :

maximum jaugé : $274 \text{ m}^3/\text{s}$ le 13-9-1964 (cote 3,70 à 3,54m)
minimum jaugé : 11 litres/s le 9-5-1973 (cote 0,02 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 810 à 600 m.	2,4 %
600 à 400	39,4
400 à 360	37,7
360 à 320	16,9
320 à 281	3,6

altitude moyenne du bassin : 410 m.

Géologie

Répartition géologique des terrains :

- Quartzites et micaschistes de l'Atacorien	7 %
- Granites calco-alcalins à deux micas	31,9
- Gneiss (groupes de Djougou et du Kabré)	61,1

Végétation

Savane arborée à flots de forêt sèche sur l'ensemble du bassin.

KARA A LAMA-KARA

BASSIN VERSANT = 1560 Km²

NORD

LAMA-KARA

KARA

Echelle : 1/300 000

72

1° 10'

1° 20'

1° 30'

9° 40'

9° 30'

9° 20'

ORSTOM

DATE : 2 / 7 / 65

DESSINÉ :

M. Sossah

T 276 H

Réfait le 21 Mai 1974

STATION : YOGO

VELYA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1954-1955 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1					14.8	19.2	36.5	10.3	.601	.687	.600	
2					11.3	15.5	35.0	10.6	.520	.520	.559	
3					10.3	14.7	30.5	10.4	.483	.520	.483	
4					8.97	63.5	26.0	7.96	.559	.448	.483	
5				38.0	7.48	63.3	23.0	6.57	.501	.414	.383	
6				28.2	6.23	35.0	20.0	4.54	.465	.300	.383	
7				22.4	5.50	41.9	22.7	3.12	.414	.254	.300	
8				26.7	5.20	32.7	22.2	3.57	.414	.233	.276	
9				17.7	8.00	27.5	23.7	2.87	.383	.233	.233	
10				14.7	9.35	23.7	31.2	2.24	.465	.233	.215	
11				29.0	20.7	20.7	23.7	2.10	.431	.300	.215	
12				26.7	18.5	19.2	46.3	1.98	.433	.300	.383	
13				29.0	21.9	21.3	25.8	1.92	.313	.353	.254	
14				27.2	14.7	29.0	29.7	1.52	.357	.414	.215	
15				17.7	27.3	33.5	24.8	1.20	.368	.448	.215	
16				15.5	19.2	40.9	49.2	1.05	.300	.483	.215	
17				14.0	15.2	32.7	56.1	.965	.300	.383	.215	
18				15.5	13.7	27.5	30.5	1.02	.326	.326	.215	
19				47.4	13.2	20.0	35.7	.993	.326	.300	.215	
20				42.7	12.5	19.2	26.0	.885	.353	.276	.198	
21				28.2	12.9	45.2	25.7	.733	.414	.276	.215	
22				22.7	10.6	51.4	27.0	2.50	.414	.254	.215	
23				19.4	41.3	32.0	23.0	2.30	.414	.215	.215	
24				17.7	38.1	25.2	21.2	1.58	.383	.254	.215	
25				17.0	25.2	22.8	17.0	1.11	.483	.215	.215	
26				15.5	20.7	23.0	14.1	.994	.353	.520	.198	
27				13.2	22.2	35.7	13.5	.688	.353	1.05	.184	
28				23.0	19.2	83.4	11.7	.520	.383	1.40	.148	
29				14.7	17.0	52.1	11.0	.484	.353	.993		
30				12.9	17.0	40.9	11.0	.621	.326	.782		
31				11.4	22.8		9.62		.300	.687		
MCY				24.5	16.5	44.5	25.9	2.91	.403	.454	.281	

DEBIT MOYEN ANNUEL

18.0 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1955-1956 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.148	.687	.293	1.08	29.7	68.2	120.	140.	14.9	1.62	.559	.326
2	.137	.559	.313	.710	22.8	248.	78.7	78.7	15.5	1.62	.520	.300
3	.126	.520	.290	.917	29.4	115.	65.6	87.6	10.3	1.62	.483	.326
4	.115	.483	.315	5.60	32.9	157.	109.	205.	9.48	1.51	.483	.326
5	.077	.448	1.51	3.32	24.5	86.2	102.	65.6	0.58	1.51	.448	.300
6	.052	.994	1.42	11.5	23.7	68.2	495.	68.2	8.32	1.51	.448	.326
7	.045	.818	.883	3.66	22.4	54.4	128.	57.6	7.36	1.40	.414	.326
8	.038	.501	.687	2.18	25.2	145.	90.8	60.9	6.90	1.40	.414	.326
9	.031	.431	.477	2.52	24.0	146.	63.3	85.1	6.02	1.30	.383	.326
10	.038	.484	.401	3.90	20.0	140.	224.	44.9	5.91	1.30	.383	.300
11	.025	.465	.442	2.11	15.5	70.9	138.	34.2	5.40	1.23	.414	.300
12	.019	.449	.243	1.52	16.1	50.7	85.1	90.6	5.00	1.23	.383	.300
13	.019	.267	.160	.863	478.	87.6	66.9	57.5	4.62	1.17	.383	.276
14	.019	.401	.233	.710	81.8	98.1	64.1	37.1	4.26	1.17	.353	.326
15	.019	.270	.255	2.04	87.5	115.	155.	63.3	4.08	1.11	.353	.326
16	.233	.224	.613	3.68	83.8	85.1	159.	32.0	3.73	1.11	.326	.326
17	.199	.148	.627	17.7	555.	73.8	57.2	28.2	3.57	1.11	.300	.300
18	.370	.243	1.17	7.36	113.	71.5	119.	25.2	3.24	1.05	.300	.326
19	.418	.368	2.53	12.7	194.	115.	138.	23.9	3.09	.993	.276	.326
20	.326	.179	1.98	7.24	109.	101.	361.	29.6	2.94	.993	.276	.300
21	.470	.384	.733	4.54	62.9	64.1	187.	22.2	2.79	.938	.254	.300
22	.449	.501	.885	4.17	162.	335.	98.2	20.9	2.50	.884	.300	.353
23	.812	.487	.765	16.2	357.	140.	164.	21.5	2.50	.884	.300	.353
24	.759	.387	.520	32.0	198.	274.	122.	17.7	2.37	.832	.276	.326
25	.670	.255	.401	24.2	90.8	140.	78.7	16.4	2.23	.782	.353	.353
26	.541	.179	.339	17.7	168.	105.	121.	18.5	2.23	.733	.383	.383
27	.404	.267	.288	18.9	311.	205.	352.	29.0	2.10	.687	.326	.353
28	.265	.370	1.92	22.2	85.1	105.	252.	20.0	1.98	.687	.353	.414
29	.404	.339	.757	19.1	116.	179.	109.	25.1	1.86	.642	.353	.642
30	.487	.255	1.15	226.	92.4	188.	98.1	17.6	1.74	.600	.326	
31	.885		.710		138.	252.		15.2		.600	.326	
MOY	.277	.415	.752	15.9	122.	132.	147.	49.7	5.18	1.11	.369	.337

DEBIT MOYEN ANNUEL

39.8

M3/S

STATION : YOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1956-1957 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.448	.353	.142	.353	.733	18.5	68.0	34.7	3.17	.687	.383	.254
2	.431	.326	.339	.313	1.30	17.0	42.6	27.2	2.50	.665	.383	.254
3	.399	.543	.288	.300	1.23	16.7	715.	88.5	2.37	1.57	.353	.254
4	.383	.642	.216	.276	1.20	21.5	140.	29.0	2.23	3.75	.353	.233
5	.353	.581	.165	.313	1.17	19.7	71.0	44.8	2.10	2.37	.326	.233
6	.353	.431	.154	.688	4.81	19.4	51.0	30.5	2.04	2.23	.326	.233
7	.326	.353	.165	1.30	6.98	13.2	343.	25.5	1.92	2.10	.300	.233
8	.326	.339	.160	.710	3.99	20.7	198.	49.2	1.86	1.74	.300	.233
9	.313	.326	.160	.559	3.82	27.5	386.	25.8	1.46	1.23	.300	.215
10	.300	.300	.148	.539	3.12	20.0	112.	22.8	2.35	1.17	.276	.215
11	.300	.276	.142	.520	26.0	17.0	298.	21.9	3.32	.807	.276	.215
12	.276	.254	.137	.431	21.5	12.5	94.3	22.1	3.09	.733	.276	.198
13	.477	.233	.143	.384	7.17	11.0	529.	19.4	2.44	.733	.254	.198
14	.551	1.62	.353	1.90	7.17	8.32	129.	15.0	2.23	.687	.254	.198
15	.353	.641	.313	4.08	6.02	23.0	98.1	14.3	1.62	.687	.254	.198
16	.383	.783	.276	3.29	29.0	28.2	201.	14.6	1.30	.600	.276	.148
17	.353	.646	.265	10.5	20.0	20.0	359.	12.5	1.23	.600	.276	.148
18	.326	.399	.254	2.50	11.2	17.0	153.	10.9	1.23	.642	.276	.137
19	.326	.418	.233	2.18	8.32	14.0	177.	9.24	1.11	.642	.254	.115
20	.300	.528	.233	1.30	4.08	11.0	73.8	8.20	.993	.559	.254	.115
21	.276	.401	.276	38.9	5.51	8.32	56.8	7.47	.884	.642	.254	.105
22	.276	.339	.303	9.06	5.05	138.	73.8	7.12	.884	.642	.300	.105
23	17.0	.288	.339	4.08	3.58	48.9	45.2	6.34	.993	.600	.300	.095
24	16.7	.243	.326	4.08	3.01	29.0	32.0	5.91	1.62	.600	.276	.086
25	.733	.207	.813	2.50	3.01	23.0	35.9	5.70	1.30	.600	.276	.086
26	.733	.177	1.02	2.50	3.09	380.	33.5	5.60	1.23	.559	.276	.086
27	.687	.160	8.32	1.30	37.8	128.	76.4	4.81	1.11	.520	.276	.077
28	.687	.142	1.90	1.30	46.6	50.5	33.5	4.08	1.05	.520	.254	.077
29	.383	.126	1.23	.733	33.5	48.3	92.4	3.99	1.05	.483	.254	
30	.520	.143	1.17	.710	23.0	108.	63.1	3.82	.993	.448	.254	
31	.448		.643		20.0	171.		3.57		.414	.254	
MCY	1.47	.414	.666	3.26	11.4	48.1	159.	18.9	1.72	.976	.288	.169

DEBIT MOYEN ANNUEL

20.5 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1957-1958 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOÛT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.077	6.02	8.32	3.99	15.5	33.5	98.1	46.5	18.5	3.24	1.30	.520
2	.077	5.00	4.62	2.92	19.8	24.5	328.	103.	23.0	8.32	1.30	.520
3	.077	3.03	1.90	1.67	18.5	21.0	174.	46.5	33.6	6.02	.993	.520
4	3.43	1.05	1.80	1.14	14.9	19.8	151.	42.7	19.2	8.97	.993	.520
5	1.86	4.08	.733	.967	109.	19.1	607.	103.	17.7	6.57	.993	.520
6	.293	4.81	.687	8.32	46.5	21.5	238.	38.0	17.0	4.08	.993	.520
7	.191	3.24	.687	6.02	36.5	138.	624.	32.7	15.5	4.08	.993	.520
8	.177	2.24	.559	5.61	58.2	26.0	701.	53.7	16.2	3.24	.993	.520
9	.197	1.62	.559	4.64	212.	25.4	426.	48.4	14.0	3.24	.993	.520
10	.224	1.14	1.23	16.2	42.6	22.2	113.	28.4	11.0	2.50	.993	.520
11	.215	1.05	1.23	16.2	35.0	269.	86.9	28.4	11.0	2.50	.993	.353
12	.148	2.50	1.05	7.17	26.0	106.	124.	26.0	10.3	2.50	.993	.353
13	.148	2.37	.642	5.91	21.5	76.6	120.	25.1	14.7	2.50	.993	.353
14	.137	2.10	.642	27.5	106.	146.	78.7	94.5	10.3	2.50	.993	.353
15	.137	1.62	1.05	20.0	32.0	95.9	114.	30.5	8.97	2.50	.993	.353
16	.115	1.17	1.05	29.0	30.5	84.3	210.	198.	8.32	2.50	.733	.353
17	.105	1.11	.520	137.	26.9	62.5	444.	87.6	7.12	2.50	.733	.353
18	.105	.993	.520	29.0	55.2	59.1	226.	61.9	7.12	2.50	.733	.353
19	.105	.642	.448	97.4	25.4	63.3	68.2	48.0	9.66	2.50	.733	.353
20	.086	.600	.733	28.2	52.2	90.8	658.	34.7	9.62	3.24	.733	.353
21	.326	1.17	.326	43.6	24.5	71.0	105.	31.2	7.72	3.24	.733	.353
22	.326	1.05	.642	24.5	70.5	62.9	64.1	32.7	7.12	2.50	.733	.353
23	.300	.993	.642	19.7	24.5	90.8	257.	28.4	6.02	2.50	.520	.353
24	.276	1.86	7.17	16.1	18.2	382.	426.	46.4	6.02	1.86	.520	.353
25	.197	1.23	6.02	12.5	16.7	288.	328.	29.7	6.02	1.86	.520	.353
26	3.08	1.11	5.81	13.2	207.	83.1	73.8	31.2	5.00	1.30	.520	.353
27	6.02	1.05	31.7	9.90	32.0	76.2	105.	24.8	5.00	1.30	.520	.353
28	.984	.642	30.0	7.36	30.5	72.5	420.	30.5	4.08	1.30	.520	.353
29	8.32	4.08	17.4	7.61	25.4	90.8	624.	29.0	4.08	1.30	.520	
30	6.02	2.50	5.05	29.0	21.0	76.4	632.	23.7	4.08	1.30	.520	
31	1.86		2.97		25.2	352.		20.0		1.30	.520	
MOY	1.15	2.07	4.41	21.1	47.7	98.4	287.	49.2	11.3	3.09	.817	.413

DEBIT MOYEN ANNUEL

43.8 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1958-1959 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.233	.160	1.58	2.65	2.50	1.30	1.86	28.2	.860	.399	.137	.045
2	.233	.160	.993	.863	2.18	1.30	1.58	24.5	.733	.353	.126	.038
3	.233	.160	.733	.627	1.86	1.30	1.30	23.7	.733	.353	.126	.031
4	.233	.160	.520	.520	1.30	.993	9.06	15.5	.733	.313	.115	.038
5	.233	.733	.353	.863	1.86	.733	6.02	11.7	.733	.276	.126	.045
6	.233	.993	1.62	.520	1.30	3.93	6.02	16.2	.687	.265	.115	.052
7	.233	.733	1.58	.520	.993	6.57	8.97	14.0	.665	.254	.105	.045
8	.233	.160	1.15	1.51	.733	4.54	5.51	8.97	.579	.233	.115	.052
9	.233	.160	.733	1.62	1.15	3.66	4.08	8.32	.520	.224	.126	.068
10	.233	.160	.520	.520	17.0	2.87	5.51	7.12	.501	.265	.160	.757
11	.233	.733	.353	.520	5.05	1.86	3.66	6.57	1.70	1.30	.148	.267
12	.160	.863	5.18	.520	3.24	1.30	2.50	6.02	1.02	1.08	.126	.148
13	.160	58.3	1.90	.520	2.50	5.05	2.50	6.02	1.84	.688	.115	.120
14	.160	2.87	.863	41.1	1.86	2.87	4.54	5.51	1.30	.484	.105	.110
15	.160	9.50	.733	8.51	3.75	1.58	28.2	5.00	1.08	.353	.095	.086
16	.160	2.27	1.02	3.29	5.60	1.30	14.7	3.66	.733	.353	.077	.086
17	.160	.863	1.30	19.5	2.87	1.30	17.7	2.65	.733	.326	.086	.060
18	.160	.733	.993	9.26	2.18	.993	18.5	2.50	.665	.300	.068	.052
19	.160	.733	.733	8.97	23.2	.993	42.1	2.30	.688	.276	.060	.052
20	.160	.863	.520	9.81	4.08	.733	42.1	2.04	3.18	.276	.052	.045
21	.160	2.18	.353	6.06	2.87	.733	23.7	1.80	1.77	.254	.052	.060
22	.160	1.15	.353	3.66	1.86	.733	20.0	3.95	1.37	.233	.060	.045
23	.160	.627	.353	5.41	1.86	.733	20.0	2.11	.833	.254	.060	.025
24	.160	.520	.353	13.6	1.30	.520	16.2	1.35	.733	.233	.060	.014
25	.160	.353	.353	9.81	1.30	6.20	14.7	1.27	.621	.198	.052	.031
26	.160	.353	.520	7.82	11.8	1.58	11.7	1.17	1.53	.160	.045	.025
27	.160	.353	.160	7.72	4.12	1.30	10.3	1.30	1.18	.160	.025	.014
28	.160	1.02	.160	4.54	2.50	1.86	8.97	1.20	.734	.160	.038	.009
29	.160	1.02	.160	3.66	2.50	1.30	8.32	1.17	.579	.148	.068	
30	.160	1.58	.160	2.87	1.86	1.30	7.12	1.11	.560	.137	.045	
31	.160		.160		1.30	2.87		1.02		.148	.038	
MOY	.186	3.02	.854	5.91	3.82	2.07	12.3	7.04	.986	.337	.098	.086

DEBIT MOYEN ANNUEL

3.06

M3/S

STATION : YCGO

VELTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1959-1960 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.009	.086	1.30	.255	9.66	17.7	80.3	55.3	3.90	.733	.160	.077
2	.045	.056	1.08	.233	5.71	21.0	79.1	41.1	3.82	.733	.160	.077
3	.031	1.74	.733	.198	12.0	14.9	60.3	31.4	3.40	.687	.160	.077
4	.025	.197	.477	.154	13.4	18.3	92.4	33.2	3.01	.687	.154	.068
5	.014	.137	.884	.137	4.63	14.9	56.9	34.2	3.73	.642	.148	.060
6	.038	.110	3.12	.131	6.75	16.2	259.	30.5	4.08	.642	.137	.060
7	.025	.060	.953	.115	27.5	13.7	78.1	24.5	3.49	.642	.154	.060
8	.025	.052	1.24	.160	30.2	9.66	54.0	20.7	2.72	.600	.160	.060
9	.009	.041	.922	.142	26.7	107.	144.	18.0	2.44	.520	.160	.052
10	.014	.031	.477	.137	17.0	31.1	160.	20.7	2.11	.483	.160	.038
11	.031	.022	.327	.120	42.1	20.9	72.0	46.6	1.62	.414	.154	.025
12	.019	.014	.646	.115	14.9	17.0	83.8	21.5	1.30	.414	.219	.025
13	.014	.011	1.08	.126	232.	13.2	59.3	17.9	1.30	.414	.301	.031
14	.025	.022	.733	.115	36.6	13.8	80.4	16.4	1.30	.383	.353	.038
15	.014	.014	3.25	.191	80.3	10.7	70.9	13.2	1.27	.353	.267	.052
16	.031	.019	1.93	.160	32.6	9.22	67.0	12.2	1.98	.353	.160	.052
17	.025	.022	1.05	.142	28.2	8.32	122.	12.2	2.10	.326	.160	.045
18	.019	3.33	.627	.131	22.2	7.05	392.	13.2	1.30	.300	.160	.045
19	.011	1.86	.327	.105	25.2	14.0	128.	12.3	1.30	.300	.160	.038
20	.014	.687	.233	.148	21.5	9.89	85.7	9.10	1.17	.300	.198	.038
21	.022	.290	.249	.160	21.9	7.36	67.1	11.6	1.05	.300	.148	.031
22	.014	.233	.288	.642	21.6	9.10	246.	8.20	.993	.276	.126	.031
23	.028	.120	.265	2.58	40.6	24.5	124.	16.2	.993	.276	.126	.025
24	.025	.090	.209	3.99	28.2	78.7	71.0	13.8	.884	.254	.105	.019
25	.022	.077	.160	3.57	29.4	46.6	182.	10.3	.733	.233	.115	.014
26	.056	9.89	37.2	.953	39.9	28.5	117.	7.48	2.50	.215	.105	.009
27	.100	8.08	32.1	3.92	61.9	170.	110.	5.81	1.30	.198	.115	.009
28	.197	7.36	17.5	5.10	31.2	98.8	64.1	5.51	1.17	.184	.095	.004
29	.315	3.74	5.51	2.95	24.5	110.	146.	5.20	.993	.184	.077	.004
30	.165	1.11	1.36	2.76	25.1	125.	76.1	4.54	.884	.171	.077	
31	.120		.288		22.7	79.0		4.08		.160	.077	
MCY	.048	1.32	3.76	.989	33.4	37.6	116.	18.6	1.96	.399	.156	.040

DEBIT MOYEN ANNUEL

17.8 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1960-1961 (M3/S)

	MAIS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.101	1.31	1.90	24.2	35.0	48.0	46.6	18.2	3.99	.448	.184
2	.000	.060	.528	.863	13.2	27.5	122.	125.	12.9	3.65	.483	.171
3	.000	.052	.521	.953	139.	24.5	440.	187.	12.2	3.02	.520	.171
4	.000	.052	.477	4.54	133.	21.3	131.	226.	13.1	2.72	.559	.171
5	.000	.052	.437	6.48	29.0	20.4	82.5	76.1	11.9	2.65	.520	.160
6	.000	.045	.277	2.27	20.7	20.4	216.	53.9	11.7	2.17	.448	.160
7	.000	.045	.315	.863	53.6	17.7	202.	129.	11.9	1.68	.383	.160
8	.000	.045	.327	1.60	98.2	33.5	124.	79.0		1.20	.300	.148
9	.000	.045	.345	5.51	22.2	150.	145.	44.4		1.08	.233	.148
10	.000	.045	.303	10.7	80.4	124.	128.	34.8		1.11	.300	.148
11	.000	.045	.255	2.18	64.1	59.9	120.	39.6		1.02	.276	.148
12	.000	.363	.160	1.21	98.1	43.4	389.	40.4		.965	.300	.137
13	.000	1.33	.160	.863	27.6	48.9	113.	33.3		1.11	.276	.137
14	.000	7.17	.148	.687	74.9	31.2	122.	48.0		1.05	.254	.126
15	.000	2.65	.277	5.05	38.9	38.1	101.	33.2		.832	.254	.115
16	.000	.456	.593	2.74	26.7	28.5	156.	23.9		.939	.276	.115
17	.000	.303	6.20	1.21	22.7	59.4	145.	25.2		.938	.243	.105
18	.000	.218	1.15	.733	43.4	127.	168.	21.2		.832	.207	.095
19	.000	.160	.646	.733	24.5	43.4	115.	18.2		.832	.184	.077
20	.000	.148	.315	.863	21.5	26.7	96.6	14.9		.938	.277	.060
21	.000	.148	.209	.733	58.0	41.9	76.9	17.9		.782	.414	.045
22	.148	.197	.172	6.06	33.5	66.9	77.5	16.2		.733	.417	.031
23	.115	.126	.160	22.7	23.6	39.6	52.1	14.6		.687	.254	.038
24	.115	.172	.148	8.49	23.1	31.1	83.6	16.1		.642	.243	.045
25	.060	.154	.096	24.0	23.0	434.	37.5	15.8		.642	.243	.038
26	.060	.172	.060	10.6	43.2	113.	179.	14.7		.600	.254	.031
27	.052	.172	.052	7.72	37.2	75.7	159.	13.8		.520	.254	.025
28	1.30	.177	1.20	14.7	31.2	47.6	88.8	21.5		.483	.224	.019
29	.447	.154	.667	7.39	48.9	48.7	75.2	14.7		.520	.191	
30	.148	.627	.327	212.	35.7	124.	59.3	15.8		.448	.177	
31	.137		3.18		68.2	66.6		27.0		.414	.172	
MOY	.083	.517	.678	12.2	47.8	66.8	135.	48.0	9.16	1.26	.309	.107

DEBIT MOYEN ANNUEL

26.9 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1961-1962 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.019	.277	.410	.384	5.95	28.2	13.2	14.7	2.94	.448	.198	.086
2	.014	.245	.160	.353	4.35	23.7	13.2	23.0	2.50	.448	.215	.077
3	.014	.104	.154	.301	13.2	53.6	14.7	16.2	2.23	.414	.233	.068
4	.014	.034	.137	.327	10.5	43.6	11.0	14.0	1.86	.414	.198	.086
5	.014	.742	.120	.290	6.78	30.5	10.3	14.0	1.98	.383	.184	.095
6	.009	.143	.137	17.9	14.3	24.8	17.7	14.7	2.10	.383	.184	.086
7	.009	.082	.300	6.58	20.0	21.6	14.7	16.7	1.98	.353	.171	.077
8	.009	.235	.543	3.74	6.02	93.2	24.5	50.0	1.51	.353	.160	.068
9	.009	16.1	.068	2.37	7.13	33.2	20.0	40.4	1.23	.326	.148	.060
10	.009	3.61	.187	1.68	7.24	22.7	17.4	21.5	1.17	.300	.148	.060
11	.009	2.85	.327	1.02	46.3	21.5	22.5	24.5	1.11	.276	.148	.060
12	.004	1.20	.456	3.56	19.2	18.5	16.5	30.3	1.05	.276	.137	.060
13	.004	.783	6.89	3.29	11.5	18.2	37.2	19.4	.993	.276	.137	.060
14	.004	.687	103.	1.74	45.4	17.7	23.7	26.0	.993	.254	.137	.060
15	.004	.226	9.66	1.21	18.2	13.7	18.2	16.7	.993	.254	.126	.077
16	.004	.301	4.54	.965	13.2	15.0	15.2	14.7	.938	.254	.126	.068
17	.004	.213	3.82	.783	12.5	12.9	22.2	11.9	.832	.254	.115	.068
18	.004	.300	2.74	1.74	17.0	11.7	16.8	12.5	.782	.233	.115	.060
19	.002	.199	1.74	4.54	11.7	13.2	12.8	10.0	.733	.233	.105	.060
20	.002	.154	1.46	57.4	35.6	12.0	11.9	9.62	.733	.233	.095	.060
21	.002	.148	1.02	16.2	18.9	16.2	18.8	7.96	.687	.215	.086	.060
22	.002	.137	1.30	12.1	27.0	13.2	101.	6.90	.642	.215	.077	.060
23	.004	.115	.993	20.9	16.2	11.4	44.9	6.34	.642	.215	.068	.060
24	.004	.251	.783	15.3	11.2	23.7	32.0	10.4	.642	.215	.060	.060
25	.000	.339	.939	10.3	10.3	12.5	38.1	6.34	.600	.198	.068	.052
26	.000	.276	.710	7.72	91.7	15.5	24.3	5.40	.559	.198	.060	.045
27		.265	.575	5.81	68.1	46.6	23.4	5.00	.559	.184	.060	.038
28		.172	.449	6.16	35.0	24.5	23.0	4.53	.520	.184	.060	.031
29		.173	.353	7.13	31.4	20.7	19.7	3.99	.520	.171	.060	
30	2.50	.340	.353	8.24	53.9	19.2	16.7	3.48	.483	.171	.060	
31	1.05		.384		40.6	16.7		3.17		.184	.077	
MCY	.241	1.03	4.68	8.67	23.6	24.2	23.2	15.0	1.15	.275	.123	.064

DEBIT MOYEN ANNUEL

8.59 M3/S

STATION : TOGO VOLTA KARA LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOÛT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.031	.045	.443	5.72	31.7	43.4	186.	22.8	10.7	4.35	.687	.300
2	.031	.038	.437	3.90	112.	87.6	108.	21.2	10.0	3.11	.642	.353
3	.025	.038	.357	10.7	32.9	66.0	226.	18.8	9.35	3.09	.600	.300
4	.025	.031	.558	3.47	25.7	72.4	94.3	32.0	8.58	2.57	.579	.326
5	.025	.025	6.01	35.9	56.1	47.1	102.	61.5	10.6	2.11	.501	.483
6	.019	.025	1.58	10.9	66.1	55.6	93.1	27.9	9.62	1.80	.431	.600
7	.019	.019	.667	5.83	28.1	33.8	74.9	42.9	8.32	1.62	.498	.600
8	.060	.014	10.2	49.7	23.7	28.2	53.6	32.6	7.01	1.62	.621	.520
9	.110	.009	31.4	20.0	20.4	25.2	282.	32.3	6.34	1.74	.539	.414
10	.095	.009	3.98	10.3	21.2	27.2	122.	26.6	12.5	1.68	.414	.353
11	.080	.004	2.79	29.7	18.0	27.6	98.1	31.5	11.2	1.30	.484	.300
12	.077	.060	2.79	16.2	15.2	19.5	55.7	31.2	10.9	1.46	.501	.276
13	.060	.060	2.37	23.3	45.1	20.7	61.1	24.2	17.6	1.46	.448	.300
14	.160	.052	2.04	15.3	18.5	17.0	74.0	59.4	13.5	1.30	.414	.254
15	.148	.052	1.80	14.4	17.7	14.6	42.6	32.0	12.2	1.23	.353	.233
16	.110	.045	7.43	14.4	21.0	24.8	36.5	24.8	8.97	1.17	.383	.184
17	.095	.052	2.71	25.1	14.6	18.9	39.9	32.7	6.13	1.11	.414	.199
18	.068	.064	2.87	17.3	86.8	29.3	73.1	22.4	7.96	1.05	.448	.216
19	.060	.056	1.52	189.	17.1	15.6	35.3	19.5	7.48	1.05	.383	.177
20	.060	.072	1.02	73.4	24.5	41.9	45.5	16.4	5.81	.993	.353	.184
21	.045	.100	.688	521.	16.5	35.3	252.	49.2	5.51	.938	.326	.243
22	.038	.081	.501	131.	40.6	73.1	76.1	26.7	12.5	.884	.326	.224
23	.031	.072	.431	50.8	18.2	32.3	56.4	14.9	10.7	.832	.300	2.18
24	.025	.243	.520	34.1	15.5	114.	49.5	56.7	14.7	.884	.326	1.18
25	.019	.627	.339	27.8	97.8	241.	33.8	24.5	9.91	.733	.276	.698
26	.019	.160	.505	61.7	48.3	230.	52.5	18.5	5.81	1.30	.300	.501
27	.014	.216	.323	42.7	29.7	98.1	35.0	16.5	4.74	.938	.326	.431
28	.014	.148	.197	30.5	25.2	198.	31.1	14.0	6.80	.733	.300	.353
29	.009	1.34	15.9	37.0	25.2	209.	26.4	12.9	11.9	.733	.353	
30	.004	1.05	2.22	28.1	27.2	100.	23.6	11.0	7.17	.687	.353	
31	.045		13.8		119.	110.		11.4		.733	.326	
MOY	.053	.160	3.84	52.0	37.4	69.6	84.7	28.0	9.49	1.46	.426	.442

DEBIT MOYEN ANNUEL

24.0 M3/S

STATION : 7000

VCLTA

KARA

LAPA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1962-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTE	NOVE	DECE	JANV	FEVR
1	1.82	.198	.384	2.24	12.3	70.5	108.	66.0	65.4	2.90	.992	.414
2	.929	.184	.487	1.05	5.83	37.3	88.8	207.	46.5	2.40	.992	.382
3	.723	.160	.581	.688	3.66	34.2	72.6	47.6		2.24	.938	.368
4	.621	.482	.901	.627	2.37	61.6	111.	52.1		2.09	.938	.326
5	.581	.562	.401	1.20	30.8	40.7	210.	45.2		2.24	1.05	.300
6	.399	15.6	.300	1.05	161.	28.1	243.	55.2		2.09	.938	.288
7	.827	1.86	.623	.783	47.6	98.1	87.9	82.7		2.79	.884	.276
8	.688	1.11	2.80	.939	78.6	22.7	111.	128.		2.64	.884	.254
9	.427	.863	2.04	.688	30.3	275.	409.	65.1		2.50	.832	.242
10	.288	1.11	1.24	.579	29.7	87.6	148.	54.0		2.50	.884	.215
11	.223	.885	.601	.665	20.7	46.4	641.	56.1		2.37	.782	.198
12	.215	.601	.501	.560	82.5	165.	236.	443.		2.23	.832	.184
13	.223	.449	.401	.339	35.7	65.8	146.	139.		2.10	.782	.171
14	.243	.327	.642	.285	32.9	624.	124.	78.7		1.58	.723	.106
15	.215	.487	7.17	.437	25.5	220.	154.	61.2		1.74	.733	.045
16	.198	22.2	2.87	.809	431.	88.4	73.7	265.		1.51	.782	.038
17	.184	12.4	1.51	.993	65.2	61.2	142.	80.3		1.62	.723	.052
18	.171	2.66	.913	.783	478.	64.8	93.1	64.3		1.30	.687	.045
19	.160	1.49	.688	2.33	64.8	303.	109.	49.3		1.30	.687	.052
20	.052	.965	.560	5.33	46.3	88.7	233.	156.	8.32	1.51	.723	.045
21	.045	.782	4.84	2.72	25.7	603.	270.	90.0	7.83	1.30	.723	.031
22	.038	.581	2.40	1.92	32.9	207.	94.3	215.	7.12	1.51	.687	.031
23	.031	.384	.688	1.27	29.7	113.	85.8	106.	6.02	1.30	.687	.025
24	.034	.249	1.70	1.02	26.6	171.	59.3	70.5	5.40	1.30	.642	.019
25	.048	14.1	1.24	.619	22.7	101.	47.6	55.9	5.20	1.23	.600	.014
26	.234	1.15	.665	5.82	20.7	97.4	48.1	47.6	5.00	1.17	.600	.014
27	.577	.688	.809	3.09	74.2	782.	144.	48.1	4.81	1.11	.559	.009
28	.809	.539	.710	2.72	47.0	274.	73.8	44.1	4.82	1.05	.520	.009
29	.782	.482	.521	7.72	28.2	214.	45.2		4.25	1.23	.520	.004
30	.449	.415	.560	5.30	31.2	240.	52.7	70.5	4.08	1.11	.482	
31	.277		2.26		22.2	116.		91.7		.993	.448	
MOY	.405	2.87	1.24	1.98	66.4	175.	149.	101.	21.4	1.58	.751	.143

DEBIT MOYEN ANNUEL

43.8 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M³/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.004	1.35	.353	1.14	14.0	49.0	153.					
2	.009	.627	.335	1.02	7.84	30.5	92.4					
3	.009	.245	.353	.835	3.50	38.4	254.					
4	.009	24.5	.227	.621	2.87	20.7	188.					
5	.019	6.66	.484	.467	1.52	17.5	417.					
6	.014	1.35	.487	2.37	1.24	40.6	146.					
7	.014	.560	.883	1.21	2.55	75.2	99.9					
8	.009	.353	.427	.667	2.72	34.2	55.0					
9	.025	.288	14.2	.445	5.83	23.2	93.1					
10	.025	.484	2.60	25.7	20.5	49.1	236.					
11	.031	.243	.883	3.25	4.54	48.8	248.					
12	.019	.148	1.50	1.58	5.34	27.7	287.					
13	.014	.120	.883	1.05	5.61	22.6	117.					
14	.009	.100	1.05	1.17	3.66	24.1	91.8					
15	.019	.077	.554	.565	16.2	20.3	84.9					
16	.086	.627	.733	.554	13.3	22.2	143.					
17	2.82	.521	.561	.783	11.5	15.1	91.8					
18	2.18	24.5	.401	.858	7.55	16.2	63.3					
19	.543	14.7	.627	.601	6.23	15.3	48.7					
20	.157	3.25	1.11	.445	5.10	14.7	61.3					
21	.082	1.58	.535	.288	3.55	29.5	63.8					
22	.048	1.17	.581	.175	3.40	18.3	79.0					
23	.031	1.08	.227	1.31	11.2	17.0	51.4					
24	.038	1.02	15.4	4.28	6.34	12.5	120.					
25	.031	.565	12.7	1.55	5.20	205.	136.					
26	.025	1.11	5.05	1.24	4.26	65.5	123.					
27	.019	.805	3.05	.835	6.57	77.7	129.					
28	.427	.560	2.17	2.72	8.11	164.	51.9					
29	.353	.465	1.24	1.24	4.08	380.	84.8					
30	1.15	.355	.554	25.2	8.08	256.	54.9					
31	2.87		.584		226.	205.						
MOY	.292	3.00	2.48	2.55	13.9	67.1	129.	45.5	20.0	3.00	.500	.200

DEBIT MOYEN ANNUEL

24.0 M³/S

STATION : TGGQ

VCLTA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.160	1.29	32.7		73.1		1.74	.300	.160	.086
2			.148	.733	29.6		76.3		1.51	.300	.160	.077
3			.234	.642	26.9		87.9		1.23	.276	.148	.115
4			.520	.353	23.3		66.1		1.11	.254	.148	.095
5			.233	.326	58.9		70.5		1.11	.233	.137	.095
6			.171	.198	32.0		129.		.993	.215	.126	.086
7			.160	.185	25.2		112.		.884	.215	.126	.086
8		9.04	.148	.340	18.5		87.5		.884	.198	.095	.077
9		.953	.137	10.3	14.0		377.	8.08	.782	.184	.077	.077
10		.353	.115	3.75	75.7		81.8	6.46	.733	.184	.060	.077
11		.233	.105	2.30	57.6		59.3	5.00	.642	.171	.060	.077
12		.142	.077	1.58	269.	54.0	50.4	4.16	.600	.160	.077	.068
13		.105	.353	15.6	52.1	209.	45.2	3.90	.559	.160	.077	.068
14		.060	.520	15.5	45.1	120.	119.	3.40	.520	.184	.077	.060
15		.060	5.12	10.7	41.1	83.8	73.8	3.24	.483	.198	.077	.060
16		.056	2.50	43.4	35.7	63.9	108.	3.01	.448	.198	.160	.052
17		.048	6.02	21.5	61.2	47.6	66.6	7.95	.414	.184	.160	.052
18		.041	1.30	6.57	47.6		49.6	5.81	.414	.215	.160	.045
19		.038	1.57	3.66	47.6		47.6	4.64	.383	.215	.160	.038
20		.031	.733	26.6	64.3		57.2	3.24	.414	.198	.148	.038
21		.031	.520	19.4	53.6		49.5	3.17	.383	.233	.148	.038
22		.025	.353	8.20	45.2		49.1	2.95	.414	.233	.148	.045
23		.353	.233	3.56	46.1			2.04	.414	.215	.137	.045
24		.520	.733	26.1	50.4	81.7	57.2	1.57	.383	.215	.126	.045
25		2.87	.513	25.4	58.6	44.9		8.74	.383	.198	.115	.045
26		.733	1.77	22.7	54.0	80.8		3.74	.353	.198	.086	.038
27		.665	7.82	66.0		50.8		2.40	.353	.184	.105	.038
28		.581	4.54	33.2	69.5	60.9	57.2	7.95	.353	.184	.105	.038
29		.520	3.66	24.8	51.5	51.6	61.2	3.40	.353	.171	.095	
30		.184	5.00	14.9		57.6		2.72	.326	.171	.095	
31			2.50					2.04		.160	.086	
MOY .500	2.62	1.56	13.7	53.3	65.9	79.8	11.5	.652	.207	.117	.063	

