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旧耕地必要用水量の算定 (50,000フェダ)

期別 / 作物	作物別面積 (フェダ)	(Unit: /feddan)											
		冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(48,736)												
Wheat	20,000	20,000	20,000	20,000	18,000	10,000						10,000	18,000
Broad Beans	7,084	7,084	7,084	6,376	3,542							3,542	6,376
Fenugreek	288	288	259	144							144	259	288
Long Berseem	8,762	8,762	8,762	8,762	7,886	4,381						4,381	7,886
Short Berseem	7,682	7,682	3,841									3,841	7,682
Onion	2,114	2,114	2,114	1,903	1,057								1,057
Garlic	658	658	658	592	329								329
Potato	212	212										106	191
Vegetables	1,810	1,810	1,810	1,629	1,810				905	1,629		1,810	1,810
Sugarbeet	126	126	113	63								63	113
夏作	(46,466)												
Cotton	12,062			4,825	10,856	12,062	12,062	12,062	10,856	6,031			
Maize	29,114					14,557	29,114	29,114	26,203	14,557			
Sorghum						0	0	0	0	0			
Soyabans						0	0	0	0	0			
Sesame	936					468	936	936	468				
Groundnuts	602				301	602	602	602	301				
Vegetables	3,752		3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752	3,752
Others						0	0	0	0	0		0	
三刈作	(2,270)												
Maize								0	0	0	0	0	0
Vegetables	2,270								2,270	2,270	2,270		
通年作	(1,264)												
Sugar Cane	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264	1,264
合計面積		50,000	49,658	49,309	48,797	47,086	47,730	47,730	46,018	29,503	9,409	29,153	48,781

旧耕地純用水量

期別 / 作物	作物別面積 (フェダ)	(Unit: 1,000m ³)											
		冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(48,736)												
Wheat	20,000	3,180	3,936	6,708	5,260	426						1,158	2,635
Broad Beans	7,084	1,160	1,284	1,913	215							616	949
Fenugreek	288	54	49	8							11	44	54
Long Berseem	8,762	1,304	1,856	2,849	3,142	1,446						994	1,230
Short Berseem	7,682	1,143	814									880	1,198
Onion	2,114	410	458	523	205								231
Garlic	658	110	122	140	55								62
Potato	212	48										17	28
Vegetables	1,810	132	132	65	60				93	172		365	392
Sugarbeet	126	29	32	24								6	16
夏作	(46,466)												
Cotton	12,062			796	2,547	4,806	5,927	6,622	2,801	753			
Maize	29,114					3,066	11,180	16,438	10,706	1,275			
Sorghum							0	0	0	0			
Soyabans						0	0	0	0	0			
Sesame	936					95	370	420	88				
Groundnuts	602				68	152	190	182	34				
Vegetables	3,752		358	198	171	389	756	946	491	396		434	275
Others						0	0	0	0	0		0	
三刈作	(2,270)												
Nili Maize								0	0	0	0	0	0
Vegetables	2,270								1,946	2,501	2,343		
通年作	(1,264)												
Sugar Cane	1,264	148	223	325	392	543	583	651	720	679	523	411	237
月別純用水量		7,718	9,264	13,550	12,114	10,923	19,006	25,259	16,881	5,775	3,699	4,814	7,151

旧耕地必要用水量 (灌漑効率 60.5%)

項目	面積 (Feddan)	(Unit: 1,000m ³ /month)											
		冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
必要用水量 (1,000m ³ /month)	50,000	12,757	15,312	22,396	20,023	18,054	31,416	41,750	27,902	9,546	6,114	7,957	11,821
(m ³ /s)	50,000	4.763	6.329	8.362	7.725	6.741	12.120	15.588	10.417	3.683	2.283	3.070	4.413
								(Max.)			(Min.)		
支線水路別 (m ³ /s)													
Saab	(17,000)	1.619	2.152	2.843	2.626	2.292	4.121	5.300	3.542	1.252	0.776	1.044	1.501
Harika	(25,000)	2.382	3.165	4.181	3.862	3.370	6.060	7.794	5.209	1.841	1.141	1.535	2.207
El Bahanasa	(4,700)	0.448	0.595	0.786	0.726	0.634	1.139	1.465	0.979	0.346	0.215	0.289	0.415
Borbat, Ganabit, etc.	(3,300)	0.314	0.418	0.552	0.510	0.445	0.800	1.029	0.688	0.243	0.151	0.203	0.291

開墾地Kamader必要用水量の算定 (13,600フェダン)

Kamader 作物別面積		(Unit :/feddan)											
期別 / 作物	作物別面積 (フェダン)	冬作				夏作				冬作			
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(12,300)												
Wheat	4,000	4,000	4,000	4,000	3,600	2,000						2,000	3,600
Barley	1,000	1,000	1,000	1,000	900	500						500	900
Broad Beans	500	500	500	450	250							250	450
Fenugreek	150	150	135	75							75	135	150
Long Berseem	3,000	3,000	3,000	3,000	2,700	1,500						1,500	2,700
Short Berseem	600	600	300									300	540
Onion	700	700	700	630	350								350
Garlic	80	80	80	72	40								40
Vegetables	1,770	1,770	1,770	1,593	885				885	1,593	1,770	1,770	1,770
Sugarbeet	500	500	450	250							250	450	500
夏作	(8,794)												
Cotton	60			30	54	60	60	60	54	30			
Maize	4,000					2,000	4,000	4,000	4,000	2,000			
Sorghum						0	0	0	0	0			
Sun-flower	500				250	500	500	500					
Sesame	2,000					1,000	2,000	2,000	1,000				
Groundnuts	2,000				1,000	2,000	2,000	2,000	1,000				
Vegetables	234		234	234	234	234	234	234	234	234	234	234	234
Others						0	0	0	0	0	0	0	0
三刈作	(1,000)												
Nili Maize	1,000							1,000	1,000	1,000	1,000	1,000	
Vegetables									0	0	0		
通年作	(717)												
Sugar Cane	717	717	717	717	717	717	717	717	717	717	717	717	717
合計面積		13,017	12,886	12,051	10,980	10,511	9,511	10,511	8,890	5,574	4,046	8,856	11,951

Kamader 作物別純用水量

Kamader 作物別純用水量		(Unit: 1,000m3)											
期別 / 作物	作物別面積 (フェダン)	冬作				夏作				冬作			
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(12,300)												
Wheat	4,000	649	803	1,369	1,073	87						236	538
Barley	1,000	162	201	342	268	22						59	134
Broad Beans	500	89	98	147	16							47	73
Fenugreek	150	31	28	5							6	25	31
Long Berseem	3,000	475	676	1,038	1,144	527						362	448
Short Berseem	600	95	68									73	90
Onion	700	152	170	195	76								86
Garlic	80	15	17	19	7								8
Vegetables	1,770	151	151	74	34				106	196	415	446	347
Sugarbeet	500	116	131	98							24	65	103
夏作	(8,794)												
Cotton	60			5	13	24	30	34	14	4			
Maize	4,000					453	1,652	2,428	1,757	188			
Sorghum						0	0	0	0	0			
Sun-flower	500				56	365	404	138					
Sesame	2,000					222	860	976	205				
Groundnuts	2,000				236	525	656	630	118				
Vegetables	234		23	13	11	26	50	62	32	26	29	18	11
Others						0	0	0	0	0	0	0	0
三刈作	(1,000)												
Nili Maize	1,000							352	428	485	341	73	
Vegetables									0	0	0		
通年作	(717)												
Sugar Cane	717	91	137	200	242	335	360	402	444	419	323	253	146
月別純用水量		2,026	2,503	3,505	3,179	2,585	4,011	5,021	3,106	1,317	1,137	1,657	2,015

Kamader 必要用水量 (灌漑効率 60.5%)

項目	面積 (Feddan)	冬作				夏作				冬作			
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
必要用水量 (1,000m ³ /month)	13,600	3,349	4,137	5,794	5,254	4,272	6,630	8,300	5,134	2,178	1,880	2,740	3,330
(m ³ /s)	13,600	1,250	1,710	2,163	2,027	1,595	2,558	3,099 (Max.)	1,917	0,840	0,702 (Min.)	1,057	1,243

開墾地 Terfa 必要用水量の算定 (20,700フェダン)

Terfa 作物別面積

(Unit: /feddan)

期別 / 作物	作物別面積 (フェダン)	冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(17,680)												
Wheat	5,200	5,200	5,200	5,200	4,680	2,600						2,600	4,680
Barley	1,500	1,500	1,500	1,500	1,350	750						750	1,350
Broad Beans	1,000	1,000	1,000	900	500							500	900
Fenugreek	120	120	108	60							60	108	120
Long Berseem	4,500	4,500	4,500	4,500	4,050	2,250						2,250	4,050
Short Berseem	600	600	300									300	540
Onion	800	800	800	720	400								400
Garlic	120	120	120	108	60								60
Vegetables	3,440	3,440	3,440	3,096	1,720				1,720	3,096	3,440	3,440	3,440
Sugarbeet	400	400	360	200							200	360	400
夏作	(13,150)												
Cotton	50			25	45	50	50	50	45	25			
Maize	5,200					2,600	5,200	5,200	5,200	2,600			
Sorghum							0	0	0	0			
Sun-flower	500				250	500	500	500					
Sesame	2,000					1,000	2,000	2,000	1,000				
Groundnuts	2,000				1,000	2,000	2,000	2,000	1,000				
Vegetables	3,400		340	1,360	3,400	3,400	4,000	4,000	3,400	3,400	3,400	3,400	1,700
Others						0	0	0	0	0	0	0	0
ニリ作	(2,400)												
Nili Maize	1,800							1,800	1,800	1,800	1,800	1,800	
Vegetables	600								600	600	600		
通年作	(926)												
Sugar Cane	926	926	926	926	926	926	926	926	926	926	926	926	926
合計面積		18,606	18,594	18,595	18,381	16,076	14,676	16,476	15,691	12,447	10,426	16,434	18,566

Terfa 作物別純用水量

Terfa 20,700 feddan

(Unit: 1,000m3)

期別 / 作物	作物別面積 (フェダン)	冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
冬作	(17,680)												
Wheat	5,200	844	1,044	1,780	1,395	113						307	699
Barley	1,500	243	301	513	403	33						89	202
Broad Beans	1,000	178	197	293	33							95	146
Fenugreek	120	25	22	4							5	20	25
Long Berseem	4,500	712	1,014	1,557	1,717	790						543	672
Short Berseem	600	95	68									73	90
Onion	800	174	195	222	87								98
Garlic	120	22	25	29	11								13
Vegetables	3,440	293	293	145	66				206	380	806	866	674
Sugarbeet	400	93	104	79							19	52	82
夏作	(13,150)												
Cotton	50			4	11	20	25	28	12	3			
Maize	5,200					589	2,147	3,157	2,285	245			
Sorghum							0	0	0	0			
Sun-flower	500				56	365	404	138					
Sesame	2,000					222	860	976	205				
Groundnuts	2,000				236	525	656	630	118				
Vegetables	3,400		34	76	163	371	849	1,061	468	378	414	262	82
Others						0	0	0	0	0	0	0	0
ニリ作	(2,400)												
Nili Maize	1,800							634	771	873	614	131	
Vegetables	600								542	696	652		
通年作	(926)												
Sugar Cane	926	118	178	258	312	432	464	519	574	541	417	327	188
月別純用水量		2,797	3,475	4,960	4,490	3,460	5,406	7,142	5,181	3,116	2,928	2,765	2,970

Terfa 必要用水量 (灌漑効率: 60.5%)

項目	面積 (Feddan)	冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
必要用水量 (1,000m ³ /month)	20,700	4,623	5,744	8,198	7,422	5,719	8,935	11,805	8,563	5,150	4,839	4,570	4,910
(m ³ /s)	20,700	1.726	2.374	3.061	2.864	2.135	3.447	4.407 (Max.)	3.197	1.987	1.807 (Min.)	1.763	1.833

開墾地 Sakoula 必要用水量の算定 (11,900フェダ)

(Unit: /feddan)

期別	作物	作物別面積 (フェダ)	冬作				夏作					冬作			
			1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	
冬作		(11,288)													
Wheat		3,488	3,488	3,488	3,488	3,139	1,744							1,744	3,139
Barley		1,000	1,000	1,000	1,000	900	500							500	900
Broad Beans		500	500	500	450	250								250	450
Fenugreek		80	80	72	40							40		72	80
Long Berseem		3,400	3,400	3,400	3,400	3,060	1,700							1,700	3,060
Short Berseem		400	400	200									200	360	
Onion		300	300	300	270	150									150
Garlic		60	60	60	54	30									30
Vegetables		1,760	1,760	1,760	1,584	880				880	1,584		1,760	1,760	1,760
Sugarbeet		300	300	270	150								150	270	300
夏作		(8,340)													
Cotton		40			20	36	40	40	40	36	20				
Maize		3,400					1,700	3,400	3,400	3,400	1,700				
Sorghum								0	0	0	0				
Sun-flower		300			150	300	300	300							
Sesame		1,500				750	1,500	1,500	750						
Groundnuts		2,000			1,000	2,000	2,000	2,000	1,000						
Vegetables		1,100		110	440	1,100	1,100	1,500	1,100	1,100	1,100	1,100	1,100	1,100	550
Others							0	0	0	0	0				
三刈作		(1,000)													
Nili Maize		600						600	600	600	600	600	600		
Vegetables		400							400	400	400	400			
通年作		(612)													
Sugar Cane		612	612	612	612	612	612	612	612	612	612	612	612	612	612
合計面積			11,900	11,772	11,508	11,307	10,446	9,352	9,952	8,778	6,016	4,662	8,808	11,391	

Sakoula 作物別純用水量

(Unit: 1,000m³)

期別 / 作物	作物別面積 (フェダ)	冬作				夏作					冬作				
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月		
冬作	(11,288)														
Wheat	3,488	566	700	1,194	936	76								206	469
Barley	1,000	162	201	342	268	22								59	134
Broad Beans	500	89	98	147	16									47	73
Fenugreek	80	16	15	3								3		13	16
Long Berseem	3,400	538	766	1,176	1,297	597								410	508
Short Berseem	400	63	45											49	60
Onion	300	65	73	83	33										37
Garlic	60	11	13	14	6										6
Vegetables	1,760	150	150	74	34					106	195		413	443	345
Sugarbeet	300	69	78	59									14	39	62
夏作	(8,340)														
Cotton	40			3	9	16	20	22	9	3					
Maize	3,400					385	1,404	2,064	1,494	160					
Sorghum							0	0	0	0					
Sun-flower	300				34	219	243	83							
Sesame	1,500					166	645	732	154						
Groundnuts	2,000				236	525	656	630	118						
Vegetables	1,100		11	24	53	120	318	398	151	122	134	85	26		
Others						0	0	0	0	0					
三刈作	(1,000)														
Nili Maize	600							211	257	291	205	44			
Vegetables	400								361	464	435				
通年作	(612)														
Sugar Cane	612	78	117	171	206	286	307	343	379	357	275	216	125		
月別純用水量		1,809	2,268	3,291	3,128	2,412	3,593	4,483	3,030	1,592	1,479	1,612	1,861		

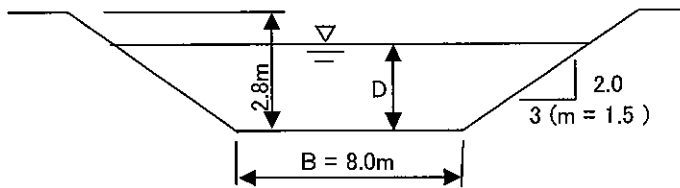
Sakoula 必要用水量 (灌漑効率: 60.5%)

項目	面積 (Feddan)	冬作				夏作					冬作		
		1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月
必要用水量 (1,000m ³ /month)	11,900	2,990	3,748	5,439	5,170	3,986	5,938	7,410	5,008	2,631	2,445	2,664	3,076
(m ³ /s)	11,900	1.116	1.549	2.031	1.994	1.488	2.291	2.767 (Max.)	1.870	1.015	0.913 (Min.)	1.028	1.148

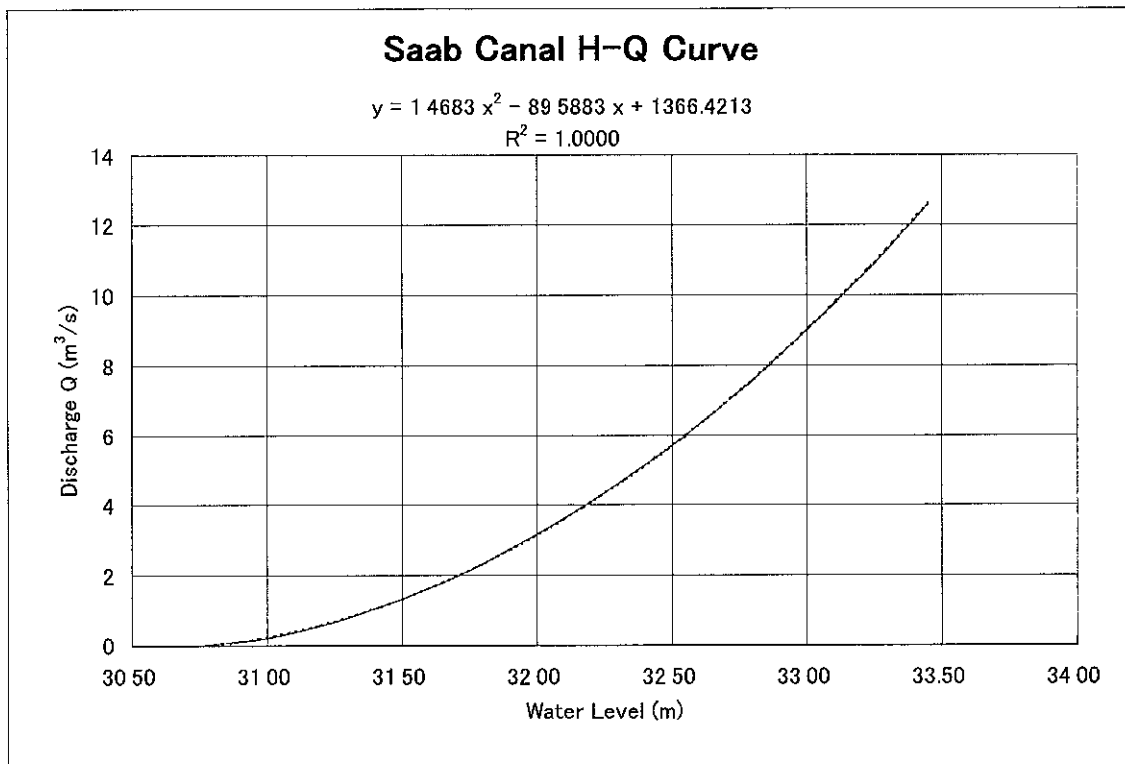
(1) Saab Canal

Calculation of Uniform Flow Depth (D) & Discharge (Q)