DEBIT MOYEN ANNUEL

19.3 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.031	.014	.667	5.40	23.0		109.	44.1		1.23	.326	.160
2	.038	.014	6.43	2.87	7.72		70.3			1.17	.326	.160
3	.025	.009	.922	2.46	5.60		52.9			1.11	.300	.160
4	.019	.009	1.14	2.38	7.72		56.8			1.05	.300	.148
5	.019	.011	.667	10.6	7.60		49.7			.993	.276	.148
6	.025	.009	.327	3.66	11.2		60.9	48.9	10.7	.938	.276	.148
7	.019	.014	.243	20.0	15.1				9.62	.884	.276	.137
8	.014	.022	.207	6.48	7.25				8.32	.832	.276	.137
9	.014	1.63	.165	5.83	5.71		252.		7.59	.782	.276	.137
10	.009	1.64	.137	7.82	4.90		93.9		8.08	.733	.276	.137
11	.009	.559	.120	4.84	7.24		101.		7.12	.687	.326	.126
12	.014	.418	.115	2.89	8.23		61.6	134.	6.02	.642	.300	.126
13	.014	7.99	.105	5.28	13.6		44.9	64.1	5.40	.642	.276	.126
14	.019	4.72	.100	8.37	6.34		139.	172.	5.00	.642	.276	.126
15	.019	1.58	.095	8.08	4.81		69.1	52.1	4.62	.600	.276	.126
16	.014	.783	.095	4.64	5.79		91.0		4.25	.600	.254	.115
17	.025	1.90	.131	17.0	8.23		57.6		3.90	.600	.233	.115
18	.025	.483	.142	5.51	5.10		70.7		3.57	.559	.215	.115
19	.019	.270	.115	4.94	24.5		91.6		3.24	.559	.215	.105
20	.019	.199	.100	17.0	9.13		47.6		2.94	.520	.215	.105
21	.019	1.14	.090	10.6	6.57				2.64	.520	.198	.105
22	.038	1.02	.095	76.1	45.0		203.		2.50	.520	.198	
23	.038	.663	.165	18.5	23.7		71.0		2.37	.483	.198	
24	.031	.243	.507	21.5	13.4		52.1		2.23	.483	.198	
25	.025	.207	1.88	14.0	35.9				2.10	.483	.184	.086
26	.025	.315	1.70	8.85	57.4		230.		1.98	.448	.171	.077
27	.019	.207	1.58	20.7	22.2		126.		1.86	.448	.171	.068
28	.019	.237	.863	7.96	17.7		194.		1.74	.414	.171	.060
29	.019	.165	1.18	6.67	14.7		95.2	174.	1.62	.383	.160	
30	.019	.230	6.23	5.30	14.3		57.2		1.51	.353	.160	
31	.014		4.87		13.8					.353	.160	
MOY	.021	.890	1.01	11.2	14.7	61.2	104.	99.6	15.7	.667	.241	.119

DEBIT MOYEN ANNUEL

25.9 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 4727391C

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.052	.354	.463	.213	4.64	158.	24.0	85.4	8.90	.965	.642	.215
2	.062	.288	.254	.184	2.76	95.6	199.	68.8	7.24	1.01	.600	.198
3	.060	.234	.215	.522	11.6	153.	59.2	53.4	6.67	11.2	.555	.184
4	.045	.226	.236	.341	13.8	86.9	58.3	284.	6.45	4.98	.520	.184
5	.038	.177	.190	.488	12.7	172.	192.	269.	5.91	2.70	.483	.171
6	.038	.234	.191	.288	5.34	47.1	65.9	57.8	5.70	1.98	.520	.198
7	.045	.353	.207	7.14	13.0	29.9	93.2	431.	5.10	1.57	.448	.171
8	.045	.257	.179	2.67	6.32	37.5	177.	101.	4.62	1.35	.448	.215
9	.021	.237	.148	1.14	4.98	24.8	475.	72.0	4.34	1.24	.414	.184
10	.038	.567	.120	.759	19.7	90.7	180.	56.5	3.99	1.14	.383	.171
11	.038	.301	.120	.601	13.4	90.7	178.	53.3	3.65	1.08	.383	.148
12	.031	.313	.115	.465	5.34	89.3	97.0	75.9	3.32	1.08	.353	.148
13	.025	2.51	.115	.415	9.14	209.	205.	39.0	2.94	1.02	.353	.137
14	.025	1.61	.126	.383	22.9	56.4	107.	29.6	2.72	.993	.353	.115
15	.014	.818	.126	.339	31.6	87.8	125.	39.2	2.51	.911	.326	.126
16	.014	.484	.105	.481	23.0	49.8	139.	86.5	2.23	.858	.300	.115
17	.016	.451	.092	.485	64.5	54.0	349.	31.5	2.23	.832	.265	.105
18	.019	.417	2.95	10.8	22.6	36.0	264.	45.0	2.10	.782	.254	.126
19	.025	.300	.858	5.41	330.	27.6	342.	26.3	1.98	.782	.233	.126
20	.448	.485	.553	2.90	80.7	439.	144.	29.0	1.74	.832	.233	.115
21	.567	2.23	.324	2.38	30.9	161.	317.	24.8	1.51	.884	.234	.095
22	.279	.883	.237	3.04	25.2	96.3	102.	21.6	1.51	1.30	.233	.095
23	.166	.487	.172	1.08	21.0	64.8	181.	19.8	1.40	1.30	.243	.086
24	.582	.300	.142	.884	49.3	53.3	140.	16.5	1.30	1.05	.265	.105
25	1.34	.224	3.57	.858	62.1	59.9	167.	15.5	1.23	.938	.288	.095
26	.876	.191	1.57	.861	175.	91.2	96.8	14.4	1.17	.782	.327	.086
27	.339	.172	1.17	9.21	193.	104.	104.	13.5	1.11	.782	.288	.052
28	.491	.179	.645	3.67	116.	56.4	331.	12.0	1.05	.733	.243	.068
29	.301	.226	.460	2.20	86.5	42.5	267.	14.6	1.05	.733	.207	.052
30	.847	.187	.374	3.84	48.3	31.1	90.0	11.6	.993	.733	.191	
31	.433		.254		64.8	27.0		9.94		.642	.279	
MOY	.237	.524	.525	2.13	50.7	91.1	176.	69.3	3.22	1.52	.351	.134

DEBIT MOYEN ANNUEL

33.0 M3/S

STATION : TOGO

VCLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	ACUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.041	.066	1.02	15.2	8.58	38.3	152.	46.8	9.62	1.05	.300	.160
2	.038	.148	.783	13.8	7.71	32.4	91.4		8.08	.993	.383	.148
3	.041	.165	.737	7.53	10.3	41.2	62.2	58.4	7.72	.993	.353	.148
4	.048	.132	12.2	8.65	6.34	48.3	88.4		6.34	.938	.326	.148
5	.045	.105	15.3	24.3	23.1	29.0	60.9	73.0	5.70	.938	.300	.137
6	.052	.077	5.02	10.7	26.0	26.9	159.	53.9	7.77	.884	.300	.148
7	.041	.060	3.02	7.24	34.5	22.7	86.7		5.30	.884	.300	.137
8	.053	1.15	1.86	15.6	18.6	20.6	57.4		4.71	.832	.254	.137
9	1.02	.585	1.29	7.61	19.1	22.5	75.3	45.4	4.25	.832	.300	.137
10	.391	.279	1.05	6.80	55.6	21.5	302.		4.08	.832	.233	.126
11	.224	8.02	.994	5.51	39.2	22.7	111.		3.73	.782	.233	.126
12	.199	.953	7.88	22.5	22.1	44.2	100.		3.48	.782	.254	.126
13	.154	3.06	2.61	14.0	37.7	23.0	132.		3.17	.782	.233	.105
14	.115	1.67	1.34	10.6	60.0	25.4	106.		3.01	.782	.233	.115
15	.081	5.78	.939	18.7	22.8	27.6	120.		2.72	.642	.233	.105
16	.068	1.45	.757	27.8	24.0	22.8	64.9		2.50	.642	.254	.115
17	.068	1.05	.643	67.0	248.	19.5	52.9	10.4	2.37	.642	.254	.115
18	.052	1.03	.539	20.6	82.9	17.9	45.4	9.75	2.23	.642	.233	.105
19	.045	.667	.415	16.8	54.7	53.1	93.0	8.83	1.98	.600	.215	.077
20	.031	.449	.383	14.4	59.7	36.2	58.8	9.35	1.86	.600	.215	.077
21	.031	1.24	1.17	29.3	109.	43.5		8.70	1.86	.559	.215	.077
22	.031	3.66	.913	21.6	45.5	21.8		9.23	1.62	.520	.184	.068
23	.031	2.10	1.07	31.9	47.8	31.1		7.96	1.51	.520	.184	.068
24	.025	1.05	.643	22.7	64.8	39.3		7.95	1.40	.483	.184	.068
25	.184	.858	.627	17.6	45.7	34.9		9.62	1.30	.448	.198	.060
26	.171	.688	1.60	15.3	69.5	24.8		10.7	1.23	.448	.171	.068
27	.160	.559	1.95	12.6	69.3	22.4	170.	9.62	1.17	.383	.171	.060
28	.148	4.15	4.72	20.6	69.3	121.	55.3	7.59	1.11	.383	.184	.060
29	.105	1.42	1.70	16.8	77.0	31.5		6.78	1.11	.414	.171	
30	.086	1.17	1.05	12.7	52.1	29.7	62.5	7.39	1.05	.383	.160	
31	.052		10.0		52.5	333.		6.45		.326	.160	
MCY	.124	1.46	2.72	20.2	50.4	42.9	102.	26.5	3.47	.675	.238	.108

DEBIT MOYEN ANNUEL

21.0 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.052	.076	.184	1.23	19.2	28.5	59.5	57.9		2.10	.782	.326
2	.048	.154	.191	1.05	8.45	95.3	222.	45.0		1.98	.687	.300
3	.045	.131	4.94	.938	9.55	120.	122.	56.0		1.86	.642	.300
4	.052	.110	12.4	.832	5.20	32.3	102.	58.6		1.74	.600	.276
5	.056	.100	4.77	.733	3.99	49.3	92.3			1.62	.600	.276
6	.042	.090	1.62	.642	5.18	169.	84.3			1.51	.559	.254
7	.046	.391	1.17	.559	7.37	83.5	53.0	43.0		1.51	.559	.254
8	.060	.702	1.02	.600	4.19	74.8	524.	52.4		1.40	.559	.233
9	.052	.270	.887	.559	9.31	51.7	158.			1.40	.559	.233
10	.072	.290	.665	.448	16.1	139.	127.		11.0	1.30	.559	.233
11	.081	12.8	1.02	.642	6.68	158.	200.		9.89	1.30	.520	.198
12	.064	.36	.809	.520	19.1	191.	95.9	77.0	8.83	1.23	.483	.215
13	.064	1.05	10.2	.414	7.36	124.	69.2		8.08	1.23	.483	.215
14	.077	.783	2.90	.559	9.40	98.2	274.		7.36	1.17	.448	.198
15	.068	.601	11.6	.520	13.1	68.0	90.8		6.67	1.17	.448	.198
16	.060	.465	2.75	.483	12.2	71.9	111.	52.2	6.02	1.11	.520	.198
17	.068	.341	1.34	.431	158.	79.7	318.	50.4	5.60	1.11	.448	.184
18	.077	.301	.967	.368	127.	47.1	173.		5.20	1.05	.448	.171
19	.064	.277	2.10	1.37	137.	56.6	97.7	42.1	4.81	.993	.414	.198
20	.064	1.54	2.83	3.00	40.3	52.0	72.1	42.6	4.62	.993	.399	.171
21	.064	1.45	2.85	5.41	29.6	52.6	70.2	57.5	4.25	.938	.383	.160
22	.052	.835	2.37	2.53	40.4	79.2	200.	45.4	3.90	.884	.353	.160
23	.038	.601	1.64	2.18	109.	52.5	77.6		3.57	.884	.353	.148
24	.034	.484	30.7	1.55	49.8	79.9	68.7	41.8	3.24	.884	.383	.137
25	.045	.368	10.0	1.57	32.3	297.	53.0		2.94	.884	.383	.126
26	.041	.301	4.48	1.42	25.7	136.	45.7		2.79	.832	.383	.115
27	.041	.255	2.51	.939	21.8	102.	108.	191.	2.64	.782	.383	.126
28	.045	.233	11.0	.807	96.7	144.	91.4	61.8	2.50	.832	.368	.137
29	.056	.207	3.85	.710	40.8	118.	63.2	44.1	2.37	.782	.585	
30	.056	.207	2.31	.563	21.6	70.9	102.		2.23	.782	.415	
31	.045		1.57		20.9	170.				.733	.339	
MOY	.056	.931	4.44	1.12	35.7	99.7	132.	61.6	11.1	1.19	.485	.205

DEBIT MOYEN ANNUEL

29.2 M3/S

STATION : TOGO

VOLTA

KARA

LAMA-KARA I

NUMERO : 47273910

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MAIS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.131	.086	.077	.465	.733	98.2	73.4	80.3	3.57	.559	.300	.148
2	.115	.068	.096	1.64	.876	45.7	336.	62.0	3.09	.559	.383	.148
3	.110	.060	.160	2.01	.809	30.6	125.	41.7	2.79	.559	.326	.137
4	.120	.060	.173	2.05	.807	27.0	169.	49.0	2.64	.520	.300	.131
5	.120	.060	.177	1.29	.665	21.8	90.0		2.37	.483	.276	.126
6	.115	.052	.154	1.05	.716	105.	142.		2.23	.483	.254	.120
7	1.07	.077	.142	.833	.860	80.6	72.8		1.98	.483	.254	.120
8	.748	.060	.175	.601	.710	42.0	170.		1.74	.483	.233	.115
9	.741	.077	.148	.484	1.11	25.5	79.6		1.62	.383	.233	.131
10	.243	.060	.142	.640	13.0	21.2	233.		1.51	.483	.233	.177
11	.254	.137	1.01	.710	23.7	100.	243.		1.40	.414	.215	.529
12	.290	.137	.984	1.09	11.5	47.8	126.		1.30	.383	.215	1.25
13	.339	.137	.451	.623	4.64	31.7	91.8		1.17	.383	.215	.448
14	.290	.105	.267	.501	8.00	43.5	64.4		1.17	.383	.215	.646
15	.209	.115	.185	4.30	3.18	146.	65.0	10.3	1.11	.353	.215	.387
16	.191	.115	1.40	1.64	3.88	63.4	75.3	9.09	1.05	.326	.215	.290
17	.165	.090	1.11	.994	6.11	68.1	55.6	8.45	1.05	.383	.215	.245
18	.132	.081	.911	.783	13.6	48.1	316.	7.59	1.05	.353	.198	.185
19	.142	.077	.646	.642	10.1	73.2	309.	7.01	.993	.353	.184	.177
20	.126	.072	.433	.539	5.61	31.2	117.	6.56	.938	.353	.184	.165
21	.131	.060	.327	.465	17.4	26.7	144.	7.48	.884	.300	.171	.154
22	.115	.073	.265	.431	6.79	23.0	137.	6.46	.832	.353	.184	.154
23	.095	.081	1.30	.383	5.93	44.4	71.6	5.81	.832	.326	.184	.148
24	.090	.086	2.82	.339	9.37	180.	148.	5.70	.782	.300	.184	.301
25	.095	.072	5.38	.277	10.6	74.6	78.5	16.7	.782	.300	.171	.226
26	.110	.068	2.12	.483	7.83	241.	209.	7.84	.733	.300	.171	.198
27	.100	.086	3.49	2.04	5.91	89.8	151.	6.34	.733	.300	.160	.185
28	.077	.072	1.34	1.17	6.92	154.	83.2	5.40	.687	.559	.160	.165
29	.077	.056	.885	.812	17.3	82.3	59.5	4.81	.642	.520	.160	
30	.064	.064	.712	.642	19.5	50.6	63.4	4.26	.600	.483	.160	
31	.068		.559		47.2	45.7		3.73		.520	.160	
MOY	.203	.082	.905	.998	8.57	69.8	137.	21.1	1.41	.417	.217	.257

DEBIT MOYEN ANNUEL

20.1 M3/S

Code : 47 27 40 03
bassin versant : 5 470 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par le Génie Rural

Coordonnées : 10° 09' N - 0° 49' E.

Cote du zéro de l'échelle : 129, 315 m. IGN. Nivelé par rapport
au repère IGN matricule BH 49, cote 139, 625 m.

Accès :

Pont métallique situé à 38 kilomètres de KANDE, sur la route
KANDE - MANGO.

Installations

Station implantée le 23 janvier 1962 ; elle comprenait :

- Un élément de 0 à 0,50 m., monté sur fer, enfoncé dans le lit.
- Des éléments de 0,50 à 8 m., étagés par paires sur les gradins de la pile, rive droite.
- Des éléments de 8 à 11 m., fixés sur la culée, rive droite.

Le 24 janvier 1964, tous les éléments fixés sur la pile ont été
remplacés par des éléments métriques étagés en rive droite.

Pose à cette même date d'un élément de 11 à 12 m.

Le 4 mars 1966, pose d'une échelle négative de 0 à -0,50 m.

Les éléments 0 à -0,50 m et de 2 à 3 m. ont été remplacés le
28-4-1970.

Lectures

Trois lectures par jour jusqu'à fin 1966. Deux lectures depuis
cette date. Qualité des observations : moyenne.

Jaugeages - Courbes de tarage

Bien que le lit en aval de la station soit rocheux, cette sta-

tion est instable, du fait des dépôts sableux importants qu'il s'y forment.

Pour la période qui nous intéresse, il a fallu retenir douze courbes de tarage dont certaines sont valables lors des crues, et d'autres lors des décrues.

Trente trois jaugeages ont été effectués à cette station :

maximum jaugé : 557 m³/s, le 31-8-62 (cote 5,85 à 5,92 m)

minimum jaugé : 54 litres/s, le 4-3-66 (cote -0,225 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 640 à 600 m.	2,6 %
600 à 400	29,8
400 à 200	52,4
200 à 130	15,2

Géologie

On trouve la série géologique suivante, en allant d'Est en Ouest :

- Gneiss (groupes du Kabré et d'Agbandi)	23 %
- Micaschistes granitisés de l'Atacorien	9,5
- Quartzites micacés de l'Atacorien	37,4
- Schistes sériciteux (série de Kandé - Boukombé)	14
- Grès et quartzites du Buem	7
- Schistes et grès de l'Oti	9,1

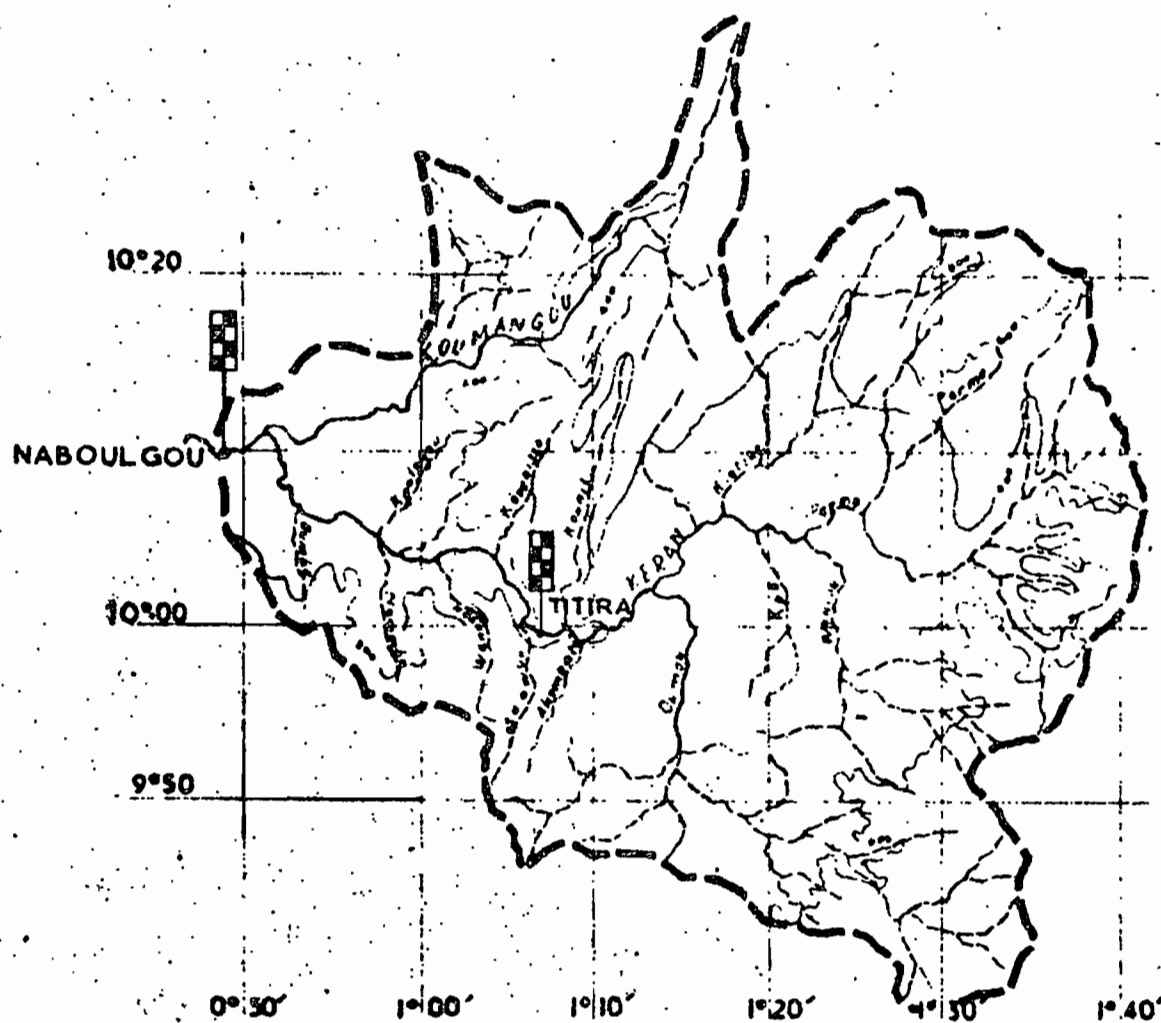
Végétation

Savane arborée avec flots de forêt sèche sur les hauteurs.
Forêt humide dans les vallées.

KERAN A NABOULGOU

BASSIN VERSANT = 5470 Km²

NORD



Echelle : 1 : 800 000

92

ORTOM

DATE : 23 6 / 65

DESSINÉ : M. Sossouh

T 274 H

STATION : TOGO

VOLTA

KERAN

NABOULGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.200	25.4	79.8	191.	462.	96.4	29.5	12.7	4.53	
2			.195	6.03	170.	104.	380.	89.9	29.7	12.5		
3			.205	1.79	73.1	207.	292.	94.1	32.8	12.1		
4			.190	.822	53.9	153.	470.	204.	36.0	12.4		
5			.850	3.04	87.8	112.	334.	274.	34.0	11.2		
6			.604	2.85	80.1	225.	243.	170.	32.6	10.6		
7			1.29	.533	83.9	241.	334.	121.	44.7	7.80		
8			.511	.697	56.9	212.	282.	156.	33.5	8.79		
9			.213	33.3	63.9	301.	552.	129.	30.5	9.09		
10			.210	16.3	59.5	149.	581.	143.	36.0	8.64		
11			.200	18.1	43.6	98.4	495.	122.	35.2	8.43		
12			.278	30.2	48.9	78.8	353.	112.	44.3	7.60		
13			.276	8.76	204.		487.	119.	53.5	7.60		
14			.235	10.6	115.	73.5	426.	154.	43.1	7.50		
15			.276	9.34	114.	72.4	298.	122.	35.7	7.30		
16			.205	2.98	80.7	85.7	282.	91.0	25.9	7.21		
17		.848	.198	2.08	71.4	142.	226.	86.6	25.0	6.83		
18		32.2	.200	2.12	44.1	117.	377.	83.5	24.9	6.83		
19		8.33	.158	7.35	36.9	81.8	329.	69.9	24.5	6.65		
20		2.81	.186	94.6	30.4	59.9	279.	63.8	24.2	6.47		
21		.596	.184	42.2	46.4	83.8	304.	66.1	27.4	6.47		
22		.298	.193	77.4	33.6	67.8	233.	60.2	22.1	6.47		
23		.254	.211	54.5	34.9	58.5	187.	54.0	23.6	5.06		
24		.213	.223	26.6	24.4	117.	186.	66.2	18.2	4.92		
25		1.27	.215	16.8	20.0	110.	159.	75.9	35.3	4.92		
26		1.90	.210	13.8	17.9		145.	56.4	23.2	4.92		
27		.279	.219	75.5	138.	231.	195.	49.1	20.3	4.79		
28		.254	.235	33.4	67.0	161.	147.	40.8	17.8	4.79		
29		.200	2.99	27.7	45.6	490.	135.	39.1	16.0	4.79		
30		.200	38.1	29.8	35.2	849.	104.	37.4	16.3	4.66		
31			19.1		42.9	543.		33.5		4.66		
MOY			2.21	22.5	67.9	183.	309.	99.4	29.9	7.57		

STATION : TOGO

VOLTA

KERAN

NABGULGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	3.25	1.23	2.14	4.74	30.4	70.7						3.80
2	6.15	1.23	2.96	3.89	27.2	122.						3.80
3	4.33	1.23	6.93	3.67	11.5	86.1						3.80
4	3.30	1.23	2.83	3.73	8.14	178.						3.78
5	2.96	1.23	2.19	2.88	30.6	236.	180.					3.78
6	2.94	1.11	2.24	2.75	121.	177.	186.					3.78
7	2.64	2.07	3.93	2.59	104.	303.						3.75
8	2.29	2.07	4.63	2.56	55.4	376.						3.75
9	2.17	3.87	4.37	2.24	108.							3.72
10	2.14	2.96	2.97	2.19	68.7							3.72
11	2.05	2.60	3.10	4.58	50.8	171.						3.72
12	2.00	2.14	3.07	2.91	39.5	381.	680.	568.				3.70
13	2.00	1.98	2.78	2.77	34.3	170.	609.	554.				3.70
14	2.00	1.86	3.62	3.21	99.1	149.						3.70
15	2.00	2.05	4.02	4.62	87.3							3.70
16	1.95	1.95	4.20	3.59	345.	184.	187.					3.68
17	1.86	2.25	3.07	3.38	164.							3.68
18	1.79	6.91	3.38	3.02	96.5	145.						3.68
19	1.75	7.01	2.94	2.96	105.	130.	177.					3.66
20	1.68	4.37	2.80	2.77	115.	128.						3.64
21	1.58	3.02	2.64	4.12	89.5	451.	187.	340.				3.64
22	1.53	2.91	4.88	7.02	85.4	630.	187.					3.64
23	1.53	3.13	3.77	4.41	96.5		187.	186.				3.64
24	1.75	3.10	2.99	4.01	86.0		186.				3.90	3.64
25	1.86	2.49	3.30	3.44	51.8		175.				3.90	3.62
26	1.47	2.24	5.02	4.66	59.2		158.				3.90	3.62
27	1.39	2.24	4.30	3.91	60.4						3.86	3.62
28	1.51	2.07	3.53	3.38	65.6						3.86	3.60
29	1.53	2.00	3.52	3.74	67.3						3.86	3.60
30	1.47	2.00	5.15	7.23	53.7			187.			3.86	
31	1.47		4.21		65.6						3.86	
MOY	2.21	2.55	3.60	3.70	80.1	296.	285.	352.				3.69

STATION : TOGO

VOLTA

KERAN

NABULGCU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	3.60	6.55	5.76	9.28	13.2	139.	357.	174.	27.2	5.30	3.11	
2	3.60	6.42	5.82	11.7	10.5	81.9	310.	174.	26.3	5.30	3.11	
3	3.58	6.45	5.82	8.73	8.31	62.5	430.	130.	23.0	4.89	3.43	
4	3.58	6.35	5.82	7.14	8.27	42.4	661.	111.	22.2	4.89	3.43	
5	3.54	12.2	5.82	6.58	7.57	38.9	547.	98.8	21.0	4.69	3.60	
6	3.53	9.24	6.03	6.65	7.18	112.	503.	88.9	20.6	4.31	3.60	
7	3.53	7.36	6.09	7.54	6.73	139.	361.	83.9	19.7	4.31	3.60	
8	3.52	6.63	6.14	7.03	7.31	68.5	402.	84.6	17.5	4.31	3.60	
9	3.52	6.37	5.98	6.89	6.87	53.0		76.7	15.4	4.13	3.60	
10	3.52	6.28	6.62	6.50	7.48	58.6		65.7	15.0	4.13	3.60	
11	3.52	6.09	6.68	6.42	6.84	108.	272.	59.0	14.0	4.13	3.27	
12	3.52	5.92	6.57	6.71	6.47	117.	434.	54.9	13.7	4.13	2.96	
13	3.51	5.88	6.45	6.68	36.1	87.5	578.	50.1	13.7	4.13	2.66	
14	3.51	5.82	6.63	6.65	16.5	62.8	465.	49.5	12.7	3.95	2.66	
15	3.51	5.76	6.42	6.37	9.85	81.9	286.	49.3	12.7	3.95	2.66	
16	3.50	5.70	6.21	6.16	9.33	54.0	257.	44.4	11.7	3.77	2.66	
17	3.50	5.70	6.19	7.17	10.4	90.6	402.	40.7	10.7	3.77	2.66	
18	3.50	5.70	6.12	7.89	13.7	73.5	293.	39.1	9.80	3.77	2.66	
19	3.50	5.70	5.96	10.7	13.8	74.4	239.	38.7	8.92	3.60	2.66	
20	3.50	5.82	5.82	11.4	9.91	51.9	201.	36.6	8.92	3.60	2.66	
21	3.50	6.79	15.1	10.7	9.13	43.5	170.	34.8	8.65	3.60	2.52	
22	3.50	6.28	7.85	9.15	8.71	114.	181.	35.1	7.86	3.60	2.52	
23	3.50	6.21	6.35	7.67	40.1	70.0	170.	31.5	7.61	3.43	2.25	
24	3.50	6.21	5.90	9.11	28.0	55.7	173.	29.8	6.87	3.43	2.25	
25	8.63	6.16	21.5	8.70	32.1	225.	250.	28.9	6.40	3.43	2.25	
26	7.61	6.14	14.2	8.04	25.2	221.	250.	38.4	6.40	3.27	2.12	
27	7.51	6.09	13.6	7.45	122.	136.	466.	37.1	6.17	3.27	2.12	
28	7.24	5.96	9.82	9.43	198.	338.	238.	55.1	5.51	2.96	2.00	
29	7.06	5.94	7.81	11.9	122.	161.	214.	36.6	5.51	2.96	2.00	
30	7.06	5.80	9.33	10.2	114.	343.	178.	34.8	5.51	2.96	1.77	
31	6.89		7.30		105.	307.		29.1		2.66	1.66	
MOY	4.41	6.45	7.80	8.22	33.0	116.	332.	62.6	13.0	3.89	2.76	

STATION : TOGO VOLTA KERAN NABOULGOU
 NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			1.06	3.55	9.80	86.7	183.	70.9	13.8	1.77		
2			1.79	2.76	7.05	95.0	209.	62.7	10.4	1.66		
3		.760	23.0	2.17	14.8	85.3	184.	60.9	10.4	1.66		
4		.760	22.0	2.08	31.2	52.6	143.	69.5	9.60	1.66		
5		.760	6.87	2.17	21.5	44.4	121.	84.8	8.30	1.45		
6		.760	4.01	1.46	12.0	48.9	103.	60.9	7.61	1.45		
7		.760	2.66	.889	8.34	45.1	95.0	111.	6.95	1.45		
8		.760	8.48	.889	25.8	93.3	92.6	104.	8.08	1.45		
9		.760	8.66	1.42	17.2	70.5	95.2	100.	6.17	1.36		
10		.760	6.59	4.19	19.5	46.6	270.		5.73	1.36		
11		.760	3.46	1.84	13.1	42.3	177.	88.0	5.30	1.36		
12		.760	1.96	4.97	13.6	40.7	212.	80.8	4.89	1.28		
13		.760	39.9	5.98	14.7	123.	155.	57.1	4.69	1.28		
14		.760	13.8	27.4	33.2	205.	137.	46.6	4.44	1.28		
15		.760	5.31	26.7	36.7	137.	182.	40.4	4.31	1.19		
16		.959	3.33	26.3	25.0	121.	162.	37.9	4.13	1.19		
17		.760	2.08	72.3	21.5	326.	154.	35.4	3.77	1.11		
18		.760	2.13	20.9	17.1	248.	123.	32.9	3.49	1.11		
19		.760	8.68	10.5	12.2	134.	108.	34.1	3.16	1.03		
20		.760	4.47	9.73	14.0	120.	109.	30.1	2.96	1.03		
21		.760	2.53	10.7	47.1	135.	126.	28.0	2.86	1.03		
22		.760	2.08	12.6	33.5	99.9	96.6	26.9	2.61	.959		
23		.760	1.66	12.5	84.7	210.	105.	31.3	2.52	.959		
24		.760	1.59	6.51	73.5	441.	150.	25.5	2.52	.959		
25		.760	1.45	27.6	47.4	302.	165.	22.0	2.38	.889		
26		.760	1.28	18.8	42.1	220.	131.	25.1	2.25	.889		
27		.760	1.66	44.1	47.2	193.	100.	21.8	2.17	.889		
28		.760	2.12	36.9	52.2	169.	94.8	17.6	2.12	.889		
29		.760	5.39	17.4	95.9	304.	88.0	17.3	2.00	.760		
30		1.45	5.51	17.1	131.	211.	79.9	16.4	1.84	.760		
31			4.76		142.	171.		14.6		.760		
MOY		.791	6.46	14.6	37.6	149.	138.	50.0	5.05	1.19		

STATION : TOGO

VOLTA

KERAN

NABOULGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1		.104	.045	86.3	18.2	36.4	345.	133.				
2		.061	.194	17.5	32.4	26.9	140.	139.				
3		.075	.000	9.51	23.0	22.1	107.	91.8				
4	.089	.061	.138	4.81	17.5	25.7	90.6	198.				
5	.061	.049	.305	16.7	55.3	37.1	100.	164.				
6	.061	.037	.974	33.3	28.0	25.1	87.4	140.				
7	.061	.027	.867	22.7	29.3	17.4	74.6	129.				
8	.049	.027	1.14	46.1	59.3	29.4	128.	125.				
9	.049	.017	.845	17.6	33.1	59.9	221.	172.				
10	.049	.017	.611	10.4	21.4	41.9	167.	159.				
11	.049	.008	.545	8.74	20.2	59.9	157.	132.				
12	.049	.008	.404	11.9	15.0	52.2	106.	190.				
13	.037	.008	.454	12.6	18.0	44.4	102.	275.				
14	.037	.027	.257	12.9	15.4	38.3	293.	243.				
15	.037	.017	.281	11.4	12.7	40.9	370.	205.				
16	.037	.017	1.11	21.8	9.80	86.2	282.	167.				
17	.037	.017	.823	9.91	7.95	73.3	345.	149.				
18	.027	.400	1.80	8.09	7.28	51.6	206.	136.				
19	.027	.174	1.88	8.07	6.03	201.	354.	122.				
20	.027	.120	1.92	6.63	5.51	382.	195.	102.				
21	.027	.068	2.12	5.30	11.5	194.	183.	94.2				
22	.017	.061	2.25	6.05	9.43	140.	163.	96.4				
23	.027	.061	2.38	17.5	127.	113.	230.	93.1				.179
24	.017	.376	1.91	16.8	47.4	380.	145.	71.3				.164
25	.017	.490	1.31	55.1	45.2	163.	127.	61.9				.164
26	.017	.317	.913	20.8	48.2	231.	170.	56.9				.150
27	.017	.645	1.37	12.9	101.	178.	278.	53.5				.136
28	.008	.402	2.66	73.1	58.5	129.	173.	48.9				.136
29	.008	.526	2.44	54.5	54.7	118.	177.	54.3				
30	.008	.500	5.78	27.1	39.7	124.	176.	104.				
31	.037		10.3		32.9	168.		61.1				
MOY	.040	.157	1.55	22.2	32.6	106.	190.	128.				