Q = Discharge (m³/s)
 n = 0.030
 S = 0.000060 (=0.06/1,000)
 $V = 1/n \times I^{1/2} \times R^{2/3}$
 $R = A/P$
 $A = D \times (B + m \times D)$
 $P = B + 2 \times D \times (1 + m^2)^{1/2}$
 $Q = A \times V$



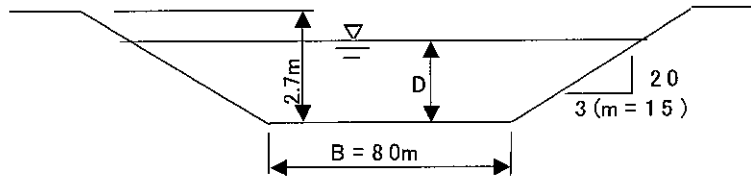
D (m)	WL (m)	B (m)	m	A (m ²)	P (m)	R (m)	V (m/S)	Q (m ³ /s)	y (m ³ /s)
0	30.75						0	0	-0.050
0.25	31.00	8.00	1.50	2.094	8.901	0.235	0.098	0.206	0.220
0.50	31.25	8.00	1.50	4.375	9.803	0.446	0.151	0.660	0.674
0.75	31.50	8.00	1.50	6.844	10.704	0.639	0.192	1.311	1.311
1.00	31.75	8.00	1.50	9.500	11.606	0.819	0.226	2.146	2.131
1.25	32.00	8.00	1.50	12.344	12.507	0.987	0.256	3.159	3.135
1.50	32.25	8.00	1.50	15.375	13.408	1.147	0.283	4.349	4.322
1.75	32.50	8.00	1.50	18.594	14.310	1.299	0.307	5.717	5.693
2.00	32.75	8.00	1.50	22.000	15.211	1.446	0.330	7.265	7.248
2.10	32.85	8.00	1.50	23.415	15.572	1.504	0.339	7.935	7.921
2.25	33.00	8.00	1.50	25.594	16.112	1.588	0.352	8.996	8.986
2.50	33.25	8.00	1.50	29.375	17.014	1.727	0.372	10.916	10.908
2.70	33.45	8.00	1.50	32.535	17.735	1.835	0.387	12.589	12.577



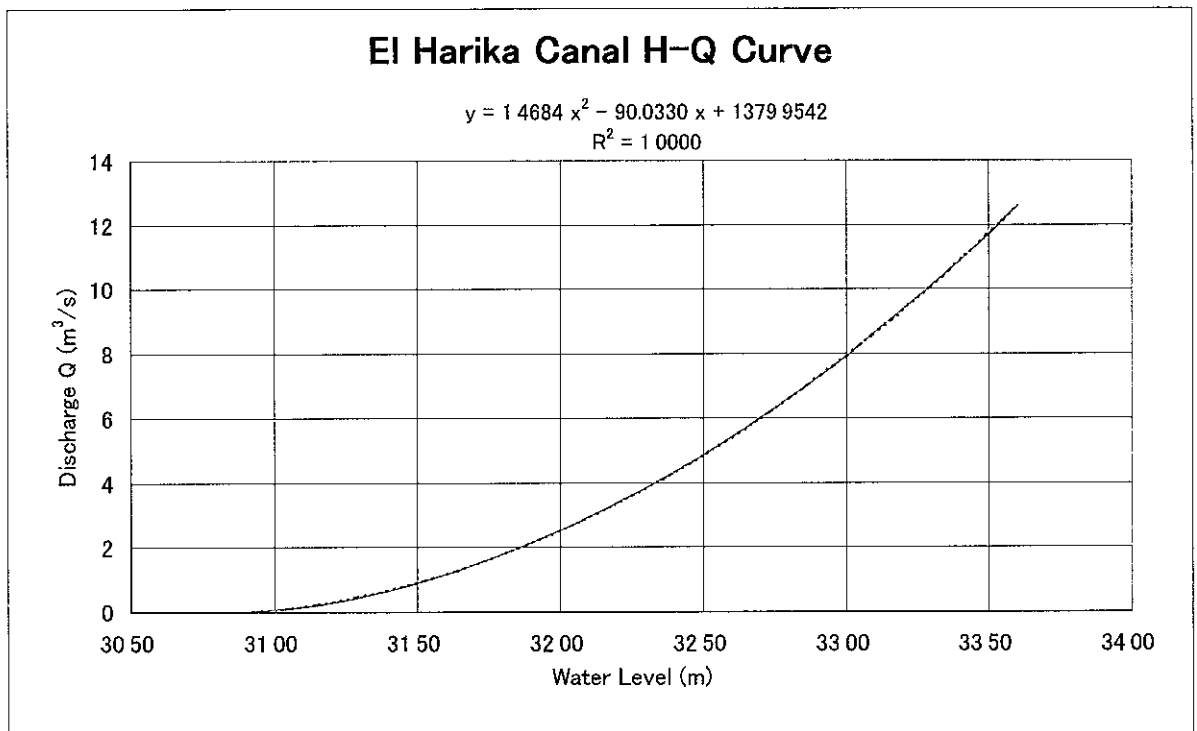
(2) Harika Canal

Calculation of Uniform Flow Depth (D) & Discharge (Q)

$Q = \text{Discharge (m}^3/\text{s)}$
 $n = 0.030$
 $S = 0.000060 (=0.06/1,000)$
 $V = 1/n \times i^{1/2} \times R^{2/3}$
 $R = A/P$
 $A = D \times (B + m \times D)$
 $P = B + 2 \times D \times (1 + m^2)^{1/2}$
 $Q = A \times V$



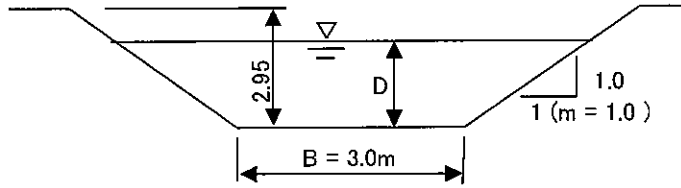
D (m)	WL (m)	B (m)	m (m)	A (m ²)	P (m)	R (m)	V (m/S)	Q (m ³ /s)	y (m ³ /s)
0	30.90						0	0	-0.022
0.25	31.15	8.00	1.50	2.094	8.901	0.235	0.098	0.206	0.248
0.50	31.40	8.00	1.50	4.375	9.803	0.446	0.151	0.660	0.702
0.75	31.65	8.00	1.50	6.844	10.704	0.639	0.192	1.311	1.339
1.00	31.90	8.00	1.50	9.500	11.606	0.819	0.226	2.146	2.160
1.25	32.15	8.00	1.50	12.344	12.507	0.987	0.256	3.159	3.165
1.50	32.40	8.00	1.50	15.375	13.408	1.147	0.283	4.349	4.353
1.75	32.65	8.00	1.50	18.594	14.310	1.299	0.307	5.717	5.724
2.00	32.90	8.00	1.50	22.000	15.211	1.446	0.330	7.265	7.279
2.10	33.00	8.00	1.50	23.415	15.572	1.504	0.339	7.935	7.953
2.50	33.40	8.00	1.50	29.375	17.014	1.727	0.372	10.916	10.940
2.70	33.60	8.00	1.50	32.535	17.735	1.835	0.387	12.589	12.610



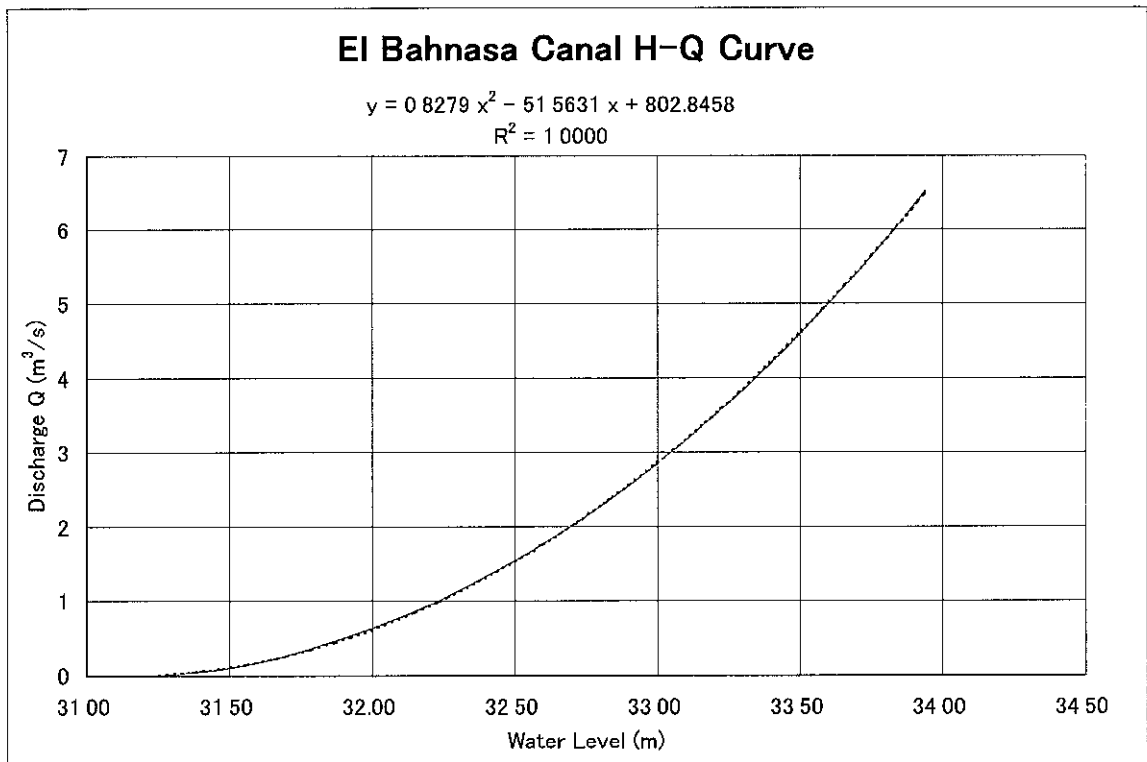
(3) Bahnasa Canal

Calculation of Uniform Flow Depth (D) & Discharge (Q)

Q = Discharge (m³/s)
 n = 0.030
 S = 0.000100 (=0.10/1,000)
 $V = 1/n \times I^{1/2} \times R^{2/3}$
 $R = A/P$
 $A = D \times (B + m \times D)$
 $P = B + 2 \times D \times (1 + m^2)^{1/2}$
 $Q = A \times V$



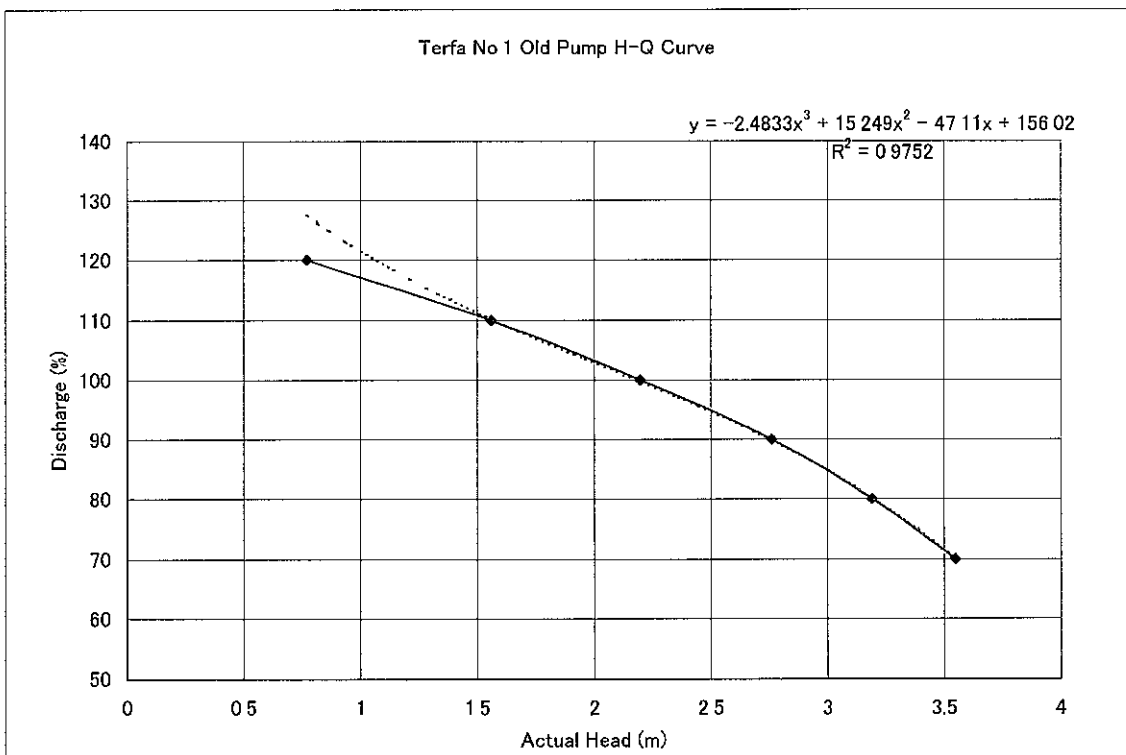
D (m)	WL (m)	B (m)	m	A (m ²)	P (m)	R (m)	V (m/S)	Q (m ³ /s)	y (m ³ /s)
0	31.25						0	0	-0.005
0.25	31.50	3.00	1.00	0.813	3.707	0.219	0.121	0.098	0.092
0.50	31.75	3.00	1.00	1.750	4.414	0.396	0.180	0.315	0.292
0.75	32.00	3.00	1.00	2.813	5.121	0.549	0.224	0.629	0.596
1.00	32.25	3.00	1.00	4.000	5.828	0.686	0.259	1.037	1.004
1.25	32.50	3.00	1.00	5.313	6.536	0.813	0.290	1.542	1.514
1.50	32.75	3.00	1.00	6.750	7.243	0.932	0.318	2.147	2.129
1.75	33.00	3.00	1.00	8.313	7.950	1.046	0.343	2.854	2.847
2.00	33.25	3.00	1.00	10.000	8.657	1.155	0.367	3.670	3.668
2.10	33.35	3.00	1.00	10.710	8.940	1.198	0.376	4.027	4.025
2.25	33.50	3.00	1.00	11.813	9.364	1.261	0.389	4.597	4.593
2.50	33.75	3.00	1.00	13.750	10.071	1.365	0.410	5.641	5.621
2.70	33.95	3.00	1.00	15.390	10.637	1.447	0.426	6.563	6.518



Terfa No.1 Old Pump Station
軸流ポンプ・性能曲線 (モータ掛け)

機種・形式： 立軸軸流ポンプ
 ポンプ口径： 800 (mm)
 計画吐出量： 1 472 (m³/s)
 計画全揚程： 2 70 (m)
 設計実揚程： 2 20 (m)
 原動機出力： 74 (kw)
 ポンプ効率： 78 0 (%)
 減速機効率： 97 0 (%)

ポンプ比特性性能 (%)				ポンプ性能					
吐出量	全揚程	効率	軸動力	吐出量		全揚程	実揚程	効率	軸動力
Q	H	η	P	Q (m ³ /s)	Q (m ³ /m)	H _r (m)	H _a (m)	η_p (%)	P _{SH} (kw)
0	-	-	-	0.000	0.0	-	-	-	-
10	-	-	-	0.147	8.8	-	-	-	-
20	-	-	-	0.294	17.6	-	-	-	-
30	-	-	-	0.442	26.5	-	-	-	-
40	-	-	-	0.589	35.3	-	-	-	-
50	-	-	-	0.736	44.2	-	-	-	-
60	-	-	-	0.883	53.0	-	-	-	-
70	141	82.0	119.9	1.030	61.8	3.79	3.55	64.0	61.6
80	130	92.0	113.0	1.178	70.7	3.51	3.19	71.8	58.1
90	117	98.0	107.4	1.325	79.5	3.16	2.76	76.4	55.2
100	100	100.0	100.0	1.472	88.3	2.70	2.20	78.0	51.4
110	80	96.0	91.7	1.619	97.1	2.16	1.56	74.9	47.1
120	55	82.0	80.5	1.766	106.0	1.49	0.77	64.0	41.4
130	22	50.0	57.2	1.914	114.8	0.59	-0.26	39.0	29.4
133	0	-	-	1.958	117.5	0.00	-0.88	-	-
-	-	-	-	-	-	-	-	-	-



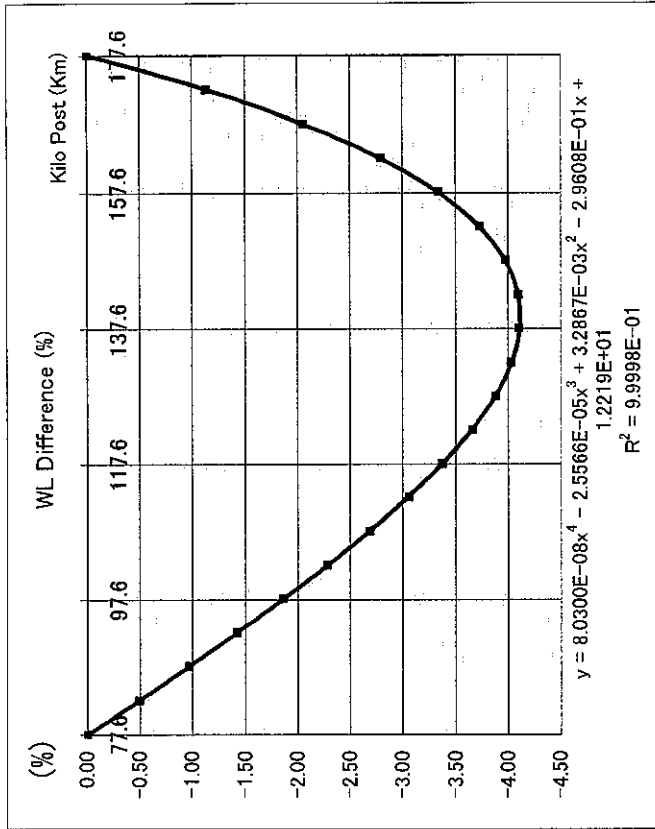
不等流水位曲線の推定

Total WL Dif = 39.594 - 33.721 = 5.873 m

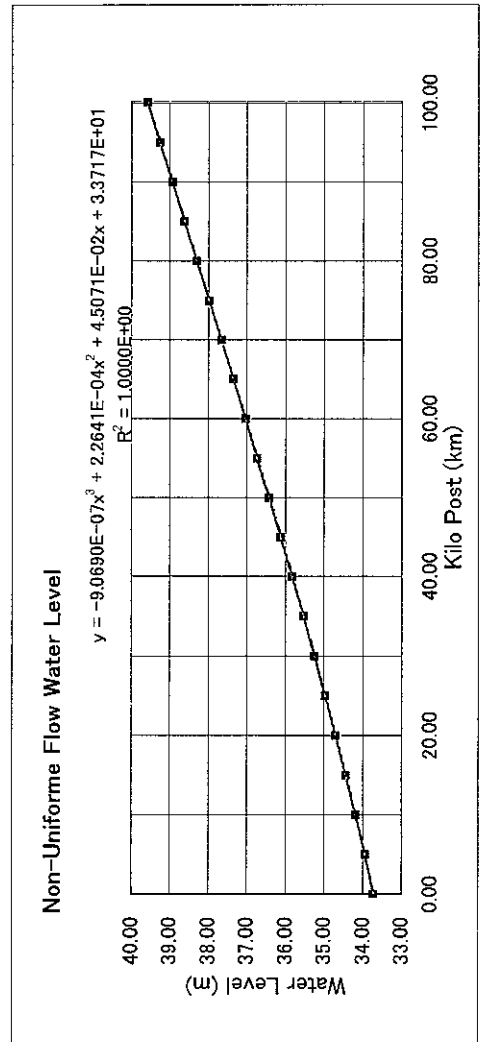
Location	Sta.	B.EL (m)	Dist (m)	Acc. Dist. (km)	K.P (km)	WL (m)	Linearization Difference	% of Total Estimated	
								WL Dif.	y (%)
Sakoula R.	1	27.550	0	0.00	177.73	33.721	0.000	0.00	0.01
	2	27.875	5,000	5.00	172.73	33.948	-0.066	-1.13	-1.14
	3	28.200	5,000	10.00	167.73	34.187	34.308	-0.121	-2.05
	4	28.525	5,000	15.00	162.73	34.437	34.601	-0.164	-2.79
	5	28.850	5,000	20.00	157.73	34.698	34.894	-0.196	-3.34
	6	29.175	5,000	25.00	152.73	34.968	35.187	-0.219	-3.72
	7	29.500	5,000	30.00	147.73	35.247	35.481	-0.234	-3.97
	8	29.825	5,000	35.00	142.73	35.533	35.774	-0.241	-4.10
	9	30.150	5,000	40.00	137.73	35.826	36.087	-0.241	-4.11
	10	30.475	5,000	45.00	132.73	36.124	36.360	-0.236	-4.03
Terfa	11	30.800	5,000	50.00	127.73	36.426	36.654	-0.228	-3.88
	12	31.125	5,000	55.00	122.73	36.732	36.947	-0.215	-3.66
	13	31.450	5,000	60.00	117.73	37.042	37.240	-0.198	-3.38
	14	31.775	5,000	65.00	112.73	37.354	37.533	-0.179	-3.05
	15	32.100	5,000	70.00	107.73	37.669	37.827	-0.158	-2.68
	16	32.425	5,000	75.00	102.73	37.986	38.120	-0.134	-2.28
	17	32.750	5,000	80.00	97.73	38.304	38.413	-0.109	-1.86
	18	33.075	5,000	85.00	92.73	38.623	38.707	-0.084	-1.42
	19	33.400	5,000	90.00	87.73	38.943	39.000	-0.057	-0.97
	20	33.725	5,000	95.00	82.73	39.264	39.293	-0.029	-0.50
Dahab R.	21	34.050	5,130	100.13	77.6	39.594	0.000	0.00	0.00

Q 209.820 m³/s
m 1.500
n 0.030

A8-10



Canal	K.P. (km)	% of WL Diff
El Harika	177.23	-0.12
Saab	177.23	-0.12
El Bahnasa	173.40	-1.00
Terfa P	143.90	-4.08
Sakoula P.	88.18	-1.01



バハル・ヨセフ用水路各灌漑施設地点の水位と取水量

January 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No.1 IP WL (m) [KP 143 90 km]	Bahanasa Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No 4 IP WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	37.70	32.53	31.08	0.000	30.93	0.000	0.000	30.63
2	38.00	32.31	30.66	0.000	30.48	0.000	0.000	30.17
3	35.60	32.55	30.93	0.000	30.75	0.000	0.000	30.39
4	35.30	32.30	30.70	0.000	30.53	0.000	0.000	30.23
5	35.25	32.28	30.70	0.000	30.53	0.000	0.000	30.32
6	35.25	32.07	30.41	0.000	30.23	0.000	0.000	30.03
7	35.10	31.81	30.20	0.000	30.03	0.000	0.000	29.75
8	34.85	31.83	30.20	0.000	30.03	0.000	0.000	29.75
9	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.58
10	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.58
11	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.56
12	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.56
13	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.56
14	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.55
15	34.80	31.81	30.20	0.000	30.03	0.000	0.000	29.55
16	34.85	31.81	30.20	0.000	30.03	0.000	0.000	29.55
17	34.85	31.81	30.20	0.000	30.03	0.000	0.000	29.54
18	34.85	31.81	30.20	0.000	30.03	0.000	0.000	29.54
19	34.85	31.81	30.20	0.000	30.03	0.000	0.000	29.54
20	36.40	30.84	30.89	0.000	30.90	0.000	0.000	30.38
21	36.70	33.15	31.33	0.000	31.13	0.004	0.132	30.61
22	36.88	34.11	32.59	0.448	32.43	2.382	2.911	30.85
23	36.90	34.61	33.27	0.448	33.13	2.382	2.911	30.50
24	37.70	34.52	33.26	0.448	33.12	2.382	2.911	30.51
25	38.50	34.90	33.92	0.448	33.82	2.382	2.911	30.49
26	38.70	34.87	33.92	0.448	33.82	2.382	2.911	30.48
27	38.80	34.95	33.84	0.448	33.72	2.382	2.911	30.55
28	38.85	34.93	33.93	0.448	33.82	2.382	2.911	30.55
29	38.95	35.03	34.03	0.448	33.92	2.382	2.911	30.55
30	39.10	34.99	33.93	0.448	33.82	2.382	2.911	30.57
31	39.10	35.03	34.03	0.448	33.92	2.382	2.911	30.65
Max	39.10	35.03	34.03	0.448	33.92	2.382	2.911	30.85
Min	34.80	30.84	30.20	0.000	30.03	0.000	0.000	29.54
Ave	36.34	32.89	31.49	0.144	31.34	0.768	0.943	30.10
Accumulated 1,000m ³ /month				386.8		2,058.0	2,526.8	

February 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No 1 IP WL (m) [KP 143 90 km]	El Bahnas Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	El Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No 4 IP. WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	39.10	34.99	33.98	0.595	33.87	3.165	5.757	30.70
2	39.00	35.02	33.98	0.595	33.87	3.165	5.757	30.79
3	39.10	35.10	34.03	0.595	33.92	3.165	5.757	30.85
4	39.10	35.12	34.04	0.595	33.92	3.165	5.757	30.98
5	39.10	34.90	33.66	0.595	33.52	3.165	5.757	31.41
6	38.95	34.28	32.70	0.595	32.53	3.165	4.741	31.65
7	38.00	34.19	32.47	0.595	32.28	2.876	3.507	31.81
8	37.45	34.31	32.66	0.595	32.48	3.165	4.484	31.82
9	37.38	34.40	32.80	0.595	32.63	3.165	5.293	31.80
10	37.40	34.48	32.90	0.595	32.73	3.165	5.757	31.72
11	37.40	34.48	32.90	0.595	32.73	3.165	5.757	31.72
12	37.35	34.50	32.95	0.595	32.78	3.165	5.757	31.67
13	37.35	34.49	32.94	0.595	32.78	3.165	5.757	31.69
14	37.35	34.51	32.99	0.595	32.83	3.165	5.757	31.64
15	38.40	34.48	33.02	0.595	32.86	3.165	5.757	31.63
16	38.50	34.59	33.16	0.595	33.01	3.165	5.757	32.41
17	38.50	34.64	33.23	0.595	33.08	3.165	5.757	32.36
18	38.50	34.62	33.20	0.595	33.05	3.165	5.757	32.33
19	38.50	34.49	32.99	0.595	32.83	3.165	5.757	31.49
20	38.40	34.24	32.61	0.595	32.43	3.165	4.225	31.57
21	38.50	34.32	32.66	0.595	32.48	3.165	4.485	31.66
22	37.40	34.68	33.19	0.595	33.03	3.165	5.757	31.65
23	38.05	34.95	33.66	0.595	33.52	3.165	5.757	31.47
24	38.85	34.94	33.75	0.595	33.62	3.165	5.757	31.46
25	38.75	34.72	33.46	0.595	33.32	3.165	5.757	31.47
26	38.50	34.62	33.05	0.595	32.88	3.165	5.757	31.49
27	37.70	34.06	32.32	0.595	32.13	2.282	2.848	32.41
28	37.55	34.06	32.32	0.595	32.13	2.282	2.848	30.75
Max	39.10	35.12	34.04	0.595	33.92	3.165	5.757	32.41
Min	37.35	34.06	32.32	0.595	32.13	2.282	2.848	30.70
Ave	38.22	34.58	33.13	0.595	32.97	3.091	5.271	31.59
Accumulated 1,000m ³ /month				1,439		7,479	12,751	

March 2002

Date	Kamader No 5 IP	Terfa No.11P	El Bahnsa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula No 4 IP
	WL (m) [KP 104 6km] (19 1km El Dahab C)	WL (m) [KP 143 90 km]	WL (m) [KP 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	WL (m) [KP 184 00 km]
1	37.52	34.15	32.40	0.786	32.21	2.592	3.192	31.71
2	37.57	34.24	32.52	0.786	32.33	3.089	3.742	31.76
3	38.50	34.19	32.51	0.786	32.33	3.085	3.738	31.76
4	38.05	34.26	32.52	0.786	32.33	3.090	3.744	31.72
5	38.00	34.33	32.62	0.786	32.43	3.536	4.233	31.81
6	38.05	34.51	32.86	0.786	32.68	4.181	5.533	31.79
7	38.30	34.29	32.52	0.786	32.33	3.092	3.746	31.78
8	38.00	34.40	32.60	0.786	32.40	3.406	4.091	31.85
9	37.90	34.59	32.87	0.786	32.66	4.181	5.533	31.80
10	37.88	34.58	32.87	0.786	32.68	4.181	5.533	31.88
11	37.82	34.74	33.11	0.786	32.93	4.181	5.533	31.88
12	38.15	34.71	33.10	0.786	32.93	4.181	5.533	31.88
13	38.08	34.68	33.05	0.786	32.88	4.181	5.533	31.88
14	38.20	34.57	32.91	0.786	32.73	4.181	5.533	31.91
15	38.25	34.63	32.92	0.786	32.73	4.181	5.533	31.98
16	38.30	34.77	33.11	0.786	32.93	4.181	5.533	31.99
17	38.60	34.99	33.44	0.786	33.28	4.181	5.533	32.07
18	38.60	35.09	33.59	0.786	33.43	4.181	5.533	32.07
19	38.95	34.82	33.29	0.786	33.13	4.181	5.533	32.07
20	39.00	34.58	32.93	0.786	32.75	4.181	5.533	32.07
21	39.00	34.59	32.89	0.786	32.71	4.181	5.533	32.09
22	38.70	34.75	33.08	0.786	32.90	4.181	5.533	32.05
23	38.10	34.84	33.19	0.786	33.01	4.181	5.533	32.05
24	38.40	34.82	33.25	0.786	33.08	4.181	5.533	32.04
25	38.50	34.71	33.10	0.786	32.93	4.181	5.533	32.01
26	38.50	34.57	32.91	0.786	32.73	4.181	5.533	31.98
27	38.18	34.52	32.77	0.786	32.58	4.181	5.030	32.03
28	38.02	34.55	32.77	0.786	32.58	4.181	5.033	32.07
29	38.05	34.81	33.11	0.786	32.93	4.181	5.533	32.08
30	38.08	34.89	33.21	0.786	33.03	4.181	5.533	32.12
31	38.15	35.19	33.64	0.786	33.48	4.181	5.533	32.02
Max	39.00	35.19	33.64	0.786	33.48	4.181	5.533	32.12
Min	37.52	34.15	32.40	0.786	32.21	2.592	3.192	31.71
Ave	38.24	34.62	32.96	0.786	32.78	3.943	5.106	31.94
Accumulated 1,000m ³ /month				2,105		10,561	13,676	

April 2002

Date	Kamader No 5 IP	Terfa No 11 IP	El Bahnsa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula No 4 IP
	WL (m) [KP 104 6km] (19 1km El Dahab C)	WL (m) [KP 143 90 km]	WL (m) [KP 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	WL (m) [KP 184 00 km]
1	38.52	35.25	33.83	0.726	33.68	3.862	6.219	32.01
2	38.50	35.10	33.68	0.726	33.53	3.862	6.219	32.01
3	38.65	34.93	33.48	0.726	33.33	3.862	6.219	31.94
4	38.75	34.72	33.19	0.726	33.03	3.862	6.219	31.91
5	38.80	34.61	33.00	0.726	32.83	3.862	6.219	31.90
6	38.10	34.84	33.21	0.726	33.03	3.862	6.219	31.87
7	38.20	34.77	33.20	0.726	33.03	3.862	6.219	31.88
8	38.20	34.99	33.49	0.726	33.33	3.862	6.219	31.90
9	38.20	34.92	33.39	0.726	33.23	3.862	6.219	31.87
10	38.10	34.99	33.44	0.726	33.28	3.862	6.219	31.87
11	37.95	35.12	33.59	0.726	33.43	3.862	6.219	31.90
12	38.00	35.34	33.93	0.726	33.78	3.862	6.219	31.91
13	38.70	35.28	33.97	0.726	33.82	3.862	6.219	31.88
14	39.10	35.24	33.87	0.726	33.73	3.862	6.219	31.86
15	39.10	35.28	33.97	0.726	33.82	3.862	6.219	31.82
16	39.10	35.04	33.63	0.726	33.48	3.862	6.219	31.85
17	39.10	34.97	33.53	0.726	33.38	3.862	6.219	31.85
18	38.98	34.83	33.34	0.726	33.18	3.862	6.219	31.83
19	38.90	34.76	33.24	0.726	33.08	3.862	6.219	31.85
20	38.80	34.84	33.34	0.726	33.18	3.862	6.219	31.84
21	38.70	34.98	33.53	0.726	33.38	3.862	6.219	31.84
22	38.65	35.25	33.92	0.726	33.78	3.862	6.219	31.82
23	39.10	35.32	34.06	0.726	33.92	3.862	6.219	31.73
24	39.10	35.30	34.06	0.726	33.92	3.862	6.219	31.73
25	39.10	35.25	34.05	0.726	33.92	3.862	6.219	31.73
26	39.10	35.22	34.05	0.726	33.92	3.862	6.219	31.68
27	39.10	35.21	34.05	0.726	33.92	3.862	6.219	31.47
28	39.10	35.18	34.04	0.726	33.92	3.862	6.219	31.34
29	38.75	35.05	33.76	0.726	33.62	3.862	6.219	31.37
30	38.00	35.01	33.67	0.726	33.53	3.862	6.219	31.46
Max	39.10	35.34	34.06	0.726	33.92	3.862	6.219	32.01
Min	37.95	34.61	33.00	0.726	32.83	3.862	6.219	31.34
Ave	38.68	35.05	33.65	0.726	33.50	3.862	6.219	31.80
Accumulated 1,000m ³ /month				1,882		10,011	16,119	