STATION : TOGO

VOLTA

KERAN

NABOULGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.136	.279	.612	.440	31.8	112.	123.	171.	37.5	7.34	4.07	1.55
2	.123	.261	.737	.480	22.0	91.8	111.	146.	31.7	7.46	4.07	1.55
3	.123	.261	.610	.610	17.1	88.2	132.	151.	28.1	7.58	3.85	1.55
4	.123	.261	.567	.565	62.5	102.	157.	132.	27.5	12.1	3.64	1.55
5	.110		.709	.430	69.8	96.7	157.	138.	27.2	15.8	3.43	1.45
6	.087	.610	1.91	.965	71.4	77.8	164.	154.	25.3	12.1	3.43	1.45
7	.087	.480	.701	1.00	24.1	44.2	144.	182.	21.2	8.62	3.21	1.45
8	.076	.391	.567	.494	16.6	29.4	138.	218.	21.9	7.11	3.01	1.36
9	.076	.298	.503	3.81	15.0	131.	303.	131.	18.3	7.58	2.80	1.36
10	.076	.288	1.56	2.04	16.2	146.	309.	137.	18.5	7.34	2.80	1.36
11	.065	.279	1.18	4.05	16.7	191.	211.	120.	18.5	6.84	2.80	1.36
12	.065	.270	.440	.453	21.5	172.	163.	102.	17.7	6.36	2.80	1.28
13	.065	.261	.497	.580	10.7	295.	195.	89.9	16.6	6.36	2.63	1.28
14	.055	.493	1.03	.905	9.31	465.	189.	77.8	14.1	10.1	2.63	1.28
15	.055	.457	1.31	1.48	67.1	241.	159.	68.8	13.5	10.1	2.46	1.28
16	.046	.633	.453	.901	61.6	181.	176.	104.	13.5	7.34	2.30	1.21
17	.046	.709	.454	.714	64.1	334.	248.	91.0	13.5	6.12	2.30	1.15
18	.037	1.54	.511	12.9	63.9	276.	245.	83.5	12.4	6.00	2.16	1.15
19	.028	.927	.567	39.8	75.0	186.	265.	74.7	13.0	5.42	2.16	1.15
20	.020	.465	.688	17.6	92.5	198.	196.	71.0	12.4	5.30	2.16	1.15
21	.420	.494	.443	52.3	64.3	616.	170.	72.5	11.6	5.42	2.02	1.06
22	.356	.547	.528	34.0	44.9	467.	165.	66.1	11.0	6.12	1.89	1.06
23	.227	.659	.443	11.5	33.7	233.	155.	58.2	9.92	6.12	1.76	1.01
24	.227	.859	.714	7.78	27.2	173.	161.	45.5	9.66	5.77	1.76	1.01
25	.261	.528	5.81	3.31	116.	262.	192.	42.0	6.12	5.53	1.76	1.01
26	.261	.612	6.50	2.23	141.	395.	169.	38.1	8.35	5.19	1.76	.969
27	.244	.892	13.5	2.63	145.	590.	186.	37.9	8.35	5.07	1.76	.969
28	.194	1.00	15.0	1.12	134.	348.	293.	37.2	8.35	4.73	1.76	.969
29	.150	1.08	2.85	1.16	77.2	204.	345.	34.2	7.84	4.29	1.76	.969
30	.610	.453	2.19	2.59	86.7	166.	252.	34.4	7.58	4.29	1.76	
31	.610		1.39		52.1	141.		35.5		3.85	1.65	
MOY	.163	.559	2.10	7.00	56.5	227.	196.	95.0	16.4	7.08	2.53	1.24

DEBIT MOYEN ANNUEL

51.2

M3/S

STATION : TOGO

VOLTA

KERAN

NABOULGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.969	12.2	32.5	0.89	79.1	155.	498.	188.	32.5	11.3	5.42	2.46
2	.969	1.52	22.9	22.6	92.2	131.	355.	151.	40.6	11.3	5.42	2.30
3	.969	1.25	18.5	15.6	92.3	170.	232.	159.	34.2	10.7	5.19	2.30
4	.928	1.13	14.9	11.4	68.2	185.	247.	155.	40.2	10.5	4.96	2.30
5	.928	.949	53.7	12.1	52.9	192.	372.	172.	40.4	10.2	4.96	2.30
6	.928	.928	51.8	15.5	69.1	184.	259.	212.	35.5	9.92	4.73	2.16
7	.887	1.32	24.4	21.3	169.	138.	483.	158.	30.5	9.92	4.51	2.16
8	.969	1.28	19.8	15.7	207.	137.	310.	155.	26.5	9.92	4.51	2.02
9	.969	1.25	14.6	17.1	102.	136.	189.	181.	26.0	9.66	4.29	1.89
10	.928	1.41	12.0	15.6	111.	127.	394.	143.	27.2	9.13	4.29	1.89
11	.928	1.55	9.66	17.6	94.9	152.	515.	119.	25.5	9.13	4.07	1.76
12	.928	1.32	8.22	33.7	66.4	202.	400.	121.	22.7	9.13	4.07	1.65
13	.928	3.33	7.46	26.2	63.4	149.	416.	120.	21.9	8.60	4.07	1.65
14	.928	1.33	9.00	57.5	161.	107.	330.	97.7	20.7	8.60	3.85	1.55
15	.928	32.5	8.35	63.8	92.5	122.	303.	82.5	20.3	8.09	3.85	1.55
16	.887	25.3	7.59	42.8	102.	184.	247.	71.9	19.0	7.84	3.85	1.45
17	.887	12.2	5.47	84.6	380.	120.	189.	65.4	18.8	7.34	3.85	1.36
18	.848	6.37	6.86	92.3	582.	97.1	167.	56.8	18.5	6.84	3.85	1.28
19	.848	3.64	6.39	55.3	286.	106.	172.	55.0	17.8	7.34	3.64	1.28
20	.848	3.01	6.73	54.2	226.	144.	183.	52.2	16.9	7.34	3.64	
21	.809	2.38	4.40	57.7	383.	156.	189.	59.7	16.3	7.09	3.43	
22	.809	1.89	4.19	103.	379.	130.	210.	67.0	15.6	6.84	3.43	
23	.809	21.9	9.54	66.7	320.	112.	142.	49.0	15.3	6.36	3.21	
24	1.55	18.4	7.84	101.	261.	104.	152.	45.7	14.4	6.12	3.21	
25	1.36	23.6	6.84	69.5	146.	88.7	168.	43.1	14.1	6.12	3.01	
26	1.21	26.1	4.41	52.4	179.	97.9	142.	46.0	13.8	5.88	3.01	
27	.969	49.4	2.90	45.5	429.	114.	138.	51.9	13.0	5.88	2.80	
28	.887	133.	3.11	54.1	138.	104.	278.	44.5	12.4	5.65	2.80	
29	.848	118.	20.5	56.7	204.	103.	188.	37.9	12.1	5.65	2.63	
30	.809	39.2	11.7	40.1	163.	163.	162.	34.9	12.1	5.65	2.46	
31	.809		7.34		185.	149.		33.0		5.65	2.46	
MOY	.945	18.3	13.7	44.4	190.	137.	268.	97.7	22.5	8.05	3.85	1.62

DEBIT MOYEN ANNUEL

67.5

M3/S

STATION : TOGO

VOLTA

KERAN

NABCOLGOU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1		2.82	1.71	.950	190.	33.1	536.	277.		14.9	4.89	2.69
2		3.11	1.89	.848	66.0	23.1	331.	199.	200.	14.3	4.71	2.56
3		3.21	2.38	.772	25.8	203.	395.	152.	211.	13.7	4.53	2.43
4	.848	3.32	1.32	.772	22.0	60.9	340.			12.9	4.35	2.43
5	.848	3.43	1.86	.829	16.5	50.9	225.			12.4	4.17	2.31
6	.809	3.64	1.78	.887	38.2	136.	190.			12.1	4.00	2.31
7	1.65	3.64	2.02	.868	34.2		149.			11.1	4.00	2.31
8	1.76	3.53	5.53	.848	26.5		612.			10.8	3.84	2.19
9	1.76	3.01	3.64	.871	12.7		797.			10.3	3.84	2.19
10	1.76	2.55	2.84	.774	9.00	62.0	495.		64.7	10.1	3.84	2.07
11	1.89	17.2	1.62	.665	7.34	55.4	388.	64.2	59.9	9.57	3.68	2.07
12	2.02	10.6	1.16	.632	7.85	209.	423.		53.8	9.33	3.68	1.96
13	2.02	8.90	1.32	.684	14.5	216.	265.		49.0	9.09	3.53	1.96
14	2.16	4.64	1.55	.718	15.4	142.	488.	68.6	44.4	8.86	3.53	1.96
15	2.30	2.41	1.41	.649	11.4	174.	471.	62.6	40.8	8.40	3.38	1.96
16	2.30	1.33	1.19	.616	70.3		276.	215.	37.3	8.17	3.38	1.85
17	2.30	1.22	1.27	.568	51.5		292.	208.	34.3	7.50	3.38	1.85
18	2.46	1.25	2.41	.584	150.		427.	162.	31.1	7.29	3.38	1.75
19	2.46	1.41	1.60	.684	221.		553.		29.9	7.07	3.24	1.75
20	2.63	1.36	1.19	.791		143.	299.		28.1	6.65	3.24	1.64
21	2.63	4.56	1.10	.754	57.6		217.		26.4	6.45	3.09	1.64
22	2.63	5.89	1.58	.632	42.7		193.		24.9	6.24	3.09	1.55
23	2.80	4.08	1.47	1.87	41.7	144.	294.		22.6	6.04	2.95	1.55
24	2.80	3.11	1.18	4.19	69.2	182.	201.	133.	20.9	6.04	2.95	1.36
25	3.01	1.60	1.65	16.6	60.9	146.	193.		20.2	5.65	2.95	1.27
26	.508	1.32	2.82	7.58	50.9	433.	146.		18.6	5.65	2.95	1.27
27	.508	1.03	2.54	7.34	38.1	237.	244.	156.	17.6	5.46	2.95	1.27
28	3.21	.949	1.73	5.32	32.5	256.	165.	281.	16.8	5.46	2.95	1.18
29	2.02	.908	1.25	4.87	49.9	279.	240.	158.	16.2	5.26	2.82	
30	2.16	.868	1.13	7.71	52.5	149.	166.		15.6	5.08	2.82	
31	2.30		1.10		39.7					4.89		
MDY	1.91	3.56	1.85	2.40	53.7	158.	334.	142.	70.1	8.60	3.51	1.90

DEBIT MOYEN ANNUEL

65.2

M3/S

STATION : TOGO

VCLTA

KERAN

NABOULGGU

NUMERO : 47274003

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.18	.681	1.75	2.27	1.11	73.5	228.	158.	20.8	4.96	2.90	2.34
2	1.10	.681	1.75	3.47	1.46	200.	405.	149.	19.4	4.80	2.90	2.34
3	1.02	.681	1.75	2.37	1.08	109.	541.	224.	18.8	4.65	2.84	2.34
4	1.02	.681	1.85	2.37	.932	90.0	473.	231.	17.1	4.50	2.79	2.30
5	.948	.681	1.85	2.69	.835	90.4	330.	225.	15.8	4.36	2.79	2.26
6	.948	.681	1.96	1.91	6.04	72.3	388.	159.	15.0	4.22	2.74	2.26
7	.948	.681	1.56	1.91	2.92	99.7	431.	212.	14.0	4.09	2.74	2.26
8	.876	.681	1.49	1.60	1.87	88.5	303.	124.	13.1	4.09	2.70	2.22
9	1.45	.681	1.06	1.36	1.65	68.8	315.	103.	12.3	3.96	2.70	2.22
10	1.27	.681	.878	1.27	3.99	54.7	357.	85.1	11.6	3.96	2.65	2.18
11	1.55	.681	.892	1.23	6.89	47.1	534.	82.2	10.8	3.96	2.65	2.18
12	2.95	.681	.878	1.14	7.29	118.	569.	79.0	10.2	3.72	2.60	2.26
13	2.19	.681	.775	1.02	8.39	50.1	461.	77.8	9.66	3.72	2.60	2.34
14	2.07	.681	.912	.986	8.20	89.9	351.	75.2	9.13	3.49	2.60	2.30
15	1.75	.681	.876	.948	14.5	77.2	267.	71.5	8.74	3.49	2.56	2.26
16	1.45	.681	1.92	1.19	4.89	69.3	332.	62.6	8.50	3.38	2.56	2.26
17	1.27	.681	4.98	.878	23.7	40.6	448.	58.6	8.04	3.38	2.56	2.22
18	1.10	.681	8.29	.743	59.6	80.0	406.	52.8	7.81	3.28	2.51	2.22
19	1.02	.681	7.20	.681	76.2	78.9	552.	48.1	7.60	3.28	2.51	2.18
20	.948	.681	7.54	1.62	33.2	85.7	692.	43.2	7.38	3.28	2.51	2.15
21	.876	.681	4.99	2.13	18.1	32.9	395.	41.1	7.17	3.18	2.47	2.11
22	.743	.681	5.33	1.36	15.9	29.5	381.	41.6	6.76	3.18	2.47	2.15
23	.681	.681	7.08	.916	10.1	25.7	325.	38.4	6.56	3.18	2.47	2.15
24	.681	.681	10.1	.681	7.77	28.1	283.	35.7	6.36	3.09	2.42	2.17
25	.681	.681	3.46	.779	13.7	99.2	328.	35.0	6.17	3.00	2.42	2.32
26	.681	.681	3.47	.876	15.2	137.	372.	44.7	5.98	3.00	2.42	2.58
27	.681	.681	4.12	.808	11.3	118.	474.	36.2	5.62	2.95	2.38	2.63
28	.681	1.64	3.47	.912	11.3	169.	285.	32.0	5.45	2.95	2.38	2.51
29	.681	1.64	3.32	1.02	26.3	266.	219.	27.7	5.28	2.95	2.38	
30	.681	1.45	2.31	1.62	30.3	234.	201.	24.5	5.12	2.90	2.38	
31	.681		1.71		23.8	155.		22.0		2.90	2.38	
MOY	1.12	.771	3.22	1.42	14.5	96.1	388.	87.1	10.2	3.61	2.58	2.28

DEBIT MOYEN ANNUEL

50.8

M3/S

KERAN A TITIRA

Code : 47 27 40 06

bassin versant : 3 695 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.N.

Coordonnées : 10° 00' N - 1° 07' E.

Cote du zéro de l'échelle : 178 m. environ, en nivellement I.G.N.

Accès :

Radier sur la route KANDE - BOUKOMBE, à 8 kilomètres de KANDE.

Installations

Echelle implantée le 15 janvier 1962, avec l'élément de 0 à 2 m. fixé sur la culée aval du radier ; les éléments de 2-4, 4-5, 5-6 et 6-7 m. étaient étagés sur la rive gauche.

- . En janvier 1964 : pose d'un élément 7-8 m.
- . Le 26-4-1964 : pose de l'élément 8-9 m.
- . Le 23-5-1964 : pose de l'élément 9-10 m.

En février 1969 et avril 1970, remplacement d'un certain nombre d'éléments.

En janvier 1971 : début des travaux de construction d'un pont en béton, situé à 3 mètres en amont du radier.

Lectures

Une lecture par jour en étiage, deux lectures en crue. Qualité satisfaisante des observations.

Lors de la mise en service de l'échelle, en janvier 1962, l'observateur avait mal assimilé le mode de lecture, aussi les relevés de janvier à juin 1962 sont-ils inutilisables.

Par ailleurs, les journées pour lesquelles les débits ne sont pas donnés en juillet, août et septembre 1962 sont des journées de fortes crues, où il n'y a pas eu de relevés précis des

échelles. Les débits moyens mensuels des mois correspondants ne sont donc pas calculés.

Enfin, le sommet de la crue de 1963 (11 et 12 septembre) n'a pas pu être mesuré puisque l'échelle au dessus de 7 mètres (posée en 1964) n'existait pas. La valeur donnée de 880 m³/s est le débit correspondant à 7 mètres à l'échelle.

Jaugeages - Courbe de tarage

La station est située dans une zone rocheuse, ce qui explique la stabilité de la courbe de tarage dans le temps, même en basses eaux. Cette courbe a été tracée avec 36 jaugeages :

maximum jaugé : 364 m³/s le 5-9-64 (cote : 5,72 à 5,82m)
minimum jaugé : 91 litres/s le 28-2-74 (cote : 0,34 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 640 à 600 m.	4,1 %
600 à 400	35,7
400 à 200	59,4
200 à 180	0,8

Géologie

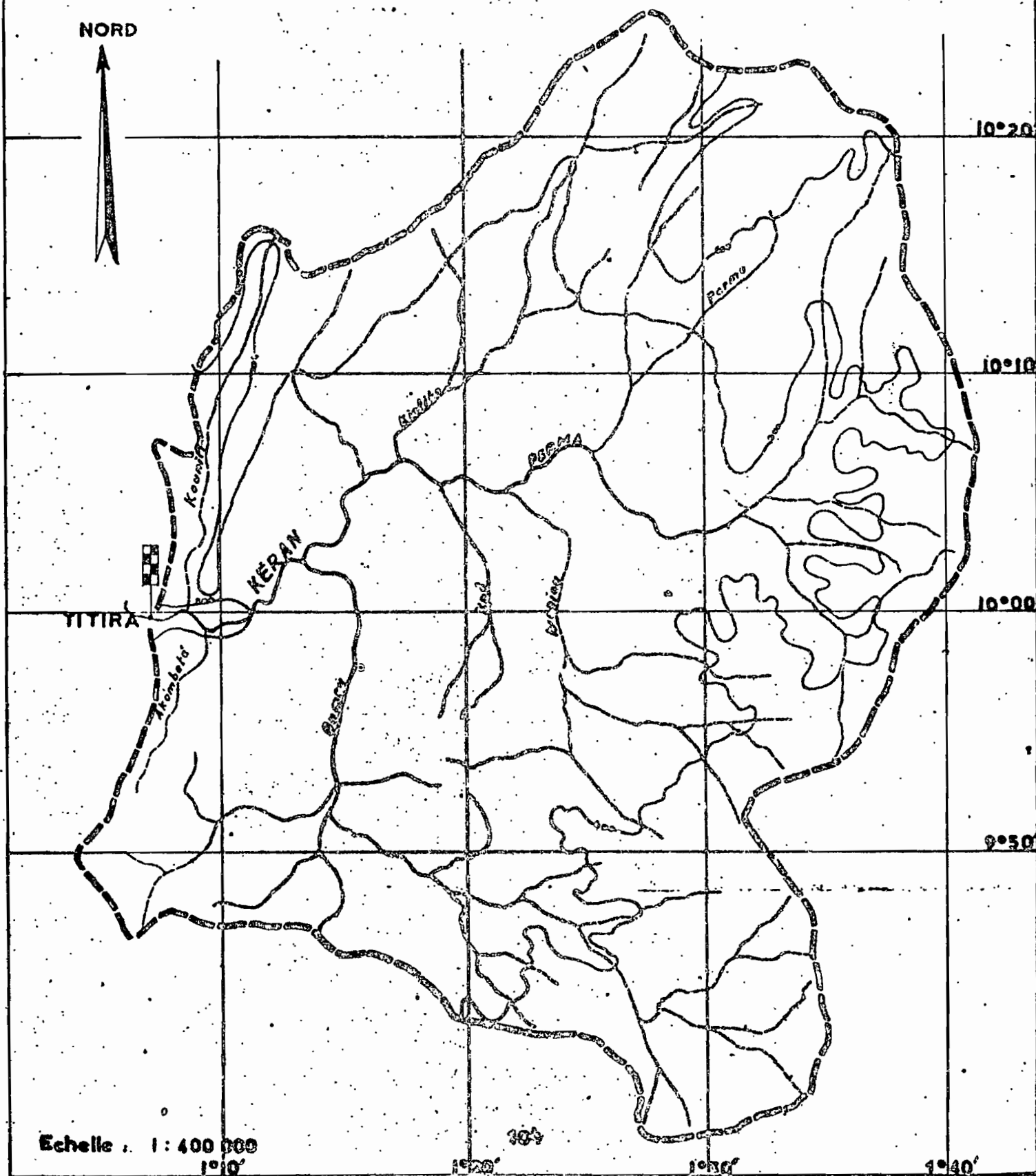
- A l'Est : gneiss et pyroxénites du Dahoméen (groupes du Kabré et d'Agbandi), et micaschistes de l'Atacorien.
- A l'Ouest : mince bande de quartzites micacés de l'Atacorien.

Végétation

Savane, savane arborée avec îlots de forêt sèche - Galerie forestière le long de la Kéran.

BASSIN VERSANT = 3695 Km²

BASSIN VERSANT = 3695 Km²



Echelle : 1 : 400 000

ORKTON

DATE: 20/6/68

DESSINE : M. Soszoh

T. 275 H

STATION : TOGO VOLTA KERAN TITIRA
 NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1					48.8			84.2	21.6	9.29	3.48	1.43
2							182.	66.2	21.6	8.91	3.41	1.37
3						222.	127.	64.3	23.8	7.84	3.34	1.30
4						318.	214.	219.	25.0	8.19	3.28	1.24
5						186.	182.	167.	23.8	7.84	3.21	1.17
6							165.	107.	37.2	7.18	3.15	1.10
7						139.	200.	98.5	25.8	6.27	3.08	1.03
8						259.	201.	97.9	30.5	5.99	3.02	.946
9					48.8	198.		95.6	18.4	5.71	2.95	.946
10					55.0	161.		94.1	28.7	5.45	2.89	.946
11					111.	111.		91.5	23.8	5.20	2.82	.946
12					33.9	59.3	192.	83.0	22.4	4.89	2.75	.946
13					25.3	65.3	187.	98.3	48.6	4.60	2.69	.946
14					167.	59.6		132.	30.0	4.60	2.62	.946
15					168.	51.0	171.	84.8	18.1	4.60	2.56	.671
16					58.1	179.	180.	61.8	17.0	4.60	2.49	.671
17					42.8	57.7	187.	86.5	21.6	4.60	2.43	.671
18					36.3	21.6	176.	63.0	42.3	4.60	2.36	.671
19					30.7	22.4	224.	53.4	22.1	4.34	2.30	.671
20					27.8	57.1	172.	47.3	21.3	4.27	2.23	.671
21					27.8	74.0	220.	53.1	21.6	4.21	2.16	.591
22					27.8	53.4	153.	50.4	23.3	4.14	2.09	.591
23					29.3	62.2	177.	41.3	18.7	4.08	2.03	.517
24					24.4	110.	123.	61.8	30.5	4.01	1.96	.450
25					20.7	208.	115.	51.3	28.8	3.95	1.90	.450
26					15.7	225.	121.	38.9	17.1	3.88	1.83	.389
27						195.	117.	33.6	18.1	3.82	1.77	.946
28					47.9	145.	107.	29.6	42.4	3.75	1.70	2.10
29					38.9		99.7	27.6	39.8	3.69	1.64	
30					38.7	490.	87.4	23.8	11.1	3.62	1.57	
31					44.0	198.		22.7		3.55	1.50	
MOY								75.1	25.8	5.21	2.49	.905

DEBIT MOYEN ANNUEL

STATION : TOGO

VOLTA

KERAN

TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.10	.173	.450	2.10	18.2	129.	159.	122.	112.	19.6	8.55	2.37
2	2.10	.149	.389	1.37	10.2	105.	159.	365.	93.5	19.0	0.19	2.23
3	1.72	.149	.389	.946	5.44	72.9	365.	174.	93.8	18.4	7.84	2.10
4	1.49	.204	.284	.756	3.99	153.	160.	128.	79.3	17.8	7.18	1.97
5	1.15	.149	1.26	.756	118.	302.	133.	115.	69.0	17.3	6.87	1.85
6	.946	5.71	3.24	.848	100.	123.	480.	276.	67.4	16.7	6.27	1.85
7	.848	4.34	5.71	.591	69.4	500.	163.	182.	61.8	15.7	5.99	1.72
8	.848	1.37	2.51	.671	95.4	152.	262.	131.	55.9	15.1	5.71	1.72
9	.756	1.05	1.60	.517	70.7	121.	575.	196.	52.2	14.6	5.20	1.72
10	.671	.756	1.15	.591	54.7	143.	214.	129.	48.2	14.6	4.89	1.60
11	.591	.671	.848	.848	30.8	417. (>800.)	130.	45.2	13.6	4.34	1.60	
12	.591	.591	.671	1.85	69.5	235. (>800.)	726.	42.2	13.1	3.89	1.49	
13	.450	.450	.671	5.71	81.3	138.	241.	211.	39.8	13.1	3.70	1.37
14	.389	.284	4.10	2.37	90.7	152.	378.	153.	37.8	12.7	3.54	1.37
15	.333	.284	1.37	2.10	134.	223.	229.	137.	36.9	12.2	3.54	1.26
16	.284	18.4	1.60	1.49	385.	183.	178.	173.	34.2	12.2	3.40	1.15
17	.284	5.45	1.26	1.26	110.	163.	198.	119.	32.8	11.8	3.24	1.05
18	.241	3.40	.756	1.15	86.8	117.	188.	110.	32.2	11.8	3.09	1.05
19	.204	2.23	1.60	.946	117.	138.	167.	101.	30.4	10.9	3.09	1.05
20	.204	1.37	5.20	3.70	104.	138.	189.	149.	29.9	10.9	3.24	1.05
21	.204	.848	2.65	4.89	62.1	800.	508.	160.	28.7	10.5	3.09	1.05
22	.173	.756	1.60	3.40	53.4	507.	176.	125.	27.6	10.5	3.09	.946
23	.173	.671	2.23	2.37	101.	532.	156.	109.	25.8	10.1	2.94	.848
24	.204	.848	1.60	1.49	59.9	209.	151.	103.	24.7	10.1	2.79	.848
25	.173	.946	1.26	1.15	56.2	234.	117.	89.7	23.0	10.1	2.65	.848
26	.173	.756	2.65	1.26	43.1	159.	107.	79.8	22.4	9.68	2.65	.756
27	.173	.517	1.49	1.85	49.1	383.	182.	73.8	21.3	9.68	2.65	.671
28	.241	.517	1.05	1.49	69.0	362.	139.	73.8	20.7	9.29	2.65	.671
29	.204	.389	.946	8.19	53.1	311.	112.	74.4	20.2	9.29	2.65	.671
30	.173	.756	1.15	8.91	47.6	540.	147.	129.	19.6	8.91	2.51	
31	.173		3.09		39.8	201.		236.		8.91	2.37	
MOY	.589	1.81	1.77	2.19	77.3	256. (>266.)	164.	44.3	12.8	4.25	1.34	

DEBIT MOYEN ANNUEL

69.6

M3/S

STATION : TOGO VOLTA KERAN TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.591	1.60	1.05	8.59	9.29	74.9	253.	143.	21.3	4.89	2.51	1.05
2	.517	1.37	.848	3.02	5.71	69.7	168.	109.	20.0	4.89	2.65	.946
3	.591	1.26	1.60	2.30	6.39	56.6	925.	89.4	18.6	4.89	2.51	.848
4	.591	1.26	.946	1.97	3.97	43.2	437.	78.4	17.9	4.60	2.37	.848
5	.517	1.15	1.72	1.97	3.30	87.6	529.	61.3	16.7	4.34	2.37	.848
6	.517	3.09	1.49	7.18	2.94	201.	235.	60.3	16.2	4.34	2.37	.848
7	.517	1.85	1.37	3.32	3.59	78.0	213.	61.3	15.3	4.34	3.24	.848
8	.450	1.49	1.15	2.65	3.14	54.1	228.	59.9	15.1	4.10	2.94	.848
9	.389	1.15	1.85	2.17	4.05	45.2	195.	50.2	14.1	4.10	2.79	.756
10	.450	.946	2.79	3.64	7.18	96.2	149.	47.6	13.6	3.70	2.79	.756
11	.450	.756	2.23	2.65	16.8	112.	253.	44.4	12.7	3.54	2.65	.756
12	.389	.671	2.51	2.44	8.08	86.7	513.	41.4	12.2	3.40	2.51	.671
13	.333	.517	1.72	1.91	7.62	60.1	324.	39.8	11.8	3.40	2.37	.671
14	.284	.450	1.49	1.85	5.71	54.5	211.	46.0	11.8	3.24	2.23	.591
15	.333	.517	1.60	1.85	6.08	50.4	158.	38.0	10.5	3.40	2.23	.591
16	.333	.450	1.60	1.78	9.82	45.8	341.	33.2	9.68	3.24	2.10	.591
17	.284	.389	1.15	8.53	16.7	88.9	252.	31.2	8.91	3.09	1.97	.517
18	.284	.517	.848	10.7	8.19	47.8	168.	38.8	8.67	3.09	1.97	.671
19	.241	2.23	.671	4.60	7.98	43.8	180.	30.4	8.19	3.09	1.85	
20	.241	1.85	.591	12.5	7.51	36.5	134.	28.7	8.19	3.09	1.72	
21	.284	2.65	.671	5.30	9.90	122.	122.	33.8	7.84	3.09	1.60	
22	.284	1.97	.756	3.82	5.26	89.5	151.	26.0	7.51	2.94	1.49	
23	.389	1.49	.671	3.35	30.4	59.3	121.	25.3	6.87	2.94	1.49	
24	8.55	1.26	23.0	9.86	26.9	52.3	146.	24.3	6.87	2.79	1.49	
25	4.89	1.05	80.7	4.63	28.3	387.	192.	36.3	6.57	2.79	1.49	
26	2.51	.848	17.3	3.59	17.5	128.	152.	33.2	6.27	2.65	1.49	
27	1.72	.756	6.27	4.27	311.	141.	172.	65.1	5.71	2.65	1.37	
28	2.37	.671	4.89	12.7	68.5	202.	139.	36.1	5.45	2.51	1.26	
29	3.24	.756	7.51	7.12	170.	263.	133.	32.6	5.45	2.51	1.26	
30	2.23	.591	2.94	17.5	57.8	214.	112.	24.5	5.20	2.51	1.15	
31	1.85		2.51		212.	254.		22.4		2.51	1.15	
MOY	1.18	1.19	5.69	5.26	34.8	108.	243.	48.1	11.2	3.44	2.04	.706

DEBIT MOYEN ANNUEL

38.7 M3/S

STATION : TOGO VOLTA KERAN TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			3.24	2.79	6.37	55.1	209.	48.8	10.5	2.10	1.05	.389
2			3.54	2.23	5.45	46.0	154.	45.2	9.29	2.10	1.05	.333
3			38.6	1.60	18.9	43.6	130.	50.0	8.91	1.97	.946	.333
4			5.71	1.26	23.7	27.2	107.	47.6	7.84	1.97	.848	.333
5			2.51	1.15	9.69	23.0	91.0	47.0	7.18	1.85	.848	.333
6			1.72	1.05	6.39	30.1	77.6	38.6	6.57	1.72	.848	.333
7			1.37	1.05	37.5	24.9	71.9	36.9	6.87	1.72	.848	.333
8			1.26	1.05	14.7	18.1	86.3	42.8	6.27	1.72	.756	.284
9			3.09	1.05	17.5	18.4	150.	32.8	5.71	1.72	.756	.284
10		.108	2.10	9.68	9.42	16.4	151.	36.9	5.45	1.60	.756	.284
11		.098	1.37	5.71	12.7	17.3	247.	33.9	5.20	1.60	.848	.284
12		.098	58.0	2.79	8.79	15.5	129.	38.0	5.20	1.60	.756	.241
13		.088	12.7	2.23	34.1	196.	128.	28.1	4.89	1.60	.671	.241
14		.088	4.89	39.8	31.5	90.1	103.	25.3	4.60	1.60	.671	.204
15		.098	2.65	12.7	27.8	97.6	143.	23.6	4.34	1.49	.671	.204
16		.098	1.85	59.3	15.1	105.	121.	22.4	4.10	1.49	.591	.173
17		.098	1.37	11.8	11.5	279.	97.3	20.7	3.89	1.37	.671	.173
18		.098	14.1	5.71	12.7	130.	79.9	19.6	3.70	1.37	.671	.173
19		.088	3.89	7.51	9.81	89.8	77.1	19.0	3.40	1.37	.671	.173
20		.088	2.37	7.51	74.6	146.	98.1	17.8	2.94	1.37	.671	.173
21		.108	1.85	9.68	34.3	79.7	78.0	16.7	3.09	1.26	.671	.173
22		.108	1.49	14.1	49.0	64.3	68.1	19.0	3.09	1.26	.591	.173
23		.098	1.15	5.45	66.6	118.	136.	18.4	2.94	1.26	.591	.173
24		.098	1.05	3.89	44.3	294.	93.7	16.2	2.79	1.15	.591	.173
25		6.27	1.05	5.71	25.8	174.	83.4	14.6	2.65	1.05	.591	.173
26		2.37	1.85	23.6	56.2	109.	75.7	19.6	2.65	1.05	.517	.173
27		1.97	4.89	66.8	30.6	98.2	70.2	15.1	2.51	1.05	.450	.173
28		1.05	6.27	17.8	39.4	139.	74.6	13.1	2.51	1.15	.450	.149
29		.848	2.23	10.5	29.5	186.	59.3	14.1	2.23	1.15	.450	
30		3.70	4.60	7.51	34.0	115.	52.3	13.6	2.23	1.05	.450	
31			3.40		55.0	113.		11.8		1.05	.389	
MOY	.384	.638	6.33	11.4	27.5	95.4	108.	27.3	4.78	1.48	.688	.237

DEBIT MOYEN ANNUEL

23.8 M3/S

STATION : TOGO

VOLTA

KERAN

TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.149	.108	.591	48.8	20.7	28.7	165.	117.	41.6	6.27	2.23	.671
2	.149	.098	6.27	10.5	29.9	26.4	112.	111.	38.6	5.99	2.10	.848
3	.130	.088	2.94	5.45	19.6	32.2	91.8	114.	35.7	5.71	1.97	.756
4	.130	.088	2.23	12.7	15.7	61.1	80.4	122.	31.6	5.45	1.85	.756
5	.119	.079	1.72	14.1	33.3	48.8	95.7	98.5	29.3	5.20	1.85	.756
6	.119	.079	2.65	17.3	20.7	23.0	76.7	102.	27.0	5.20	1.85	.756
7	.119	.079	1.49	15.1	73.8	16.7	55.2	125.	25.3	4.89	1.85	.756
8	.119	.070	1.15	25.3	36.9	14.1	128.	107.	24.1	4.89	1.85	.671
9	.119	.088	.946	11.8	24.1	9.29	302.	110.	22.4	4.89	1.85	.591
10	.108	.079	.756	7.51	20.7	25.3	116.	92.6	20.7	4.60	1.85	.591
11	.098	.088	.591	16.2	16.7	59.9	116.	144.	20.2	4.60	1.72	.591
12	.098	.079	.591	9.68	16.7	46.4	81.9	272.	19.0	4.34	1.72	.517
13	.098	.079	.517	11.3	15.1	34.5	99.0	159.	17.3	3.89	1.60	.517
14	.108	.079	.450	12.2	15.1	32.8	271.	256.	16.2	3.70	1.60	.517
15	.108	.079	.671	28.1	12.2	28.1	177.	122.	15.7	3.54	1.49	.517
16	.098	.079	.517	12.2	10.5	126.	197.	105.	15.7	3.40	1.37	.450
17	.088	.079	.450	7.51	11.3	57.4	145.	109.	14.1	3.24	1.37	.450
18	.088	.079	.333	10.5	8.91	50.6	114.	101.	13.1	3.09	1.37	.450
19	.098	2.23	.284	8.55	8.55	497.	212.	81.3	12.2	2.94	1.26	.389
20	.108	.848	.333	6.87	20.2	153.	119.	74.9	11.8	2.94	1.26	.333
21	.098	.591	.333	8.55	10.1	116.	127.	59.6	10.9	2.79	1.26	.284
22	.098	.591	1.85	7.51	61.1	99.4	141.	71.5	10.5	2.65	1.15	.284
23	.108	.450	2.94	21.3	79.6	422.	157.	59.3	10.1	2.65	1.15	.241
24	.098	.848	2.10	31.0	41.0	144.	104.	51.6	9.68	2.51	1.15	.204
25	.098	.848	1.49	29.3	41.6	175.	97.9	47.6	8.91	2.51	1.05	.173
26	.098	.756	4.10	14.1	78.4	202.	341.	45.5	8.55	2.51	1.05	.149
27	.098	1.72	5.71	148.	77.8	136.	174.	42.2	7.84	2.51	1.05	.173
28	.098	1.15	2.65	40.4	90.0	115.	133.	42.5	7.51	2.51	.946	.173
29	.088	.848	7.84	31.0	41.6	108.	215.	93.7	7.18	2.37	.848	
30	.088	.756	21.3	19.6	33.9	258.	125.	61.1	6.57	2.37	.848	
31	.088		76.1		27.0	107.		47.3		2.37	.756	
MOY	.107	.438	4.90	21.4	32.7	105.	146.	101.	18.0	3.76	1.46	.485