May 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No 1 IP WL (m) [KP 143 90 km]	El Bahnsa Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	El Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No 4 IP WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	38.40	35.13	34.04	0.634	33.92	3.370	4.905	31.51
2	38.90	34.40	32.98	0.634	32.83	3.370	4.905	31.49
3	38.50	34.21	32.60	0.634	32.43	3.370	4.223	31.51
4	38.40	34.17	32.55	0.634	32.38	3.300	3.974	31.57
5	38.40	34.01	32.36	0.634	32.18	2.466	3.053	31.68
6	37.60	34.13	32.34	0.634	32.15	2.361	2.935	31.68
7	37.55	34.45	32.81	0.634	32.63	3.370	4.905	31.75
8	37.60	34.68	33.10	0.634	32.93	3.370	4.905	31.84
9	37.75	34.79	33.20	0.634	33.03	3.370	4.905	31.90
10	38.40	34.91	33.35	0.634	33.18	3.370	4.905	31.93
11	37.80	34.91	33.35	0.634	33.18	3.370	4.905	31.96
12	37.88	35.15	33.68	0.634	33.53	3.370	4.905	31.89
13	37.98	35.10	33.63	0.634	33.48	3.370	4.905	31.88
14	38.50	34.80	33.25	0.634	33.08	3.370	4.905	32.02
15	38.20	34.57	32.84	0.634	32.65	3.370	4.905	32.14
16	38.40	34.54	32.84	0.634	32.65	3.370	4.905	32.13
17	38.50	34.57	32.84	0.634	32.65	3.370	4.905	32.16
18	38.50	34.69	33.01	0.634	32.83	3.370	4.905	32.17
19	38.60	34.90	33.35	0.634	33.18	3.370	4.905	32.08
20	38.55	34.80	33.20	0.634	33.03	3.370	4.905	32.02
21	38.40	34.67	33.01	0.634	32.83	3.370	4.905	32.18
22	37.92	34.59	32.87	0.634	32.68	3.370	4.905	32.11
23	37.90	34.62	32.92	0.634	32.73	3.370	4.905	32.17
24	38.10	34.70	32.95	0.634	32.76	3.370	4.905	32.20
25	38.20	34.85	33.12	0.634	32.93	3.370	4.905	32.26
26	38.34	34.97	33.22	0.634	33.03	3.370	4.905	32.33
27	38.35	35.11	33.41	0.634	33.23	3.370	4.905	32.37
28	38.52	35.28	33.65	0.634	33.48	3.370	4.905	32.34
29	38.55	35.35	33.75	0.634	33.58	3.370	4.905	32.37
30	38.90	35.28	33.70	0.634	33.53	3.370	4.905	32.41
31	39.00	35.25	33.65	0.634	33.48	3.370	4.905	32.40
Max	39.00	35.35	34.04	0.634	33.92	3.370	4.905	32.41
Min	37.55	34.01	32.34	0.634	32.15	2.361	2.935	31.49
Ave	38.27	34.76	33.15	0.634	32.97	3.306	4.729	32.01
Accumulated 1,000m ³ /month				1,697		8,856	12,667	

June 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No 1 IP WL (m) [KP 143 90 km]	El Bahnsa Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	El Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No 4 IP, WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	38.80	35.18	33.55	1.139	33.38	6.060	6.851	32.45
2	38.50	35.13	33.50	1.139	33.33	6.060	6.851	32.44
3	38.65	35.01	33.36	1.139	33.18	6.060	6.851	32.42
4	39.10	34.90	33.21	1.139	33.03	6.060	6.851	32.40
5	38.80	35.04	33.36	1.139	33.18	6.060	6.851	32.38
6	38.65	35.00	33.31	1.139	33.13	6.060	6.851	32.38
7	38.50	34.92	33.20	1.139	33.01	6.060	6.851	32.40
8	38.20	34.92	33.22	1.139	33.03	6.060	6.851	32.41
9	38.22	34.96	33.26	1.139	33.08	6.060	6.851	32.43
10	38.25	34.90	33.17	1.139	32.98	6.060	6.851	32.43
11	38.35	34.91	33.14	1.139	32.95	6.060	6.851	32.40
12	38.42	34.93	33.15	1.139	32.95	6.060	6.851	32.41
13	38.42	35.06	33.32	1.139	33.13	6.060	6.851	32.45
14	38.45	35.13	33.42	1.139	33.23	6.060	6.851	32.47
15	38.50	35.33	33.70	1.139	33.53	6.060	6.851	32.50
16	39.10	35.53	34.08	1.139	33.93	6.060	6.851	32.33
17	39.10	35.36	33.89	1.139	33.73	6.060	6.851	32.36
18	38.90	35.18	33.60	1.139	33.43	6.060	6.851	32.36
19	38.70	35.18	33.55	1.139	33.38	6.060	6.851	32.35
20	38.70	35.11	33.46	1.139	33.28	6.060	6.851	32.38
21	38.60	35.09	33.41	1.139	33.23	6.060	6.851	32.41
22	38.40	35.12	33.46	1.139	33.28	6.060	6.851	32.44
23	38.35	35.53	34.04	1.139	33.88	6.060	6.851	32.44
24	38.90	35.32	33.75	1.139	33.58	6.060	6.851	32.40
25	39.05	35.15	33.55	1.139	33.36	6.060	6.851	32.35
26	39.08	34.87	33.14	1.139	32.95	6.060	6.851	32.40
27	38.70	34.90	33.14	1.139	32.95	6.060	6.851	32.40
28	38.50	34.97	33.22	1.139	33.03	6.060	6.851	32.41
29	38.40	35.04	33.32	1.139	33.13	6.060	6.851	32.45
30	38.60	35.11	33.46	1.139	33.28	6.060	6.851	32.42
Max	39.10	35.53	34.08	1.139	33.93	6.060	6.851	32.50
Min	38.20	34.87	33.14	1.139	32.95	6.060	6.851	32.33
Ave	38.63	35.09	33.43	1.139	33.25	6.060	6.851	32.41
Accumulated 1,000m ³ /month				2,953		15,708	17,757	

July 2002

Date	Kamadere No 5 IP	Terfa No.1 IP	El Bahnsa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula No 4 IP
	WL (m) [KP 104 6km] (19 1km El Dahab C)	WL (m) [KP 143 90 km]	WL (m) [KP 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	WL (m) [KP 184 00 km]
1	38.65	35.15	33.53	1.465	33.35	7.794	8.779	32.41
2	38.65	35.14	33.51	1.465	33.33	7.794	8.779	32.46
3	38.68	35.04	33.36	1.465	33.18	7.794	8.779	32.41
4	38.60	34.99	33.27	1.465	33.08	7.166	8.148	32.39
5	38.30	34.95	33.22	1.465	33.03	6.844	7.804	32.43
6	38.24	34.96	33.25	1.465	33.06	7.034	8.007	32.44
7	38.32	35.03	33.32	1.465	33.13	7.495	8.498	32.44
8	38.34	35.11	33.41	1.465	33.23	7.794	8.779	32.42
9	38.32	34.97	33.24	1.465	33.05	6.972	7.941	32.41
10	38.30	34.91	33.16	1.465	32.97	6.467	7.401	32.41
11	38.34	34.92	33.16	1.465	32.97	6.469	7.403	32.41
12	38.34	34.92	33.16	1.465	32.97	6.469	7.403	32.41
13	38.40	34.94	33.16	1.465	32.97	6.470	7.405	32.41
14	38.40	34.96	33.19	1.465	33.00	6.657	7.605	32.41
15	38.50	35.02	33.32	1.465	33.13	7.494	8.498	32.41
16	38.55	34.97	33.24	1.465	33.05	6.972	7.941	32.44
17	38.50	34.96	33.22	1.465	33.03	6.844	7.804	32.43
18	38.50	34.94	33.22	1.465	33.03	6.843	7.803	32.43
19	38.50	34.94	33.22	1.465	33.03	6.843	7.803	32.43
20	38.50	34.97	33.24	1.465	33.05	6.972	7.941	32.43
21	38.30	34.97	33.25	1.465	33.06	7.036	8.009	32.43
22	38.55	34.96	33.24	1.465	33.05	6.971	7.940	32.42
23	38.30	34.99	33.27	1.465	33.08	7.165	8.147	32.43
24	38.35	34.99	33.26	1.465	33.07	7.101	8.079	32.44
25	38.30	34.93	33.18	1.465	32.99	6.592	7.534	32.42
26	38.37	34.95	33.18	1.465	32.99	6.594	7.537	32.42
27	38.40	34.95	33.18	1.465	32.99	6.595	7.538	32.43
28	38.55	34.93	33.22	1.465	33.03	6.841	7.801	32.43
29	38.50	34.93	33.18	1.465	32.99	6.592	7.534	32.41
30	38.40	34.95	33.18	1.465	32.99	6.595	7.538	32.42
31	38.35	34.91	33.19	1.465	33.00	6.652	7.598	32.44
Max	38.68	35.15	33.53	1.465	33.35	7.794	8.779	32.46
Min	38.24	34.91	33.16	1.465	32.97	6.467	7.401	32.39
Ave	38.43	34.98	33.25	1.465	33.06	6.965	7.928	32.42
Accumulated 1,000m ³ /month				3,925		18,655	21,235	

August 2002

Date	Kamadere No 5 IP	Terfa No.1 IP	El Bahnsa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula No 4 IP.
	WL (m) [KP 104 6km] (19 1km El Dahab C)	WL (m) [KP 143 90 km]	WL (m) [KP 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	WL (m) [KP 184 00 km]
1	38.45	34.88	33.17	0.979	32.99	5.209	7.227	32.43
2	38.50	34.87	33.16	0.979	32.97	5.209	7.227	32.41
3	38.50	34.90	33.18	0.979	32.99	5.209	7.227	32.43
4	38.28	34.93	33.19	0.979	33.00	5.209	7.227	32.43
5	38.32	34.94	33.19	0.979	33.00	5.209	7.227	32.44
6	38.30	34.99	33.27	0.979	33.08	5.209	7.227	32.43
7	38.32	35.01	33.29	0.979	33.10	5.209	7.227	32.43
8	38.28	34.95	33.22	0.979	33.03	5.209	7.227	32.43
9	38.28	34.91	33.16	0.979	32.97	5.209	7.227	32.40
10	38.40	34.88	33.09	0.979	32.89	5.209	6.884	32.33
11	38.45	34.95	33.16	0.979	32.97	5.209	7.227	32.40
12	38.42	34.97	33.19	0.979	33.00	5.209	7.227	32.43
13	38.40	34.96	33.19	0.979	33.00	5.209	7.227	32.43
14	38.50	34.93	33.19	0.979	33.00	5.209	7.227	32.43
15	38.50	34.91	33.19	0.979	33.00	5.209	7.227	32.43
16	38.50	34.93	33.20	0.979	33.01	5.209	7.227	32.43
17	38.50	34.91	33.19	0.979	33.00	5.209	7.227	32.43
18	38.50	34.93	33.19	0.979	33.00	5.209	7.227	32.43
19	38.40	34.95	33.19	0.979	33.00	5.209	7.227	32.43
20	38.40	34.95	33.19	0.979	33.00	5.209	7.227	32.43
21	38.32	34.99	33.27	0.979	33.08	5.209	7.227	32.43
22	38.30	35.06	33.36	0.979	33.18	5.209	7.227	32.41
23	38.34	35.09	33.39	0.979	33.21	5.209	7.227	32.40
24	38.35	35.14	33.46	0.979	33.28	5.209	7.227	32.38
25	38.60	35.28	33.70	0.979	33.53	5.209	7.227	32.38
26	38.85	35.43	33.94	0.979	33.78	5.209	7.227	32.29
27	38.88	35.43	33.98	0.979	33.83	5.209	7.227	32.28
28	38.75	35.21	33.69	0.979	33.53	5.209	7.227	32.32
29	38.55	35.03	33.45	0.979	33.28	5.209	7.227	32.31
30	38.50	34.70	33.01	0.979	32.83	5.209	6.491	32.32
31	38.50	34.72	33.06	0.979	32.88	5.209	6.804	32.30
Max	38.88	35.43	33.98	0.979	33.83	5.209	7.227	32.44
Min	38.28	34.70	33.01	0.979	32.83	5.209	6.491	32.28
Ave	38.45	34.99	33.29	0.979	33.11	5.209	7.178	32.40
Accumulated 1,000m ³ /month				2,623		13,951	19,226	

September 2002

Date	Kamader	Terfa	El Bahnasa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula
	No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	No 11 P WL (m) [KP 143 90 km]	WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	No 4 1P WL (m) [KP 184 00 km]
1	38.45	34.97	33.40	0.346	33.23	1.841	5.037	32.22
2	38.45	34.95	33.37	0.346	33.20	1.841	5.037	32.17
3	38.38	34.93	33.37	0.346	33.20	1.841	5.037	32.13
4	38.40	34.93	33.37	0.346	33.20	1.841	5.037	32.10
5	38.38	34.90	33.30	0.346	33.13	1.841	5.037	32.14
6	38.15	34.84	33.21	0.346	33.03	1.841	5.037	32.45
7	37.98	34.84	33.21	0.346	33.03	1.841	5.037	32.47
8	38.25	34.81	33.16	0.346	32.98	1.841	5.037	32.22
9	38.40	34.99	33.44	0.346	33.28	1.841	5.037	32.11
10	38.80	35.03	33.54	0.346	33.38	1.841	5.037	32.01
11	38.90	35.06	33.59	0.346	33.43	1.841	5.037	31.97
12	38.60	34.99	33.49	0.346	33.33	1.841	5.037	32.02
13	38.00	34.89	33.34	0.346	33.18	1.841	5.037	32.05
14	37.65	34.97	33.49	0.346	33.33	1.841	5.037	32.05
15	37.00	35.05	33.76	0.346	33.62	1.841	5.037	31.83
16	37.00	34.94	33.57	0.346	33.43	1.841	5.037	31.81
17	38.65	34.77	33.38	0.346	33.23	1.841	5.037	31.78
18	38.70	34.49	32.99	0.346	32.83	1.841	5.037	31.79
19	38.20	34.27	32.54	0.346	32.35	1.841	3.839	31.86
20	38.60	34.36	32.66	0.346	32.48	1.841	4.488	31.85
21	37.45	34.24	32.56	0.346	32.38	1.841	3.981	31.88
22	37.42	34.38	32.76	0.346	32.58	1.841	5.017	31.82
23	37.50	34.50	32.90	0.346	32.73	1.841	5.037	31.79
24	37.56	34.60	33.05	0.346	32.88	1.841	5.037	31.73
25	37.54	34.59	33.00	0.346	32.83	1.841	5.037	31.72
26	37.55	34.55	32.95	0.346	32.78	1.841	5.037	31.73
27	37.55	34.48	32.86	0.346	32.68	1.841	5.037	31.73
28	37.55	34.48	32.86	0.346	32.68	1.841	5.037	31.72
29	38.50	34.33	32.75	0.346	32.58	1.841	5.012	31.78
30	38.50	34.15	32.48	0.346	32.30	1.841	3.595	31.79
Max	38.90	35.06	33.76	0.346	33.62	1.841	5.037	32.47
Min	37.00	34.15	32.48	0.346	32.30	1.841	3.595	31.72
Ave	38.07	34.71	33.14	0.346	32.98	1.841	4.894	31.96
Accumulated 1,000m ³ /month				897		4,773	12,686	

October 2002

Date	Kamader	Terfa	El Bahnasa Canal		Intake WL of Harika & Saab	El Harika Canal	Saab Canal	Sakoula
	No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	No 11 P WL (m) [KP 143 90 km]	WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)	WL (m) [KP 177 23 km]	Intake Discharge (m ³ /s)	Intake Discharge (m ³ /s)	No 4 1P WL (m) [KP 184 00 km]
1	38.35	34.16	32.42	0.215	32.23	1.141	3.281	31.72
2	38.35	34.23	32.52	0.215	32.33	1.141	3.741	31.85
3	37.85	34.40	32.62	0.215	32.43	1.141	4.239	31.75
4	37.68	34.56	32.91	0.215	32.73	1.141	4.400	31.81
5	37.60	34.68	33.10	0.215	32.93	1.141	4.400	31.83
6	37.60	34.75	33.20	0.215	33.03	1.141	4.400	31.76
7	37.60	34.74	33.19	0.215	33.03	1.141	4.400	31.74
8	37.55	34.66	33.10	0.215	32.93	1.141	4.400	31.75
9	37.57	34.63	33.05	0.215	32.88	1.141	4.400	31.74
10	37.55	34.59	33.00	0.215	32.83	1.141	4.400	31.75
11	37.55	34.52	32.90	0.215	32.73	1.141	4.400	31.76
12	37.55	34.55	32.95	0.215	32.78	1.141	4.400	31.76
13	38.50	34.44	32.94	0.215	32.78	1.141	4.400	31.74
14	38.50	34.33	32.75	0.215	32.58	1.141	4.400	31.69
15	38.50	34.32	32.68	0.215	32.50	1.141	4.400	31.62
16	38.50	34.34	32.71	0.215	32.53	1.141	4.400	31.61
17	37.70	34.43	32.85	0.215	32.68	1.141	4.400	31.61
18	37.60	34.68	33.10	0.215	32.93	1.141	4.400	31.65
19	37.55	34.72	33.17	0.215	33.01	1.141	4.400	31.71
20	37.45	34.74	33.26	0.215	33.10	1.141	4.400	31.71
21	37.70	34.70	33.23	0.215	33.08	1.141	4.400	31.67
22	38.10	34.69	33.28	0.215	33.13	1.141	4.400	31.64
23	38.50	34.50	33.03	0.215	32.88	1.141	4.400	31.60
24	38.38	34.49	32.94	0.215	32.78	1.141	4.400	31.53
25	37.58	34.56	32.95	0.215	32.78	1.141	4.400	31.58
26	37.52	34.62	33.05	0.215	32.88	1.141	4.400	31.68
27	37.52	34.69	33.14	0.215	32.98	1.141	4.400	31.66
28	38.50	34.46	32.99	0.215	32.83	1.141	4.400	31.68
29	38.50	34.43	32.87	0.215	32.70	1.141	4.400	31.64
30	38.50	34.42	32.85	0.215	32.68	1.141	4.400	31.67
31	38.50	34.45	32.87	0.215	32.70	1.141	4.400	31.68
Max	38.50	34.75	33.28	0.215	33.13	1.141	4.400	31.85
Min	37.45	34.16	32.42	0.215	32.23	1.141	3.281	31.53
Ave	37.95	34.53	32.96	0.215	32.79	1.141	4.338	31.70
Accumulated 1,000m ³ /month				575		3,057	11,618	