DEBIT MOYEN ANNUEL

36.5 M3/S

STATION : TOGO

VOLTA

KERAN

VITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.173	1.05	.450	1.72	26.4	91.2	90.5	130.	31.0	5.71	3.40	1.15
2	.173	.848	1.37	1.26	11.8	82.5	99.1	115.	27.6	5.45	3.40	1.15
3	.173	.756	.946	1.60	23.6	100.	120.	110.	25.3	25.3	3.24	1.05
4	.149	.591	1.72	1.60	116.	107.	214.	125.	23.6	16.7	3.09	1.05
5	.130	.517	2.23	3.54	114.	92.9	130.	116.	22.4	14.1	2.94	1.05
6	.119	.517	2.94	2.51	20.1	61.5	125.	205.	20.7	8.19	2.79	1.05
7	.108	.389	2.51	2.10	17.3	52.5	123.	264.	19.6	6.87	2.79	1.05
8	.108	.333	2.23	9.68	15.1	92.1	96.7	133.	19.0	6.27	2.65	1.05
9	.108	.756	1.26	7.84	13.1	64.0	257.	115.	17.3	5.71	2.51	1.05
10	.108	1.05	1.15	2.51	11.3	148.	216.	124.	16.2	5.45	3.24	.946
11	.108	.389	.848	1.97	25.3	246.	164.	101.	13.1	5.20	2.37	.946
12	.108	.284	4.89	1.60	14.1	115.	137.	97.0	14.1	17.3	2.37	.848
13	.119	.756	2.37	3.09	9.68	985.	147.	82.4	14.1	8.91	2.23	.848
14	.119	1.05	1.05	3.24	148.	179.	119.	62.7	13.1	6.87	2.23	.756
15	.119	2.10	1.72	2.79	38.6	146.	183.	60.5	11.8	5.99	2.23	.756
16	.119	1.49	1.05	2.51	153.	116.	173.	113.	10.9	5.20	2.10	.756
17	.108	1.37	.848	36.9	42.8	138.	187.	73.5	10.5	4.89	1.97	.756
18	.108	1.05	2.10	10.5	91.2	126.	133.	75.2	9.68	4.60	1.85	.591
19	.108	.756	1.49	24.1	131.	97.1	170.	63.3	9.29	4.10	1.72	.591
20	.119	.591	1.60	7.84	82.4	986.	135.	62.1	8.91	4.10	1.60	.591
21	1.37	.450	1.37	6.27	40.8	302.	113.	64.3	8.55	4.34	1.60	.517
22	.517	.389	1.13	9.29	41.8	186.	113.	54.3	6.19	4.10	1.60	.517
23	.284	.333	.946	7.18	33.9	147.	101.	47.3	8.19	3.89	1.60	.450
24	.204	.333	1.49	4.60	39.8	123.	110.	42.8	7.51	3.89	1.60	.450
25	.756	.333	1.05	3.79	229.	160.	114.	40.1	7.18	3.89	1.60	.389
26	.389	.450	82.4	2.79	39.8	1850	86.8	36.3	6.87	3.89	1.49	.389
27	.241	.284	16.7	2.79	69.3	441.	101.	35.9	6.57	3.89	1.49	.389
28	.517	.848	5.71	2.37	44.3	303.	229.	33.6	6.27	3.70	1.49	.333
29	.517	.591	3.24	2.51	112.	130.	207.	32.8	5.99	3.70	1.37	.284
30	.756	.517	2.65	3.09	59.3	125.	173.	32.5	5.71	3.54	1.26	
31	.389		2.37		94.1	113.		36.0		3.54	1.26	
MOY	2272	.706	5.02	5.01	62.7	227.	149.	86.6	13.7	6.75	2.16	.750

DEBIT MOYEN ANNUEL

47.0

M3/S

STATION : TOGO

VOLTA

KERAN

TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.241	.389	23.6	9.29	153.	135.	301.	205.	44.0	9.29	4.10	1.85
2	.284	.389	22.4	19.6	97.0	120.	221.	166.	33.9	9.29	4.10	1.85
3	.284	.591	19.0	9.68	105.	197.	196.	199.	29.9	8.91	3.89	1.72
4	.284	.450	14.1	12.7	58.0	143.	307.	130.	42.2	8.55	3.70	1.72
5	.241	.389	91.2	10.1	61.1	133.	251.	198.	36.9	8.55	3.70	1.72
6	.333	.333	33.9	33.3	54.3	113.	199.	144.	30.4	8.19	3.54	1.60
7	.333	.284	25.3	14.1	332.	108.	191.	119.	27.6	7.84	3.40	1.60
8	.389	.450	17.8	16.2	153.	116.	198.	115.	25.3	7.84	3.24	1.60
9	.671	.848	13.1	19.0	103.	108.	419.	154.	24.1	7.51	3.24	1.49
10	.517	1.26	10.9	13.1	157.	144.	532.	119.	22.4	7.51	3.09	1.37
11	.333	.848	9.68	15.7	82.4	119.	313.	105.	19.6	7.51	2.94	1.37
12	.284	.756	8.91	35.1	81.3	280.	250.	130.	21.9	7.18	2.94	1.26
13	.284	1.05	7.84	64.3	73.8	122.	260.	96.8	20.7	7.18	2.94	1.26
14	.241	1.60	7.18	32.2	153.	113.	251.	59.6	19.6	6.87	2.94	1.26
15	.241	71.9	6.27	26.4	100.	184.	217.	50.0	18.4	6.57	2.94	1.15
16	.241	11.8	14.1	95.3	85.9	138.	177.	54.0	17.8	6.27	2.79	1.15
17	.284	6.27	9.29	205.	135.	103.	131.	47.0	16.7	6.27	2.79	1.05
18	.284	3.54	5.71	51.9		93.5	145.	42.8	15.1	5.99	2.65	1.05
19	.284	3.40	5.20	50.6	193.	225.	181.	43.7	15.7	5.71	2.65	.946
20	.241	2.65	4.34	73.8	222.	104.	153.	38.9	14.6	5.45	2.51	.848
21	.204	1.85	3.54	50.0	645.	155.	209.	57.4	14.1	5.45	2.51	.756
22	.389	1.60	10.9	103.	221.	114.	197.	44.6	13.1	5.20	2.51	.756
23	.284	22.4	7.51	76.7	205.	110.	137.	40.1	12.2	5.20	2.37	.671
24	.284	19.6	6.27	107.	224.	76.2	125.	36.0	11.3	4.89	2.37	.671
25	.284	21.3	4.89	79.0	172.	57.4	123.	33.1	12.2	4.60	2.37	.591
26	.241	8.55	3.70	48.8	135.	86.5	113.	48.2	11.3	4.34	2.23	.591
27	.241	8.19	17.8	39.8	289.	135.	121.	44.3	10.9	4.34	2.10	.591
28	.284	103.	36.9	111.	177.	108.	192.	36.6	10.5	4.34	2.10	.591
29	.241	53.1	13.1	47.0	162.	191.	132.	31.6	10.1	4.34	1.97	
30	.284	31.0	10.5	39.8	150.	128.	276.	30.2	9.68	4.34	1.85	
31	.333		6.27		205.	198.		29.9		4.10	1.85	
MOY	.302	12.7	15.2	50.3	166.	134.	217.	85.4	20.4	6.44	2.85	1.18

DEBIT MOYEN ANNUEL

59.6

M3/S

STATION : TOGO VOLTA KERAN TITIRA

NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.517	.204	.450	.591	64.3	33.3	218.	143.		19.0	6.27	2.79
2	.517	.173	.389	.756	23.0	47.0	365.		191.	17.8	5.99	2.79
3	.591	.204	.333	1.49	27.0	180.	188.			16.7	5.71	2.65
4	.517	.591	.333	1.05	14.1	67.4	235.			16.2	5.45	2.65
5	.450	.450	1.05	1.15	9.29		150.			15.7	5.20	2.51
6	.450	.450	2.37	.848	48.8		166.		169.	14.6	4.89	2.37
7	.591	.389	4.89	.671	32.2					14.1	4.89	2.37
8	.517	.333	4.10	.517	11.8		994.			14.1	4.89	2.23
9	.517	.333	1.97	.450	7.84		284.			13.6	4.89	2.10
10	.517	.333	1.37	1.05	8.19	65.9	187.		63.0	13.1	4.60	1.97
11	.450	2.79	1.05	1.15	5.20		506.	64.6	59.9	12.7	4.34	1.97
12	.389	8.55	.848	.756	7.84	222.	207.		57.4	12.2	4.34	1.97
13	.333	3.09	1.49	.591	15.7	160.	152.		51.9	11.8	4.10	1.85
14	.333	1.97	1.49	.450	11.3	185.	529.	65.5	47.6	11.3	4.10	1.85
15	.333	1.60	1.26	.389	12.7		198.		44.6	10.9	3.89	1.85
16	.333	1.15	5.99	.389	61.1		165.	285.	41.0	10.1	3.89	1.72
17	.284	.848	2.51	.333	64.3		222.	201.	38.0	10.1	3.89	1.60
18	.284	.517	1.97	.284	131.		430.		35.7	9.68	3.89	1.49
19	.284	.517	1.60	.333	172.		252.	141.	34.5	8.91	3.70	1.37
20	.284	11.8	1.26	1.37	91.2		170.		32.2	8.91	3.54	1.37
21	.241	7.18	1.26	4.60	51.9		153.		30.4	8.55	3.40	1.26
22	.241	3.24	.848	4.10	42.8		313.		29.3	8.19	3.24	1.26
23	.284	2.23	2.65	21.3	61.1		175.		28.7	7.84	3.24	1.15
24	.241	1.72	3.24	8.19	91.2	164.	153.		27.6	7.51	3.09	1.05
25	.204	1.26	4.89	7.84	54.9	420.	137.		25.3	7.18	3.40	1.05
26	.204	1.15	2.37	5.99	44.6	226.			24.1	7.18	3.40	.946
27	.173	.848	1.72	3.40	35.7	148.	160.	219.	22.4	6.87	3.40	.946
28	.241	.671	1.85	2.23	31.0	367.		168.	21.3	7.18	3.24	.848
29	.204	.517	1.37	1.97	109.	146.	139.		20.7	7.18	3.09	
30	.241	.517	.946	1.49	36.9				19.6	6.57	3.09	
31	.204		.756		47.0	480.				6.57	2.94	
MOY	.354	1.85	1.89	2.52	46.0		262.			11.0	4.13	1.78

STATION : TOGO VOLTA KERAN TITIRA
 NUMERO : 47274006

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.848	.389	.204	3.40	1.37	645.	246.	139.	22.4	4.89	2.23	.946
2	.848	.284	.241	3.40	1.37	131.	623.	171.	21.3	4.60	2.23	.946
3	.756	.284	.241	3.40	1.26	92.6	214.	298.	20.2	4.34	2.10	.848
4	.756	.284	.204	3.40	1.60	100.	275.	145.	19.6	4.10	1.97	.848
5	.756	.284	.204	3.40	1.26	84.8	150.	143.	18.4	3.89	1.85	.848
6	.756	.241	.204	3.40	3.24	95.1	264.	114.	17.3	3.70	1.85	.756
7	.756	.333	.204	3.40	4.60	98.6	201.	99.4	15.7	3.89	1.72	.756
8	.848	.284	2.79	3.40	3.70	106.	142.	92.6	15.1	3.70	1.72	.756
9	.848	.241	1.37	3.40	2.79	73.8	228.	85.6	14.1	3.70	1.72	.671
10	2.23	.450	.848	1.49	2.51	58.0	461.	77.8	13.6	3.54	1.60	.671
11	1.97	.389	.591	1.37	17.8	53.4	554.	65.8	12.7	3.40	1.60	.591
12	2.79	.284	.517	1.60	29.9	106.	310.	62.1	12.2	3.24	1.60	.756
13	1.85	.241	.450	1.37	22.4	64.3	314.	59.9	11.8	3.09	1.60	.671
14	1.60	.204	.389	1.15	91.2	78.0	167.	58.0	10.9	3.09	1.60	.848
15	1.26	.241	.333	1.05	31.0	104.	297.	54.3	10.5	2.94	1.49	.756
16	1.15	.284	.333	.946	9.68	81.9	514.	51.0	9.68	2.94	1.49	.671
17	1.05	.591	6.27	.848	62.4	57.4	330.	47.0	9.29	2.94	1.49	.671
18	.946	.591	12.7	1.15	70.6	62.7	294.	43.7	8.91	2.94	1.49	.671
19	.848	.450	5.99	1.05	22.4	55.9	862.	40.7	8.55	2.94	1.49	.591
20	.671	.389	6.87	1.05	29.3	51.0	251.	37.5	8.19	2.79	1.37	.591
21	.671	.333	4.89	.946	23.0	44.6	199.	35.4	7.84	2.79	1.37	.591
22	.671	.284	4.34	.756	18.4	41.6	254.	36.6	7.51	2.79	1.26	.591
23	.591	.241	4.10	.946	15.1	38.3	249.	33.9	7.18	2.65	1.26	.591
24	.517	.241	3.89	.848	12.7	91.8	160.	31.9	6.87	2.65	1.15	2.23
25	.450	.204	3.70	.671	36.9	145.	107.	34.5	6.57	2.51	1.05	2.79
26	.450	.204	3.40	.671	22.4	116.	483.	38.3	6.27	2.37	1.05	1.97
27	.450	.204	3.40	.517	17.8	146.	218.	31.9	5.99	2.37	1.05	1.37
28	.450	.241	3.40	.517	14.1	189.	154.	29.3	5.71	2.37	1.05	1.05
29	.450	.241	3.40	1.97	53.7	233.	142.	26.7	5.45	2.37	1.05	
30	.389	.204	3.40	1.72	31.0	140.	171.	25.0	5.20	2.23	.946	
31	.389		3.40		36.3	139.		23.0		2.23	.946	
MOY	.936	.305	2.65	1.78	22.3	114.	297.	72.0	11.5	3.16	1.50	.930

DEBIT MOYEN ANNUEL

44.0 M3/S

KOIMEPOUARBAGA A NAGBENI

Code : 43 27 42 02
bassin versant : 208 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par le Génie Rural

Coordonnées : 10° 36' N - 0° 24' E.

Cote du zéro de l'échelle : 170 m. environ, en nivellement I G N.

Accès :

Pont sur la route GALANGACHI - BORGOU - MANDOURI.

Installations

Echelle implantée le 16 mai 1962, avec quatre éléments de 0 à 4 m fixés sur la culée du pont, sur la rive gauche. Deux éléments de 0-1 et 1-2 m ont été implantés sur la route, sur la rive droite, pour mesurer les débordements.

En 1970, le pont a été reconstruit en béton, mais la culée sur laquelle est fixée l'échelle, est restée en place.

Lectures

Une lecture par jour, le matin.

Jaugeages - Courbes de tarage

Deux courbes de tarage ont été retenues ; elles sont voisines l'une de l'autre en dessous de 1 mètre à l'échelle. Elles ont été tracées avec 41 jaugeages :

maximum jaugé : 9,05 m³/s le 26-8-1966 (cote : 2,85 m.)

minimum : le débit peut être nul plusieurs mois de l'année.

CARACTERISTIQUES DU BASSIN

Hypsométrie :

de 520 à 400 m.	3 %
400 à 320	19
320 à 280	16,5
280 à 200	44
200 à 174	17,5

Altitude moyenne du bassin : 267 m.

Géologie (carte au 1/500 000 - AICARD et Alter)

Le plateau est formé de grès de Bombouaka (Ordovicien), la vallée de schistes et grès de Mango (Cambrien ou Infracambrien supposés).

- Grès supérieurs de Bombouaka : 61 %
- Schistes et grès de Mango : 39

Végétation

Savane, savane arbustive sur les pentes. Forêt humide dégradée le long de la rivière.

KOIMEPOUARBAGA A NAGBENI

BASSIN VERSANT $\approx 208 \text{ Km}^2$



116

Echelle: 1/200 000

0° 10'

0° 20'

ORTOM

DATE : 29-5-74

DESSINÉ : M. SOSSAH

T 300-11 H

STATION : TOGO

VOLTA

KOIMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				.780	.528	.990	5.99	2.30	.485		.077	.088
2				.003	.757	.873	6.50	2.16	.405			.066
3				.000		.780	7.98	2.04	.312			.066
4				.594	.827	.663	4.10	2.16	.295			.066
5				1.22	.640	.550	4.26	2.04	.295			.066
6				.367	.572	.850	4.18		1.18			.056
7				.047	.444	.687	3.98		1.25			.056
8				.019	3.32	1.06	3.83		1.22			.056
9				.019	1.69	1.55	3.72		1.04			.056
10				.010	1.29	1.48	3.61		.827			.056
11				.003	1.04	1.22	3.39		.550			.056
12				.003	.780	1.01	3.21		1.06			.056
13				.039	.663	.920	3.98	2.87	.873			.056
14				.424	.550	.827	4.14	2.61				.056
15				.126	.594	.733	4.18	2.33				.066
16			.000	.056	2.07	1.34	4.10	2.07				.056
17			.000	.014	1.74	8.58	3.98	1.88				.056
18			.000	.019	1.36	9.25	4.22	1.76		.444		.056
19			.000	.213	.920	8.37	4.06	1.62		.367		.056
20			.000	1.83	.803	8.80	3.98	1.48		.330		.056
21			.000	.550	1.06	9.02	4.22	1.36		.312		.056
22			.000	.663	.710	8.80	4.50	1.25		.295		.056
23			.000	.330	.528	8.37	4.14	1.13		.278		.066
24			.000	.261	.617	7.62		1.22		.261		.056
25			.000	.197	.528	7.80	3.75	1.22		.278		.032
26			.000	.295	1.48	8.17	3.46	1.04		.295		.025
27			.000	.228	2.58	7.30	3.21	.850		.312		.032
28			.000	.154	1.99	6.74	3.04	.710		.386		.025
29			.000	.367	1.57	6.62	3.00	.710		.312		
30			.010	.348	1.32	6.06	2.80	.617		.330		
31			.025		1.15	5.71		.506		.295		
MOY				.306	1.13	4.28	4.12	1.78				.056

STATION : TOGO

VOLTA

KOIMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.019	.000	.000			8.37	12.2	3.07	2.74	.348		
2	.019	.000	.100			5.13	9.49	3.32	2.21	.330		
3	.019	.000	.920		.088	4.18	10.3	5.53	1.95	.312		
4	.019	.000	.003		.056	5.94	9.25	5.13	1.81	.278		
5	.019	.000	.088		1.01	9.73	7.46	6.21	1.64	.261		
6	.780	.000	.126		2.80	10.3	7.62	6.13	1.53	.244		
7	.182	.000	.367		13.6	9.49	5.94	6.86	1.46	.261		
8	.088	.000	.197		9.73	7.14	5.85	5.31	1.34	.244		
9	.077	.000	.154		4.50	5.58	9.02	5.26	1.20	.228		
10	.032	.000	.113		3.18	5.79	9.49	5.76	1.15	.228		
11	.019	.000	2.13		2.68	5.67	6.50	7.46	1.11	.213		
12	.019	.000	.640		2.24	5.99	9.49	9.49	1.06	.197		
13	.019	.000	.330		1.95	5.26	7.46	14.3	.967	.213		
14	.019	.000	.197		1.78	4.66	5.67	10.3	.920	.228		
15	.010	.047	.100		2.30	4.42	5.00	8.37	.873	.213		
16	.003	.006	.056		2.94	3.87	4.58	6.21	.850	.197		
17	.003	.001	.019		3.50	3.68	4.06	5.67	.803	.213		
18	.003	.001	.228		2.97	3.25	3.68	4.71	.757	.197		
19	.003	.000	.485		3.28	3.61	3.32	4.18	.687	.244		
20	.001	.000	.312			3.91	3.11	3.68	.640	.228		
21	.000	.000	.228		3.61	4.18	3.50	3.50	.617	.213		
22	.000	.000	.228		7.30	6.74	3.42	3.83	.594	.213		
23	.000	.000	.154		12.9	12.2	3.35	3.32	.572	.197		
24	.000	.000	.168		13.6	14.3	2.84	3.25	.506	.182		
25	.000	.000	.126		12.9	13.6	2.49	2.97	.485	.213		
26	.000	.000	.100		10.5	18.8	2.42	2.64	.465	.197		
27	.000	.000	.088		8.37	12.9	2.64	2.42	.424	.182		
28	.000	.000	.088		6.50	12.2	4.26	2.21	.405	.213		
29	.000	.000	.088		5.67	13.6	3.98	2.04	.386	.197		
30	.000	.000	.088		5.05	14.3	3.46	1.92	.348	.182		
31	.000		.088		5.58	12.9		1.95		.168		
MOY	.044	.002	.258		4.98	8.12	5.73	5.06	1.02	.227		

STATION : TOGO

VOLTA

KOIMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.056	.000	.990	.182	1.92	12.2	5.67	.617	.405	.213	.001
2	.006	.039	.000	.113	.100	1.71	14.3	5.13	.550	.367	.197	.000
3	.003	.014	.000	.056	.077	1.40	20.4	4.26	.528	.348	.182	.014
4	.001	.025	.000	.014	.066	1.29	14.3	3.87	.485	.312	.154	.088
5	.003	.006	.000	.056	.056	1.20	13.6	3.57	.386	.278	.056	.088
6	.006	.003	.000	.003	.047	1.43	12.9	3.18	.465	.348	.056	.077
7	.003	.001	.000	.000	.039	2.33	11.5	3.11	.444	.617	.047	.056
8	.001	.000	.000	.000	.014	2.84	12.2	3.28	.424	.550	.039	.056
9	.000	.000	.000	.000	.100	2.27	12.2	2.80	.348	.528	.039	.039
10	.000	.000	.000	.000	.077	3.61	11.5	2.55	.367	.506	.032	.047
11	.003	.000	.000	.000	.056	3.91	9.02	2.21	.330	.348	.025	.032
12	.001	.001	.000	.000	.032	3.28	8.58	2.10	.348	.295	.126	.025
13	.000	.000	.000	.014	.025	2.80	7.14	1.95	.330	.330	.154	.019
14	.000	.000	.000	.640	.019	1.95	8.58	1.85	.295	.312	.168	.019
15	.000	.000	.000	.348	.056	1.76	10.8	1.69	.278	.244	.182	.010
16	.000	.000	.000	.100	.039	1.34	10.5	1.57	.330	.228	.168	.010
17	.001	.000	.000	.077	.025	1.81	8.58	1.74	.550	.213	.154	.006
18	.000	.000	.000	.056	.006	11.5	7.46	1.71	.572	.182	.113	.010
19	.000	.000	.000	.182	.001	10.5	6.74	1.53	.528	.154	.100	.003
20	.000	.000	.000	.168	.182	7.00	6.21	1.48	.506	.126	.113	.001
21	.000	.000	.000	.154	.213	5.58	5.76	1.34	.550	.113	.113	.006
22	.000	.000	.000	.056	.528	4.66	5.58	1.29	.827	.088	.056	.014
23	.000	.000	.000	.032	.168	4.22	4.38	1.20	.780	.066	.032	.010
24	.640	.000	.000	.140	1.76	3.32	5.26	1.11	.594	.056	.039	.006
25	.424	.000	.000	.424	4.26	3.18	5.94	1.06	.550	.025	.056	.003
26	.213	.000	.000	.757	2.33	2.30	6.21	.990	.367	.032	.032	.001
27	.032	.000	.000	.261	2.04	2.74	9.02	1.01	.348	.039	.025	.000
28	.039	.000	.000	.348	3.18	4.79	9.49	.967	.330	.025	.025	.000
29	.019	.000	.000	.192	3.35	5.67	8.17	.920	.506	.006	.010	
30	.014	.000	.100	.154	2.84	4.38	6.40	.780	.465	.001	.006	
31	.077		.056		2.21	7.30		.640		.000	.003	
MOY	.048	.005	.005	.170	.777	3.70	9.50	2.15	.467	.230	.088	.023

DEBIT MOYEN ANNUEL

1.43

M3/S

STATION : TOGO

VOLTA

KOIMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.019	.056										.001
2	.014	.039										.000
3	.000	.014										.014
4	.010	.025										.088
5	.006	.006										.088
6	.006	.003										.077
7	.003	.001										.056
8	.001	.000										.056
9	.001	.000										.039
10	.000	.000										.047
11	.001	.000										.032
12	.000	.001									.026	.025
13	.000	.000									.020	.019
14	.000	.000									.026	.019
15	.000	.000									.033	.010
16	.000	.000									.049	.010
17	.000	.000									.154	.006
18	.000	.000									.113	.010
19	.000	.000									.100	.003
20	.000	.000									.113	.001
21	.000	.000									.113	.006
22	.000	.000									.056	.014
23	.000	.000									.032	.010
24	.000	.000									.039	.006
25	.000	.000									.056	.003
26	.000	.000									.032	.001
27	.000	.000									.025	.000
28	.000	.000									.025	.000
29	.000	.000									.010	
30	.000	.000									.006	
31	.000										.003	
MOY	.002	.005									.038	.023

STATION : TOGO VOLTA KOIMEPOUARBAGA NAGRENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.033	.000	.086	2.12	25.1	2.15	1.49	.644	.289	.010
2	.000	.000	.020	.000	.073	1.81	3.37	2.13	1.15	.669	.273	.020
3	.000	.000	.014	.000	.049	1.61	2.89	2.12	1.12	.695	.258	.026
4	.000	.000	.010	.000	.086	1.15	2.64	2.26	1.07	.721	.242	.020
5	.000	.000	.010	.289	.049	1.21	2.53	2.48	1.04	.963	.227	.010
6	.000	.000	.006	.112	.040	1.19	2.82	2.47	1.04	.963	.197	.014
7	.000	.000	.014	.086	.112	1.05	3.24	2.45	1.19	.936	.182	.010
8	.000	.000	.020	.049	.140	.908	3.08	2.43	1.16	.908	.154	.003
9	.000	.000	.010	.040	.126	2.14	11.9	2.33	1.13	.881	.140	.003
10	.000	.000	.006	.033	.112	3.33	34.5	2.24	1.08	.800	.112	.001
11	.000	.000	.033	.026	.086	2.93	40.7	2.20	.963	.854	.112	.010
12	.000	.000	.020	.020	.112	2.55	7.79	2.33	.936	.800	.073	.006
13	.000	.000	.010	.014	1.07	2.31	2.89	2.48	.908	.773	.049	.001
14	.000	.000	.168	.020	.424	2.16	2.75	2.51	.854	.747	.040	.000
15	.000	.000	.258	.026	.322	2.33	2.82	2.48	.721	.721	.033	.003
16	.000	.000	.242	.140	.289	2.30	2.75	2.48	.721	.695	.026	.010
17	.000	.000	.197	.126	.242	2.14	2.96	2.45	.695	.644	.020	.010
18	.000	.000	.126	.227	.212	2.03	2.89	2.34	.669	.618	.020	.003
19	.000	.544	.086	.197	.258	2.72	3.00	2.14	.644	.593	.014	.001
20	.000	.447	.026	.182	.227	37.0	11.9	2.24	.618	.544	.010	.001
21	.000	.227	.020	.154	.140	32.1	2.89	2.21	.593	.495	.010	.003
22	.000	.020	.010	.168	.963	16.2	2.74	2.21	.544	.471	.003	.006
23	.000	.140	.006	.140	2.19	3.37	2.59	2.15	.447	.447	.006	.010
24	.000	.908	.001	.140	1.81	38.9	2.39	2.12	.424	.424	.001	.014
25	.000	.227	.000	.126	1.32	17.8	2.30	2.09	.406	.424	.001	.010
26	.000	.140	.000	.112	2.15	17.8	2.24	1.89	.423	.389	.003	.006
27	.000	.112	.000	.099	2.66	43.2	2.45	1.84	.495	.372	.006	.001
28	.000	.049	.000	.112	2.26	34.5	2.56	1.81	.519	.355	.010	.000
29	.000	.014	.000	.086	2.05	18.4	2.33	1.78	.593	.338	.003	
30	.000	.010	.000	.049	2.12	3.33	2.26	1.72	.644	.322	.006	
31	.000		.000		2.24	3.24		1.55		.305	.006	
MOY	.000	.095	.043	.092	.774	9.80	6.58	2.20	.810	.629	.082	.008

DEBIT MOYEN ANNUEL

1.77 M3/S

STATION : TOGO

VOLTA

KOIMEPOUAFBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	CCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.001	1.19	.322	2.33	18.4	.854	.197	.140	.000
2	.000	.000	.000	.000	.721	.963	3.00	14.0	.800	.227	.112	.000
3	.000	.000	.000	.010	.424	.424	17.8	11.9	.747	.289	.086	.000
4	.000	.000	.000	.020	.227	.963	44.5	3.10	.721	.154	.073	.000
5	.000	.000	.000	.026	.197	2.05	41.9	2.93	.669	.126	.049	.000
6	.000	.000	.000	.014	.168	2.18	37.0	2.79	.669	.112	.040	.000
7	.000	.000	.000	.020	.140	1.52	26.3	2.69	.644	.086	.033	.000
8	.000	.000	.000	.010	.112	2.18	3.12	2.43	.618	.049	.026	.000
9	.000	.000	.000	.003	.126	1.18	3.37	2.26	.593	.020	.020	.000
10	.000	.000	.000	.001	.099	1.84	3.08	2.24	.471	.242	.014	.000
11	.000	.000	.000	.000	.086	1.55	2.91	2.11	.447	.168	.010	.010
12	.000	.000	.000	.000	.073	1.27	3.04	2.05	.424	.140	.006	.020
13	.000	.000	.000	.000	.049	2.18	33.3	2.02	.389	.154	.003	.014
14	.000	.000	.010	.010	.040	1.84	39.5	2.24	.355	.126	.010	.010
15	.000	.000	.020	.006	.033	1.61	26.3	2.21	.322	.126	.014	.006
16	.000	.000	.014	.003	.140	1.64	11.9	2.18	.289	.140	.010	.003
17	.000	.000	.026	.033	.112	1.89	3.16	1.84	.273	.258	.006	.001
18	.000	.000	.026	.140	.036	2.12	3.08	1.72	.258	.242	.010	.000
19	.000	.000	.140	.305	.040	2.93	2.87	1.64	.242	.197	.006	.000
20	.000	.000	.154	.721	.305	3.20	2.79	1.58	.227	.154	.010	.000
21	.000	.000	.197	1.32	.305	3.37	3.33	1.49	.197	.140	.001	.000
22	.000	.000	.227	.747	.299	3.39	3.37	1.41	.154	.112	.003	.000
23	.000	.000	.242	.908	.273	2.75	15.1	1.15	.140	.086	.006	.000
24	.000	.000	.258	.854	.258	2.66	20.6	1.21	.112	.049	.010	.000
25	.000	.000	.168	.721	.227	3.33	34.5	2.45	.086	.000	.003	.000
26	.000	.000	.140	.644	.197	14.0	44.5	1.04	.033	.020	.000	.000
27	.000	.000	.086	.544	.112	7.79	39.5	1.19	.020	.006	.000	.000
28	.000	.000	.010	.322	.086	2.48	37.0	.963	.020	.003	.000	.000
29	.000	.000	.010	.424	.049	2.43	34.5	.936	.010	.001	.000	.000
30	.000	.000	.000	.389	.040	2.33	16.2	.908	.001	.000	.000	
31	.000		.006		1.38	2.14		.854		.000	.000	
MOY	.000	.000	.056	.273	.245	2.60	18.7	3.10	.359	.117	.023	.002

DEBIT MOYEN ANNUEL

2.10

M3/S

STATION : TOGO VOLTA KOIMEPOUARBAGA NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.197	.568	18.4	2.06	1.89	.406	.258	.040	.003
2	.000	.000	.000	.258	.322	9.84	2.05	1.84	.309	.227	.033	.001
3	.000	.000	.000	.424	1.47	25.1	2.15	2.16	.355	.197	.033	.001
4	.000	.000	.000	.322	1.21	30.2	2.14	2.02	.289	.227	.026	
5	.000	.000	.000	.242	1.11	34.5	2.70	2.18	.258	.182	.020	
6	.000	.000	.000	.182	.908	19.5	2.33	2.12	.424	.168	.020	
7	.000	.000	.000	.086	1.04	11.9	2.22	1.98	.423	.168	.026	.003
8	.000	.000	.000	.014	1.08	6.77	2.36	1.87	.406	.154	.020	.006
9	.000	.000	.000	.154	.854	22.8	2.33	1.78	.721	.112	.014	.003
10	.000	.000	.000	.112	1.19	3.41	2.24	1.72	.695	.112	.010	.001
11	.000	.000	.000	.086	1.78	3.12	2.22	1.61	.644	.086	.010	.001
12	.000	.000	.010	.033	1.38	3.06	2.16	1.55	.593	.073	.006	.000
13	.000	.000	.040	.020	1.29	2.79	2.14	1.49	.544	.112	.010	.001
14	.000	.000	.112	.099	2.18	2.53	2.07	1.27	.424	.126	.014	.003
15	.000	.000	.140	1.55	1.95	2.35	2.12	1.16	.447	.112	.026	.001
16	.000	.000	.112	2.35	1.64	37.0	2.24	1.08	.447	.126	.026	.001
17	.000	.000	.049	1.13	2.48	39.5	2.25	.963	.423	.140	.020	.003
18	.000	.000	.033	1.10	39.5	34.5	2.12	.800	.471	.154	.014	.006
19	.000	.000	.020	.854	44.5	20.6	2.09	.908	.424	.258	.010	.003
20	.000	.000	.010	1.16	41.9	11.9	2.05	.854	.424	.227	.006	.000
21	.000	.000	.000	.908	44.5	3.16	2.05	.747	.406	.182	.010	.003
22	.000	.000	.000	.800	39.5	3.00	2.02	.669	.389	.168	.010	.010
23	.000	.000	.000	1.16	39.5	2.79	2.18	.644	.355	.140	.014	.003
24	.000	.006	.000	1.04	17.8	2.69	2.12	.618	.322	.112	.020	.000
25	.000	.000	.000	.908	44.5	2.56	2.01	.544	.289	.112	.010	.000
26	.000	.000	.000	.644	41.9	2.48	1.67	.495	.273	.126	.006	.000
27	.000	.000	.000	.544	40.7	2.29	1.84	.447	.242	.112	.006	.000
28	.000	.000	.000	.471	39.5	2.24	1.72	.424	.227	.099	.003	.000
29	.000	.000	.000	.424	39.5	2.18	1.67	.389	.197	.086	.000	
30	.000	.000	.000	.644	34.5	2.13	1.61	.355	.182	.049	.006	
31	.000		.000		25.1	2.11		.355		.040	.001	
MOY	.000	.000	.017	.597	17.9	12.1	2.10	1.19	.403	.143	.015	.002

DEBIT MOYEN ANNUEL 2.92 M3/S

STATION : TOGO

VOLTA

KCIMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.033	.212	20.6	3.10	.963	.227	.086	.049
2	.000	.000	.000	.000	.049	.963	39.5	2.96	.908	.197	.073	.026
3	.000	.000	.000	.000	.086	.881	44.5	2.48	.827	.258	.049	.020
4	.000	.000	.000	.000	.112	.644	41.9	2.26	.669	.289	.086	.020
5	.000	.000	.000	.000	.154	.963	38.2	2.20	.644	.273	.099	.126
6	.000	.000	.000	.000	.289	.881	34.5	2.09	.618	.258	.112	.154
7	.000	.000	.000	.000	.424	.827	31.0	2.14	.721	.242	.086	.197
8	.000	.000	.000	.000	.471	.747	24.8	2.12	.644	.242	.049	.227
9	.000	.000	.000	.000	.644	.669	10.8	2.12	.593	.227	.033	.273
10	.000	.140	.010	.000	.695	.991	43.2	2.03	.544	.212	.086	.227
11	.000	.112	.049	.000	.747	1.55	41.9	2.18	.447	.182	.112	.182
12	.000	.112	.112	.000	.568	2.02	43.2	2.01	.424	.168	.140	.168
13	.000	.020	.168	.000	1.13	1.95	44.5	1.78	.372	.168	.197	.140
14	.000	.003	.010	.000	.908	2.05	41.9	1.61	.355	.154	.227	.140
15	.000	.000	.000	.000	.721	14.0	41.9	1.44	.338	.140	.227	.126
16	.000	.001	.000	.000	.644	3.12	39.5	1.38	.322	.197	.212	.112
17	.000	.006	.000	.000	.389	2.87	35.8	2.66	.305	.212	.154	.086
18	.000	.112	.000	.000	.242	2.59	27.4	2.56	.273	.197	.126	.073
19	.000	.126	.000	.000	.322	2.31	22.8	2.14	.258	.227	.112	.049
20	.000	.289	.000	.000	.423	2.13	18.4	2.24	.258	.197	.086	.049
21	.000	.197	.000	.000	.424	2.03	14.0	2.04	.227	.182	.086	.033
22	.000	.033	.000	.000	.389	2.04	10.9	1.84	.289	.154	.099	.020
23	.000	.020	.000	.000	.372	2.12	39.5	1.49	.273	.126	.126	.010
24	.000	.014	.000	.000	.322	2.15	37.0	1.38	.258	.112	.140	.006
25	.000	.006	.000	.000	.258	2.21	17.3	1.27	.227	.112	.140	.003
26	.000	.003	.000	.000	.197	2.33	3.24	1.15	.212	.086	.126	.001
27	.000	.000	.001	.000	.242	2.48	2.93	1.04	.197	.073	.112	.000
28	.000	.001	.000	.000	.197	3.08	2.72	1.19	.197	.049	.086	.000
29	.000	.010	.000	.001	.168	3.02	2.53	1.13	.182	.086	.049	
30	.000	.003	.000	.010	.289	2.89	2.37	1.16	.197	.112	.040	
31	.000		.000		.258	14.0		1.08		.086	.033	
MOY	.000	.040	.011	.000	.393	2.61	27.3	1.88	.425	.176	.109	.090

DEBIT MOYEN ANNUEL

2.73 M3/S

STATION : TOGO

VOLTA

KOTMEPOUARBAGA

NAGBENI

NUMERO : 47274203

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.000	1.16	2.69		.519	.126	.026	.001
2	.006	.000	.000	.000	.000	.305	11.9		.471	.112	.033	.001
3	.010	.000	.000	.000	.000	.242	35.8		.423	.140	.020	.000
4	.014	.000		.000	.000	.258	37.0		.406	.099	.026	.000
5	.010	.000		.000	.000	.212	38.2		.372	.112	.033	.000
6	.003	.000		.000	.000	.182	35.8		.389	.086	.020	.000
7	.000	.010		.000	.000	.695	39.5		.338	.099	.010	.000
8	.000	.126		.000	.000	.471	37.0		.305	.073	.014	.000
9	.000	.447		.000	.000	.423	35.8		.273	.086	.026	.000
10	.000	.227		.000	.000	.372	37.0		.242	.049	.014	.000
11	.000	.154		.000	.000	.322	35.8		.212	.073	.006	.000
12	.000	.112		.000	.000	2.12	39.5		.197	.040	.014	.020
13	.000	.049		.000	.000	2.07	38.2		.273	.086	.014	.033
14	.000	.020		.000	.000	1.84	35.8		.258	.049	.006	.020
15	.000	.006		.000	.000	1.84	28.6		.242	.073	.014	.010
16	.000	.001		.000	.000	2.02	22.8		.227	.040	.010	.003
17	.000	.000		.000	.000	2.01	21.7		.212	.049	.003	.000
18	.000	.000	.372	.000	.000	3.02	15.1		.197	.033	.006	.000
19	.000		.197	.000	.000	3.20	16.2		.182	.040	.014	.003
20	.000		.112	.000	.000	2.39	37.0		.168	.049	.026	.003
21	.000		.049	.000	.338	2.16	35.8		.197	.040	.014	.000
22	.000		.020	.000	.140	2.37	38.2		.197	.033	.006	.000
23	.000	.000	.010	.000	.086	2.08	34.5		.154	.040	.010	.000
24	.000	.000	.003	.000	.020	2.28	28.6		.182	.073	.003	.000
25	.000	.000	.000	.000	.033	2.09	26.3		.140	.033	.006	.000
26	.000	.000	.000	.000	.273	2.51	17.3		.154	.020	.001	.000
27	.000	.000		.000	.182	2.67	28.6		.168	.026	.000	.000
28	.000	.000		.000	.140	2.66	20.6		.140	.049	.001	.000
29	.000	.000		.000	.322	2.39	7.79		.112	.026	.001	
30	.000	.000		.000	.197	3.00	3.26		.126	.033	.000	
31	.000				.182	3.04				.020	.000	
MOY	.001	.038		.000	.062	1.69	28.1		.249	.061	.012	.003

Code : 47 27 48 03
bassin versant : 6 730 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M.