November 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No.1 IP WL (m) [KP 143 90 km]	El Bahnsa Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	El Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No.4 IP WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	38.50	34.50	32.93	0.289	32.76	1.535	4.886	31.67
2	38.10	34.56	32.97	0.289	32.80	1.535	4.886	31.68
3	37.50	34.89	33.43	0.289	33.28	1.535	4.886	31.69
4	37.60	34.96	33.57	0.289	33.43	1.535	4.886	31.70
5	37.70	34.94	33.57	0.289	33.43	1.535	4.886	31.67
6	38.15	34.61	33.14	0.289	32.98	1.535	4.886	31.74
7	37.95	34.41	32.76	0.289	32.58	1.535	4.886	31.75
8	37.52	34.45	32.83	0.289	32.65	1.535	4.886	31.77
9	37.45	34.63	33.09	0.289	32.93	1.535	4.886	31.69
10	37.60	34.74	33.33	0.289	33.18	1.535	4.886	31.60
11	38.25	34.96	33.71	0.289	33.57	1.535	4.886	31.55
12	38.80	34.75	33.46	0.289	33.32	1.535	4.886	31.55
13	39.10	34.63	33.25	0.289	33.11	1.535	4.886	31.57
14	38.85	34.53	33.08	0.289	32.93	1.535	4.886	31.56
15	38.55	34.56	33.09	0.289	32.93	1.535	4.886	31.58
16	38.50	34.55	33.08	0.289	32.93	1.535	4.886	31.60
17	38.10	34.59	33.09	0.289	32.93	1.535	4.886	31.59
18	37.60	34.63	33.18	0.289	33.03	1.535	4.886	31.65
19	37.90	34.53	33.08	0.289	32.93	1.535	4.886	31.71
20	37.70	34.25	32.65	0.289	32.48	1.535	4.478	31.77
21	37.50	34.33	32.73	0.289	32.56	1.535	4.886	31.75
22	37.35	34.35	32.75	0.289	32.58	1.535	4.886	31.74
23	37.35	34.35	32.75	0.289	32.58	1.535	4.886	31.74
24	37.40	34.65	33.14	0.289	32.98	1.535	4.886	31.60
25	37.45	34.75	33.30	0.289	33.15	1.535	4.886	31.59
26	38.05	34.74	33.37	0.289	33.23	1.535	4.886	31.60
27	38.60	34.79	33.42	0.289	33.28	1.535	4.886	31.59
28	38.75	34.78	33.42	0.289	33.28	1.535	4.886	31.48
29	38.90	34.78	33.47	0.289	33.32	1.535	4.886	31.44
30	38.90	35.03	33.80	0.289	33.67	1.535	4.886	31.37
Max	39.10	35.03	33.80	0.289	33.67	1.535	4.886	31.77
Min	37.35	34.25	32.65	0.289	32.48	1.535	4.478	31.37
Ave	38.05	34.64	33.18	0.289	33.03	1.535	4.873	31.63
Accumulated 1,000m ³ /month				748		3,979	12,630	

December 2002

Date	Kamader No 5 IP WL (m) [KP 104 6km] (19 1km El Dahab C)	Terfa No 1 IP WL (m) [KP 143 90 km]	El Bahnsa Canal		Intake WL of Harika & Saab WL (m) [KP 177 23 km]	El Harika Canal Intake Discharge (m ³ /s)	Saab Canal Intake Discharge (m ³ /s)	Sakoula No 4 IP WL (m) [KP 184 00 km]
			WL (m) [K P 173 4 (km)]	Intake Discharge (m ³ /s)				
1	39.10	35.01	33.89	0.415	33.77	2.207	4.844	31.36
2	39.10	34.91	33.79	0.415	33.67	2.207	4.844	31.34
3	39.00	34.80	33.60	0.415	33.47	2.207	4.844	31.36
4	38.70	34.48	33.17	0.415	33.02	2.207	4.844	31.37
5	38.05	34.75	33.42	0.415	33.28	2.207	4.844	31.29
6	36.70	35.03	33.94	0.415	33.82	2.207	4.844	31.28
7	36.75	34.95	33.84	0.415	33.72	2.207	4.844	31.13
8	37.45	34.71	33.59	0.415	33.47	2.207	4.844	31.06
9	37.40	34.30	33.01	0.415	32.87	2.207	4.844	31.16
10	37.30	34.07	32.68	0.415	32.53	2.207	4.722	31.19
11	37.30	34.07	32.68	0.415	32.53	2.207	4.722	31.11
12	37.30	34.14	32.76	0.415	32.61	2.207	4.844	31.08
13	37.30	34.32	32.88	0.415	32.73	2.207	4.844	31.09
14	37.15	34.54	33.13	0.415	32.98	2.207	4.844	31.19
15	38.10	34.52	33.21	0.415	33.07	2.207	4.844	31.27
16	38.15	34.65	33.32	0.415	33.18	2.207	4.844	31.26
17	38.18	33.95	32.35	0.415	32.18	2.207	3.049	31.29
18	38.25	34.61	33.27	0.415	33.13	2.207	4.844	31.35
19	38.42	34.51	33.12	0.415	32.98	2.207	4.844	31.41
20	38.40	34.57	33.18	0.415	33.03	2.207	4.844	31.42
21	38.25	34.60	33.18	0.415	33.03	2.207	4.844	31.43
22	38.55	34.57	33.13	0.415	32.98	2.207	4.844	31.43
23	38.58	34.53	33.08	0.415	32.93	2.207	4.844	31.44
24	38.55	34.57	33.13	0.415	32.98	2.207	4.844	31.39
25	38.45	34.57	33.13	0.415	32.98	2.207	4.844	31.35
26	37.90	34.60	33.18	0.415	33.03	2.207	4.844	31.26
27	37.80	34.53	33.08	0.415	32.93	2.207	4.844	31.25
28	37.70	34.53	33.04	0.415	32.88	2.207	4.844	31.20
29	37.80	35.09	33.81	0.415	33.67	2.207	4.844	31.17
30	37.80	35.02	33.71	0.415	33.57	2.207	4.844	31.16
31	37.60	34.98	33.67	0.415	33.52	2.207	4.844	31.22
Max	39.10	35.09	33.94	0.415	33.82	2.207	4.844	31.44
Min	36.70	33.95	32.35	0.415	32.18	2.207	3.049	31.06
Ave	37.97	34.60	33.26	0.415	33.11	2.207	4.778	31.27
Accumulated 1,000m ³ /month				1,111		5,910	12,798	
Yearly Max	39.70	35.53	34.08	1.465	33.93	7.794	8.779	32.95
Yearly Min	36.70	33.95	32.32	0.000	32.13	0.000	0.000	30.70
Yearly Ave	38.36	34.78	33.22	0.644	33.05	3.327	5.259	31.96
Yearly Accum 1,000m ³ /month				20,342		104,998	165,690	

Saab支線水路でのサコーラポンプNo 4(New) 取水後の流量

月	日数	支線水路 取水量 (1,000m ³)	Sakoula 4 New I.P. 揚水量 (1,000m ³)	ポンプ取水後のSaab水路の流量			
				流量 (1,000m ³)	必要用水量		過不足量 (1,000m ³)
					(m ³ /s)	(1,000m ³)	
1月	31	2,527	3,460	(-934)	1.619	4,337	(-5,271)
2月	28	12,751	8,722	4,029	2.152	5,206	-1,177
3月	31	13,676	7,206	6,470	2.843	7,615	-1,145
4月	30	16,119	9,312	6,808	2.626	6,808	0
5月	31	12,667	6,998	5,669	2.292	6,138	-469
6月	30	17,757	7,076	10,681	4.121	10,681	0
7月	31	21,235	9,318	11,916	5.300	14,195	-2,279
8月	31	19,226	9,869	9,357	3.542	9,487	-130
9月	30	12,686	9,811	2,875	1.252	3,246	-371
10月	31	11,618	9,707	1,911	0.776	2,079	-168
11月	30	12,630	9,960	2,670	1.044	2,705	-35
12月	31	12,798	8,955	3,843	1.501	4,019	-176
合計	365	165,690	100,395	66,229	(2.426)	76,516	-5,950

8A-9 重力灌漑地区における事業実施前後における農業生産額の変化

重力灌漑地区 (Old Area)

現況 / 計画		現況										
項目	増収率 (灌漑と無灌漑 の場合の 単位収量 比率)	Cropping Area (1) feddan	Unit Production (2) / fed	Total Production (3) =(1)*(2) unit	Ratio to Home Consumption / Selling				Selling Price (8) LE/unit	Gross Income from Selling (9) =(7)*(8) LE		
					H/C (4) %	Amount (5) Ardeb. ton =(3)*(4)	Selling (6) %	Amount (7) Ardeb. ton =(3)*(6)				
冬作	Wheat	2.14	20,000	20.25 Ardeb	405,000 Ardeb	60	243,000	40	162,000	107.7	17,448,000	
	Bean	1.33	7,084	6.59 Ardeb	46,684 Ardeb	35	16,339	65	30,344	197.0	5,978,000	
	Potato	2.90	212	9.06 Ton	1,921 Ton	0	0	100	1,921	700.0	1,345,000	
	Sugar Beet	32.41	126	24.20 Ton	3,049 Ton	0	0	100	3,049	110.0	336,000	
	Vegetables	3.60	1,020	14.76 Ton	15,055 Ton	0	0	100	15,055	700.0	10,539,000	
	Long Berseem/ Clover	5.74	8,762	6.01 Ton	52,660 Ton	90	47,394	10	5,266	325.0	1,712,000	
	Short Berseem/ Clover	5.74	7,682	6.01 Ton	46,169 Ton	90	41,552	10	4,617	325.0	1,501,000	
	Onion	3.60	2,114	7.48 Ton	15,813 Ton	0	0	100	15,813	228.4	3,612,000	
	Fenugreek	1.73	288	5.87 Ton	1,691 Ton	100	1,691	0	0	1500.0	0	
	Garlic	3.60	658	9.61 Ton	6,323 Ton	0	0	100	6,323	650.4	4,113,000	
	Coriander	3.60	790	0.92 Ton	727 Ton	0	0	100	727	110.0	80,000	
Sub-total		48,736								46,664,000		
夏作 および ニリ作	Cotton	1.25	12,062	6.20 Cantar	74,784 Cantar	0	0	100	74,784	350.1	26,183,000	
	Summer Maize	1.73	29,114	23.21 Ardeb	675,736 Ardeb	85	574,376	15	101,360	85.8	8,697,000	
	Sesame	5.06	936	5.01 Ardeb	4,689 Ardeb	20	938	80	3,751	406.8	1,527,000	
	Peanut	1.33	602	13.89 Ardeb	8,362 Ardeb	0	0	100	8,362	145.0	1,213,000	
	Summer Vegetable	3.60	3,752	14.76 Ton	55,380 Ton	0	0	100	55,380	700.0	38,766,000	
	Nili Vegetables	3.60	2,270	14.75 Ton	33,483 Ton	0	0	100	33,483	700.0	23,438,000	
Sub-total		48,736								99,824,000		
通年作	Sugar Cane	1.63	1,264	48.04 Ton	60,723 Ton	0	0	100	60,723	95.0	5,769,000	
(冬作)			50,000									
(夏作)			50,000									
合計		100,000									152,257,000	

*単収は直近5カ年の平均値を採用している。

*自家消費と販売用の比率はベースライン調査から平均的な値を採用している(重力・ポンプ、現況・計画とも同値とした)。

冬作 90% 夏作 88%

現況 / 計画		計画										
項目	増収率 (灌漑と無灌漑 の場合の 単位収量 比率)	Cropping Area (1) feddan	Unit Production (2) / fed	Total Production (3) =(1)*(2) unit	Ratio for Market / Home Consumption				Selling Price (8) LE/unit	Gross Income from Selling (9) =(7)*(8) LE		
					H/C (4) %	Amount (5) Ardeb. ton =(3)*(4)	Selling (6) %	Amount (7) Ardeb. ton =(3)*(6)				
冬作	Wheat	2.14	20,000	21.39 Ardeb	427,789 Ardeb	60	256,673	40	171,115	107.7	18,430,000	
	Bean	1.33	7,084	6.76 Ardeb	47,871 Ardeb	35	16,755	65	31,116	197.0	6,130,000	
	Potato	2.90	212	9.70 Ton	2,055 Ton	0	0	100	2,055	700.0	1,439,000	
	Sugar Beet	32.41	126	26.80 Ton	3,376 Ton	0	0	100	3,376	110.0	372,000	
	Vegetables	3.60	1,020	15.91 Ton	16,227 Ton	0	0	100	16,227	700.0	11,360,000	
	Long Berseem/ Clover	5.74	8,762	6.55 Ton	57,400 Ton	90	51,660	10	5,740	325.0	1,866,000	
	Short Berseem/ Clover	5.74	7,682	6.55 Ton	50,325 Ton	90	45,292	10	5,032	325.0	1,636,000	
	Onion	3.60	2,114	8.06 Ton	17,044 Ton	0	0	100	17,044	228.4	3,893,000	
	Fenugreek	1.73	288	6.13 Ton	1,765 Ton	100	1,765	0	0	1500.0	0	
	Garlic	3.60	658	10.36 Ton	6,816 Ton	0	0	100	6,816	650.4	4,433,000	
	Coriander	3.60	790	0.99 Ton	783 Ton	0	0	100	783	110.0	87,000	
Sub-total		48,736								49,646,000		
夏作 および ニリ作	Cotton	1.25	12,062	6.35 Cantar	76,623 Cantar	0	0	100	76,623	350.1	26,826,000	
	Summer Maize	1.73	29,114	24.45 Ardeb	711,777 Ardeb	85	605,011	15	106,767	85.8	9,161,000	
	Sesame	5.06	936	5.54 Ardeb	5,189 Ardeb	20	1,038	80	4,151	406.8	1,689,000	
	Peanut	1.33	602	14.32 Ardeb	8,618 Ardeb	0	0	100	8,618	145.0	1,250,000	
	Summer Vegetable	3.60	3,752	16.16 Ton	60,635 Ton	0	0	100	60,635	700.0	42,445,000	
	Nili Vegetables	3.60	2,270	16.15 Ton	36,660 Ton	0	0	100	36,660	700.0	25,662,000	
Sub-total		48,736								107,033,000		
通年作	Sugar Cane	1.63	1,264	50.38 Ton	63,676 Ton	0	0	100	63,676	95.0	6,050,000	
(冬作)			50,000									
(夏作)			50,000									
合計		100,000									162,729,000	

*計画における各作物の単収は現況の13%増しである。

事業実施前後における農業生産額の変化(重力灌漑地区Old Area)

項目	事業実施前 (LE)	事業実施後 (LE)	差額 (LE)
農業生産額計	152,257,000	162,729,000	10,472,000
(冬作)	46,664,000	49,646,000	2,982,000
(夏作)	99,824,000	107,033,000	7,209,000
(通年作)	5,769,000	6,050,000	281,000

8A-10 主要作物の最近5カ年の作付け面積と単位収量

主要作物の直近5カ年の作付け面積と単収

Wheat	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed
1998	159,181	20.04	3,189,901	14,244	13.09	186,461	173,425	19.47	3,376,362
1999	161,582	20.04	3,237,355	10,427	13.93	145,260	172,009	19.67	3,382,615
2000	176,044	20.34	3,581,575	11,264	15.47	174,253	187,308	20.05	3,755,828
2001	175,231	19.96	3,498,109	11,786	16.11	189,839	187,017	19.72	3,687,948
2002	163,430	20.88	3,413,001	13,747	17.04	234,279	177,177	20.59	3,647,280
Total/Average	835,468	20.25	16,919,941	61,468	15.13	930,092	896,936	19.90	17,850,033
ton/ha		7.23			5.40			7.11	

Barley	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed
1998	802	14.07	11,287	1,201	7.73	9,282	2,003	10.27	20,569
1999	485	15.56	7,548	1,108	7.35	8,140	1,593	9.85	15,688
2000	566	15.86	8,977	104	12.50	1,300	670	15.34	10,277
2001	322	16.31	5,252	862	12.55	10,820	1,184	13.57	16,072
2002	380	16.52	6,277	1,416	12.80	18,124	1,796	13.59	24,401
Total/Average	2,555	15.40	39,341	4,691	10.16	47,666	7,246	12.01	87,007
ton/ha		4.40			2.90			3.43	

Beans	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed
1998	31,022	7.03	218,228	0	0.00	0	31,022	7.03	218,228
1999	15,902	4.82	76,622	963	4.27	4,112	16,865	4.79	80,734
2000	10,017	6.02	60,266	212	3.98	843	10,229	5.97	61,109
2001	12,212	6.83	83,443	641	6.69	4,287	12,853	6.83	87,730
2002	13,896	7.82	108,680	720	8.04	5,792	14,616	7.83	114,472
Total/Average	83,049	6.59	547,239	2,536	5.93	15,034	85,585	6.57	562,273
ton/ha		2.51			2.26			2.50	

Onion	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ton/fed	ton	fed	ton/fed	ton	fed	ton/fed
1998	2,935	7.23	21,215	0	0.00	0	2,935	7.23	21,215
1999	4,214	7.07	29,797	787	7.53	5,926	5,001	7.14	35,723
2000	2,434	7.57	18,426	732	8.37	6,124	3,166	7.75	24,550
2001	1,900	7.78	14,781	905	8.35	7,561	2,805	7.97	22,342
2002	2,493	8.14	20,285	677	8.71	5,894	3,170	8.26	26,179
Total/Average	13,976	7.48	104,504	3,101	8.22	25,505	17,077	7.61	130,009