Coordonnées : 10° 12' N - 0° 27' E.

Cote du zéro de l'échelle : 111,49 m. en nivellement I.G.N. Nivellement effectué à partir du repère I.G.N. matricule 61, cote 120, 114 m.

Accès :

Gué situé à 17 kilomètres au Sud de MANGO, sur la route MANGO - PAIOKOU - KOUMANGOU.

Installations

L'échelle a été implantée le 29 avril 1959 avec 7 éléments gradués de 1 à 7 mètres, étagés sur la rive droite. L'élément de 0 à 1 mètre a été posé le 19 mai 1959.

Le lit à cet endroit est très mobile, ce qui provoque la disparition des échelles par ensablement ou arrachage des éléments. En particulier l'élément 3 à 5 mètres a été entièrement enterré lors de la crue de 1963. On retrouvera la trace de tous ces mouvements dans les archives de l'O.R.S.T.O.M.

Lectures

Une lecture par jour, le matin. Qualité des observations satisfaisante.

Les interruptions dans la liste des débits donnés ci-dessous résultent de la disparition d'un ou plusieurs éléments d'échelle.

Jaugeages - Courbes de tarage

Il a fallu retenir, avec beaucoup de difficultés, 10 courbes de tarage pour la période qui nous intéresse. Ces courbes ont été tracées à l'aide de 48 jaugeages :

maximum jaugé : 443 m³/s le 22-8-63 (cote 5,87 à 5,91 m)
minimum jaugé : 40 litres/s le 20-4-66 (cote 0,485 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 640 à 600 m.	2,0 %
600 à 400	24,7
400 à 200	44,3
200 à 115	28,5

Géologie

On trouve la série géologique suivante, en allant d'Est en Ouest :

- Gneiss (groupes du Kabré et de l'Agbandi)	18,6 %
- Micaschistes granitisés de l'Atacorien	7,9
- Quartzites micaés de l'Atacorien	31,2
- Schistes sériciteux (série de Kandé - Boukombé)	11,4
- Grès et quartzites du Buom	5,7
- Schistes et grès de l'Oti	25,2

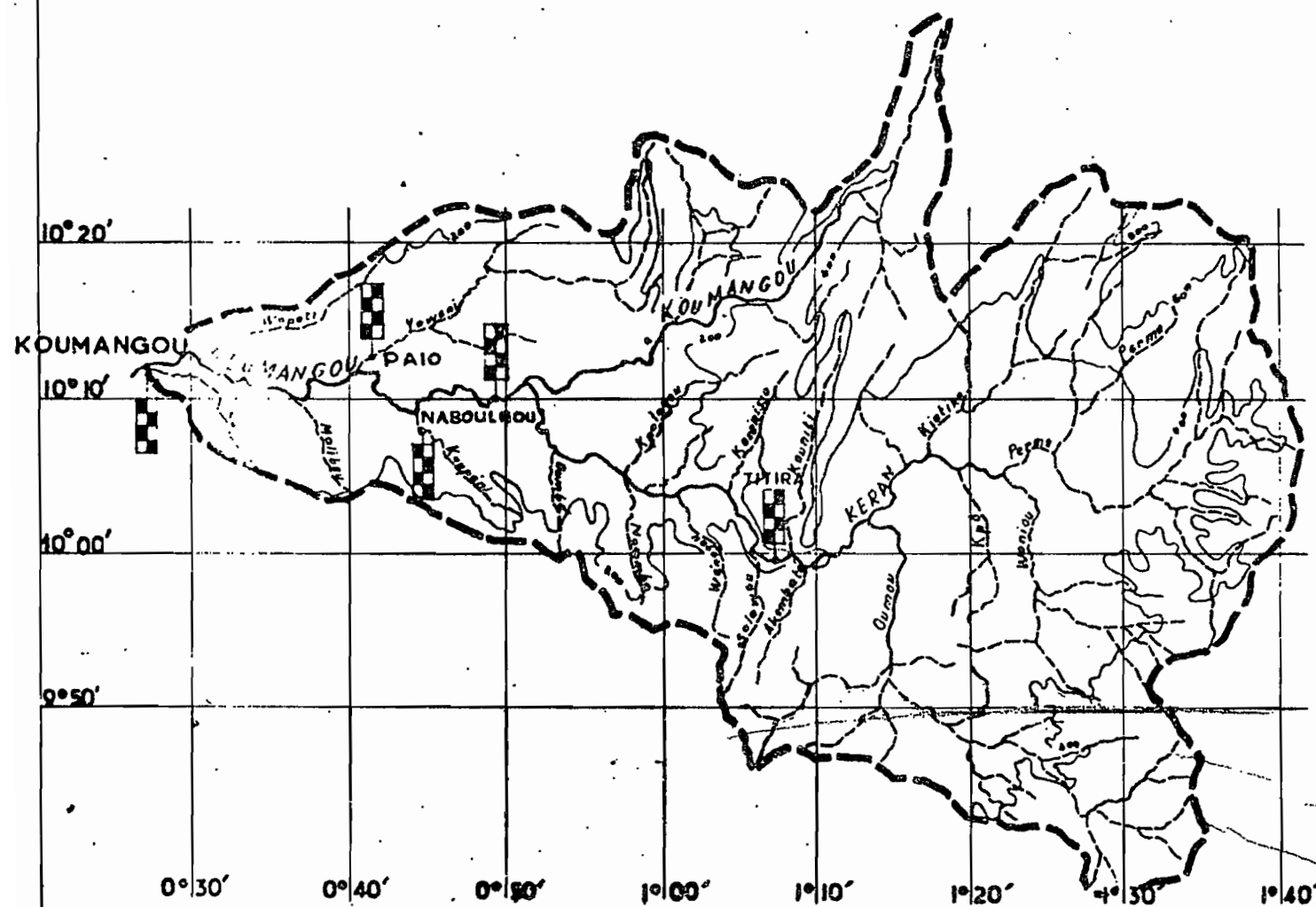
Végétation

Savane arborée avec îlots de forêt sèche sur les hauteurs.
Forêt humide dans les vallées.

KOUMANGOU A KOUMANGOU

BASSIN VERSANT=6730 Km²

NORD



128

Echelle : 1 : 800 000

ORSTOM

DATE : 23 / 6 / 63

DESSINÉ : M. Sossah

T 273 H

STATION : TOGO VOLTA KOUMANGOU KOUMANGOU

NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1959-1960 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			15.7	1.20	1.87	32.4	239.	318.		5.03	1.25	.345
2			15.3	1.11	1.40	27.0	314.	248.		4.60	1.17	.345
3			16.1	.932	35.0	23.3	267.	215.		4.20	1.17	.345
4			11.9	4.88	20.3	21.4	218.	189.		4.20	1.17	.314
5				4.04	11.6	26.7	210.	175.		3.64	1.17	.314
6				3.06	13.9	83.0	201.	160.		3.64	1.17	.314
7				2.00	11.6	88.5	333.	151.		3.64	1.09	.285
8				1.40	35.0	64.4	277.	147.		3.46	1.02	.285
9				1.02	95.8	52.4	198.	140.		3.29	.950	.257
10				.853	57.7	77.0	171.	134.		3.12	.888	.257
11				.932	75.7	147.	173.	112.		2.96	.688	.257
12				.853	52.1	85.1	171.	103.		2.80	.688	.230
13				.532	115.	62.0	168.	87.2		2.65	.644	.230
14				2.00	83.6	56.2	153.	76.3		2.51	.644	.205
15				1.30	150.	45.4	162.	69.8		2.51	.644	.205
16				1.02	133.	40.2	168.	65.8		2.23	.602	.205
17				1.02	88.4	35.0	190.	59.4		2.10	.602	.205
18				2.00	51.2	31.2	233.	56.0		1.98	.561	.205
19			2.88	1.75	44.0	27.0	323.	54.1	9.96	1.98	.561	.181
20			4.88	2.57	40.2	24.4	430.	51.2	9.63	1.86	.561	.181
21			3.63	2.13	41.2	27.4	360.	48.8	9.31	1.74	.561	.181
22			8.07	1.75	47.4	40.9	366.	52.7	8.39	1.63	.522	.158
23			4.67	2.42	38.3	45.7	394.	58.8	7.52	1.53	.484	.158
24			3.06	5.11	51.2	97.1	431.	76.9	6.97	1.53	.447	.137
25			2.42	7.02	50.7	301.	372.	73.4	6.71	1.43	.412	.137
26			2.00	5.33	37.8	299.	342.	54.6	6.45	1.43	.378	.137
27			1.63	4.67	38.3	207.	335.	46.0	6.20	1.43	.378	.118
28			1.11	5.33	66.9	172.	317.	41.2	5.71	1.34	.378	.118
29		22.9	.710	3.44	60.0	212.	321.	37.9	5.25	1.34	.378	.100
30		16.8	1.51	2.57	54.6	239.	353.		5.03	1.25	.345	
31			1.20		38.8					1.09	.345	
MOY				2.47	53.0	94.5	273.	102.		2.52	.705	.221

STATION : TOGO VOLTA KOUMANGOU KOUMANGOU

NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1960-1961 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.100	.041			18.9	92.5	153.	371.	56.6			
2	.100	.041			16.0	64.3	228.	282.	64.8			
3	.083	.030			27.6	57.7	248.	301.	18.4			
4	.083	.030			21.3	47.8	336.	360.	43.0			
5	.083	.030			48.3	50.2	376.	434.	40.1			
6	.083	.030			44.9	66.5	336.	445.	38.7			
7	.068	.030		27.0	27.6	45.9	313.	484.	37.3			
8	.068	.030			35.3	44.5	333.	455.	35.3			
9	.068	.030			27.6	45.9	297.	371.	34.4			
10	.068	.030			37.3	83.3	326.	301.	32.9			
11	.068	.100			40.6	114.	389.	214.	29.5			
12	.068	.083			32.4	94.3	445.	204.	28.6			
13	.068	.068			43.0	63.2	445.	203.	27.6			
14	.054	.054			68.8	51.2	447.	203.	26.2			
15	.054	.054			60.4	57.7	477.	201.	25.7			
16	.054	.083			48.3	63.7	497.	188.	24.7			.981
17	.054	.137			33.4	66.5	495.	172.	20.8			.887
18	.041	.100			25.2	102.	491.	97.5	17.9			.798
19	.041	.083			18.9	128.	447.	88.2	15.5			.798
20	.041	.068			98.1	101.	445.	81.0	15.0			.715
21		.100			44.5	74.5	445.	74.5	13.1			.715
22		.118			31.5	72.8	460.	71.6	7.81			.715
23		.118			23.7	102.	475.	67.1	12.1			.715
24		.345			22.8	112.	451.	63.2	11.6			.638
25		.285			23.7	108.	449.	59.3	10.8			.638
26		.257		17.5	18.9	237.	447.	56.1	9.97			.638
27		.230		47.4	22.3	338.	443.	52.6	9.21			.638
28		.230		30.8	42.1	338.	447.	50.2	8.49			.566
29		.205		25.1	37.3	221.	447.	52.1	8.15			
30		.205		27.5	46.9	181.	447.	72.2	7.81			
31					120.	144.		58.2				
MOY	.058	.108			38.9	109.	401.	198.	24.4			

STATION : TOGO

VOLTA

KOU MANGOU

KOU MANGOU

NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1961-1962 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.566	.236	.566	1.80	71.6	43.0	53.1	101.	10.1	2.40	1.15	.672
2	.566	.236	.500	1.94	68.8	71.6	45.4	98.9	10.1	2.31	1.15	.618
3	.566	.236	.450	2.24	67.6	87.6	44.5	87.9	9.81	2.21	1.15	.618
4	.566	.236	.402	2.55	63.2	110.	66.0	75.6	9.81	2.21	1.09	.618
5	.500	.236	1.41	2.90	62.6	122.	56.6	70.5	9.51	2.12	1.02	.566
6	.500	.236	1.19	3.85	64.3	115.	44.9	66.6	9.51	2.03	1.02	.566
7	.500	.236	.981	4.05	57.7	112.	38.7	61.7	8.94	2.03	1.02	.515
8	.500	.200	.715	4.70	56.6	95.6	41.1	60.7	8.39	1.95	1.02	.515
9	.500	.200	3.08	5.18	55.5	43.0	38.7	65.0	7.86	1.87	.961	.515
10	.450	.200	2.55	4.94	52.6	45.4	82.2	64.4	6.68	1.80	.961	.515
11	.402	.274	2.08	4.48	22.8	49.3	124.	60.7	5.85	1.72	.900	.515
12	.402	.314	2.90	4.70	28.6	50.2	241.	57.0	5.46	1.65	.900	.515
13	.402	9.59	3.08	4.70	31.0	51.2	177.	50.8	5.09	1.57	.900	.515
14	.402	7.48	2.90	6.26	34.8	30.0	243.	46.0	4.91	1.57	.900	.515
15	.402	6.85	7.16	6.26	38.7	31.0	333.	44.1	4.74	1.57	.900	.466
16	.402	6.26	13.1	6.85	47.8	28.6	332.	43.1	4.57	1.50	.841	.466
17	.357	4.94	23.3	7.48	47.3	26.6	294.	34.0	4.24	1.50	.841	.466
18	.357	4.48	19.4	9.59	46.9	25.2	358.	30.6	4.08	1.43	.841	.466
19	.357	3.45	15.5	11.2	48.3	23.3	395.	29.6	3.77	1.43	.841	.466
20	.314	2.90	11.6	12.1	45.4	27.6	251.	26.2	3.63	1.43	.841	.466
21	.314	2.55	3.85	13.1	31.0	31.5	171.	24.3	3.49	1.35	.841	.466
22	.314	2.08	3.85	16.5	26.6	24.7	164.	22.4	3.35	1.35	.783	.418
23	.314	1.41	2.08	21.3	30.0	26.2	248.	19.9	3.22	1.29	.783	.418
24	.314	.887	1.80	26.2	28.6	28.1	284.	18.1	3.09	1.29	.783	.418
25	.274	.798	1.41	28.6	26.2	26.2	211.	16.3	4.40	1.29	.726	.418
26	.274	.798	1.30	31.0	25.2	31.0	194.	15.1	2.84	1.22	.726	.418
27	.274	.798	1.19	35.8	25.2	33.4	186.	15.1	2.84	1.22	.726	.418
28	.274	.798	1.19	40.6	110.	32.4	171.	13.2	2.73	1.22	.672	.418
29	.274	.715	1.80	62.1	102.	115.	148.	11.4	2.62	1.22	.672	
30	.274	.566	1.54	74.5	51.7	72.2	127.	11.1	2.51	1.15	.672	
31	.236		1.41		44.5	58.8		10.1		1.15	.672	
MOY	.392	2.01	4.33	15.2	48.8	53.8	172.	43.6	5.61	1.61	.881	.499

DEBIT MOYEN ANNUEL

29.1 M3/S

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.372	.283	2.12	26.9	45.7	61.5	665.	118.	53.5	26.4		2.61
2	.372	.283	1.80	43.9	43.4	222.	614.	111.	50.0	25.0		2.50
3	.372	.283	1.80	19.7	143.	249.	557.	137.	49.5	24.0		2.50
4	.372	.283	1.57	17.4	134.	261.	516.	195.	48.5	21.6		2.50
5	.372	.283	1.57	14.8	117.	243.	491.	249.	51.5	19.3		2.39
6	.372	.241	1.43	11.2	77.1	164.	477.	329.	54.0	18.3		2.29
7	.372	.241	3.77	6.96	177.	310.	458.	288.	64.8	17.4		2.19
8	.372	.241	5.46	10.4	134.	346.	445.	281.	64.2	16.5		2.09
9	.326	.241	5.46	11.6	113.	322.	420.	223.	59.3	16.0		2.09
10	.326	.241	3.49	23.1	82.0	383.	430.	161.	58.7			2.00
11	.326	.241	2.51	34.9	87.5	335.	477.	125.	54.0			1.91
12	.326	.241	2.03	30.7	78.3	202.	533.	158.	48.5			1.91
13	.326	.241	1.80	53.0	64.8	167.	545.	172.	51.0			1.83
14	.326	.241	2.31	28.3	77.7	126.	514.	192.	65.3			1.75
15	.372	.241	2.51	32.1	209.	119.	475.	227.	55.6			1.75
16	.372	.241	2.31	27.4	168.	157.	464.	239.	55.1			1.67
17	.326	.515	2.31	16.9	119.	195.	439.	172.	54.0		3.50	1.60
18	.326	.466	1.95	14.8	89.3	157.	445.	148.	53.0		3.36	1.60
19	.326	37.8	1.65	12.7	73.5	177.	455.	123.	48.5		3.23	1.53
20	.326	19.0	1.50	20.7	60.4	171.	460.	104.	43.9		3.23	1.53
21	.326	9.81	1.43	114.	59.8	168.	451.	101.	40.1		3.23	1.53
22	.326	8.12	1.43	54.0	71.7	134.	443.	99.6	38.7		3.10	1.47
23	.326	4.57	1.29	117.	64.2	114.	389.	91.5	37.3		3.10	1.40
24	.326	4.08	1.22	77.1	55.1	109.	371.	80.1	36.8		3.10	1.35
25	.326	3.63	1.65	45.3	50.0	179.	355.	77.7	33.1		3.10	1.35
26	.283	2.40	1.43	34.5	45.3	273.	283.	73.5	45.3		2.97	1.25
27	.283	6.90	1.43	33.1	45.7	296.	274.	65.9	38.2		2.73	
28	.283	5.09	1.29	74.7	175.	335.	291.	63.1	32.1		2.73	
29	.283	3.49	2.73	50.5	91.8	316.	236.	57.7	30.7		2.73	
30	.283	2.51	3.92	41.5	67.0	426.	227.	55.1	27.8		2.73	
31	.283		40.2		56.6	500.		54.0			2.73	
MOY	.333	3.75	3.46	36.6	92.8	233.	440.	147.	48.1		3.70	1.82

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1		.751	1.16			111.	506.	211.				
2		.725	1.47		10.4	102.	483.					
3		.725			25.2	151.	439.	326.				
4		.725			12.2	162.	386.	193.				
5		.700			10.4	203.	439.	196.				
6		.751			26.9	232.	379.	317.				
7		.725	2.00		56.8	258.	400.	354.				
8		.700	1.83		33.1	349.	443.	253.				
9		.700			17.3	426.	406.	267.				
10		2.09			68.3	349.	445.	230.				
11		1.91			97.9	303.	448.	191.				
12		1.83	34.9		49.5	267.	459.	347.				
13		1.40			68.3	383.	470.	439.		12.7		
14		1.35			86.3	287.	534.	450.		12.4		
15		1.20			97.9	229.	558.	406.		11.9		
16		2.09			117.	294.	534.	315.		11.6		
17		1.20			128.	296.	454.	255.		11.4		
18		1.12			141.	324.	381.	218.		11.4		
19		1.08			258.	203.	307.			11.1		
20					205.	179.	270.			10.7		
21					177.	178.	256.			10.4		
22	.868		1.83		134.	379.	367.	269.				2.46
23	.868				133.	461.	375.	289.				2.46
24	.837				109.	541.	280.	243.				2.46
25	.900				97.9	575.	243.	218.				2.29
26	.837	1.91	2.09		91.7	532.	206.					2.29
27	.868	1.40	1.83		60.0	495.	199.					2.29
28	.807	1.20			52.0	452.	214.					2.29
29	.807	1.20			68.3	443.	210.					2.12
30	.779	1.25			53.1	450.	178.					
31	.751				51.5	495.						
MOY		1.26			82.1	326.	376.	265.				

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU

NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	2.12	3.84	1.29	6.09	11.4		229.	450.	228.	23.0		
2	1.94	3.32	.981	5.23	11.6	108.	243.	424.	219.	25.7		
3	1.94	3.15	.830	7.83	13.0	90.7	269.	406.		22.5		
4	1.77	2.63	.830	7.14	8.70	74.5	278.	379.		22.1		
5	1.77	2.46	1.29	5.23	6.09	59.5	439.	369.		21.2		
6	1.60	2.46	.981	4.71	6.61	45.9	492.	369.		20.8		
7		4.36	.981	4.02	5.40	32.4	532.	358.		19.9		
8		7.14	.981	3.32	4.71	28.1	544.	347.		19.5		
9		4.38	1.44	4.53	3.84	25.3	499.	331.		18.6		
10		3.84	1.29	4.53	3.67	74.5	432.	275.		17.7		
11		2.98	1.13	3.67	3.67	71.4	279.	248.		16.5		
12		2.29	.981	3.15	3.67	69.0	190.	243.	102.	14.4		
13		2.29	2.81	4.02	3.15	65.4	450.	238.	83.8	13.6		
14		1.77	2.98	3.15	11.1	90.1	477.	243.	99.7	9.98		
15		1.60	2.81	2.81	21.8		426.	260.		5.29		
16		1.60	2.46	2.46	11.4	108.	474.	293.	46.9	5.08		
17		1.29	2.12	2.12	8.35	118.	452.	369.	45.3	5.08		
18		1.29	2.12	1.60	9.23	96.5	450.	426.	42.1	4.89		
19		1.13	1.94	4.36	13.6	90.1	428.	439.	40.5	4.89		
20		1.13	1.60	7.83	14.2	78.2	356.	468.	40.5	4.89		
21		.981	1.60	4.36	10.2	49.2	289.	477.	40.0	4.71		
22		.830	2.12	9.23	9.05	46.4	426.	492.	37.4	4.55		
23		.830	4.36	9.23	8.01	80.0	432.	439.	34.9	4.55		
24		.681	6.09	7.48	39.0	76.9	477.	400.	31.9			
25		1.77	5.40	7.14	32.6	115.	525.	396.	30.5			
26		2.12	13.0	6.61	34.9	218.	541.	363.	26.7			
27	7.31	1.94	38.1	7.66	30.4	180.	561.	283.	24.8			
28	6.44	1.77	26.5	5.92	137.	133.	477.	267.	23.9			
29	6.09	1.60	9.80	5.40	181.	117.	454.	238.	23.4			
30	5.57	1.44	9.40	12.2	144.	102.	452.	244.	23.0			
31	4.36		9.40		132.	181.		266.				
MOY		2.31	5.08	5.43	30.1	91.7	419.	348.	92.2	10.8		

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.330	4.89	20.3		191.		24.8	4.22	1.80	.867
2			.330	4.38	14.4		179.		23.0	3.90	1.73	.799
3			.595	4.06	14.4		181.		21.2	3.75	1.65	.799
4			.528	3.46	13.2		151.		16.5	3.60	1.65	.730
5			7.41	3.18	31.9		137.		16.0	3.46	1.58	.730
6			14.8	2.92	23.9	38.4	137.		15.2	3.32	1.58	.730
7		.396	8.08	2.68	14.4	46.9	153.		14.4	3.18	1.58	.663
8		.396	6.51	2.34	10.4		167.		13.6	3.05	1.51	.663
9		.396	5.74	2.04	25.7		175.		12.8	2.92	1.43	.595
10		.396	5.98	2.14	18.2		162.		12.0	2.92	1.43	.595
11		.330	3.32	1.95	14.0		192.		11.2	2.92	1.36	.528
12		.330	3.05	3.32	14.0		212.		10.4	2.80	1.36	.528
13		.330	3.32	3.05	14.0		170.		9.98	2.68	1.36	.528
14		.330	32.4	4.22	15.2	192.	161.		9.57	2.56	1.36	.528
15		.330	18.6	8.80	24.8	209.	175.		8.80	2.56	1.29	.462
16		.330	14.4	27.6	34.9	159.	191.		8.08	2.45	1.29	.396
17		.330	6.80	22.1	27.6	188.	177.		7.74	2.34	1.29	.396
18		.330	4.06	70.8	16.5	320.	166.		7.10	2.34	1.22	.396
19		.265	3.18	23.9	12.0	286.	158.		6.80	2.24	1.22	.330
20		.265	2.80	16.5	12.0	166.	152.		6.24	2.14	1.22	.330
21		.265	3.90	12.0	12.4	145.	148.	46.4	5.98	2.14	1.15	.330
22		.396	4.22	12.4	21.6	142.	138.	46.4	5.74	2.14	1.15	.265
23		.595	3.75	11.2	30.0	179.	137.	45.9	5.51	2.04	1.15	.265
24		1.01	2.80	10.8		219.	150.	45.3	5.29	2.04	1.08	.265
25		1.01	2.56	8.43		262.	153.	35.9	5.08	1.95	1.08	.265
26		.867	2.45	34.4		381.	138.	37.9	4.89	1.95	1.08	.265
27		.730	2.14	22.1		274.	130.	32.4	4.89	1.95	1.01	.200
28		.595	1.95	42.1	40.0	248.	124.	30.0	4.71	1.87	1.01	.200
29		.528	2.04	37.4		276.	122.	27.6	4.71	1.87	.937	
30		.396	2.45	20.3	142.	336.	110.	25.7	4.55	1.87	.937	
31			6.24		122.	258.		23.0		1.80	.937	
MOY		.462	5.70	14.2	31.3	176.	158.		10.2	2.61	1.30	.487

STATION : TOGO VOLTA KOUMANGOU KOUMANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.200	.115	1.58	8.08	28.1	30.9	188.	232.	68.4	9.57	2.68	1.43
2	.200	.091	14.0	63.0	22.1	35.9	276.	166.	60.1	8.80	2.56	1.36
3	.200	.091	4.06	46.9	12.8	27.6	178.	144.	53.7	8.08	2.45	1.36
4	.169	.091	5.08	15.2	31.4	23.4	137.	207.	50.8	7.74	2.45	1.36
5	.169	.070	4.55	7.74	26.7	25.7	98.4	224.	46.4	7.10	2.34	1.29
6	.169	.070	3.32	8.80	46.4	35.4	109.	181.	42.6	6.80	2.24	1.29
7	.169	.070	2.80	32.4	30.0	25.7	95.8	163.	40.5	6.51	2.24	1.22
8	.169	.070	2.24	26.2	25.7	18.2	96.5	151.	38.4	5.98	2.14	1.22
9	.141	.051	1.73	31.4	53.1	19.5	134.	151.	36.9	5.74	2.14	1.15
10	.141	.051	1.65	22.5	32.4	54.2	217.	225.	35.4	5.74	2.14	1.15
11	.141	.051	1.65	15.2	22.5	41.6	190.	181.	31.9	5.51	2.04	1.08
12	.141	.051	1.36	13.2	17.7	58.3	172.	218.	30.0	5.29	2.04	1.08
13	.141	.051	1.15	16.0	20.8	50.8	138.	259.	28.1	5.29	2.04	1.01
14	.141	.051	1.08	19.5	17.3	43.7	124.	296.	26.7	5.08	2.04	1.01
15	.141	.051	.799	14.4	16.5	37.4	346.	270.	25.3	4.71	1.95	.937
16	.115	.051	.663	13.2	14.0	34.9	406.	229.	23.4	4.22	1.87	.867
17	.115	.035	.528	22.5	12.4	99.7	437.	231.	22.1	4.06	1.80	.867
18	.115	.035	.462	12.8	9.18	71.4	443.	262.	20.3	3.90	1.80	.799
19	.115	.035	.396	9.57	8.80	51.4	375.	144.	19.5	3.75	1.80	.730
20	.115	.035	.663	9.57	7.41	252.	386.	133.	18.6	3.60	1.73	.730
21	.091	.035	.462	8.08	6.24	331.	331.	109.	17.7	3.46	1.73	.663
22	.091	.035	.396	6.24	18.6	216.	301.	102.	18.6	3.32	1.65	.595
23	.115	.035	.396	5.08	21.2	169.	329.	101.	16.9	3.18	1.65	.595
24	.396	.035	.396	15.2	86.9	171.	351.	99.7	16.5	3.05	1.58	.528
25	.330	.070	.396	18.6	44.2	317.	204.	83.8	16.0	2.92	1.58	.528
26	.200	16.0	.330	49.2	42.6	227.	151.	78.2	14.4	2.92	1.51	.462
27	.141	5.29	1.51	23.0	49.2	266.	269.	73.3	12.8	2.80	1.51	.396
28	.115	2.34	1.95	19.0	86.3	194.	321.	66.6	12.0	2.80	1.51	.396
29	.115	1.80	1.65	67.2	55.4	139.	279.	67.8	11.2	2.80	1.43	
30	.115	1.36	3.90	49.7	52.0	128.	266.	103.	10.4	2.80	1.43	
31	.141		3.60		39.5	179.		100.		2.68	1.43	
MOY	.157	.942	2.09	22.3	30.9	109.	245.	163.	28.8	4.84	1.92	.931

DEBIT MOYEN ANNUEL 51.0 M3/S

STATION : TOGO VOLTA KOUMANGOU KOUMANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.330	.330	.528	3.46	3.18	75.5	162.	344.	38.8	8.79	4.97	1.95
2	.330	.330	.462	2.68	17.7	70.5	125.	316.	38.8	8.54	4.78	1.85
3	.265	.663	.867	2.24	27.1	73.0	114.	256.	36.5	8.54	4.60	1.76
4	.200	.663	.730	2.14	46.9	84.3	132.	214.	35.2	8.29	4.42	1.76
5	.200	.528	.663	1.80	70.2	90.1	161.	208.	33.0	13.2	4.24	1.76
6	.200	.867	.799	1.58	63.6	73.0	146.	213.	31.6	15.2	4.07	1.67
7	.169	.867	3.18	1.51	53.7	64.0	148.	197.	28.2	14.2	3.90	1.67
8	.169	.867	2.92	2.45	30.9	57.6	154.	187.	27.3	10.4	3.74	1.58
9	.141	.937	2.14	2.14	22.5	55.1	161.	175.	26.0	9.31	3.58	1.49
10	.141	1.08	1.87		18.6	102.	218.	128.	24.3	8.54	3.58	1.49
11	.141	1.01	2.04	4.22	19.5	147.	324.	133.	23.5	7.81	3.43	1.41
12	.115	.799	1.95	3.18	22.1	169.	240.	120.	22.6	7.34	3.28	1.41
13	.115	.663	1.58	2.45	25.3	139.	219.	98.2	21.4	7.12	3.13	1.41
14	.091	.799	1.36	2.04	15.6	216.	221.	90.1	20.1	7.34	3.13	1.33
15	.091	1.01	1.22	1.73	35.4	339.	202.	83.2	18.9	9.05	2.99	1.33
16	.091	.937	1.22	2.04	61.5	299.	193.	86.9	18.1	9.58	2.99	1.33
17	.091	1.29	1.73	2.68	59.5	202.	211.	87.4	16.8	7.81	2.86	1.25
18	.070	1.87	1.58	2.80	54.6	299.	298.	88.5	16.0	7.12	2.73	1.25
19	.091	3.75	1.36	3.05	55.1	324.	307.	90.1	15.2	6.44	2.60	1.17
20	.115	2.68	1.08	47.5	71.5	198.	316.	84.3	14.5	6.22	2.48	1.09
21	.141	2.34	.937	24.8	82.2	209.	281.	77.6	13.8	6.00	2.48	1.02
22	1.08	1.73	.867	31.4	54.2	390.	238.	71.5	13.2	5.78	2.37	.948
23	.799	1.36	1.29	37.4	48.5	415.	229.	68.5	12.5	5.78	2.26	.880
24	.799	1.15	1.36	18.6	32.5	390.	217.	60.5	11.9	5.78	2.26	.880
25	.867	1.08	1.51	13.6	31.2	251.	202.	55.1	11.3	5.78	2.15	.814
26	.663	1.01	3.75	8.08	99.2	276.	201.	49.9	10.7	6.00	2.15	.814
27	.663	.867	6.51	5.29	85.8	379.	199.	43.8	10.1	5.57	2.15	.750
28	.595	.799	28.5	4.55	88.5	417.	210.	41.0	9.58	5.37	2.15	.750
29	.528	.730	16.5	3.75	86.9	446.	307.	40.1	9.31	5.17	2.05	.688
30	.462	.595	8.80	2.80	90.1	371.	387.	39.7	9.05	5.17	2.05	
31	.396		5.08		82.2	194.		38.8		4.97	1.95	
MOY	.327	1.12	3.37	8.17	50.2	220.	217.	122.	20.6	7.81	3.08	1.29

DEBIT MOYEN ANNUEL

54.8 M3/S

STATION : TOGO VOLTA KOUMANGOU KOUMANGOU

NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.688	.572	85.8		39.2	263.	286.	238.	45.0	16.8	6.77	
2	.688	.572	33.4		84.3	218.	370.	216.	43.8	16.4	6.77	
3	.688	1.76	26.9	18.5	88.5	206.	424.	204.	45.0	16.0	6.50	
4	.629	2.15	19.7	14.2	91.1	252.	379.	199.	44.4	15.2	6.50	
5	.629	1.67	14.5	10.4	64.0	251.	356.	184.		14.8	6.24	
6	.572	1.33	36.5	9.31	50.8	238.	405.	204.	45.0	14.4	5.99	
7	.572	1.02		9.85	62.5	222.	397.	236.	43.2	14.0	5.74	
8	.572	.814	27.3	22.6	219.	187.	424.	205.	40.9	13.6	5.50	
9	.572	.750	19.3	18.9	171.	181.	437.	189.	39.2	13.2	5.28	
10	.572	.688	14.5	15.2	103.	175.	426.	174.	38.1	13.2	5.07	
11	.572	.688	11.0	13.8	117.	172.	433.	164.	37.0	12.8	4.86	
12	.572	.688	9.58	13.8	92.8	169.	443.	149.	35.4		4.66	
13	.572	.688	8.54	10.4	70.7	245.	448.	147.	32.7		4.46	
14	.518	.629	7.34	22.6	86.8	222.	463.	146.	31.2		4.46	
15	.518	2.05	11.0	39.2	147.	202.	459.	124.	29.7		4.46	
16	.518	28.6	9.85	44.7	88.8	185.	435.		28.7		4.46	
17	.518	40.6	7.34	59.0	127.	205.	379.		27.7	10.7	4.27	
18	.466	13.5	6.90	74.5	385.	169.	275.		26.3	10.4	4.27	
19	.466	9.58	7.81	65.5	446.	133.	220.		25.3	10.0	4.27	
20	.466	5.37	5.57	51.3	448.	205.	222.		24.4	9.72	4.08	
21	.416	4.24	5.57	59.0	437.	155.	227.		23.5	9.40	3.89	
22	.416	3.74	5.57	63.0	424.	136.	215.		22.6	9.08	3.89	
23	.368	3.13	4.78	64.0	446.	173.	206.		22.1	8.78	3.71	
24	.368	3.13	6.44	65.5	448.	156.	177.		21.7	8.47	3.71	
25	.323	22.6	7.57	87.9	448.		190.		20.8	8.17		
26	.323	11.0	6.22	60.5	433.		208.		19.9	7.88		
27	.280	26.9	4.78	56.1	395.		196.		19.5	7.60		
28	.280	81.1	4.24	44.3	426.		257.		18.6	7.31		1.04
29	.239	94.4	3.43	57.6	446.	125.	310.		17.7	7.31		
30	.750	90.1	12.8	55.6	347.	207.	241.		17.3	7.04		
31	.518		10.4		273.	273.		45.0		6.77		
MOY	.505	15.1	15.1	38.5	242.	190.	330.	132.	31.0	11.2	4.63	

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	1.04	.452	1.04	1.48	10.4	52.2	289.	274.	143.			2.73
2	1.04	.452	.962	1.48	81.6	49.8	416.	366.	160.			2.59
3	.962	.611	.826	1.39	50.4	46.8	448.	317.	212.			2.59
4	.962	.532		1.20	33.8	181.	466.	269.	182.			2.45
5	.962	.500	.826	.962	28.2	87.5	468.	222.	132.			2.31
6	.892	.452	.765	.826	31.2	68.2	405.	180.	117.			2.31
7	.892	.452	2.05	.892	36.5	108.	347.	160.	156.			2.18
8	.892	.406	1.59	.892	47.4	117.	314.	157.	123.			2.18
9	.826	.406	1.04	.892	31.2	108.	431.	154.	109.			2.05
10	.826	.406	4.27	.826	23.9	94.1	470.		92.8			1.93
11	.765	.406	3.71	.826	13.2	75.1	541.		80.9			1.93
12	.709	.406	2.89	.892	10.4	83.5	531.	108.	73.9			1.81
13	.709	3.54	4.46	.826	10.0	179.	502.	102.	72.0			1.81
14	.658	12.8	2.45	.892	9.72	181.	481.	98.8	66.3			1.70
15	.658	6.77	1.70	.962	19.0	168.	454.	95.4	61.3			1.70
16	.658	4.66	1.48	1.04	19.9	152.	470.	107.	57.0			1.59
17	.658		1.20	.826	106.	151.	450.	204.	54.0			1.48
18	.611	2.31	1.04	.658	55.8	135.	448.	224.	51.0			1.48
19	.611	2.05	1.20	.611	132.	124.	448.	181.				1.39
20	.570	1.81	2.31	.570	220.	123.	477.	142.				1.29
21	.570	1.48	1.93	.570	108.	155.	466.					1.20
22	.532	1.39	1.70	.611	70.1	108.	416.					1.20
23	.532	4.86	1.29	.611	53.4	132.	412.	108.			3.20	1.12
24	.500	4.27	1.48	.611	44.4	146.	405.	100.			3.20	1.04
25	.500	3.89	1.39	.765	81.6	173.	322.	92.8			3.04	1.04
26	.452	3.54	1.29	9.08	69.4	208.	262.	94.8			3.04	.962
27	.452	3.37	1.59	7.31	57.6	264.	257.	106.			3.04	.962
28	.452	1.81	2.73	10.4	45.6	299.	261.	183.			3.04	.892
29	.452	1.48	2.73	7.88	43.2	293.	264.	169.			3.04	
30	.452	1.29	2.18	5.74	72.6	291.	263.	153.			3.04	
31	.452		1.70		60.7	290.		149.			3.04	
MOY	.685	2.34	1.83	2.08	54.1	150.	406.	162.				1.71

STATION : TOGO VOLTA KOUHANGOU KOUHANGOU
 NUMERO : 47274803

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.826	.406	.139	2.73	.658	51.0	222.	275.	37.0	13.2	8.47	5.99
2	.826	.364	.139	2.31	.962	164.	276.	273.	35.4	12.8	8.47	5.99
3	.765	.364	.124	2.45	1.20	214.	383.	270.	33.3	12.5	8.17	5.74
4	.765	.325	.200	3.04	1.70	134.		276.	32.2	12.1	8.17	5.74
5	.709	.325	.176	2.31	1.20	137.	484.	301.	30.7	11.8	7.88	5.74
6	.709	.325	.156	2.31	1.04	118.	484.		29.2	11.8	7.88	5.74
7	.658	.289	.156	1.93	.962	114.	475.	228.	28.2	11.4	7.88	5.50
8		.256	.139	1.48	8.17	137.	481.	192.		11.4	7.60	5.50
9	.611	.325	.139	1.39	4.46	118.	466.	168.	26.3	11.1	7.60	5.50
10	.611	.256	.176	1.29	4.27	94.8	457.	154.	24.9	11.1	7.31	5.28
11	.611	.227	.156	1.20	2.59	83.5		137.	23.9	11.1	7.31	5.28
12	1.12	.227	.139	1.04	9.40	77.1		126.	23.0	10.7	7.31	5.99
13	1.12	.200	.124	.962	13.6	159.	470.	123.	22.1	10.7		5.50
14	2.18	.200	.256	.892	14.0	91.4	514.	122.	21.7	10.4	7.04	5.50
15	1.70	.176	.570	.826	11.4	95.4	514.	120.	20.8	10.0	7.04	5.50
16	1.59	.176	.570	.765	21.7	122.		119.	20.4	10.0	7.04	5.50
17	1.39	.176	.611	.709	10.7	99.5	448.	115.	19.5	10.0	6.77	5.50
18	1.12	.200	3.37	.709	43.2	88.1	448.		19.0	9.72	6.77	5.28
19	.962	.176	8.17	.709	35.4	82.2	454.		18.1	9.72	6.77	5.28
20	.892	.176	8.47	.658	75.8	66.9	475.	62.6	17.7		6.77	5.28
21	.765	.156	8.78	.611	44.4	60.7	509.	60.1	17.3	9.40	6.77	5.28
22	.709	.156	6.77	.570	23.9	51.0	531.	55.8	16.8	9.40	6.77	5.07
23	.658	.156	6.24	1.39	22.6	42.1	514.	55.2	16.4	9.40	6.50	5.07
24	.611	.156	7.88	.962	17.7	37.6	452.	50.4	16.0	9.08	6.50	5.07
25	.570	.139	9.72	.765	14.8	57.0	448.	49.2	15.6	9.08	6.24	5.07
26	.570	.139	6.77	.658	23.0	130.	448.	48.0	15.2	9.08	6.24	4.86
27	.532	.139	4.27	.658	24.4	154.	439.	55.2	14.8	9.08	6.24	4.86
28	.500	.139	4.08	.611	25.3	191.	448.	45.6	14.4	8.78	6.24	4.86
29	.500	.156	4.46	.765	19.0	231.	399.	44.4	14.0	8.78	6.24	
30	.452	.139	4.27	.826	41.5	334.	329.	40.9	13.6	8.47	5.99	
31	.452		3.54		54.6	310.		39.2		8.47	5.99	
MOY	.842	.222	2.93	1.25	18.5	124.	447.	131.	22.2	10.3	7.07	5.41

DEBIT MOYEN ANNUEL 64.1 M3/S

KOUPENI A NABOULGOU

Code : 47 27 75 03

bassin versant : 106 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par le Génie Rural

Coordonnées : 10° 07' N - 0° 46' E.

Altitude du zéro de l'échelle : 145 m. environ, en nivellement I G N

Accès :

Piste NABOULGOU - PANGA, à 8 kilomètres de NABOULGOU. Piste difficile d'accès en saison de pluie.

Installations

Station implantée le 11 mai 1962, avec l'élément de 0 à 1 m. sur fer cornière enfoncé dans le lit. L'élément de 1 à 4 m. est fixé sur la culée R.D. du pont en bois ; un élément de 4 à 5 m. fixé sur cornière, près de la route, complète l'installation.

Lectures

Deux lectures par jour. Qualité des observations : moyenne.

Jaugeages - Courbe de tarage

Le fond du lit étant rocheux, une seule courbe de tarage a été nécessaire pour la période qui nous intéresse. Quatorze jaugeages ont été utilisés pour la tracer :

maximum jaugé : 13,0 m³/s le 13-9-64 (cote 1,55 à 1,50 m.)

minimum jaugé : le débit est nul plusieurs mois consécutifs.

L'extrapolation de la courbe de tarage est importante, et les débits élevés donnés ne sont que des ordres de grandeur.

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 265 à 260 m.	0,2 %
260 à 240	1,5
240 à 220	9,1
220 à 200	29,5
200 à 180	42,2
180 à 160	15,6
160 à 150	1,9

Altitude moyenne du bassin : 197 mètres

Géologie

Le bassin est situé dans sa totalité sur les grès et schistes de Mango (Cambrien ou Infracambrien supposés)

Végétation

Savane arbustive. Forêt humide dégradée en fond de vallée.

KOUPENI A NABOULGOU

BASSIN VERSANT = 106 Km²

NORD



NABOULGOU

10° 05'

10° 05'

10° 00'

10° 00'

Echelle : 1/100 000

143

0° 45'

0° 30'

ORSTOM

DATE : 28-5-74

DESSINÉ : M. SOSSAH

T 300-10 H

STATION : TOGO VOLTA KOUPENI NABOUL GOU
 NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				.000	.375	.815	22.3	1.32	.141	.013		
2				.000	.330	2.99	10.2	1.18	.141	.013		
3				.000	.202	2.85	5.14	1.13	.141	.013		
4				.000	.108	2.92	21.3	.793	.115	.013		
5				.124	.093	2.49	5.05	.562	.115	.013		
6				.125	.202	2.56	4.85	1.32	.115	.013		
7				.405	.202	2.63	7.21	1.90	.093	.013		
8				.735	.202	2.35	6.03	1.68	.093	.013		
9				.422	.161	2.22	39.3	1.68	.141	.013		
10				.941	.141	1.63	42.3	1.62	.141	.013		
11				.782	.133	1.27	21.8	1.32	.141	.010		
12				.303	.432	1.05	13.6	1.05	.141	.010		
13				.623	.525		21.3	.966	.141	.010		
14				.000	1.55	.851	7.12	2.23	.141	.010		
15				.472	1.06	.748	6.72	1.30	.093	.007		
16				.230	.912	2.56	9.40	.969	.073	.007		
17				.188	.170	2.56	9.12	1.32	.073	.005		
18				.099	.405	1.18	19.2	1.27	.073	.005		
19				.000	.405	.851	24.7	1.22	.056	.004		
20				.053	.512	1.18	22.2	.600	.031	.002		
21				.202	.966	1.18	19.5	.406	.056	.001		
22				.506		1.01	8.11	.315	.042	.000		
23				.281	.454	2.35	3.84	.294	.042	.000		
24				.161	.358	2.09	5.30	.358	.042	.000		
25				.141	.236	3.18	3.31	.336	.056	.000		
26				.093	.236		3.23	.454	.056	.000		
27				.052	.454	6.83	7.12	.358	.042	.000		
28				.284	.315	30.7	2.56	.294	.042			
29				.318	.315	53.6	1.73	.274	.031			
30				.141	.236	53.0	.381	.202	.031			
31					1.14	25.0		.128				
MOY				.256	.437	7.12	12.5	.930	.088	.006		

STATION : TOGO

VOLTA

KOUPEMI

NABOUL GOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVR I	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	7.71		.000	.002	.128	.746		.966	5.73	.042	.001	.000
2	6.92		.002	.013	.115	.815		2.81	16.4	.042	.001	.000
3	5.54		.004	.013	.013	.746		4.08	3.99	.042	.000	.000
4	5.34		.000	.042	.056	.713		3.81	3.73	.031	.000	.000
5	6.23		.000	.022	.042	16.6		3.90	2.04	.031	.000	.000
6	7.12		.049	.013	.358	.888		3.50	.888	.022	.000	.000
7	4.27		.019	.008	.141	.815		2.09	2.10	.022	.000	.000
8	3.90		.023	.013	.083	.890		3.90	1.32	.022	.000	.000
9	3.81		.000	.000	.534	.966		3.90	1.09	.017	.000	.000
10	5.93		.000	.001	.202	.746		2.42	.851	.013	.000	.000
11	8.01		.007	.008	.324	.748		1.28	.681	.013	.000	.000
12	5.14		.007	.001	.299	.681		25.8	.534	.013	.000	.000
13	14.7		.006	.000	.159	.681		25.0	.405	.008	.000	.000
14	6.42		.003	.000	.043	.454		10.2	.336	.008	.000	.000
15	7.21		.001	.000	34.3	.358		3.99	.202	.008	.000	.000
16	5.24		.000		32.5	.966		7.12	.562	.008	.000	.000
17	7.81		.001		3.99	.888		4.56	.562	.008	.000	.000
18	7.21				.358	1.18		1.97	.562	.008	.000	.000
19	10.1			.005	.315	1.09		.927	.454	.008	.000	.000
20	17.1		.003	.005	.056	1.13		.815	.454	.008	.000	.000
21	43.5		.010	.004	.042	16.7		3.22	.358	.008	.000	.000
22	6.23		.008	.002	.042	55.4		53.0	.236	.008	.000	.000
23	3.99		.008	.004	1.00	22.3		16.5	.202	.008	.000	.000
24	2.62		.007	.005	1.97	5.24		41.4	.202	.007	.000	.000
25	.966		.020	.001	1.85	7.21		17.4	.141	.007	.000	.000
26	.927		.043	.001	1.74	4.08		9.80	.073	.007	.000	.000
27	.725		.022	.001	1.22	3.99		7.31	.073	.005	.000	.000
28	.454		.022	.000	1.05	6.23		4.66	.056	.004	.000	.000
29	.966		.045	.000	.562	5.24		1.90	.056	.004	.000	.000
30	.966		.020	.000	.534	6.03		19.0	.042	.002	.000	
31			.017		.455	4.85		11.6		.002	.000	
MOY	6.71		.011	.006	2.72	5.46		9.64	1.48	.014	.000	.000

STATION TOGO VOLTA KOUPENI NABOUL GOU

NUMERO 47277503

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.020	.358	.713	3.39	.042	.000		
2	.000	.000	.000	.000	.009	.274	6.23	2.17	.042	.000		
3	.000	.000	.000	.000	.485	.202	10.5	1.97	.042	.000		
4	.000	.000	.000	.000	.001	.141	8.01	1.62	.042	.000		
5	.000	.000	.000	.000	.000	.115	6.52	.506	.031			
6	.000	.000	.000	.000	.000	.236	5.14	1.09	.031			
7	.000	.000	.000	.000	.000	.141	3.90	.725	.017			
8	.000	.000	.000	.000	.000	.093	2.49	.562	.017			
9	.000	.000	.000	.000	.000	.093		.562	.013			
10	.000	.000	.000	.000	.000	.093		.506	.013			
11	.000	.000	.000	.000	.000	.093	4.26	.506	.013			
12	.000	.000	.000	.000	.000	.073	30.0	.454	.013			
13	.000	.000	.000	.000	1.37	.073	15.3	.336	.013			
14	.000	.000	.000	.000	.823	.056	6.33	.202	.008			
15	.000	.000	.000		.315	.056	4.55	.202	.008			
16	.000	.000	.000		.219	.056	3.99	.141	.007			
17	.000	.000	.000		.115	.202	1.97	.093	.005			
18	.000	.000	.000		.141	.115	5.05	.093	.005			
19	.000	.000	.000		.128	.093	4.85	.073	.004			
20	.000	.000	.000		.093	.056	4.08	.073	.002			
21	.000	.000	.000	.562	.049	.042	1.97	.236	.004			
22	.000	.000	.000	.022	.049	.042	1.74	.236	.004			
23	.000	.000	.004	.013	.236	.031	2.49	.236	.004			
24	.000	.000	.250	.007	.236	.031	2.35	.093	.002			
25	.000	.000	.764	.001	.219	.073	14.0	.073	.002			
26	.000	.000	.257	.000	.562	.042	16.2	.056	.002			
27	.000	.000	.032	.000	.748	.031	4.65	.073	.002			
28	.000	.000	.005	.000	.405	.031	4.08	.073	.001			
29	.000	.000	.004	.000	.584	.031	4.08	.056	.001			
30	.000	.000	.001	.000	.381	.022	3.23	.042	.001			
31	.000		.000		.381	1.32		.042				
MOY	.000	.000	.044		.244	.139	6.18	.532	.013			

STATION : TOGO VOLTA KOUPENI NABOUL GOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1											.000	.000
2											.000	.000
3											.000	.000
4											.000	.000
5											.000	.000
6											.000	.000
7											.000	.000
8											.000	.000
9											.000	.000
10											.000	.000
11											.000	.000
12											.000	.000
13											.000	.000
14											.000	.000
15											.000	.000
16											.000	.000
17											.000	.000
18											.000	.000
19											.000	.000
20											.000	.000
21											.000	.000
22											.000	.000
23											.000	.000
24											.000	.000
25											.000	.000
26											.000	.000
27											.000	.000
28											.000	.000
29											.000	
30											.000	
31											.000	
MOY											.000	.000

STATION : TOGO VOLTA KROUPENI NABOUL GOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.056	.001	1.32	1.62				
2	.000	.000	.000		.056	.001	.562	1.85				
3	.000	.000	.000	.000	.022	.000	.562	2.22				
4	.000	.000	.000	.005	1.05	.000	.454	2.22				
5	.000	.000	.000	.093	.141	.000	.454	2.09				
6	.000	.000	.000	.031	.056	.000		2.09				
7	.000	.000	.000	.454	.042	.000	.815	1.74				
8	.000	.000	.000	.013	.031	.022	1.97	1.74				
9	.000	.000	.000	.013	.022	.115	2.92	1.62				
10	.000	.000	.000	.015	.022	.031	3.73	1.62				
11	.000	.000	.000	.031	.022	.056	7.21	1.62				
12	.000	.000	.000	.274	.000	.056	3.39					
13	.000	.000	.000	.202	.010	.056	7.41					
14	.000	.000	.000	.042	.010	.056	59.7					
15	.000	.000	.000	.008	.008	.056	12.2					
16	.000	.000	.000	.002	.073	.042	37.1	1.22				
17	.000	.000	.000	.002	.056	.031	7.61	1.22				
18	.000	.000	.000	.001	.007	2.49	5.44	1.22				
19	.000	.000	.000	.000	.004	3.07	8.80	1.05				
20	.000	.000	.000	.000	.005	.405	5.24	1.05				
21	.000	.000	.000	.358	.004	1.22	5.05	.966				
22	.000	.000	.000	.073	.004	.815	6.03	.562				
23	.000	.000	.000	.017	.004	.815	5.24	.562				
24	.000	.000	.000	.562	.002	.681	4.08	.358				
25	.000	.000	.000	.022	.002	.506	4.85	.315				
26	.000	.000	.000	.007	.010	.405	4.46	.236				
27	.000	.000	.000	.017	.005	.454	3.07	.236				
28	.000	.000	.000	.506	.004	.236	2.77	.236				
29	.000	.000	.000	.093	.002	.202	2.35	.236				
30	.000	.000	.000	.042	.002	.202	2.22	.141				
31	.000		.000		.001	.141		.115				
MOY	.000	.000	.000	.096	.056	.392	6.92	1.16				

STATION : TOGO VOLTA KOUPEMI NABOUL GOU
 NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1						.057	2.76	1.97	.015	.004		
2						.055	1.74	1.09	.015	.004		
3						.297	1.32	.754	.115	.004		
4						.117	1.23	1.01	.115	.002		
5						.094	4.95	.939	.093	.002		
6						.117	1.58	.563	.042	.002		
7						.141	1.85	.968	.093	.000		
8						.079	.969	.626	.056	.000		
9						.055	1.92	.754	.042	.000		
10						.152	4.08	1.09	.031	.000		
11						.074	4.27	.817	.031	.000		
12						.093	3.63	.455	.022	.000		
13						2.37	4.65	.360	.022	.000		
14						.864	3.26	.255	.017	.000		
15						.275	4.58	.171	.015	.000		
16						.683	3.90	.170	.015	.000		
17						19.2	44.5	.171	.015	.000		
18						5.34	4.55	.096	.015	.000		
19						3.54	5.24	.591	.015	.000		
20						17.6	3.54	.429	.015	.000		
21						5.34	2.42	.255	.010	.000		
22						4.27	5.34	.143	.010	.000		
23						4.08	5.64	.049	.001	.000		
24						4.08	3.54	.094	.002	.000		
25						5.05	3.99	.171	.001	.000		
26						16.6	14.2	.189	.002	.000		
27						5.83	4.57	.171	.004	.000		
28						2.63	3.56	.094	.005	.000		
29						3.18	3.32	.043	.005	.000		
30						3.56	2.85	.020	.004	.000		
31						3.73		.014		.000		
MOY						3.54	5.13	.494	.028	.001	.000	.000

STATION : TOGO

VOLTA

KOUPENI

NABOUL GOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				.000	.621	5.34	3.94	5.83	.562	.001	.000	.000
2				.000	.406	5.64	2.78	4.27	.506	.001	.000	.000
3				.000	2.24	4.36	2.10	3.65	.454	.000	.000	.000
4				.000	1.42	2.63	18.5	2.24	.454	.000	.000	.000
5				.000	.890	6.43	4.95	3.73	.405	.000	.000	.000
6				.000	.890	6.73	5.35	2.78	.358	.000	.000	.000
7				.000	.817	4.92	9.89	2.56	.315	.000	.000	.000
8				.483	.315	3.74	7.41	3.23	.274	.000	.000	.000
9				.007	.315	3.15	5.34	2.56	.202	.000	.000	.000
10				.001	.255	3.08	6.23	1.33	.141	.000	.000	.000
11				.000	.186	2.49	4.75	1.69	.093	.000	.000	.000
12				.000	2.11	2.10	5.34	3.00	.073	.000	.000	.000
13				.002	.115	1.52	4.55	2.42	.031	.000	.000	.000
14				.000	.115	1.23	3.73	1.58	.022	.000	.000	.000
15				38.3	.115	1.14	3.56	1.18	.022	.000	.000	.000
16					.093	5.44	2.78	1.01	.017	.000	.000	.000
17				7.22	49.3	3.73	2.22	.815	.017	.000	.000	.000
18				2.04	5.64	3.15	1.80	.815	.015	.000	.000	.000
19				2.02	4.75	2.17	1.32	.681	.013	.000	.000	.000
20				1.04	9.89	2.16	2.40	.506	.013	.000	.000	.000
21				6.13	8.93	2.10	1.23	.506	.010	.000	.000	.000
22				2.20	4.75	1.63	.890	.562	.008	.000	.000	.000
23				5.05	46.9	1.32	1.27	.405	.008	.000	.000	.000
24				2.30	7.12	1.55	7.02	.358	.007	.000	.000	.000
25				1.27	23.9	1.85	5.14	.274	.005	.000	.000	.000
26				1.32	11.4	1.32	2.35	.202	.004	.000	.000	.000
27				.815	7.02	.968	5.73	.170	.004	.000	.000	.000
28				.851	7.52	1.05	6.03	.170	.002	.000	.000	.000
29				.650	4.85	.780	4.85	.170	.002	.000	.000	.000
30				.968	3.44	8.01	7.41	.141	.002	.000	.000	.000
31					3.64	24.2		.115		.000	.000	
MOY	.000	.000	.000	2.42	6.78	3.74	4.69	1.58	.135	.000	.000	.000

DEBIT MOYEN ANNUEL

1.62 M3/S

STATION : TOGO VOLTA KOUPENI NABOUL GOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.004	2.10	1.85	7.51	3.31	.022	.000	.000
2	.000	.000	.000	.000	.001	1.68	2.93	6.72	3.73	.017	.000	.000
3	.000	.000	.000	.000	.001	1.88	3.99	6.33	3.64	.093	.000	.000
4	.000	.000	.000	.000	.090	3.31	4.95	4.26	3.31	.093	.000	.000
5	.000	.000	.000	.000	.043	3.31	3.90	4.26	3.00	.073	.000	.000
6	.000	.000	.000	.000	.000	1.91	3.64	3.99	2.35	.056	.000	.000
7	.000	.000	.000	.039	.736	1.47	3.00	3.31	2.22	.031	.000	.000
8	.000	.000	.000	.008	.432	1.18	15.9	1.37	1.75	.017	.000	.000
9	.000	.000	.000	.001	.085	1.37	10.6	.952	1.27	.013	.000	.000
10	.000	.000	.000	.000	.000	1.18	7.61	.620	.968	.010	.000	.000
11	.000	.000	.000	.000	.023	1.01	8.11	.939	.683	.010	.000	.000
12	.000	.000	.000	.000	.093	1.32	7.71	.506	.480	.008	.000	.000
13	.000	.000	.000	.000	.064	1.09	14.6	.506	.429	.007	.000	.000
14	.000	.000	.000	.000	.056	1.37	17.7	.454	.381	.005	.000	.000
15	.000	.000	.000	.000	.074	1.18	15.0	.405	.336	.005	.000	.000
16	.000	.000	.000	.000	.073	3.47	13.7	1.91	.294	.004	.000	.000
17	.000	.000	.000	.000	.073	2.35	11.8	1.37	.202	.002	.000	.000
18	.000	.000	.000	.000	.410	1.58	9.70	1.18	.170	.002	.000	.000
19	.000	.000	.000	.000	1.80	1.32	7.71	.480	.141	.001	.000	.000
20	.000	.000	.000	.028	1.45	1.74	5.73	.381	.115	.000	.000	.000
21	.000	.000	.000	.022	.927	2.10	4.95	.358	.115	.000	.000	.000
22	.000	.000	.000	.005	.780	2.17	4.46	.315	.093	.000	.000	.000
23	.000	.000	.000	.001	.591	1.52	3.81	.274	.093	.000	.000	.000
24	.000	.000	.000	.000	.480	1.14	3.31	.236	.073	.000	.000	.000
25	.000	.000	.000	.000	1.90	.927	3.23	.202	.073	.000	.000	.000
26	.000	.000	.000	.036	2.92	3.31	3.23	.170	.073	.000	.000	.000
27	.000	.000	.000	.009	1.74	3.00	7.02	4.07	.042	.000	.000	.000
28	.000	.000	.000	.003	5.73	1.91	13.2	7.12	.042	.000	.000	.000
29	.000	.000	.000	.002	4.46	3.23	14.3	6.92	.042	.000	.000	
30	.000	.000	.000	.002	3.73	2.42	12.0	3.48	.031	.000	.000	
31	.000		.000		3.31	2.16		3.47		.000	.000	
MOY	.000	.000	.000	.005	1.03	1.93	7.99	2.39	.982	.015	.000	.000

DEBIT MOYEN ANNUEL

1.19 M3/S

STATION : TOGO VOLTA KROUPENI NABOULGOU

NUMERO : 47277503

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000	.000	.000	.000	.025	6.29	9.10	.042	.000	.000	.000
2	.000	.000	.000	.000	.000	.026	47.2	6.33	.042	.000	.000	.000
3	.000	.000	.000	.000	.000	.504	14.3	5.73	.031	.000	.000	.000
4	.000	.000	.000	.000	.000	.537	5.83	4.75	.031	.000	.000	.000
5	.000	.000	.000	.000	.000	.146	19.8	4.26	.022	.000	.000	.000
6	.000	.000	.000	.000	.000	.730	22.5	3.16	.022	.000	.000	.000
7	.000	.000	.000	.000	.000	.429	7.51	3.08	.017	.000	.000	.000
8	.000	.000	.000	.000	.000	.294	5.73	2.42	.017	.000	.000	.000
9	.000	.000	.000	.000	.000	.219	5.54	1.85	.015	.000	.000	.000
10	.000	.000	.000	.000	.000	.793	9.80	1.52	.013	.000	.000	.000
11	.000	.000	.000	.000	.000	.851	9.00	1.27	.010	.000	.000	.000
12	.000	.000	.000	.000	.000	.591	8.01	1.09	.010	.000	.000	.000
13	.000	.000	.000	.000	.000	1.09	7.41	.927	.008	.000	.000	.000
14	.000	.000	.000	.000	.000	1.09	6.13	.780	.007	.000	.000	.000
15	.000	.000	.000	.000	.000	.927		.650	.005	.000	.000	.000
16	.000	.000	.000	.000	.000	.780	8.90	.534	.004	.000	.000	.000
17	.000	.000	.000	.000	.000	1.37	6.42	.429	.002	.000	.000	.000
18	.000	.000	.000	.000	.000	1.18	9.20	.336	.001	.000	.000	.000
19	.000	.000	.000	.000	.000	1.01	11.5	.255	.001	.000	.000	.000
20	.000	.000	.000	.000	.000	.851	2.30	.186	.000	.000	.000	.000
21	.000	.000	.000	.000	.000	.361	4.48	.170	.000	.000	.000	.000
22	.000	.000	.000	.000	.000	.294	6.92	.534	.000	.000	.000	.000
23	.000	.000	.026	.000	.000	.219	6.13	.429	.000	.000	.000	.000
24	.000	.000	.000	.000	.000	.264	5.54	.336	.000	.000	.000	.000
25	.000	.000	.001	.000	.000	.626	4.95	.202	.000	.000	.000	.000
26	.000	.000	.003	.000	.000	3.23	6.92	.170	.000	.000	.000	.000
27	.000	.000	.004	.000	.000	2.22	6.52	4.07	.000	.000	.000	.000
28	.000	.000	.001	.000	.312	3.00	6.03	7.12	.000	.000	.000	.000
29	.000	.000	.000	.000	.000	5.54	5.14	6.92	.000	.000	.000	
30	.000	.000	.000	.000	.000	4.88	4.75	3.48	.000	.000	.000	
31	.000		.000		.000	3.39		3.47		.000	.000	
MOY	.000	.000	.001	.000	.010	1.21	9.27	2.44	.010	.000	.000	.000

DEBIT MOYEN ANNUEL 1.07 M3/S

Code : 47 27 78 03

Bassin versant : 394 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par le Génie Rural

Coordonnées : 9° 28' N - 1° 07' E.

Altitude du zéro de l'échelle : 285 m environ, en nivellement IGN

Accès :

Route BAFILO - AWANDJELO - KABOU. Praticabilité permanente.

Installations

Station implantée en mai 1962. L'élément de 0 à 0,50 m. est scellé sur la première pile, rive droite ; l'élément de 0,50 à 2 m. sur la culée rive droite. Les éléments 2-3, 3-4 et 4-5m sont étagés sur la rive droite.

La station a subi quelques modifications en décembre 1969 et en avril 1971.

Lectures

Une, deux, ou trois lectures par jour, selon les années.

Jaugeages - Courbes de tarage

Deux courbes de tarage ont été retenues pour cette station, l'une pour les observations de 1962 à avril 1969, l'autre pour les observations postérieures à cette date.

Vingt quatre jaugeages ont été effectués à cet endroit :

maximum jaugé : 24,6 m³/s le 24-9-1964 (cote 1,02 m.)

minimum jaugé : 23 litres/s le 18-4-1970 (cote 0,07 m.)

L'extrapolation de la courbe de tarage est importante, au-dessus de 1 mètre à l'échelle.

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 770 à 760 m.	0,05 %
760 à 740	0,5
740 à 700	5,0
700 à 600	9,0
600 à 500	10,2
500 à 460	12,0
460 à 420	18,6
420 à 380	16,8
380 à 340	14,0
340 à 300	13,05
300 à 290	0,8

Altitude moyenne du bassin : 460 mètres

Géologie

On rencontre les formations géologiques suivantes, en allant du Nord au Sud :

- Granites calco-alcalins à 2 micas	25,5 %
- Quartzites micacés de l'Atacorien	67,3
- Micaschistes de l'Atacorien	7,2

Végétation

Savane arbustive claire avec quelques flots (1 %) de forêt dégradée. Forêt avec arbres de hauteur moyenne dans les vallées situées au-dessus de 450 m. d'altitude.

KPAYA A ATCHANGBADE

BASSIN VERSANT = 384 Km².

NORD

9°30'

ATCHANGBADE

9°20'

Echelle : 1 : 200 000

155

1°00'

1°10'

ORSTOM

DATE : 7 / 7 / 65

DESSINÉ : M. Sossah

T 278 H

STATICA : TCGO

VOLTA

KPAYA

ATCHANGBADE

NLMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1				1.34	1.34	12.1	150.	18.3	5.06	.867	.045	.156
2				.689	.689	113.	63.9	12.4	4.95	.560		.141
3				119.	119.	154.	19.5	15.4	4.13	.511		.127
4				41.2	41.2	84.0	17.4	21.4	5.38	.426		.113
5				15.3	10.8	60.2	9.09	19.5	4.89	.357		.127
6				96.4	9.47	34.9	10.1	17.0	5.91	.286		.113
7			.100	7.34	9.67	24.1	25.6	11.8	4.27	.271		.100
8			.045	172.	5.43	18.3	13.4	73.7	2.12	.241		.113
9			115.	84.0	5.06	12.4	63.9	47.2	1.28	.205		.100
10			44.6	17.6	8.73	8.86	39.2	22.6	1.69	.241		.088
11			5.63	4.01	7.56	8.17	34.0	11.5	1.19	.223		.113
12			1.74	45.4	4.53	4.70	52.5	18.0	1.47	.205		.100
13			.612	3.42	4.74	7.96	38.0	16.4	1.02	.188		.088
14			.309	1.82	2.11	4.15	26.6	12.4	2.43	.223		.076
15			.216	16.4	2.61	108.	26.9	12.4	1.28	.205		.141
16			.714	5.06	5.06	67.0	20.1	15.2	1.10	.189		.127
17			.088	31.9	2.43	21.4	20.1	14.9	2.26	.172		.156
18			.714	26.7	3.13	8.91	20.7	13.4	1.10	.156		.141
19			.172	4.14	129.	7.18	19.2	7.70	2.79	.141		.127
20			.055	18.3	47.6	57.7	54.6	7.96	1.47	.127	.223	.867
21			.136	189.	3.76	20.7	45.1	4.39	1.37	.113	.205	.045
22			30.5	140.	9.47	18.6	29.3	5.43	1.10	.156	.188	.156
23			.520	190.	30.9	54.1	18.3	4.43	.867	.141	.205	.867
24			.309	119.	24.1	22.6	31.8	28.7	.732	.127	.188	.271
25			.124	63.9	18.3	75.4	52.8	14.9	.613	.113	.172	.330
26			115.	21.0	12.4	186.	24.1	8.73	.560	.100	.156	.172
27			41.2	17.4	7.71	50.6	24.7	8.46	.511	.088	.141	.156
28			1.34	9.09	5.18	19.5	18.0	5.30	.466	.076	.127	.867
29			.484	10.1	5.09	7.96	18.6	5.23	.357	.065	.113	
30			.107	1.34	4.89	27.5	13.4	2.87	.223	.054	.100	
31			.093		4.15	44.1		2.40		.045	.088	
MCY			11.6	49.4	17.6	43.4	34.7	15.5	2.09	.222	.141	.213

STATION : TCGO VOLTA KPAYA ATCHANGBADE

ALMEFO : 47277803

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.867	.076	.241	.223	3.64	22.6	222.	10.3	10.3		.511	.357
2	.172	1.28	.223	.286	1.82	80.6	95.0	29.3	80.6		.511	.330
3	.156	.867	.205	.260	1.10	34.9	80.6	6.47	75.8		.511	.330
4	.241	.426	.188	.223	.798	108.	28.7	3.64	52.2		.511	.330
5	.223	.357	.172	.172	1.28	.172	101.	10.3	50.3		.466	.306
6	.271	.286	.156	.357	1.82	108.	66.9	80.6	42.9		.466	.306
7	.286	.141	.426	.798	1.28	.172	179.	6.47	36.7		.466	.306
8	.260	.127	.390	.286	.867	1.82	183.	8.26	34.3		.466	.306
9	.241	.113	.357	.271	.357	.357	114.	16.4	10.3		.466	.286
10	.223	.100	.330	.156	.100	.100	80.6	73.7	7.52		.466	.286
11	.205	.088	.306	.141	.019	16.4	28.7	28.7	2.79		.466	.286
12	.188	.076	.286	.560	.012	1.82	73.7	10.3	1.10		.466	.286
13	.172	.065	10.3	.426	.019	101.	80.6	8.26	.306		.426	.271
14	.156	.054	.867	.390	.357	60.2	73.7	6.47	.205		.426	.260
15	.141	.045	.560	.156	.045	.357	6.47	4.13	.466		.426	.260
16	.867	.036	.223	.141	.036	22.6	22.6	75.8	21.3		.426	.241
17	.172	.241	.205	.127	.019	15.2	21.3	154.	16.4		.426	.223
18	.127	.223	.188	.156	.045	60.2	150.	55.4	10.3		.426	.223
19	.113	.205	.172	.172	.036	1.82	41.0	50.3	12.1		.426	.205
20	.100	.156	.156	.466	.426	.172	87.4	49.1	6.47		.390	.188
21	.088	.141	.141	.330	.045	108.	28.7	110.	3.64		.390	.172
22	.076	.172	.127	.357	.036	1.82	80.6	36.7	1.82		.390	.172
23	.065	.156	.223	.867	.027	.867	73.7	34.9	.867		.390	.172
24	.054	.141	.172	.156	.100	168.	10.3	39.8	.798		.390	.172
25	.045	.127	.188	.141	.036	22.6	87.4	30.6	.426		.390	.156
26	.036	.141	.241	.511	.027	.798	80.6	31.8	.357		.357	.156
27	.613	.156	.223	.172	.019	150.	10.3	33.0	.330		.357	.141
28	.127	.257	.205	.156	.357	15.8	3.64	38.6	.306		.390	.127
29	.113	.286	.260	8.26	.172	150.	6.47	39.8	.357		.390	.127
30	.100	.271	.172	5.52	.357	222.	3.64	42.3	.426		.390	
31	.088		.241		.172	94.3		46.6		.511	.357	
MCY	.212	.230	.585	.741	.498	50.7	70.7	37.8	16.1	.470	.430	.241

DEBIT MOYEN ANNUEL

14.9 M3/S

STATION : TCGO VOLTA KPAYA ATCHANGBADE

NUMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.127	.065	.205	.271	1.82	1.82	19.5	12.5	1.82	.426	.241	
2	.127	.076	.205	.260	1.28	1.57	19.9	9.09	1.69	.357	.260	
3	.127	.088	.223	.260	.560	1.28	11.0	6.49	1.57	.390	.260	
4	.127	.100	.223	.205	.306	1.10	9.21	4.62	1.37	.466	.241	
5	.113	.100	.241	.188	.260	1.37	5.73	4.00	1.47	.466	.241	
6	.113	.113	.241	.172	.260	1.86	18.7	5.16	1.37	.426	.357	
7	.113	.127	.260	.172	.241	1.65	17.5	3.73	1.28	.390	.306	
8	.113	.141	.260	.156	.205	2.67	28.9	2.88	1.10	.357	.271	
9	.100	.156	.271	.141	1.82	3.42	92.5	2.45	1.47	.390	.260	
10	.100	.172	.271	.127	1.28	3.06	41.9	2.27	1.57	.357	.286	
11	.100	.188	.286	.511	.867	3.14	128.	2.39	1.28	.357	.271	
12	.100	.188	.286	.271	.426	3.27	187.	2.39	1.10	.330	.260	
13	.088	.156	.306	.205	.357	2.73	82.8	2.02	.867	.330	.260	
14	.088	.156	.306	.172	.306	1.61	123.	2.06	.798	.306	.260	
15	.076	.141	.330	.172	2.79	1.38	39.4	2.27	.670	.306	.241	
16	.076	.127	.330	.172	1.82	3.49	35.9	1.73	.613	.286	.241	
17	.065	.127	.357	.205	1.69	3.27	35.3	1.78	.867	.286	.260	
18	.065	.141	.357	.205	1.82	3.34	10.6	1.69	.798	.271	.223	
19	.054	.156	.357	.223	1.28	.821	11.7	1.97	.732	.306	.223	
20	.054	.172	.330	.560	1.02	3.49	11.3	2.80	.670	.306	.241	
21	.045	.172	.330	.357	.942	2.93	10.4	2.16	.560	.286	.241	
22	.045	.188	.306	.260	.798	2.21	27.9	2.83	.613	.286	.223	
23	.045	.188	.306	.205	.867	4.89	13.6	1.92	.560	.271	.223	
24	.036	.205	.306	.670	1.10	3.20	21.3	2.33	.511	.271	.205	
25	.036	.205	.286	.357	1.02	3.27	14.5	2.11	.466	.260	.205	
26	.036	.223	.286	.271	.867	4.67	11.2	1.65	.357	.260	.188	
27	.045	.241	.306	.223	.867	4.67	8.10	2.00	.330	.241	.188	
28	.045	.241	.306	1.37	.732	11.9	7.97	1.61	.357	.241	.172	
29	.045	.260	.286	.466	.613	44.1	12.7	1.30	.390	.223	.172	
30	.054	.260	.286	.560	.560	101.	10.8	1.54	.426	.260	.172	
31	.054		.271		2.61	25.4		1.73		.260	.156	
MCY	.078	.162	.288	.313	1.01	8.23	35.6	3.08	.922	.322		