Garlic	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ton/fed	ton	fed	ton/fed	ton	fed	ton/fed
1998	12,495	10.01	125,037	0	0.00	0	12,495	10.01	125,037
1999	13,281	8.98	119,289	6	8.00	48	13,287	8.98	119,337
2000	14,431	9.88	142,568	17	5.06	86	14,448	9.87	142,654
2001	10,214	9.70	99,048	50	6.20	310	10,264	9.68	99,358
2002	11,510	9.48	109,162	60	8.25	495	11,570	9.48	109,657
Total/Average	61,931	9.61	595,104	133	7.06	939	62,064	9.60	596,043

Fenugreek	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	ton/fed	ton	fed	ton/fed	ton	fed	ton/fed
1998	3,639	5.25	19,111	0	0.00	0	3,639	5.25	19,111
1999	6,116	5.74	35,131	481	4.17	2,005	6,597	5.63	37,136
2000	8,025	5.60	44,943	178	4.65	827	8,203	5.58	45,770
2001	7,451	6.09	45,401	103	5.64	581	7,554	6.09	45,982
2002	5,468	6.51	35,590	161	6.11	984	5,629	6.50	36,574
Total/Average	30,699	5.87	180,176	923	4.76	4,397	31,622	5.84	184,573

Cotton	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	Year	fed	cantar/fed	Cantar	fed	cantar/fed	Cantar	fed	cantar/fed
1998	57,727	5.60	323,277	0	0.00	0	57,727	5.60	323,277
1999	32,741	7.31	239,181	0	0.00	0	32,741	7.31	239,181
2000	29,993	6.36	190,609	0	0.00	0	29,993	6.36	190,609
2001	38,822	6.66	258,364	0	0.00	0	38,822	6.66	258,364
2002	42,126	5.62	236,545	0	0.00	0	42,126	5.62	236,545
Total/Average	201,409	6.20	1,247,976	0	0.00	0	201,409	6.20	1,247,976
ton/ha		2.32			0.00			2.32	

Maize	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb
1998	242,008	23.28	5,632,868	7,284	21.04	153,249	249,292	23.21	5,786,117
1999	269,727	23.19	6,254,715	5,542	20.68	114,620	275,269	23.14	6,369,335
2000	278,855	23.24	6,479,665	4,326	21.11	91,325	283,181	23.20	6,570,990
2001	264,114	23.09	6,098,378	5,510	21.88	120,583	269,624	23.07	6,218,961
2002	255,811	23.27	5,952,214	2,200	22.09	48,587	258,011	23.26	6,000,801
Total/Average	1,310,515	23.21	30,417,840	24,862	21.25	528,364	1,335,377	23.17	30,946,204
ton/ha		7.74			7.08			7.72	

Sesame	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb
1998	3,940	4.87	19,203	3,889	5.10	19,834	7,829	4.99	39,037
1999	5,463	4.83	26,392	2,110	5.07	10,701	7,573	4.90	37,093
2000	6,033	5.01	30,213	2,762	4.85	13,384	8,795	4.96	43,597
2001	6,198	5.11	31,663	2,340	5.24	12,265	8,538	5.14	43,928
2002	5,697	5.18	29,500	4,723	5.25	24,799	10,420	5.21	54,299
Total/Average	27,331	5.01	136,971	15,824	5.12	80,983	43,155	5.05	217,954
ton/ha		1.43			1.46			1.44	

Peanut	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb	fed	ardeb/fed	Ardeb
1998	2,979	13.23	39,421	5,502	14.39	79,199	8,481	13.99	118,620
1999	4,508	13.08	58,962	7,279	14.80	107,708	11,787	14.14	166,670
2000	4,158	13.47	56,013	3,477	14.75	51,278	7,635	14.05	107,291
2001	4,959	13.52	67,046	2,036	13.75	27,985	6,995	13.59	95,031
2002	5,250	15.64	82,122	5,125	16.89	86,561	10,375	16.26	168,683
Total/Average	21,854	13.89	303,564	23,419	15.06	352,731	45,273	14.50	656,295
ton/ha		2.48			2.69			2.59	

Sun flower	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	fed	ton/fed	ton	fed	ton/fed	ton	fed	ton/fed	ton
1998	3,748	0.82	3,092	4	0.50	2	3,752	0.82	3,094
1999	5,877	0.82	4,824	0	0.00	0	5,877	0.82	4,824
2000	2,690	0.90	2,424	86	1.00	86	2,776	0.90	2,510
2001	7,663	0.88	6,770	92	1.00	92	7,755	0.88	6,862
2002	4,319	0.92	3,966	251	0.95	239	4,570	0.92	4,205
Total/Average	24,297	0.87	21,076	433	0.97	419	24,730	0.87	21,495

Coriander	Inside befcial cultivated area			Outside befcial cultivated area			Total/Average		
	fed	ton/fed	ton	fed	ton/fed	ton	fed	ton/fed	ton
1998	16,569	1.01	16,737	52	0.73	38	16,621	1.01	16,775
1999	15,791	0.95	15,064	3	1.00	3	15,794	0.95	15,067
2000	9,529	0.94	8,922	10	0.80	8	9,539	0.94	8,930
2001	10,059	0.94	9,432	0	0.00	0	10,059	0.94	9,432
2002	13,748	0.75	10,303	0	0.00	0	13,748	0.75	10,303
Total/Average	65,696	0.92	60,458	65	0.75	49	65,761	0.92	60,507

Others						
Crop	Total Cultivated Area	Total Production Yield		Unit Production Yield		Remarks
		feddan	unit	unit / fed	unit / fed	
Beet Sugar	6,387	154,565	ton	24.20	ton/fed	
Vegetable	20,398	301,074	ton	14.76	ton/fed	Tomato
Clover	119,271	716,819	ton	6.01	ton/fed	
Sugar Cane	33,262	1,597,970	ton	48.04	ton/fed	

(Minia Governate for Year 2002)

主要作物の市場価格

作物	単価	備考
Wheat	LE 107 7/Ardeb	LE 43 5/heap of hay
Barley	LE 86/Ardeb	LE 36 2/heap of hay
Bean	LE 197/Ardeb	LE 28 2/heap of hay
Onion	LE 228 4/Ton	
Garlic	LE 650 4/Ton	
Beet Sugar	LE 110/Ton	
Cotton	LE 350 1/Quarter (metric)	LE 8 7/heap of hay
Soyabean	LE 900/Ton	
Maize	LE 85 8/Ardeb	LE 14 4 heap of hay
Peanut	LE 145/Ardeb	LE 9 4 heap of hay
Sesame	LE 406 8/Ardeb	13 2 heap of hay
Sun flower	LE 900/Ton	
Sugarcane	LE 95/Ton	

(以上、2003年3月現地調べ)

作物	単価	備考
Potato	LE 700/Ton	
Vegetable	LE 700/Ton	
Clover	LE 325/Ton	
Fenugreek	LE 1500/Ton	
Coriander	LE 110/Ton	

(以上、2002年9月ADECAバハルヨセフ灌漑用水路 水管理・運用適正化計画プロジェクトファインディング調査報告書、別添資料-4から準用)

8A-12 サコーラ堰崩壊による農業生産額の変化 (重力およびポンプ灌漑地区)

重力灌漑地区(Old Area)			サコーラ堰崩壊による農業生産額の変化					灌漑水 冬作 90% 夏作 88%					
現況/計画		増収率 (灌漑と無灌漑 の場合の 単位収量 比率)	Cropping Area		Unit Production		Total Production		現況				
項目	(1) feddan		(2) / fed	(3) unit	Ratio to Home Consumption / Selling		Selling Price (8) LE/unit	Gross Income from Selling (9) LE	H/C (4)	Amount (5)	Selling (6)	Amount (7)	
					%	= (3)*(4) Ardeb, ton			%	= (3)*(6) Ardeb, ton			
冬作	Wheat	2.14	20,000	20.25	Ardeb	405,000	Ardeb	60	243,000	40	162,000	107.7	17,448,000
	Bean	1.33	7,084	6.59	Ardeb	46,684	Ardeb	35	16,339	65	30,344	197.0	5,978,000
	Potato	2.90	212	9.06	Ton	1,921	Ton	0	0	100	1,921	700.0	1,345,000
	Sugar Beet	32.41	126	24.20	Ton	3,049	Ton	0	0	100	3,049	110.0	336,000
	Vegetables	3.60	1,020	14.76	Ton	15,055	Ton	0	0	100	15,055	700.0	10,539,000
	Long Berseem/ Clover	5.74	8,762	6.01	Ton	52,660	Ton	90	47,394	10	5,266	325.0	1,712,000
	Short Berseem/ Clover	5.74	7,682	6.01	Ton	46,169	Ton	90	41,552	10	4,617	325.0	1,501,000
	Onion	3.60	2,114	7.48	Ton	15,813	Ton	0	0	100	15,813	228.4	3,612,000
	Fenugreek	1.73	288	5.87	Ton	1,691	Ton	100	1,691	0	0	1500.0	0
	Garlic	3.60	658	9.61	Ton	6,323	Ton	0	0	100	6,323	650.4	4,113,000
Coriander	3.60	790	0.92	Ton	727	Ton	0	0	100	727	110.0	80,000	
Sub-total		48,736										46,664,000	
夏作 および ニリ作	Cotton	1.25	12,062	6.20	Cantar	74,784	Cantar	0	0	100	74,784	350.1	26,183,000
	Summer Maize	1.73	29,114	23.21	Ardeb	675,736	Ardeb	85	574,376	15	101,360	85.8	8,697,000
	Sesame	5.06	936	5.01	Ardeb	4,689	Ardeb	20	938	80	3,751	406.8	1,527,000
	Peanut	1.33	602	13.89	Ardeb	8,362	Ardeb	0	0	100	8,362	145.0	1,213,000
	Summer Vegetable	3.60	3,752	14.76	Ton	55,380	Ton	0	0	100	55,380	700.0	38,766,000
	Nili Vegetables	3.60	2,270	14.75	Ton	33,483	Ton	0	0	100	33,483	700.0	23,438,000
	Sub-total		48,736										99,824,000
通年作	Sugar Cane	1.63	1,264	48.04	Ton	60,723	Ton	0	0	100	60,723	95.0	5,769,000
	(冬作)		50,000										
	(夏作)		50,000										
	合計		100,000										152,257,000

*単収は直近5カ年の平均値を採用している。

*崩壊後においては、現況での自家消費分は最低限確保されるものとし販売用の分は自家消費分を差し引いた残り分とする(重力・ポンプとも)。

現況/計画			計 画					灌漑水 冬作 48% 夏作 81%					
項目	(1) feddan	(2) / fed	(3) unit	Ratio for Market / Home Consumption		Selling Price (8) LE/unit	Gross Income from Selling (9) LE	H/C (4)	Amount (5)	Selling (6)	Amount (7)		
				%	Ardeb, ton			%	Ardeb, ton				
冬作	Wheat	2.14	20,000	15.46	Ardeb	309,287	Ardeb	79	243,000	21	66,287	107.7	7,140,000
	Bean	1.33	7,084	5.89	Ardeb	41,695	Ardeb	39	16,339	61	25,356	197.0	4,996,000
	Potato	2.90	212	6.39	Ton	1,355	Ton	0	0	100	1,355	700.0	949,000
	Sugar Beet	32.41	126	13.29	Ton	1,675	Ton	0	0	100	1,675	110.0	185,000
	Vegetables	3.60	1,020	9.93	Ton	10,133	Ton	0	0	100	10,133	700.0	7,094,000
	Long Berseem/ Clover	5.74	8,762	3.74	Ton	32,752	Ton	100	32,752	0	0	325.0	-1,000
	Short Berseem/ Clover	5.74	7,682	3.74	Ton	28,715	Ton	100	28,715	0	0	325.0	0
	Onion	3.60	2,114	5.03	Ton	10,643	Ton	0	0	100	10,643	228.4	2,431,000
	Fenugreek	1.73	288	4.78	Ton	1,378	Ton	100	1,378	0	0	1500.0	0
	Garlic	3.60	658	6.47	Ton	4,256	Ton	0	0	100	4,256	650.4	2,769,000
Coriander	3.60	790	0.62	Ton	489	Ton	0	0	100	489	110.0	54,000	
Sub-total		48,736										25,617,000	
夏作 および ニリ作	Cotton	1.25	12,062	6.11	Cantar	73,712	Cantar	0	0	100	73,712	350.1	25,807,000
	Summer Maize	1.73	29,114	22.49	Ardeb	654,712	Ardeb	100	654,712	0	0	85.8	0
	Sesame	5.06	936	4.70	Ardeb	4,398	Ardeb	21	938	79	3,460	406.8	1,408,000
	Peanut	1.33	602	13.64	Ardeb	8,212	Ardeb	0	0	100	8,212	145.0	1,191,000
	Summer Vegetable	3.60	3,752	13.94	Ton	52,314	Ton	0	0	100	52,314	700.0	36,620,000
	Nili Vegetables	3.60	2,270	13.93	Ton	31,629	Ton	0	0	100	31,629	700.0	22,141,000
	Sub-total		48,736										87,167,000
通年作	Sugar Cane	1.63	1,264	46.68	Ton	59,000	Ton	0	0	100	59,000	95.0	5,605,000
	(冬作)		50,000										
	(夏作)		50,000										
	合計		100,000										118,389,000

サコーラ堰崩壊による農業生産額の変化(重力灌漑地区Old Area)

項目	現況 (LE)	サコーラ堰崩壊後 (LE)	差額 (LE)
農業生産額計	152,257,000	118,389,000	-33,868,000
(冬作)	46,664,000	25,617,000	-21,047,000
(夏作)	99,824,000	87,167,000	-12,657,000
(通年作)	5,769,000	5,605,000	-164,000

ポンプ灌漑地区(Reclaimed Area)

現況/計画 項目		現況													
		Cropping Area				Unit Production (5) / fed	Total Production (6) =(4)*(5) unit	Ratio to Home Consumption / Selling				Selling Price (11) LE/unit	Gross Income from Selling (12) =(10)*(11) LE		
		Sakoula (1) feddan	Terfa (2) feddan	Kamader (3) feddan	Total (4) =(1)+(2)+(3) feddan			H/C (7) %	Amount (8) =(6)*(7) Ardeb, ton	Selling (9) %	Amount (10) =(6)*(9) Ardeb, ton				
冬作	Wheat	3,488	5,200	0	8,688	20.25	Ardeb	175,932	Ardeb	60	105,559	40	70,373	107.7	7,580,000
	Barley	1,000	1,500	0	2,500	15.40	Ardeb	38,500	Ardeb	35	13,475	65	25,025	86.0	2,153,000
	Bean	500	1,000	0	1,500	6.59	Ardeb	9,885	Ardeb	35	3,460	65	6,425	197.0	1,266,000
	Sugar Beet	300	400	0	700	24.20	Ton	16,940	Ton	0	0	100	16,940	110.0	1,864,000
	Vegetables	1,500	2,500	0	4,000	14.76	Ton	59,040	Ton	0	0	100	59,040	700.0	41,328,000
	Long Berseem/ Clover	3,400	4,500	0	7,900	6.01	Ton	47,479	Ton	90	42,731	10	4,748	325.0	1,544,000
	Short Berseem/ Clover	400	600	0	1,000	6.01	Ton	6,010	Ton	90	5,409	10	601	325.0	196,000
	Onion	300	800	0	1,100	7.48	Ton	8,228	Ton	0	0	100	8,228	228.4	1,880,000
	Fenugreek	80	120	0	200	5.89	Ton	1,178	Ton	100	1,178	100	1,178	650.4	767,000
	Garlic	60	120	0	180	9.61	Ton	1,730	Ton	0	0	0	0	1500.0	0
Flowers of Plants	260	940	0	1,200	0.00	Ton	0	Ton	0	0	100	0	0.0	0	
Sub-total	11,288	17,680	0	28,968											58,578,000
夏作 および ニリ作	Cotton	40	50	0	90	6.20	Cantar	558	Cantar	0	0	100	558	350.1	196,000
	Nile & Summer Maize	4,000	7,000	0	11,000	23.21	Ardeb	255,310	Ardeb	85	217,014	15	38,297	85.8	3,286,000
	Sesame	1,500	2,000	0	3,500	5.01	Ardeb	17,535	Ardeb	20	3,507	80	14,028	406.8	5,707,000
	Peanut	2,000	2,000	0	4,000	13.89	Ardeb	55,560	Ardeb	0	0	100	55,560	145.0	8,057,000
	Sun-flower	300	500	0	800	0.87	Ton	696	Ton	5	35	95	661	700.0	463,000
	Summer & Nili Vegetable	1,500	4,000	0	5,500	14.76	Ton	81,180	Ton	0	0	100	81,180	700.0	56,826,000
	Sub-total	9,340	15,550	0	24,890										
通年作	Sugar Cane	612	926	0	1,538	48.04	Ton	73,886	Ton	0	0	100	73,886	95.0	7,020,000
	(冬作)	11,900	18,606	0	30,506										
	(夏作)	9,952	16,476	0	26,428										
	合計	21,852	35,082	0	56,934										140,133,000