STATION : TOGO

VOLTA

KPAYA

ATCHANGBADE

NLMEFO : 47277803

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

MARS AVRI MAI JUIN JUIL AOÛT SEPT OCTO NOVE DECE JANV FEVR

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.172

MCY

STATION : TCGO

VOLTA

KPAYA

ATCHANGBADE

NUMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1												
2												
3												
4												
5												
6												.065
7												.065
8												.065
9												.054
10												.054
11												.054
12												.065
13												.065
14												.065
15												.127
16												.088
17												.076
18												.065
19												.054
20												.045
21												.036
22												.027
23												.019
24												.012
25												.005
26												.000
27												.000
28												.000
29												
30												
31												
MOY												.053

STATION : TCGO VOLTA KPAYA ATCHANGBADE

ALMEFO : 7277803

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.357	.045	.019	.466	72.4	115.	177.	12.8	.732	.241	.141
2	.000	.306	.036	.019	.390	66.9	78.5	87.4	10.9	.670	.241	.141
3	.000	.260	.036	15.8	4.39	34.9	28.7	63.5	9.87	.942	.241	.127
4	.000	.172	.088	.241	22.6	22.6	34.9	66.9	13.4	1.96	.223	.127
5	.000	.156	.088	.127	5.22	22.6	50.1	66.9	8.26	.942	.223	.127
6	.000	.141	.076	.076	.511	18.3	42.9	63.5	7.52	.286	.223	.113
7	.000	.141	.076	4.13	.390	14.6	64.2	226.	6.14	.286	.205	.113
8	.000	.32	.065	.306	13.4	9.87	87.4	147.	4.93	.271	.205	.113
9	.000	.69	.054	.188	8.65	102.	140.	71.0	4.39	.271	.205	.100
10	.000	.57	.054	.141	74.4	182.	63.5	54.7	4.39	.271	.205	.100
11	.000	6.47	.045	.113	10.3	112.	41.0	49.1	4.13	.271	.188	.100
12	.000	.14	.045	.113	6.47	60.2	34.9	42.3	3.64	.271	.188	.098
13	.000	.82	.036	.100	3.64	34.9	70.3	39.8	2.99	.271	.188	.088
14	.000	.357	.036	.100	2.79	22.6	115.	35.5	2.61	.271	.188	.038
15	.000	.260	.027	.172	19.5	20.1	49.1	149.	2.43	.271	.172	.076
16	.000	.172	.019	.127	10.3	14.0	41.0	75.8	2.26	.271	.172	.076
17	.000	.156	.019	.223	4.93	12.1	183.	69.0	2.10	.271	.172	.076
18	.000	.141	10.3	3.20	2.61	9.45	200.	56.8	1.96	.271	.172	.065
19	.000	.127	.426	.511	7.16	4.93	204.	44.1	1.82	.271	.172	.065
20	.000	.867	.172	.286	4.13	182.	108.	34.9	1.69	.306	.172	.065
21	.000	.560	.156	.560	2.10	126.	105.	44.1	1.57	.306	.156	.054
22	.000	.205	.141	.560	1.82	70.3	56.1	38.0	1.47	.286	.156	.054
23	.000	.141	.127	.560	1.82	39.2	200.	29.3	1.37	.286	.156	.054
24	.000	.100	.113	.390	1.69	30.6	189.	22.6	1.28	.286	.172	.045
25	.172	.088	.670	.241	3.64	16.4	116.	22.0	1.19	.271	.172	.045
26	.100	.076	.188	.260	40.4	13.4	103.	22.6	1.10	.271	.172	.045
27	.076	.065	.113	1.96	54.7	13.4	205.	20.1	1.02	.271	.156	.036
28	.076	.054	.100	10.9	42.3	10.9	296.	79.9	.942	.260	.156	.036
29	67.6	.045	.045	.942	9.45	8.26	199.	50.3	.867	.260	.156	.036
30	3.64	.045	.036	.390	5.83	6.81	184.	31.8	.798	.260	.141	
31	1.28		.027		16.4	5.83		18.9		.241	.141	
MOY	2.35	.817	.434	1.43	12.3	43.9	115.	64.5	3.99	.399	.185	.092

DEBIT MOYEN ANNUEL 20.5 M3/S

STATION : TCGC VOLTA KPAYA ATCHANGBADE

NUMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVP
1	.027	.100	.260	1.10	1.96	19.5	70.3	42.9	8.26	.732	.241	.113
2	.027	.088	.241	1.57	1.82	90.8	53.4	30.6	60.2	.732	.223	.113
3	.027	.076	.223	1.69	1.69	145.	44.1	56.8	10.3	.670	.223	.113
4	.260	.065	10.3	19.5	1.57	52.8	38.0	53.4	4.93	.670	.205	.141
5	.205	.054	.867	4.93	19.5	29.3	33.6	49.1	4.93	.670	.205	.141
6	.113	.045	.426	1.19	4.93	80.6	101.	35.5	4.66	.613	.188	.141
7	.100	.036	.357	50.9	2.79	29.3	38.6	22.6	3.20	.613	.188	.127
8	.076	.076	.306	20.1	2.43	18.9	94.3	21.3	2.99	.613	.198	.127
9	.223	.065	.271	.942	71.0	16.4	157.	10.3	2.79	.560	.172	.127
10	.156	.054	.241	.732	14.0	15.8	204.	9.87	2.61	.560	.172	.113
11	.141	.172	.560	6.81	8.26	157.	129.	9.45	2.10	.560	.172	.113
12	.100	.076	.357	4.13	6.47	28.7	105.	8.65	1.96	.511	.172	.113
13	.076	.065	.306	.942	6.14	193.	143.	8.26	1.82	.511	.188	.100
14	.065	13.4	.260	95.6	5.22	129.	99.1	4.93	1.69	.466	.188	.100
15	.054	.223	.223	41.7	4.66	44.1	63.5	2.61	1.57	.466	.188	.100
16	.045	.205	.205	84.7	3.88	31.8	47.2	2.43	1.47	.426	.188	.088
17	.036	.188	.188	13.4	77.1	28.7	38.0	2.43	1.37	.426	.172	.088
18	.027	.141	.172	6.47	9.45	143.	31.8	2.10	1.28	.390	.172	.038
19	.027	.127	.156	3.64	7.16	115.	28.7	2.10	1.19	.390	.172	.076
20	.019	.100	.141	3.20	77.1	101.	25.6	1.96	1.19	.357	.172	.076
21	.019	.260	.260	25.6	15.2	44.1	23.8	1.96	1.10	.357	.156	.076
22	6.14	.286	28.7	4.39	7.88	38.0	22.0	1.82	1.10	.330	.156	.065
23	.188	.223	.670	9.45	6.47	105.	13.4	1.82	1.02	.330	.156	.065
24	.172	.172	.560	4.93	10.3	94.3	38.0	3.42	1.02	.306	.156	.065
25	.113	.241	.466	3.64	8.26	44.1	115.	53.4	.942	.306	.141	.054
26	.100	22.6	.867	2.79	5.22	32.4	108.	22.0	.942	.286	.141	.054
27	.076	2.65	.613	2.43	5.22	108.	112.	7.16	.867	.286	.141	.045
28	.036	.732	.560	34.9	4.93	47.2	63.5	2.26	.867	.271	.141	.045
29	.027	.670	.466	5.22	4.93	31.8	156.	2.10	.798	.271	.127	
30	.019	.271	28.7	2.26	92.2	28.7	54.1	1.96	.798	.260	.127	
31	.012		.867		38.0	175.		1.82		.241	.127	
MCY	.281	1.65	2.54	15.3	17.0	71.6	75.0	15.4	4.33	.457	.173	.095

DEBIT MOYEN ANNUEL

17.0 M3/S

STATION : TOGO VOLTA KPAYA ATCHANGBADE

NUMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.065	.127	.100	.286	41.0	10.9	36.1	67.4	19.5	1.10	.670	.390
2	.065	.088	.088	.613	3.42	204.	172.	48.5	18.9	1.10	.613	.390
3	.065	.076	.241	.357	1.02	41.0	50.3	224.	18.3	1.02	.613	.357
4	.054	.065	.560	.286	.670	25.6	38.0	75.1	17.7	1.02	.613	.357
5	.076	.054	.466	.286	.511	103.	53.4	46.0	13.4	.942	.560	.330
6	.076	.045	.271	.260	.670	110.	38.0	44.1	22.0	.942	.560	.330
7	.054	.466	.241	.241	2.10	128.	296.	38.0	15.8	.867	.560	.306
8	.045	.205	.205	.286	1.02	132.	229.	31.8	12.1	.867	.511	.306
9	.036	.141	.188	.241	2.10	86.7	229.	28.7	10.3	.942	.511	.306
10	1.69	.67	.172	.306	1.37	15.2	221.	20.7	8.26	.942	.511	.286
11	.320	2.26	.330	.271	.798	114.	143.	224.	7.52	.867	.466	.286
12	.172	1.28	.271	.241	1.69	137.	103.	39.2	6.47	.867	.466	.286
13	.088	.426	1.28	.223	2.10	53.4	266.	22.0	5.83	.867	.466	.286
14	.065	.271	9.87	.172	2.10	229.	192.	19.5	4.93	.867	.466	.271
15	.054	.241	2.79	.732	1.69	135.	229.	80.6	4.39	.798	.466	.271
16	.045	.205	.560	.330	3.20	211.	152.	45.4	3.88	.798	.426	.271
17	.036	.156	.330	.260	112.	87.4	275.	39.8	3.64	.798	.426	.260
18	.027	.127	.286	.867	156.	135.	200.	86.7	3.42	.732	.426	.260
19	.019	77.1	.560	.732	54.1	62.9	144.	171.	2.99	.732	.390	.260
20	.019	1.69	.357	1.69	18.9	80.6	94.3	86.0	2.26	.732	.390	.260
21	.036	.466	.286	1.10	11.5	41.0	202.	154.	1.96	.670	.390	.241
22	.027	.306	.271	.511	172.	13.4	78.5	48.5	1.82	.670	.357	.241
23	.019	.271	.357	.466	132.	182.	44.1	77.1	1.69	.670	.357	.223
24	.012	.223	.286	.426	174.	99.1	170.	41.0	1.69	.613	.357	.223
25	.012	.188	1.37	.390	44.7	249.	44.1	47.2	1.47	.613	.357	.205
26	.045	.172	.732	.357	20.1	156.	171.	60.2	1.37	.613	.560	.205
27	.036	.156	.867	.306	14.0	149.	222.	182.	1.28	.732	.560	.205
28	.054	.141	1.37	.286	31.8	133.	156.	41.0	1.19	.732	.560	.188
29	.054	.127	.560	.260	10.9	179.	138.	28.7	1.19	.732	.560	
30	.112	.113	.390	.241	53.4	44.1	219.	22.6	1.10	.670	.466	
31	.223		.306		12.1	154.		20.7		.670	.466	
MCY	.120	5.80	.838	.434	34.9	113.	154.	70.3	7.21	.813	.487	.279

DEBIT MOYEN ANNUEL 32.5 M3/S

STATION : TOGO VOLTA KPAYA ATCHANGBADE

NUMERO : 47277803

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.188	.088	.100	.306	.100	1.28	4.39	40.4	.798	.100	.100	.012
2	.188	.076	.076	.260	.156	2.79	252.	33.6	.798	.100	.100	.012
3	.188	.065	.054	.223	.241	1.37	136.	20.7	.670	.100	.088	.012
4	.172	.065	.054	.172	.241	1.37	63.5	18.3	.670	.141	.008	.006
5	.172	.054	.036	.141	.241	1.28	50.9	14.0	.560	.127	.038	.006
6	.156	.027	.019	.100	.205	1.28	53.4	7.52	.560	.127	.076	.006
7	.156	.100	.012	.172	.260	3.42	31.8	6.47	.466	.127	.076	.006
8	.306	.088	.006	.156	.241	1.57	66.9	3.64	.466	.113	.054	.006
9	.306	.511	.006	.141	.560	1.19	58.1	8.26	.357	.113	.054	.006
10	.286	.260	.000	.100	.732	4.13	150.	5.83	.357	.113	.054	.000
11	.357	.330	.000	.172	53.4	3.20	135.	4.93	.357	.113	.045	.000
12	.357	.306	.076	.141	20.1	34.9	66.9	3.88	.306	.100	.045	.000
13	.306	.241	.076	.127	.560	9.87	59.5	3.20	.306	.100	.045	.260
14	.286	.188	.076	.100	.732	6.47	42.3	3.20	.271	.100	.036	.223
15	.260	.141	.065	.223	.867	70.3	38.0	3.20	.271	.100	.036	.188
16	.241	.113	.065	.306	.613	7.88	29.3	2.43	.271	.088	.036	.172
17	.223	.100	.054	.260	.466	7.52	28.7	1.82	.260	.088	.027	.141
18	.205	.019	.054	.205	.306	14.6	105.	1.82	.260	.088	.027	.100
19	.205	.006	.036	.172	.306	7.52	31.8	1.69	.260	.088	.027	.065
20	.188	.000	.036	.127	.357	4.93	28.7	1.57	.223	.088	.019	.054
21	.306	.000	.027	.100	.330	3.88	80.6	3.64	.223	.100	.019	.045
22	.286	.000	.045	.076	.306	5.83	156.	3.42	.223	.100	.019	.036
23	.260	.000	.306	.260	.260	5.22	63.5	2.99	.223	.100	.012	.036
24	.241	.000	.271	.223	1.82	4.13	21.3	3.20	.172	.100	.012	.100
25	.223	.000	.205	.172	.357	3.20	28.1	2.99	.172	.088	.012	.076
26	.188	.000	.156	.127	.286	2.10	73.0	1.57	.141	.088	.027	.054
27	.172	.027	.172	.260	.260	3.88	54.1	1.28	.141	.088	.027	.036
28	.156	.019	.156	.223	.357	8.26	39.8	1.10	.113	.088	.019	.027
29	.127	.036	.560	.172	.306	6.81	26.9	1.10	.113	.088	.019	
30	.113	.006	.426	.141	.271	5.83	21.3	.867	.113	.076	.019	
31	.100		.357		.560	5.22		.867		.076	.019	
MOY	.223	.096	.116	.179	2.77	7.78	66.5	6.76	.337	.100	.043	.060

DEBIT MOYEN ANNUEL

7.03 M3/S

KPELOU A KPESSIDE I

Code : 47 27 81 03
bassin versant : 417 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par l'O.R.S.T.O.M.

Coordonnées : 9° 38' N - 0° 57' E.

Altitude du zéro de l'échelle : 190 m. environ, en nivellement I G N

Accès :

Pont métallique sur la route LAMA-KARA - KANDE, situé à
33 kilomètres de LAMA-KARA.

Installations

Station installée le 12 décembre 1961. Les éléments 0 - 1, 1 - 2, 2 - 3 et 3 - 4 m sont étagés sur la rive droite. Les éléments 4 à 9 m sont scellés sur la culée rive droite. Les éléments 9 - 10 et 10 - 11 m sont situés en contrebas de la route.

Le 27 janvier 1964, l'élément 0 - 1 m a été remplacé par deux éléments 0 - 0,50 et 0,50 - 1 m.

Une deuxième série d'échelles dénommée KPELOU II a été installée en avril 1964, à la section de jaugeage des hautes eaux, soit 300 mètres en amont du pont.

Les deux échelles sont lues simultanément.

Lectures

Une lecture par jour, le matin. Qualité des observations : moyenne.

L'échelle de 0 à 0,50 m ayant été arrachée lors de la crue de 1966, les débits du 26 novembre 1966 au 22 février 1967 ont été déterminés avec les lectures faites à la station de KPELOU II.

Jaugeages - Courbe de tarage

Une seule courbe de tarage a été retenue pour la période qui nous intéresse. Vingt jaugeages ont été utilisés pour la tracer :

maximum jaugé : 146 m³/s le 7-9-71 (cote 3,26 à 3,21 m)
 minimum jaugé : 1/3 litre/s le 13-3-74 (cote 0,19 m.)

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 805 à 700 m.	0,1 %
700 à 600	1,0
600 à 500	4,5
500 à 400	45,8
400 à 300	34,6
300 à 200	14,0

Altitude moyenne du bassin : 390 mètres.

Géologie

On trouve les formations géologiques suivantes, en allant d'Est en Ouest :

- Gneiss (groupes du Kabré et de l'Agbandi)	46,3 %
- Granites calco-alcalins à deux micas	29,3
- Quartzites micacés de l'Atacorien	24,4

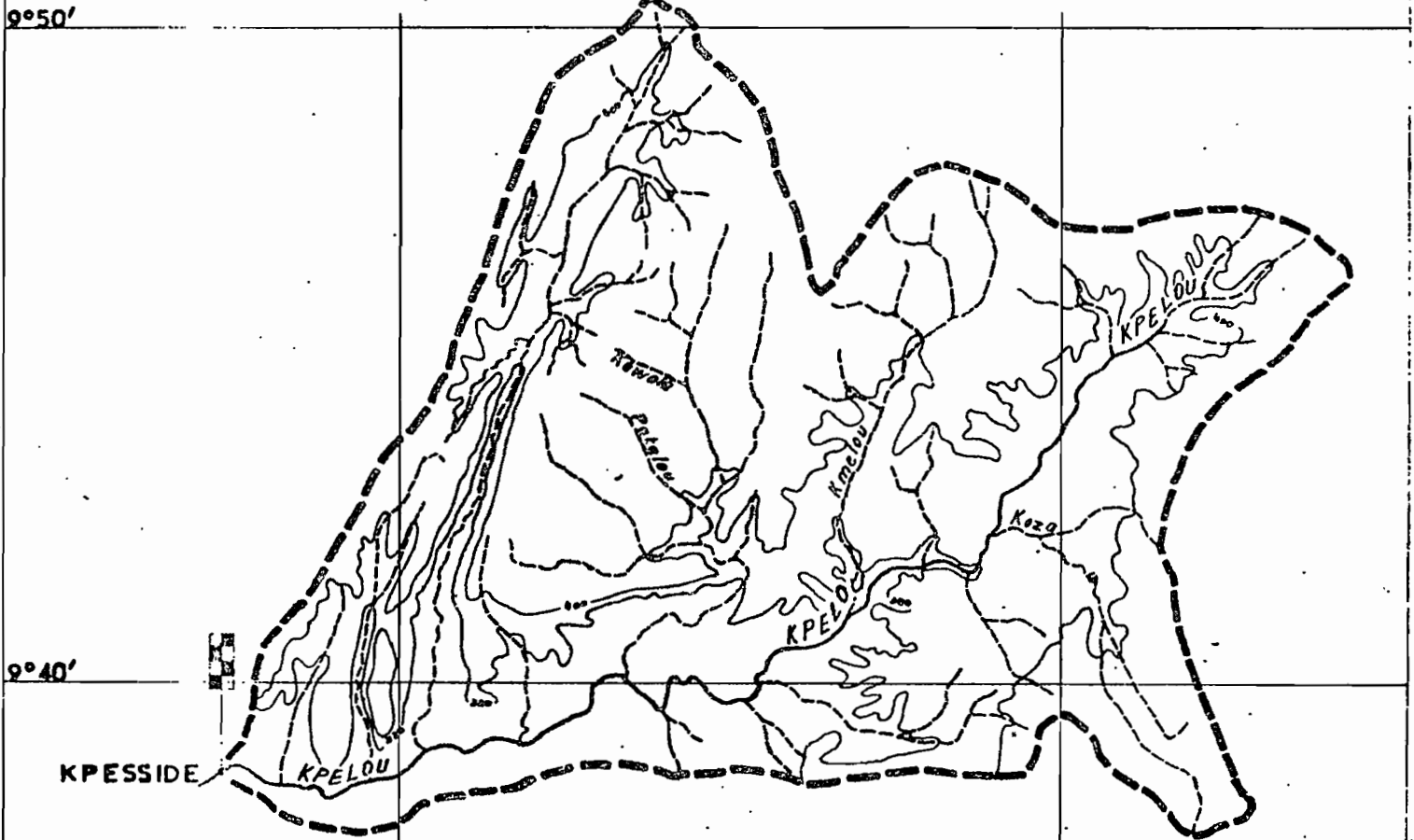
Végétation

Savane arbustive claire (85 %) - Savane arborée claire (15 %).

KPELOU A KPESSIDE

BASSIN VERSANT = 417 Km²

NORD



Echelle : 1:200.000

167

1°00'

1°10'

ORSTOM

DATE : 12/ 7/ 65

DESSINÉ : M. Sossah

T 279 H

STATION : TCGC

VOLTA

KPELOU

KPESSIDE I

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.008	.003	.055	.940	4.55	52.7	45.0	7.08	3.52	2.51	.310	.065
2	.008	.010	.055	.510	4.66	181.	32.5	21.4	6.18	2.24	.271	.065
3	.008	.008	.206	.571	4.64	34.8	30.8	34.9	7.23	1.99	.271	.055
4	.010	.010	2.94	.401	12.8	35.0	35.2	26.2	7.50	1.87	.271	.040
5	.008	.008	.858	.237	57.9	20.3	30.9	56.8	6.07	1.75	.271	.040
6	.008	.014	.401	.636	5.57	30.7	20.6	13.5	6.06	1.64	.271	.040
7	.008	.035	.237	4.64	5.35	13.3	22.1	44.7	5.64	1.53	.237	.047
8	.006	2.94	.510	2.12	3.83	8.31	18.8	34.8	4.64	1.31	.206	.040
9	.006	1.12	.180	1.53	4.72	5.68	132.	13.5	4.45	1.21	.206	.032
10	.005	.401		8.67	4.64	6.35	48.9	13.5	11.2	1.12	.180	.040
11	.005	.206	2.65	3.58	3.61	6.28	42.6	18.2	10.6	1.12	.159	.040
12	.006	.120	2.24	19.3	2.59	4.37	25.6	13.1	10.7	1.03	.159	.035
13	.006	.120	1.03	8.67	5.57	4.95	45.7	20.0	14.4	1.03	.159	.035
14	.012	.120	1.12	5.84	85.6	5.33	30.5	52.2	9.36	1.03	.159	.040
15	.010	.055	1.12	5.63	57.5	4.65	24.7	22.3	7.43	.940	.141	.030
16	.008	.047	.940	3.74	30.8	23.2	21.6	15.4	8.30	.940	.141	.028
17	.008	.035	.636	7.19	9.20	25.8	15.2	29.0	8.43	.779	.141	.035
18	.008	.035	1.12	5.63	7.43	7.67	20.3	15.2	8.19	.705	.141	.032
19	.006	1.12	.401	3.74	4.64	7.50	16.6	35.7	7.20	.571	.141	.032
20	.006	.940	1.12	25.0	4.14	11.8	18.5	38.6	8.48	.636	.129	.030
21	.014	.636	.310	19.3	4.83	16.5	27.8	21.3	7.69	.571	.129	.030
22	.076	.104	.206	19.3	7.96	14.5	36.1	13.0	5.85	.510	.120	.028
23	.040	.089	.159	34.2	4.93	12.0	41.0	8.17	5.13	.571	.120	.025
24	.016	.159	.104	16.3	4.45	12.3	67.5	35.4	6.08	.571	.120	.025
25	.025	.636	.510	9.20	3.66	88.4	13.7	21.9	6.21	.571	.120	.023
26	.020	.401	.940	7.43	73.8	59.3	23.8	7.91	4.74	.510	.104	.020
27	.008	.206	.510	6.28	88.7	57.8	14.3	6.61	4.27	.510	.104	.047
28	.016	.141	.180	6.72	9.66	41.0	13.5	5.96	3.66	.454	.104	.206
29	.014	.120	.141		7.08	65.1	8.68	5.43	3.33	.454	.089	
30	.014	.047	1.53		6.96	47.9	7.91	4.83	2.94	.401	.089	
31	.010		.940		76.0	30.7		4.36		.354	.076	
MCY	.013	.330	.799	7.55	20.9	30.2	31.1	21.3	6.85	1.01	.166	.043

DEBIT MOYEN ANNUEL

10.1 M3/S

STATICK : TCGO

VOLTA

KPELOU

KPESSIDE I

NUMEFG : 47278103

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.401	.023	.018	.141	4.45							.047
2	.180	.020	.141	.089	2.65							.035
3	.129	.020	.141	1.31	1.75							.035
4	.129	.571	.089	.571	33.1							.032
5	.089	1.03	.510	.310	15.8							.032
6	.076	.206	.206	.180	14.9							.030
7	.040	.141	.206	.159	18.0							.030
8	.040	1.03	.104	.055	10.7							.028
9	.035	.237	.076	.104	13.3							.025
10	.032	.141	.055	.055	20.6							.023
11	.028	.076	.065	1.42	9.49							.023
12	.025	.055	.040	.354	13.5							.023
13	.023	.035	.030	.705	24.7							.020
14	.018	.030	.030	.571	30.8							.018
15	.018	.020	.055	.401	14.1							.016
16	.016	.023	.040	.206	33.1							.016
17	.014	.023	.030	.159	28.8							.016
18	.012	.020	.159	.159	30.5							.014
19	.002	.018	.129	.206	16.5							.014
20	.002	.018	.159	7.91	10.3							.012
21	.008	.040	.180	1.99	20.3							.012
22	.008	.035	.180	1.03	7.32							.012
23	.008	.030	.141	.636	10.4							.010
24	.010	.028	.129	.571	6.96							.010
25	.008	.028	.089	.571	5.64							.012
26	.006	.028	.454	.454	5.23							.010
27	.030	.028	.237	.401	4.19						.065	.010
28	.032	.025	.141	.510	6.48						.065	.008
29	.032	.018	.206	.571	3.38						.065	.008
30	.032	.014	.354	13.7	4.65						.065	
31	.032		.206		5.14						.055	
MOY	.049	.134	.148	1.18	13.8							.020

STATION : TOGO

VOLTA

KPELOU

KPESSIDE I

ALMEFC : 47278103

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.008	.104	.040	1.03	12.5	29.5	5.63	23.0	4.83	.271	.104	.035
2	.006	.141	.141	.636	7.91	25.0	7.43	25.4	3.25	.206	.089	.032
3	.006	.104	.104	.510	5.63	19.3	22.6	15.4	2.80	.206	.104	.032
4	.006	59.0	.047	.454	4.27	12.9	57.3	11.3	2.38	.180	.104	.030
5	.006	2.94	.040	.237	3.25	10.9	72.1	11.5	2.12	.180	.104	.030
6	.005	1.12	.032	1.03	2.65	17.8	26.0	11.2	1.87	.180	.120	.030
7	.003	.636	.076	.858	2.51	19.8	47.1	9.20	1.64	.180	.141	
8	.002	.401	.032	.571	1.87	17.4	22.2	7.59	1.42	.180	.129	
9	.002	.237	.040	.454	1.87	11.8	19.0	6.43	1.31	.180	.120	
10	.005	.180	.040	.271	2.12	23.6	13.8	5.43	1.21	.159	.120	
11	.005	.129	.310	.271	5.03	19.3	50.6	4.64	3.25	.141	.120	
12	.005	.089	.271	.310	2.65	13.3	103.	4.09	2.12	.129	.120	
13	.005	.076	.858	.237	1.87	9.79	29.8	3.74	1.64	.120	.120	.020
14	.005	.047	.310	.237	1.53	8.25	22.8	4.52	1.42	.120	.104	.020
15	.005	.040	.310	.206	1.64	6.72	16.4	3.64	1.12	.104	.104	.020
16	.005	.032	.354	.076	2.12	5.85	39.7	3.00	1.03	.104	.089	.023
17	.005	.030	.310	.310	1.99	5.63	30.9	3.69	.858	.104	.076	.023
18	.006	.104	.180	.510	1.53	4.83	18.2	3.21	.779	.089	.065	.023
19	.006	.571	.129	.310	1.42	4.27	13.4	2.56	.705	.089	.065	.020
20	.006	1.03	.089	1.42	1.03	3.86	10.2	2.29	.636	.089	.055	.020
21	.006	.636	.055	1.42	.858	9.71	9.11	2.12	.510	.076	.055	.018
22	.005	.237	.047	.940	.779	4.58	9.79	5.10	.454	.076	.055	.018
23	.008	.159	.159	.705	7.67	3.74	8.09	2.29	.454	.089	.055	.018
24	.008	.129	12.5	6.28	4.64	2.94	13.5	2.07	.401	.129	.047	.016
25	.006	.089	15.4	2.65	4.65	3.99	22.0	2.71	.401	.120	.047	.012
26	.005	.055	3.58	1.87	3.74	3.21	30.4	5.10	.354	.089	.040	.008
27	.005	.047	1.99	1.31	36.2	3.26	50.2	7.84	.354	.089	.040	.006
28	.005	.047	1.42	10.7	8.69	5.45	48.1	3.64	.271	.104	.040	.006
29	.010	.206	1.12	3.25	48.7	15.4	35.5	5.03	.271	.104	.040	
30	1.64	.025	.705	48.7	15.9	8.68	26.0	3.95	.271	.104	.035	
31	1.42		.705		126.	11.4		3.63		.120	.035	
MOY	.104	2.29	1.33	2.92	10.4	11.1	36.3	6.62	1.34	.133	.082	.022

DEBIT MOYEN ANNUEL

6.05

M3/S

STATION : TOGO

VOLTA

KPELOU

KPESSIDE I

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.005	.006	.206	.510	3.25	4.27	11.4	4.64	.705	.076	.012	.002
2	.005	.006	.271	.310	2.80	42.3	13.3	7.19	.705	.065		.002
3	.005	.006	5.63	.206	2.38	11.4	9.78	6.06	.705	.065		.002
4	.005	.006	.940	.206	5.84	7.67	7.91	5.03	.705	.055		.002
5	.005	.006	.401	.159	2.94	5.63	6.72	4.27	.705	.047		.002
6	.005	.006	.206	.129	2.38	4.64	5.63	4.83	.705	.040	.010	.002
7	.005	.006	.180	.129	2.80	4.45	6.06	3.41	.705	.040	.008	.002
8	.005	.008	.354	.129	4.27	4.09	5.84	3.25	.636	.035	.006	.002
9	.003	.940	.271	7.19	6.06	4.27	13.3	3.92	.571	.032	.006	.002
10	.003	.206	.206	5.22	3.74	3.92	29.4	8.16	.510	.032	.005	.002
11	.003	.141	.180	2.24	3.41	6.72	22.0	6.72	.454	.030	.005	.002
12	.003	.076	.141	1.75	28.1	4.64	14.5	4.27	.401	.028	.005	.002
13	.003	.047	.089	16.3	15.3	85.2	12.5	3.58	.354	.025	.003	.002
14	.003	.022	.354	14.5	9.20	23.8	34.9	3.10	.354	.025	.003	.002
15	.003	.030	.206	4.83	6.72	16.3	32.8	2.94	.354	.023	.003	.003
16	.006	.023	.141	2.94	5.22	10.7	22.0	5.03	.310	.023	.003	.003
17	.006	.018	21.4	3.58	4.64	24.4	16.3	5.63	.271	.023	.003	.003
18	.005	.016	1.64	2.12	5.84	28.8	9.78	3.92	.237	.020	.003	.003
19	.005	.012	1.21	7.19	3.58	13.3	10.1	5.43	.206	.020	.003	.003
20	.003	.010	1.03	14.5	23.8	10.7	8.67	3.74	.180	.018	.003	.003
21	.003	.016	.571	2.80	5.84	7.19	8.16	3.25	.159	.016	.003	.003
22	.003	.016	.310	2.80	8.16	6.95	6.50	3.41	.159	.016	.003	.003
23	.003	.014	1.64	2.80	16.3	12.5	23.2	2.51	.141	.016	.003	.003
24	.006	.008	.206	2.65	14.9	8.67	7.91	2.65	.129	.014	.003	.003
25	.006	.012	.180	2.51	6.72	6.95	9.20	2.65	.120	.014	.002	.003
26	.006	.010	1.64	14.5	10.4	5.84	6.50	2.94	.104	.014	.002	.003
27	.006	.141	1.12	16.3	8.42	6.06	11.8	2.65	.104	.014	.002	.003
28	.006	.104	1.12	6.28	5.84	7.43	14.1	2.38	.104	.012	.002	.003
29	.006	.055	.705	4.45	4.64	25.0	6.72	2.65	.104	.012	.002	
30	.006	.705	.705	3.41	3.74	16.3	5.63	1.99	.089	.012	.002	
31	.006		1.03		6.72	10.7		1.12		.012	.002	
MCY	.005	.090	1.43	4.75	7.68	13.9	13.1	3.98	.366	.028	.005	.002

DEBIT MOYEN ANNUEL

3.80 M3/S

STATION : TOGO

VOLTA

KPELOU

KPESSIDE I

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.003	.008	.141	3.74	12.1	9.20	50.3	11.2	4.64	.249	.033	.010
2	.003	.006	.159	1.12	5.84	17.7	25.0	9.96	4.64	.224	.030	.010
3	.003	.006	.705	.571	4.09	7.15	16.3	15.6	3.58	.200	.030	.010
4	.003	.006	.705	1.31	3.74	5.43	12.5	12.3	3.74	.178	.027	.010
5	.003	.006	.271	.705	5.22	19.3	12.5	10.8	3.25	.178	.027	.010
6	.005	.006	.159	3.58	3.92	8.93	9.48	12.4	2.94	.158	.024	.010
7	.005	.006	.120	1.64	10.7	6.50	8.16	26.5	2.80	.158	.024	.010
8	.005	.005	.055	5.63	12.5	5.22	7.43	32.8	2.65	.158	.024	.009
9	.005	.005	.055	2.51	4.64	7.67	46.2	31.1	2.51	.139	.024	.009
10	.005	.005	.047	2.38	3.74	8.67	9.20	17.0	2.94	.139	.021	.009
11	.005	.006	.040	5.03	5.22	11.4	16.8	33.8	2.38	.122	.021	.009
12	.005	.006	.030	2.24	5.03	12.1	8.93	47.3	1.75	.122	.021	.009
13	.005	.006	.028	2.51	5.03	19.3	7.43	77.1	1.64	.106	.021	.009
14	.005	.006	.023	3.58	4.09	8.16	13.7	53.1	1.42	.106	.021	.008
15	.005	.006	.023	4.09	3.10	12.5	10.7	26.9	1.42	.070	.018	.008
16	.005	.006	.020	1.64	3.10	22.0	11.4	18.0	1.31	.065	.018	.008
17	.005	.129	.020	2.51	6.72	17.2	16.3	21.2	1.21	.061	.018	.008
18	.006	.089	.016	5.22	4.09	9.20	10.1	16.7	1.12	.056	.018	.008
19	.006	.055	.016	3.25	3.92	245.	15.8	10.4	1.99	.056	.018	.008
20	.006	.040	.014	5.03	4.64	46.2	8.94	9.20	1.53	.052	.016	.007
21	.006	.035	.012	3.41	3.25	42.3	14.0	8.67	1.31	.052	.016	.007
22	.005	.030	14.5	2.24	2.94	46.2	11.1	8.29	1.12	.052	.016	.007
23	.006	.028	.779	7.67	3.74	178.	8.80	6.72	.940	.048	.016	.006
24	.006	.023	.271	9.20	5.43	46.2	11.7	5.43	.779	.040	.016	.005
25	.005	.020	.271	10.7	16.3	42.3	8.68	5.23	.705	.040	.014	.005
26	.005	.206	.129	6.50	12.1	28.1	38.9	4.74	.600	.040	.012	.005
27	.005	.141	.120	5.43	8.16	42.3	18.6	4.27	.500	.040	.010	.003
28	.005	.055	.120	6.72	9.48	25.0	13.5	4.27	.380	.040	.010	.003
29	.005	.120	.354	4.64	6.28	18.7	13.3	24.7	.335	.040	.010	
30	.005	.510	2.51	4.09	4.83	129.	8.54	9.10	.276	.037	.010	
31	.008		2.94		9.20	22.0		6.39		.037	.010	

MOY .005 .053 .756 3.56 6.23 36.1 15.5 18.8 1.88 .099 .019 .008

(du 26 Nov. au 22 Fév., les hauteurs sont mesurées à KPESSIDE II)