*Kamaderポンプ掛かり地区はサコーラ堰改修の効果対象外につき面積に含めない。

*Flower of plantsについて、単収・単価などの詳細データ入手不能のため計算から割愛している。

灌漑水量 冬作 33% 夏作 85%

現況/計画 項目		計 画													
		Cropping Area				Unit Production (5) / fed	Total Production (6) =(4)*(5) unit	Ratio to Home Consumption / Selling				Selling Price (11) LE/unit	Gross Income from Selling (12) =(10)*(11) LE		
		Sakoula (1) feddan	Terfa (2) feddan	Kamader (3) feddan	Total (4) =(1)+(2)+(3) feddan			H/C (7) %	Amount (8) =(6)*(7) Ardeb, ton	Selling (9) %	Amount (10) =(6)*(9) Ardeb, ton				
冬作	Wheat	3,488	5,200	0	8,688	12.99	Ardeb	112,858	Ardeb	94	105,559	6	7,299	107.7	787,000
	Barley	1,000	1,500	0	2,500	12.83	Ardeb	32,071	Ardeb	42	13,475	58	18,596	86.0	1,600,000
	Bean	500	1,000	0	1,500	3.68	Ardeb	5,526	Ardeb	63	3,460	37	2,067	197.0	408,000
	Sugar Beet	300	400	0	700	8.42	Ton	5,891	Ton	0	0	100	5,891	110.0	649,000
	Vegetables	1,500	2,500	0	4,000	7.59	Ton	30,343	Ton	0	0	100	30,343	700.0	21,241,000
	Long Berseem/ Clover	3,400	4,500	0	7,900	2.67	Ton	21,092	Ton	100	21,092	0	0	325.0	0
	Short Berseem/ Clover	400	600	0	1,000	2.67	Ton	2,670	Ton	100	2,670	0	0	325.0	0
	Onion	300	800	0	1,100	3.84	Ton	4,229	Ton	0	0	100	4,229	228.4	966,000
	Fenugreek	80	120	0	200	4.22	Ton	843	Ton	100	843	0	0	650.4	0
	Garlic	60	120	0	180	4.94	Ton	889	Ton	0	0	100	889	1500.0	1,334,000
Flowers of Plants	260	940	0	1,200	0.00	Ton	0	Ton	0	0	100	0	0.0	0	
Sub-total	11,288	17,680	0	28,968											26,985,000
夏作 および ニリ作	Cotton	40	50	0	90	6.02	Cantar	542	Cantar	0	0	100	542	350.1	190,000
	Nile & Summer Maize	4,000	7,000	0	11,000	21.78	Ardeb	239,581	Ardeb	91	217,014	9	22,568	85.8	1,937,000
	Sesame	1,500	2,000	0	3,500	4.42	Ardeb	15,481	Ardeb	23	3,507	77	11,974	406.8	4,871,000
	Peanut	2,000	2,000	0	4,000	13.39	Ardeb	53,547	Ardeb	0	0	100	53,547	145.0	7,765,000
	Sun-flower	300	500	0	800	0.78	Ton	623	Ton	5	35	94	588	700.0	412,000
	Summer & Nili Vegetable	1,500	4,000	0	5,500	13.20	Ton	72,620	Ton	0	0	100	72,620	700.0	50,835,000
	Sub-total	9,340	15,550	0	24,890										
通年作	Sugar Cane	612	926	0	1,538	45.33	Ton	69,716	Ton	0	0	100	69,716	95.0	6,624,000
	(冬作)	11,900	18,606	0	30,506										
	(夏作)	9,952	16,476	0	26,428										
	合計	21,852	35,082	0	56,934										99,619,000

サコーラ堰崩壊による農業生産額の変化(ポンプ灌漑地区Reclaimed Area)

項目	現況 (LE)	サコーラ堰崩壊後 (LE)	差額 (LE)
農業生産額計	140,133,000	99,619,000	-40,514,000
(冬作)	58,578,000	26,985,000	-31,593,000
(夏作)	74,535,000	66,010,000	-8,525,000
(通年作)	7,020,000	6,624,000	-396,000

交通量調査結果

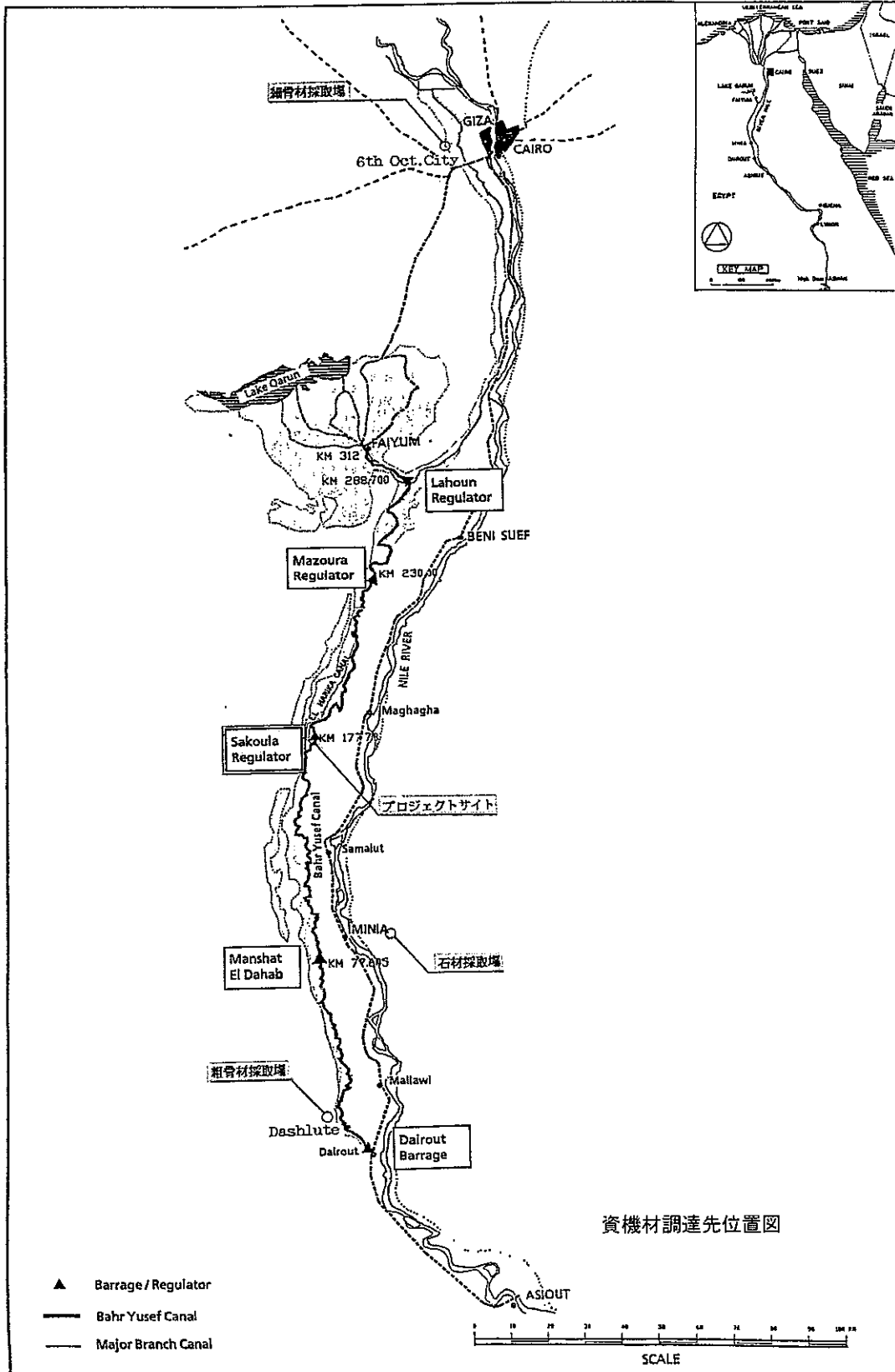
項目	平日の24時間 (台)	休日の日中12時間 (台)
1トラック	91	17
2軽トラック	663	508
3バス	18	2
4乗用車	705	183
5トラクター	111	114
1～5計	1,588	824
6モーターバイク	82	51
7馬車	270	239
8自転車	1,340	881
9動物	3,308	3,099
6～9計	5,000	4,270
10人間	8,102	4,946

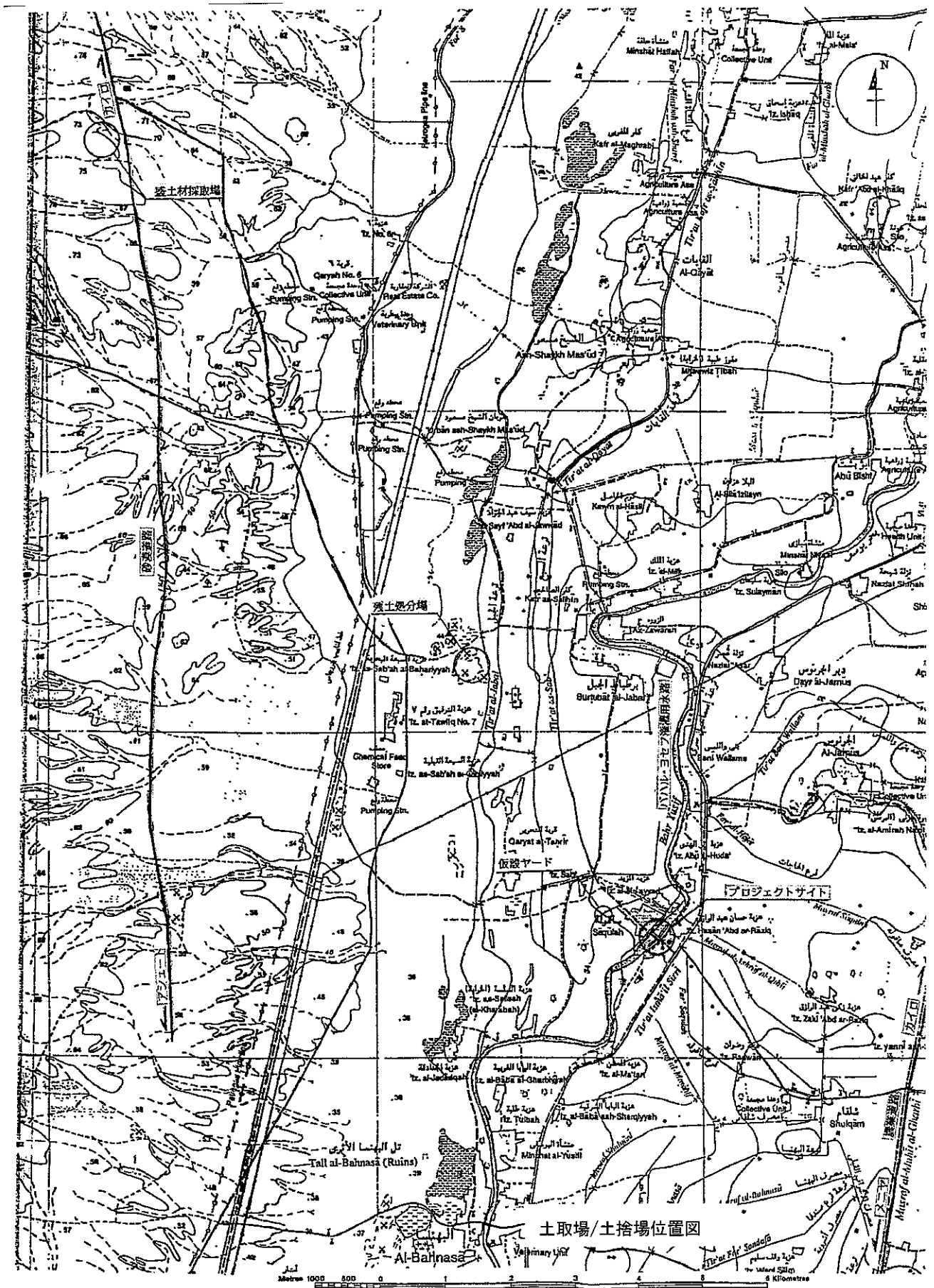
普通乗用車換算と将来予測台数

項目	現況			計画	
	平日の24時間 (台)	普通乗用車換算率	普通乗用車換算 (台)	将来倍率	将来台数 (台)
1トラック	91	1.5	137	1.2	170
2軽トラック	663	0.8	530	1.2	640
3バス	18	1.9	34	1.2	50
4乗用車	705	1.0	705	1.2	850
5トラクター	111	1.9	211	1.2	260
1～5計	1,588		1,617		2,000
6モーターバイク	82				82
7馬車	270				270
8自転車	1,340				1,340
9動物	3,308				3,308
6～9計	5,000				5,000
10人間	8,102				8,100

(備考)

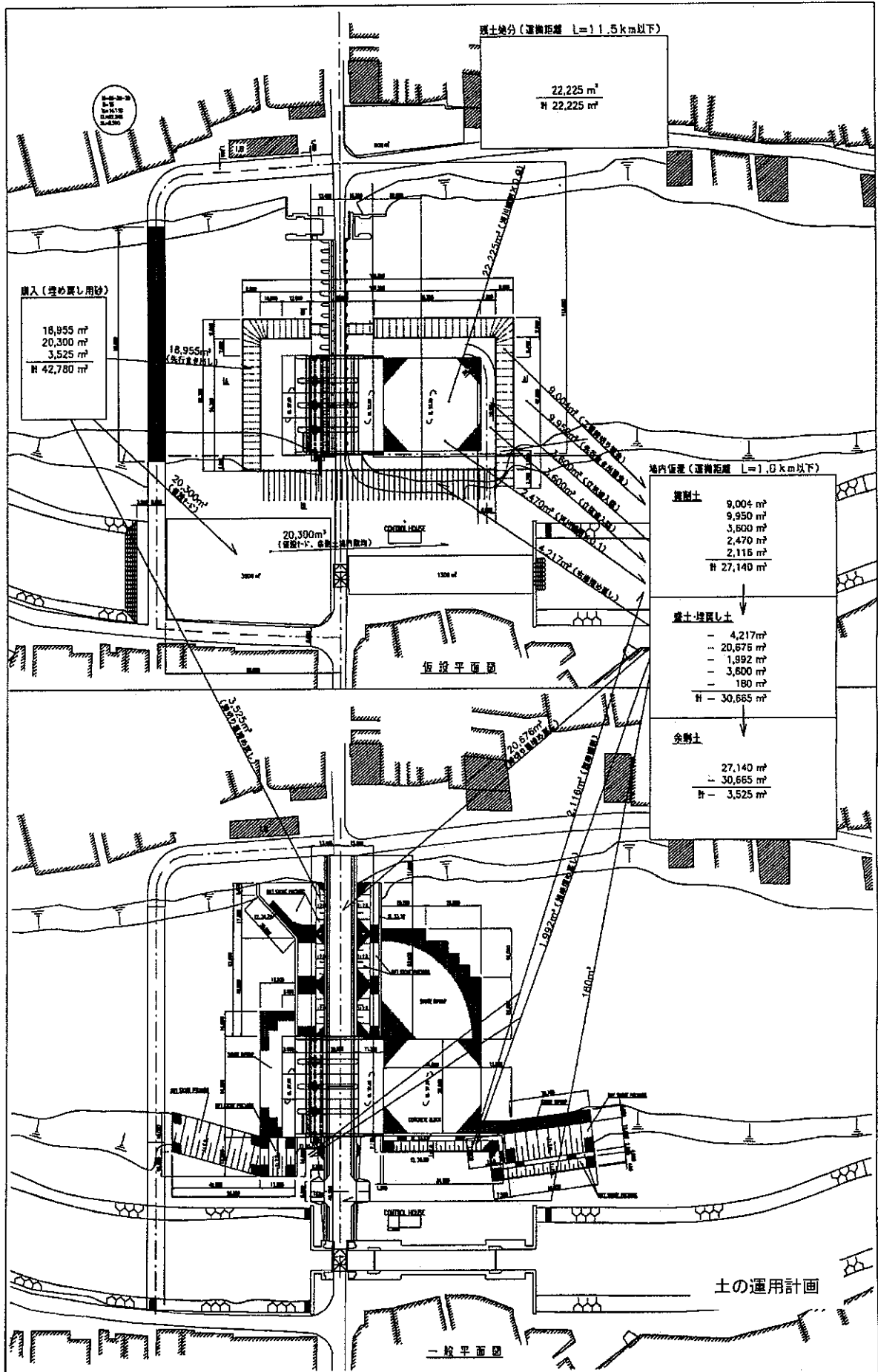
- ・トラックの普通乗用車換算率は2トラック以下を採用。
- ・計画の将来倍率は本邦における平均値(10年後、1.0～1.4の中間値)を採用。
- ・普通乗用車換算率、将来倍率とも設計基準・農道を参照。
- ・将来台数および人数などは100台(人)単位に整理している。