DEBIT MOYEN ANNUEL

7.03 M3/S

STATION : TCGO

VOLTA

KPELOU

KPESSIDE I

ALPFG : 47278103

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.003	.401	.008	.454	7.91	15.4	5.03	20.9	4.27	.310	.159	.028
2	.003	.206	.008	.206	2.51	19.3	6.06	12.5	3.74	.310	.141	.028
3	.003	.159	.076	5.63	3.92	19.3	6.50	22.0	3.10	10.7	.129	.025
4	.000	.120	.076	.705	24.4	19.3	23.2	28.1	4.27	2.24	.120	.025
5	.000	.120	.047	.705	18.7	16.8	23.8	49.5	4.27	.940	.065	.025
6	.002	.065	.035	.401	6.72	11.1	19.8	63.2	3.10	.571	.076	.025
7	.002	.055	.028	.310	5.43	8.67	43.8	85.2	2.24	.510	.089	.028
8	.002	.159	.023	4.64	10.7	38.5	22.0	28.1	1.99	.510	.089	.028
9	.003	.089	.018	1.03	7.19	13.3	39.4	54.6	1.75	.454	.089	.028
10	.003	.065	.018	.858	20.3	29.4	46.2	16.8	1.64	.401	.089	.028
11	.002	.055	.012	.636	15.8	22.0	35.6	16.8	1.64	.354	.089	.023
12	.002	.120	.012	.510	6.50	14.5	22.0	16.3	1.53	1.42	.076	.020
13	.002	.120	.012	.454	5.03	117.	24.4	9.48	1.31	1.12	.076	.020
14	.002	.055	.014	18.7	16.8	25.0	17.2	7.91	1.12	.636	.065	.018
15	.002	.047	.014	8.42	10.4	26.2	16.8	9.20	1.12	.571	.055	.018
16	.002	.065	.012	1.64	6.95	15.4	27.5	36.3	1.03	.571	.055	.016
17	.002	.040	.018	4.64	6.06	109.	62.4	19.3	.940	.354	.055	.014
18	.002	.040	.271	1.87	10.7	28.1	19.3	16.8	.858	.310		.014
19	.002	.035	.141	5.63	26.2	18.2	32.1	16.8	.779	.271		.014
20	.020	.032	.104	4.09	21.4	12.9	17.7	12.1	.705	.271	.035	.014
21	.008	.028	.028	3.25	12.5	76.2	14.5	14.1	.636	.271	.035	.014
22	.005	.028	.025	3.41	8.93	23.2	14.5	10.7	.636	.271	.035	.018
23	.005	.020	6.06	2.51	6.55	12.9	11.1	7.19	.636	.454	.035	.018
24	.003	.020	.401	1.64	6.06	13.3	14.1	6.95	.571	.401	.032	.016
25	.003	.014	.271	1.31	8.93	67.5	30.7	5.63	.510	.271	.035	.012
26	.120	.012	8.42	1.31	6.72	14.9	17.2	4.83	.454	.237	.035	.012
27	.310		2.24	1.12	12.9	11.8	18.2	5.63	.454	.206	.035	.012
28	.159	.010	.401	1.03	9.48	9.48	35.6	4.83	.401	.159	.035	.010
29	5.43	.010	.310	.858	7.19	7.19	22.0	4.09	.354	.206	.032	.010
30	1.87	.012	.271	.779	6.06	6.50	22.0	3.74	.354	.180	.028	
31	.779		.180		56.3	5.84		5.63		.159	.028	
MOY	.282	.074	.631	2.63	12.1	26.7	35.5	19.8	1.55	.828	.065	.019

DEBIT MOYEN ANNUEL

8.38 M3/S

STATION : TOGO

VOLTA

KPELOU

KPESSIDE 1

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.010	.055	1.75	3.74	9.20	12.9	50.3	14.5	3.10	.705	.104	.032
2	.010	.032	1.53	3.10	5.22	14.5	25.0	10.1	2.94	.705	.104	.032
3	.010	.028	.779	2.69	5.43	16.8	18.2	5.48	5.63	.705	.104	.032
4	.008	.023	.571	5.63	3.74	14.9	34.9	9.20	4.64	.636	.104	.030
5	.008	.018	9.20	20.9	14.1	11.4	16.8	26.8	10.4	.571	.104	.030
6	.008	.016	2.51	8.42	7.67	8.42	10.7	13.3	9.78	.571	.104	.030
7	.008	.016	1.99	7.91	80.6	14.5	29.4	9.20	6.50	.571	.104	.028
8	.005	.705	1.53	15.4	76.2	11.4	16.3	5.20	3.74	.571	.104	.028
9	.005	.237	1.03	6.28	14.5	9.20	23.8	34.9	6.72	.510	.104	.030
10	.005	.129	.779	5.43	31.4	7.19	120.	15.4	4.45	.510	.089	.030
11	.005	.089	.571	4.64	10.1	6.06	36.3	10.4	3.74	.510	.076	.030
12	.005	.065	.510	3.58	7.43	9.20	23.2	8.67	3.25	.510	.076	.028
13	.005	.040	.858	5.03	14.5	6.50	26.8	34.2	2.94	.454	.055	.025
14	.005	.705	.636	3.10	9.20	8.67	25.0	15.4	2.65	.454	.055	.025
15	.003	4.64	.354	109.	7.91	6.06	18.7	9.48	2.24	.310	.055	.023
16	.003	2.12	6.72	42.3	5.22	11.4	13.3	7.67	2.24	.310	.076	.023
17	.002	1.03	1.75	54.6	46.2	8.16	10.4	5.63	2.12	.310	.076	.023
18	.002	.705	2.24	15.8	25.0	6.28	12.9	5.03	1.87	.310	.076	.020
19	.002	.510	1.64	7.67	18.7	6.72	12.5	5.03	1.64	.271	.076	.020
20	.002	.354	1.03	6.95	13.3	6.72	25.0	9.20	1.75	.271	.065	.018
21	.002	.271	1.53	9.20	96.1	9.20	18.7	9.20	1.64	.237	.055	.018
22	.010	.271	.940	12.1	27.5	6.06	9.78	7.91	2.65	.206	.055	.018
23	.008	2.12	2.80	22.0	28.1	5.43	22.0	5.22	1.31	.180		.016
24	.006	.705	1.31	15.8	14.5	4.45	10.7	4.64	1.21	.180		.016
25	.008	.454	.705	8.42	10.1	8.42	10.4	4.27	1.21	.180	.047	.014
26	.129	.354	4.45	7.67	9.20	5.22	8.16	6.50	1.03	.159	.040	.014
27	.089	.310	1.87	5.84	18.7	4.45	7.91	5.63	.940	.141	.040	.014
28	.055	7.91	9.20	4.64	11.4	15.4	18.7	4.45	.940	.129	.040	.016
29	.055	2.80	2.80	7.19	9.20	10.1	12.5	4.09	.858	.120	.032	
30	.035	3.10	2.12	4.45	11.4	7.43	11.4	2.94	.858	.104	.032	
31	.035		1.64		34.9	207.		2.80		.076	.032	
MOY	.017	.993	2.17	14.3	21.9	15.5	22.6	10.3	3.17	.370	.070	.024

DEBIT MOYEN ANNUEL

7.65

M3/S

STATION : TCGO

VOLTA

KPELOU

KPESSIDE I

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.012	.005	.035	.025	13.3	9.48	19.3	16.8	7.91	.858	.120	.055
2	.023	.005	.047	.025	5.63	9.48	85.2	12.5	89.8	.779	.120	.055
3	.023	.003	.104	.023	3.52	10.4	30.7	9.78	14.1	.705	.104	.055
4	.020	.003	.120	.020	2.38	6.72	22.0	25.0	10.7	.705	.104	.047
5	.020	.055	.120	.018	1.75	30.7	13.3	10.4	12.5	.571	.089	.047
6	.018	.035	.089	.018	1.64	19.3	12.5	6.72	25.0	.571	.089	.047
7	.018	.055	.076	.018	1.64	22.0	9.20	10.7	17.7	.510	.089	.040
8	.016	.040	.065	.016	1.64	15.8	119.	41.5	11.4	.510	.089	.035
9	.016	.028	.120	.016	1.31	9.20	43.8	9.78	9.20	.454	.089	.032
10	.014	1.12	.089	.025	5.63	6.72	38.5	8.93	7.67	.401	.039	.032
11	.014	.141	.055	.023	5.22	14.5	80.6	6.72	6.28	.401	.089	.030
12	.012	.129	.055	.023	7.43	17.7	29.4	20.3	5.43	.401	.076	.030
13	.010	.120	.089	.020	5.43	9.20	19.3	13.7	4.83	.401	.076	.030
14	.008	.065	.047	.020	3.25	10.1	31.4	9.20	4.09	.401	.076	.030
15	.008		.065	.018	2.51	42.3	13.7	16.8	3.58	.310	.065	.030
16	.008	.032	.779	.018	2.24	19.3	14.5		2.94	.271	.065	.028
17	.008	.025	.237	.076	36.3	28.1	10.7		2.80	.237	.065	.028
18	.008	.023	.141	.141	22.0	16.3	37.0	9.20	2.51	.237	.065	.028
19	.008	.023	.129	.206	54.6	11.8	38.5	5.63	2.24	.206	.055	.025
20	.006	6.06	.104	.055	22.0	10.7	20.9	11.8	2.12	.206	.055	.025
21	.006	1.03	.076	.510	15.4	9.78	14.5	8.93	1.99	.180	.055	.023
22	.006	.454	.065	.705	12.5	12.1	100.	11.4	1.87	.180	.055	.023
23	.006	.206	.047	.310	18.7	9.78	42.3	7.43	1.64	.159	.047	.023
24	.006	.141	.040	.159	15.4	16.8	90.7	7.19	1.42	.159	.047	.020
25	.008	.120	.065	.705	13.3	239.	34.9	8.67	1.21	.159	.047	.018
26	.006	.104	.040	.401	7.91	42.3	19.8	11.8	1.12	.141	.047	.018
27	.006		.040	.401	6.06	22.0	23.2	94.4	1.03	.141	.047	.018
28	.005	.055	.035	.206	4.64	28.8	22.0	26.2	1.03	.141	.354	.016
29	.005	.035	.032	.120	6.06	18.7	23.2	15.4	.940	.141	.141	
30	.003	.035	.030	.120	4.27	12.5	22.6	11.1	.858	.129	.089	
31	.003		.028		5.03			10.1		.129	.076	
MCY	.011	.342	.099	.148	9.97	24.1	36.1	15.6	8.53	.348	.086	.032

DEBIT MOYEN ANNUEL

7.98 M3/S

STATION : TOGO

VOLTA

KPELOU

KPESSIDE I

NUMERO : 47278103

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.016	.008	.010	.141	.141	35.6	22.0	22.0	.858	.089	.040	.025
2	.016	.006	.008	.104	.120	47.0	81.5	23.2	.779	.089	.040	.025
3	.014	.008	.006	1.53	.104	23.8	42.3	19.3	.705	.076	.040	.025
4	.014	.006	.006	.510	.705	28.1	63.2	17.7	.636	.076	.035	.025
5	.014	.006	.005	.206	.310	10.7	47.0	9.20	.571	.065	.035	.025
6	.014	.006	.005	.180	.510	10.4	104.	7.67	.510	.065	.035	.023
7	.012	.008	.003	.129	.636	8.16	34.2	6.28	.454	.065	.035	.023
8	.012	.008	.005	.120	.271	9.20	20.9	5.43	.401	.065	.032	.023
9	.014	.006	.003	.120	.159	5.63	32.1	7.67	.401	.055	.032	.023
10	.014	.005	.003	.104	.705	4.64	55.5	7.67	.354	.055	.032	.023
11	.032	.005	.705	.089	.571	4.09	85.2	4.83	.310	.055	.032	.023
12	.032	.005	.271	.454	3.25	6.72	28.1	4.27	.310	.047	.030	.023
13	.032	.005	.237	.354	1.12	4.45	42.3	2.94	.271	.047	.030	.035
14	.032	.005	.180	.271	1.03	6.72	20.3	6.72	.237	.047	.030	.023
15	.047	.003	.120	.271	.705	63.2	14.1	9.20	.206	.047	.030	.023
16	.035	.003	.705	.237	2.65	16.8	12.5	8.67	.206	.047	.030	.023
17	.032	.006	.454	.206	2.24	11.1	13.3	4.64	.206	.047	.030	.023
18	.030	.006	.454	.141	1.64	8.16	20.9	4.09	.180	.047	.030	.023
19	.028	.005	.310	.104	8.16	6.95	15.4	3.25	.180	.047	.028	.025
20	.025	.005	.271	.076	4.09	5.22	9.20	2.94	.159	.040	.028	.025
21	.023	.005	.237	.076	2.94	4.45	19.3	2.94	.159	.040	.028	.025
22	.023	.005	.159	.055	2.24	3.74	42.3	2.65	.159	.040	.028	.025
23	.020	.003	.940	.055	1.75	3.25	17.7	2.24	.141	.040	.028	.023
24	.018	.003	.206	.040	1.31	4.83	62.4	2.12	.141	.040	.028	.023
25	.016	.003	.120	.040	2.65	19.3	104.	2.51	.129	.040	.028	.023
26	.014	.005	.206	.159	1.99	23.2	63.2	1.87	.129	.040	.028	.023
27	.014	.005	1.53	.940	1.64	20.3	50.3	1.64	.129	.040	.028	.023
28	.012	.005	.779	.510	1.21	62.4	23.2	2.12	.129	.040	.028	.023
29	.010	.005	.401	.310	7.67	27.5	13.3	1.31	.104	.040	.025	
30	.010	.005	.237	.180	4.83		19.8	1.12	.104	.040	.025	
31	.008		.180		114.	11.4		.940		.040	.025	
MCY	.020	.005	.282	.257	5.52	16.7	39.3	6.42	.309	.052	.031	.024

DEBIT MOYEN ANNUEL

5.74

M3/S

LAKTAON A BARKOISSI

Code : 47 27 84 03

bassin versant : 190 km²

CARACTERISTIQUES DE LA STATION

Station exploitée par le Génie Rural

Coordonnées : 10° 32' N - 0° 19' E.

Altitude du zéro de l'échelle : 145 m environ, en nivellement IGN

Accès :

Pont situé en bordure de la route MANGO - DAPANGO, près de la station expérimentale d'agriculture de BARKOISSI.

Installations

Station implantée le 15 janvier 1962, avec 4 mètres d'échelle ; 0 à 3 m sur un tronc de ronier, 3 à 4 mètres sur un fer fixé sur la rive gauche.

L'élément de 0 - 3 mètres, emporté par la crue de 1968, a été remplacé en février 1969 par des éléments étagés sur la rive gauche. Avec la construction du nouveau pont, en 1970, l'élément de 0,50 à 1 mètre a été scollé au milieu du lit, en amont ; l'élément 1 à 3 m sur la pile cylindrique gauche, et les éléments 3 - 4 et 4 - 5 m sur fers, sur la rive gauche.

Lectures

Trois lectures par jour à 6 h. 12 h. et 18 h. Qualité des observations : Moyenne.

Jaugeages - Courbes de tarage

Trois courbes de tarage ont été tracées pour la période qui nous intéresse. Quarante quatre jaugeages ont été effectués à BARKOISSI :

maximum jaugé : 22,5 m³/s le 30-8-1963 (cote 3,47 m.)
minimum jaugé : sans être nul, le débit peut devenir très faible, de l'ordre de quelques décimètres cubes par seconde.

CARACTERISTIQUES DU BASSIN

Hypsométrie

de 466 à 400 m.	1,3 %
400 à 240	35,9
240 à 200	30,9
200 à 160	29,4
160 à 145	2,5

Géologie

Le bassin de la Laktaon à Barkoissi est adjacent au bassin de la Koimépouarbaga à Nagbeni (cf. ci-dessus), on retrouve la même structure : un plateau de grès surmontant la plaine formée de schistes et grès.

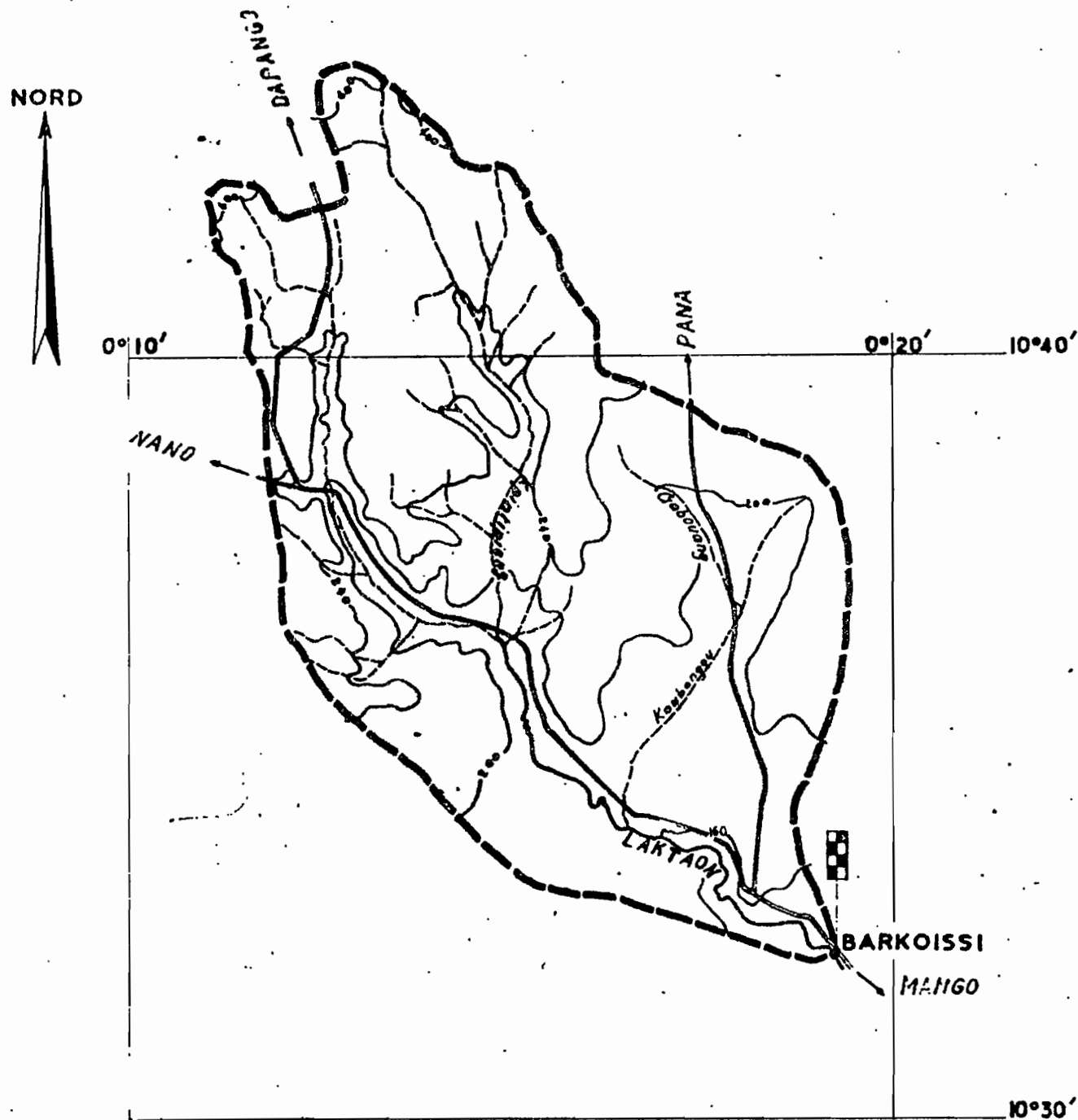
- Grès de Bombouaka (Ordovicien) :	56 %
- Schistes et grès de Mango (Cambriens ou Infracambrien supposés) :	44

Végétation

Savane arbustive. Forêt humide dégradée, le long du cours d'eau.

LAKTAON A BARKOISSI

BASSIN VERSANT = 190 Km²



Echelle: 1: 150.000

179

ORSTOM

DATE: 12/6/65

DESSINÉ: M. Sossah

T 208 H

STATION : TOGO

VOLTA

LAKTACN

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1962-1963 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1					.455	.724	6.44	3.41	1.19	.309	.148	.038
2					1.26	.676	9.79	3.13	1.12	.295	.180	.038
3						.608	9.55	3.01	1.01	.281	.158	.033
4					.831	.528	11.5	3.28	.950	.267	.148	.033
5					.608	.510	10.7	3.32	.920	.254	.128	.033
6					.547	2.94	8.12	3.01	.982	.240	.110	.028
7					.420	2.36	7.08	2.82	.920	.228	.119	.033
8					2.94	1.62	7.56	4.97	.860	.371	.119	.038
9					2.01	2.63	6.92	4.83	.804	.420	.110	.038
10					1.22	1.81	8.20	8.92	.860	.254	.101	.033
11					.831	1.50	6.52	6.12	1.01	.228	.093	.028
12					.608	1.19	5.40	5.10	.920	.267	.093	.028
13					.528	.982	9.15	4.39	.831	.281	.085	.024
14					.547	.889	8.76	3.78	.700	.295	.085	.019
15					.860	.724	6.92	3.32	.652	.309	.077	.016
16					6.60	5.18	8.12	3.09	.630	.295	.077	.019
17					2.94	14.9	6.92	2.82	.587	.267	.070	.019
18					1.58	10.1	12.9	2.63	.547	.228	.070	.024
19					1.19	7.00	12.9	2.47	.528	.240	.063	.024
20				1.19	.920	9.39	9.95	2.36	.510	.254	.056	.019
21				.491	1.01	15.6	13.5	2.24	.491	.267	.056	.019
22				.608	.831	9.87	12.7	2.05	.473	.228	.050	.019
23					.652	7.88	9.08	1.93	.455	.203	.050	.019
24					.630	7.00	7.72	1.97	.455	.215	.044	.019
25					.547	5.88	6.28	1.93	.438	.191	.044	.019
26				.324	.510	5.25	5.40	1.77	.420	.191	.038	.016
27					1.89	5.03	5.48	1.58	.387	.180	.038	.016
28				.169	1.46	4.45	4.97	1.54	.371	.180	.038	.016
29				.281	1.08	4.10	4.15	1.34	.339	.148	.038	
30					.920	3.83	3.58	1.26	.324	.138	.038	
31					.860	3.41		1.22		.148	.038	
MOY					1.24	4.47	8.21	3.08	.690	.247	.083	.025

STATION : TOGO

VOLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1963-1964 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	CCTO	NOVE	DECE	JANV	FEVR
1	.016	.203	.003		.295	5.18	10.3	3.93	2.20		.203	.101
2	.012	.148	.038		.138	3.24	9.15	3.99	2.05		.158	.085
3	.012	.138	.455		.056	2.74	8.36	5.48	1.81		.128	.101
4	.011	.119	.070		.038	4.70	7.40	4.63	1.65		.180	.070
5	.011	.101	.033		.085	5.88	6.04	3.83	1.50	.254	.158	.077
6	.010	.085	.024		7.16	8.44	6.44	9.15	1.38	.240	.158	.070
7	.009	.070	.033		4.63	14.3	5.25	7.72	1.26	.240	.169	.056
8	.009	.063			1.77	11.1	6.60	5.88	1.19	.228	.180	.050
9	.008	.050			1.05	7.88	7.00	4.97	1.12	.215	.180	.016
10	.008	.044			.676	7.56	6.52	4.10	.950	.254	.101	.063
11	.007	.038			.510	6.52	5.72	5.56	.860	.240	.148	.044
12	.006	.033			.387	6.92	5.56	5.32	.804	.228	.128	.038
13		.028			.309	5.18	4.76	12.2	.776	.228	.138	
14		.019			.254	4.51	4.10	10.5	.724	.215	.110	.044
15		.016			.267	5.40	3.78	7.56	.700	.203	.119	.028
16		.012			.547	4.83	3.99	5.80		.169	.119	.028
17		.011			1.58	4.27	3.45	4.70		.148	.138	.028
18		.010			1.69	3.63	3.24	4.04		.355	.128	.028
19		.009			1.81	4.15	3.05	3.58		.355	.128	.028
20		.008			1.54	3.88	2.94	3.09		.355	.128	.024
21		.007			2.08	3.88	3.01	3.24		.371	.119	.024
22		.007			2.63	7.48	3.17	3.24		.387	.110	.024
23		.006			16.6	17.3	3.24	2.94		.295	.101	.024
24		.006			13.2	15.4	3.01	2.82		.309	.110	.016
25		.005			6.60	17.8	2.74	2.78		.267	.093	.019
26		.005			4.51	14.9	2.43	2.47		.228	.110	.019
27		.004			3.63	11.6	2.71	2.28		.240	.085	.016
28		.003			2.94	9.71	3.78	2.12		.215	.085	.016
29		.003			2.59	19.4	6.12	1.97		.203	.128	.012
30		.003		3.41	2.32	21.4	5.10	1.85		.215	.093	
31					2.47	14.4		2.24		.215	.093	
MOY		.042			2.72	8.83	4.97	4.65	.893	.262	.130	.041

STATION : TOGO

VCLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1964-1965 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.016	.024	.007		.110	3.41	15.7	6.44	.982	.240	.215	
2	.016	.019	.006	.056	.085	2.43	13.9	5.56	.776	.228	.203	
3	.012	.016	.007	.019	.070	1.65	14.4	4.70	.750	.215	.203	
4	.012	.016	.005	.007	.056	1.15	15.3	4.15	.724	.215	.203	
5	.012	.016	.006	.005	.044	.920	11.0	3.73	.676	.215	.191	
6	.012	.012	.004	.007	.038	.920	9.79	3.45	.652	.215	.191	
7	.012	.016			.033	1.54	9.15	3.20	.608	.215	.180	
8	.012	.016	.006	.005	.028	1.42	13.2	3.20	.566	.215	.180	
9	.012	.016	.007	.005	.138	1.22	11.4	2.98	.547	.215	.180	
10	.012	.011		.006	.070	11.7	11.0	2.82	.528	.215	.169	
11	.012	.011	.005	.006	.050	5.88	9.55	2.67	.491	.215	.169	
12	.011	.011	.004	.267	.033	3.49	8.68	2.43	.491	.215	.158	
13	.010	.010	.004	.085	.033	2.78	9.39	2.32	.473	.215	.158	
14	.010	.010	.004		.028	2.08	8.92	2.24	.455	.281	.158	
15	.010	.009	.004	.101	.024	1.69	7.96	2.16	.438	.254	.148	
16	.010	.009	.003	.085	.019	1.50	7.24	2.12	.420	.228	.138	
17	.009	.009	.003	.056	.024	7.96	8.12	2.05	.404	.215	.138	
18	.009	.010	.006	.033	.016	8.04	7.00	1.89	.371	.191	.128	
19	.009	.010	.005	.038	.063	3.78	5.64	1.73	.355	.191	.128	
20	.009	.010	.004	.024	.028	3.58	4.90	1.62	.339	.180	.128	
21	.009	.009	.007		.119	3.09	4.39	1.69	.324	.169	.119	
22	.009	.008	.007	.033	.119	2.78	3.99	1.58	.309	.240	.110	
23	1.12	.007	.006	.028	.128	2.43	3.68	1.50	.295	.228	.101	
24	.228	.006		.056	.138	2.12	4.63	1.42	.281	.203	.101	
25	.077	.004	.003	.119	1.34	1.97	7.15	1.30	.267	.203	.093	
26	.050		.003	.473	.950	1.81	8.52	1.30	.254	.191	.085	
27	.062		.001	.339	.860	1.69	11.2	1.38	.240	.191	.085	
28	.050	.011	.007	.295	1.69	3.63	9.39	1.15	.240	.191	.077	
29	.033	.009	.169	.203	2.08	2.98	7.80	1.01	.240	.191	.077	
30	.033	.008		.169	1.46	2.74	7.08	.982	.240	.191	.070	
31	.023		.007		.889	3.41		.889		.215	.063	
MOY	.062	.011	.013	.089	.347	3.09	9.01	2.44	.458	.213	.140	.010

DEBIT MOYEN ANNUEL

1.32

M3/S

STATION : TOGO

VOLTA

LAKTADN

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1965-1966 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANY	FEVR
1											.022	.014
2												.014
3												.013
4												.013
5												.013
6												.013
7												.012
8												.012
9												.011
10												.011
11												.011
12											.016	.011
13											.015	.011
14											.015	.011
15											.015	.010
16											.016	.010
17											.015	.010
18											.014	.010
19											.014	.010
20											.015	.010
21											.014	.010
22											.014	.010
23											.014	.009
24											.014	.009
25											.014	
26											.014	
27											.014	
28											.014	
29											.014	
30											.014	
31											.014	
NOY											.016	.011

STATION : TOGO

VCLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1966-1967 (M3/S)

	MARS	AVRIL	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.010	.000		.014	3.80	2.24	.699	.110	.002	.002
2			.010	.000		.015	3.01	2.24	.676	.100	.002	.002
3			.010	.003		.024	2.42	2.20	.676	.100	.002	.002
4			.009	.017		.066	1.91	2.24	.676	.070	.002	.002
5			.009	.018		.502	1.84	2.74	.676	.055	.002	.002
6			.009	.018		.362	3.49	2.35	.630	.037	.002	.002
7			.009	.018		.254	4.29	2.31	.630	.022	.002	.002
8			.009	.022		.157	4.92	2.31	.630	.017	.002	.002
9			.009	.022		4.64	4.13	2.35	.630	.016	.002	.002
10			.009	.037		3.33	3.64	2.29	.630	.014	.002	.001
11			.008	.043		2.59	2.55	2.16	.608	.013	.001	.001
12			.008	.037		1.98	2.22	2.24	.608	.011	.001	.001
13			.008	.025		1.52	1.66	2.24	.608	.009	.001	.001
14			.008	.020		1.09	3.26	2.24	.585	.008	.001	.001
15			.007	.020		.899	2.46	2.24	.585	.008	.001	.001
16			.007	.020		.938	1.58	2.13	.564	.007	.001	.001
17			.006	.020		2.35	3.18	1.98	.542	.006	.001	.001
18			.006	.018		3.46	2.91	1.95	.542	.005	.001	.001
19			.005	.017		7.19	8.31	1.85	.522	.004	.001	.001
20		.010	.005	.017		4.99	4.27	1.43	.501	.003	.001	.001
21		.008	.005	.017		.909	4.33	1.40	.501	.002	.001	.001
22		.006	.005	.016		3.17	4.11	1.32	.461	.002	.001	.001
23		.005	.004	.014	.680	6.58	4.11	1.22	.423	.002	.001	.001
24		.138	.003	.014	.369	26.9	4.19	1.22	.386	.002	.001	.001
25		.014	.002	.013	.188	9.06	3.46	1.15	.316	.002	.001	.001
26		.012	.001	.013	.311	4.42	3.00	1.03	.300	.001	.001	.001
27		.011	.000	.013	.795	3.57	2.67	.869	.268	.001	.001	.001
28		.010	.000	.013	.630	3.04	3.08	.869	.224	.001	.001	.001
29		.010	.000	.013	.631	2.54	2.82	.869	.183	.001	.001	
30		.010	.000	.013	.363	2.56	2.46	.746	.145	.001	.001	
31			.000		.302	2.49		.746		.001	.001	
MOY	.009	.014	.006	.018		3.28	3.34	1.78	.514	.020	.001	.001

STATION : TOGO

VOLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1967-1968 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1						.017	2.50	5.95	.819	.183	.055	.037
2						.017	2.68	5.78	.819	.183	.055	.033
3						.018	9.94	5.68	.795	.183	.055	.033
4						.017	10.2	5.68	.770	.157	.055	.033
5						.019	10.1	5.81	.746	.157	.055	.025
6						.013	9.78	5.78	.746	.157	.049	.025
7						.012	9.30	5.58	.746	.157	.049	.025
8						.934	8.88	5.09	.746	.157	.049	.025
9						1.24	8.43	4.59	.630	.145	.049	.022
10						1.37	7.12	4.21	.608	.145	.049	.022
11						1.11	3.64	4.16	.608	.145	.049	.022
12						.999	4.11	3.78	.564	.145	.049	.022
13						1.68	13.2	3.48	.542	.145	.049	.022
14						1.90	11.8	3.24	.481	.133	.049	.020
15						6.89	7.36	2.82	.423	.133	.049	.020
16						7.57	4.21	2.44	.284	.122	.049	.018
17						8.73	4.61	2.16	.238	.122	.049	.018
18						7.60	5.00	1.95	.210	.122	.049	.017
19						5.78	4.14	1.71	.238	.122	.049	.016
20						3.85	3.64	1.50	.268	.122	.049	.017
21						4.38	4.06	1.34	.386	.110	.043	.016
22						6.25	13.8	1.09	.333	.110	.043	.016
23						4.38	12.4	.920	.300	.110	.043	.016
24						4.56	24.2	.795	.300	.110	.043	.016
25						7.17	20.7	.783	.284	.100	.043	.016
26						6.85	13.8	.770	.284	.100	.043	.016
27						9.24	12.2	.723	.268	.100		.017
28						8.93	9.04	.723	.238	.100	.037	.017
29						7.41	7.94	.723	.210	.080	.037	.017
30						2.95	6.94	.723	.210	.080	.037	
31						2.48		.653		.080	.037	
MOY						3.69	8.86	2.92	.470	.129	.047	.021

STATION : TOGO

VOLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1968-1969 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.017	.014	.000	.000	.080							
2	.017	.014	.000	.000	.067							
3	.017	.014	.000	.000	.122							
4	.017	.014	.000	.000	.122							
5	.016	.014	.000	.000	.162							
6	.016	.014	.000	.000	.192							
7	.016	.013	.000	.000	.157							
8	.015	.012	.000	.000	.133							
9	.015	.011	.000	1.28	.778							
10	.015	.010	.000	.345	2.29							
11	.015	.008	.000	.079	2.01							
12	.015	.007	.000	.015	1.57							
13	.015	.007	.000	.012	2.04							
14	.015	.005	.000	.009	2.66							
15	.015	.004	.000	.008	2.14							
16	.015	.003	.000	.016	1.49							
17	.015	.003	.000	.016	8.74							
18	.015	.003	.000	.013	29.9							
19	.014	.003	.000	.011	14.1							
20	.014	.002	.000	.017	13.5							
21	.014	.002	.000	.043	18.5							
22	.014	.003	.000	.111	32.2							
23	.014	.004	.000	.133	29.9							
24	.014	.003	.000	.189	26.8							
25	.014	.006	.000	.096	30.4							
26	.014	.005	.000	.027	18.9							
27	.014	.007	.000	.016	14.1							
28	.014	.005	.000	.015	13.2							
29	.014	.004	.000	.017	8.85							
30	.014	.003	.000	.018	8.99							
31	.014		.000		12.1							
MOY	.015	.007	.000	.083	9.56						.000	.000

STATION : TOGO

VOLTA

LAKTAON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1969-1970 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1	.000	.000			1.00		12.2	4.78	.777	.197	.143	.120
2	.000	.000			.392		15.3	4.52	.837	.187	.143	.120
3	.000	.000			.300	.183	16.7	3.92	.777	.187	.143	.120
4	.000	.000			.202	.148	12.0	2.96	.690	.187	.143	.120
5	.000	.000			.178	.197	8.01	2.07	.690	.187	.143	.120
6	.000	.000			.164	.187	7.30	1.34	.635	.197	.151	
7	.000	.000			.152	.160	6.67	.569	.583	.197	.151	
8	.000	.000			.131	.165	45.1	3.33	.533	.197	.151	
9	.000	.000			.404	.124	26.8	2.70	.583	.187	.151	
10	.000	.000			.250	.173	17.2	2.46	.509	.187	.151	
11	.000	4.98			.197	.996	14.5	2.34	.485	.187	.143	
12	.000	.347			.400	1.37	12.9	2.23	.462	.187	.143	
13	.000	.000			.392	1.11	9.96	2.10	.440	.187	.143	
14	.000	.000			.451	3.47	12.3	1.97	.420	.187	.143	
15	.000	.000			.411	6.54	10.3	1.87	.401	.177	.143	
16	.000	.000			.331	6.36	8.30	1.92	.365	.177	.143	
17	.000	.000			.270	5.62	8.44	1.97	.347	.177	.143	
18	.000	.000			.253	5.48	7.96	1.85	.331	.168	.143	
19	.000	.000			.239	4.58	7.24	1.73	.331	.168	.135	
20	.000	1.28			1.28	3.54	6.43	1.64	.315	.168	.135	
21	.000	.270			.779	2.67	6.20	1.56	.284	.160	.135	
22	.000	.243			.499	2.52	20.5	1.43	.270	.160	.135	
23	.000	.231			.357	2.40	15.7	1.33	.256	.160	.143	
24	.000	.000			.270	2.23	12.5	1.22	.243	.160	.135	
25	.000	.000			.219	2.40	8.25	1.10	.231	.160	.135	
26	.000	.000			.169	4.07	5.79	.984	.231	.160	.135	
27	.000	.000			.139	5.75	5.03	.885	.219	.160	.127	
28	.000	.000			.124	7.23	4.48	.792	.208	.160	.135	
29	.000	.000			.120	7.27	4.15	.777	.208	.151	.127	
30	.000	.000				7.32	4.85	.822	.197	.151	.127	
31	.000					6.06		.762		.143	.127	
MOY	.000	.245	.000	.000	.334	2.92	11.8	1.93	.429	.175	.140	

STATION : TOGO

VOLTA

LAKTADON

BARKOISSI

NUMERO : 47278403

DEBITS MOYENS JOURNALIERS EN 1970-1971 (M3/S)

	MARS	AVRI	MAI	JUIN	JUIL	AOUT	SEPT	OCTO	NOVE	DECE	JANV	FEVR
1			.CC9				5.04				.113	.099
2			.C09				7.70				.113	.093
3			.CC8				21.2				.113	.093
4			.C08								.113	.093
5			.CC8								.113	.087
6			.C07								.113	.081
7			.CC7								.113	.075
8			.CC6								.113	.070
9			.C06								.113	.060
10			.C05								.113	.055
11			.C05								.106	.055
12			.C03							.177	.106	.051
13			.C05							.151	.106	.051
14			.C05							.151	.106	.051
15			.C05			1.98	13.4			.160	.106	.051
16			.C05			2.98	17.1			.160	.106	.047
17			.C08			6.36	13.4			.160	.106	.043
18			.CC7			6.58				.135	.106	.043
19			.C07			2.78	13.4			.135	.106	.043
20			.CC7			1.87	13.5			.135	.106	.040
21			.C06			1.27	13.4			.135	.106	.040
22			.006			1.00				.127	.106	.040
23		.013	.C05			.869				.120	.106	.037
24		.012				1.24				.120	.106	.037
25		.011				.953				.120	.106	.037
26		.010				1.10				.113	.106	.040
27		.C10				1.47				.113	.106	.040
28		.010				1.92				.113	.106	.040
29		.CC8				1.80				.113	.106	
30		.CC8				1.69				.113	.099	
31			.005			1.27				.113	.099	
MOY						2.00					.108	.057