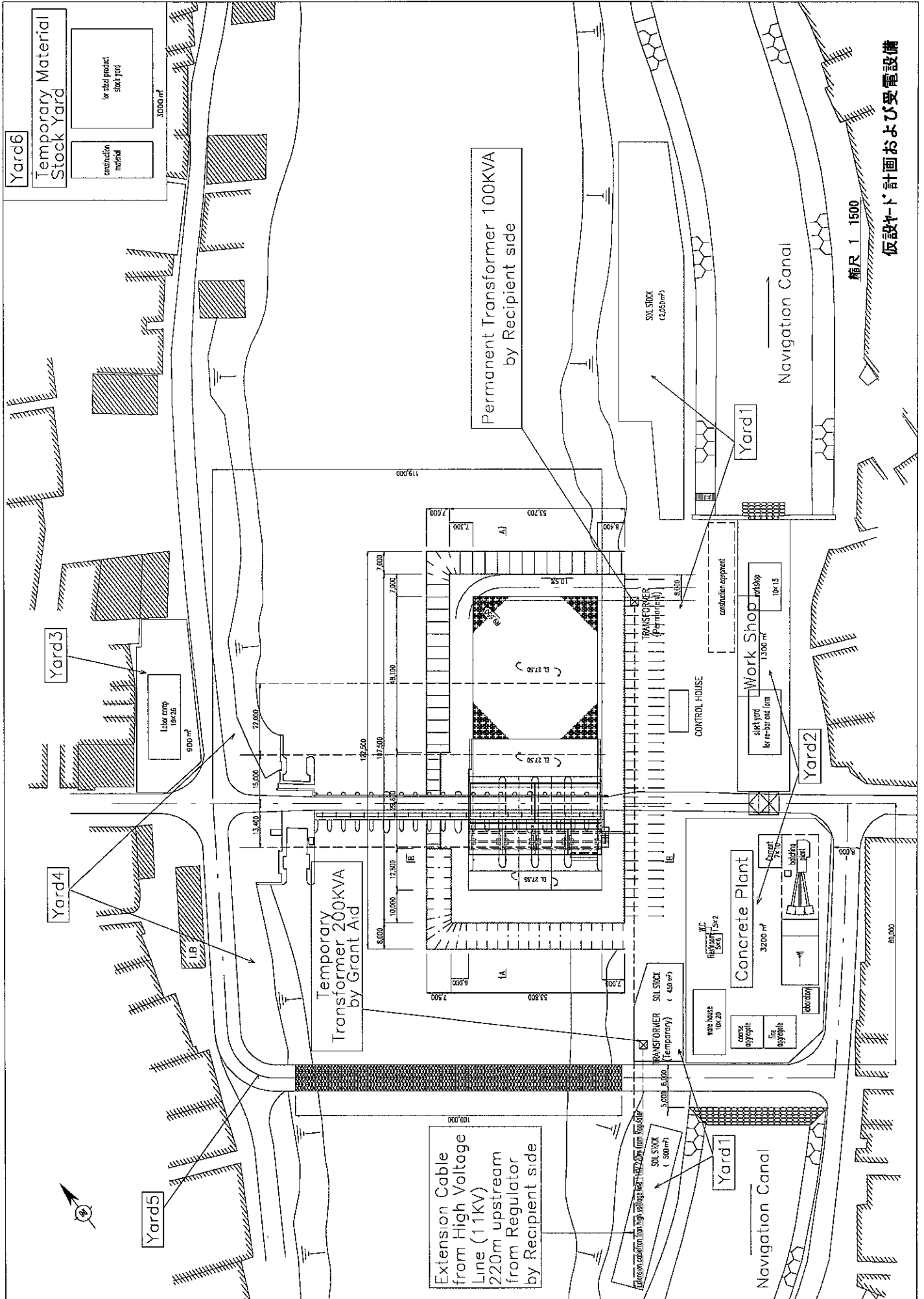




土取場/土捨て場位置図

土の運用計画





施工区分（日本側実施範囲と「エ」国側実施範囲）

	項目	日本側実施範囲	「エ」国側実施範囲	備考
1	用地	改修堰建設用地		・全ての用地を用意
		工事前仮設ヤード	・船通し水路の埋戻し・撤去	・図-16に示す範囲の用地を用意 ・仮設橋、仮締切建設許可取得、必要な用地の用意 ・船通し水路の埋戻し使用許可取得 ・仮設ヤード現場外用地の準備
2	用地整地	既設堰撤去	撤去・処分	・処分地準備、 ・関係当局からの撤去許可取得
		既設建物撤去	・仮設ヤード内の建物撤去・処分（左岸下流側半壊建物他）	・処分地準備、 ・関係当局からの撤去許可取得
3	門扉、フェンス	工事用の仮設ゲート、仮設フェンス	架設・撤去	
		堰施設の周囲のゲート、フェンス		ゲート、フェンス、駐車場の建設
4	駐車場	駐車場の建設	工事車両用駐車場の建設・撤去	堰施設内の本設駐車場の建設
5	道路	道路建設	（工事エリア内の建設） ・改修堰併設橋建設 ・締切堤上の舗装道路建設（既設舗装道路の取付含む）	（工事エリア外の建設）
		仮設迂回道路・仮設橋	・左岸側上下流の既設道路の迂回路建設/撤去（図-16参照） ・水路を渡河する仮設橋の架設・撤去（図-16, 18参照）	
6	堰本体、付帯施設、ゲート工事		・図に示す本体工事施設	・捨土用地準備
7	既設公共施設仮移設及びその他	既設の電気、照明、電話、水道の撤去・移設・復旧	・電気ポスト、電線を撤去し工事用エリア外に移設、改修後復旧 ・照明設備を撤去し迂回道路沿いに移設、改修後復旧 ・電話局、灌漑局の電話線を撤去し工事エリア外に移設、改修後復旧 ・上水道を撤去し迂回道路沿いに移設、改修後復旧	・関係当局への申請
		水位計、テレメータシステムを撤去・移設・復旧	・水位計を撤去し工事用エリア外に移設、改修後復旧 ・テレメータ設備を撤去し移設、改修後復旧	・関係当局への申請

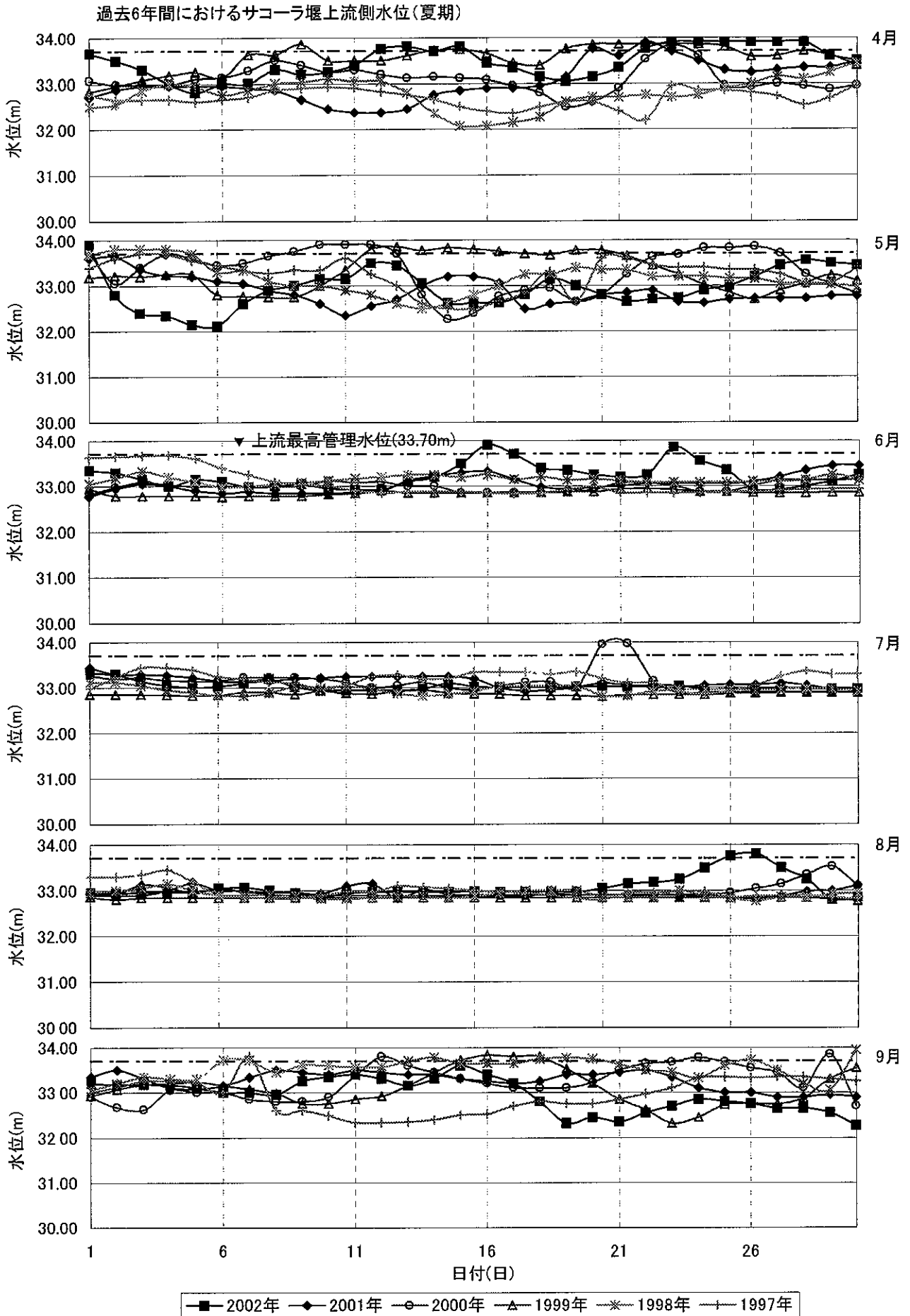
施工区分(日本側実施範囲と「エ」国側実施範囲)

	項 目	日本側実施範囲	「エ」国側実施範囲	備 考
	既設堰水門扉の修理(左岸側8門)		・工事期間中の水路の制水、通水を左岸8門で行う計画である。その8門中4門のゲート操作が現在不能でありその修理が必要。また工事期間中も8門の水門を適切に維持管理する必要がある。	
本設公共施設他	本設電気施設		受電申請、本設の変圧器までの接続配線	
			遮断機と変圧器	
		変圧器からサイト内の施設への配線		
	本設上水道		受給申請、本管から管理棟までの配管	
	本設排水施設		サイトまでの本管布設	
		サイト内の排水施設		
	本設都市ガス施設		(当事業には該当しない)	
			(当事業には該当しない)	
	本設通信電話施設		電話ラインの申請取得、管理棟内の配線盤までの電話線布設	
		配線盤設置と盤から先の延長配線		
一般家具とプロジェクト機材	(当事業には該当しない)	一般家具		
仮設公共施設	仮設電気施設	仮設変圧器の据付、工事設備への配線、仮設変圧器までの高圧電線の接続		
	仮設水道	本管の仮迂回及び本管からの仮設水道配管		
		工所用仮設井戸施設申請・設置		
	仮設電話施設	ラインの取得・配線		
8	銀行口座開設及び支払い手続		A/Pアドバイス手数料	
			支払い手数料	
9	荷卸・通関	輸入資機材の輸送費	日本から「エ」国港までの海上輸送あるいは空輸送費、及び内陸輸送費	その内本設用の資機材の内陸輸送に係わる費用
	通関手続き			免税処置(税金の支払い)と通関手続き

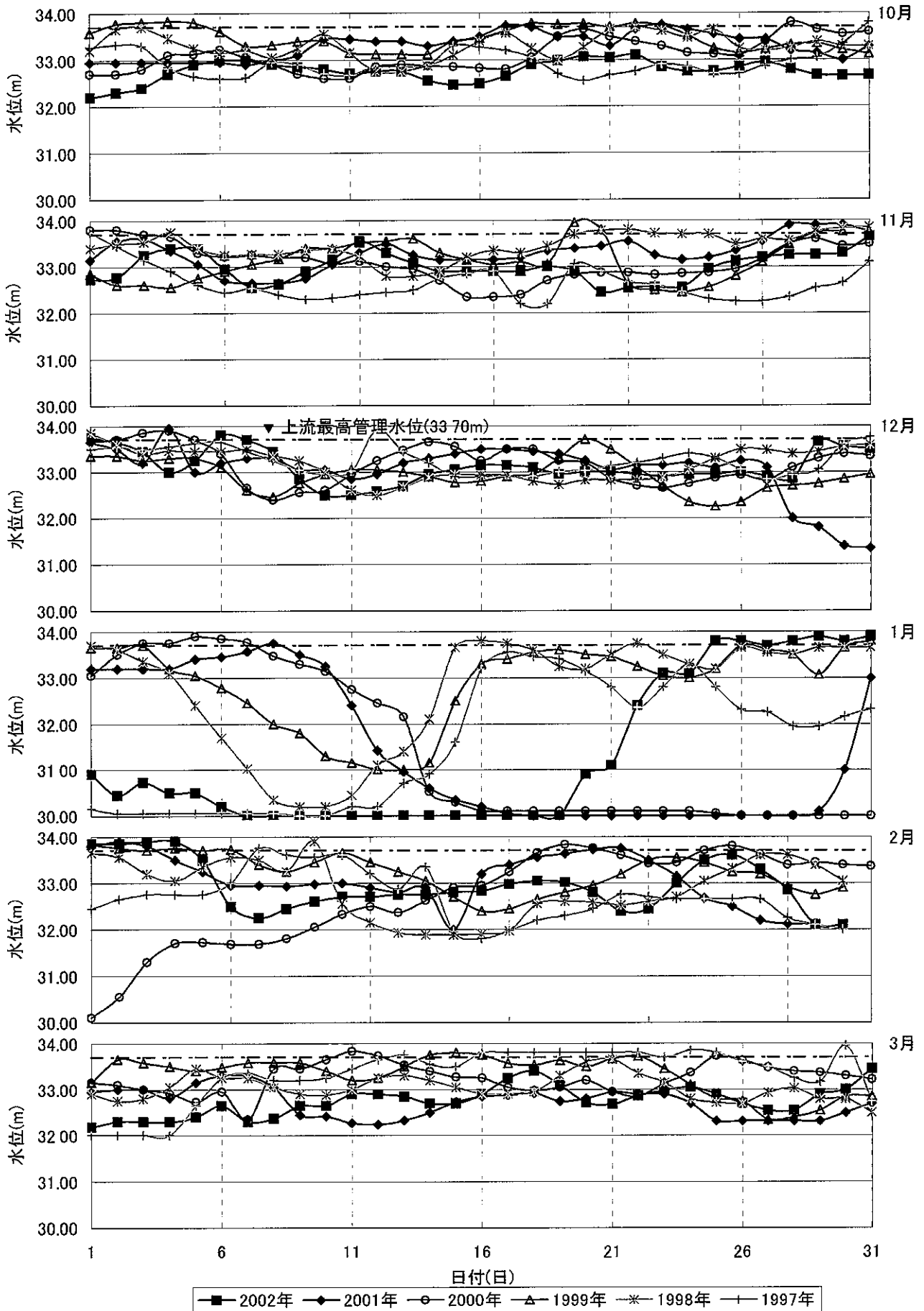
工事工程表

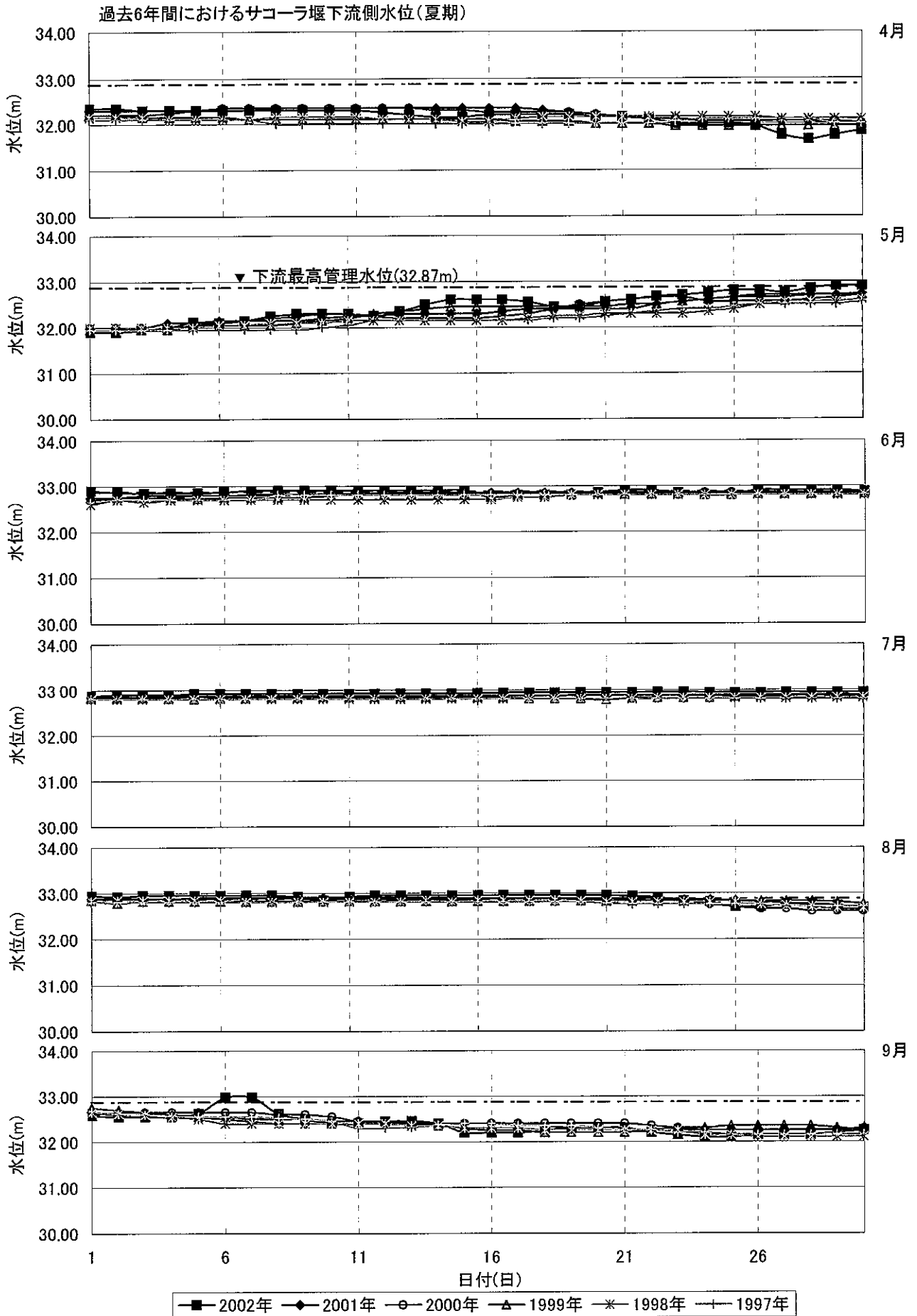
エンブレ アラブ共和国 ハハル ヨセフ通用水路サコーラ調整計画

工種	単位	全体数量	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
材料機器輸送																							
建設資材	522 F/I		▼建設資材																				
建設資材	1,996 F/I		▼建設資材																				
建設機器	453 F/I		▼建設機器																				
機械設備	1,446 F/I		▼機械設備																				
電気設備	39 F/I		▼電気設備																				
現地整備			現場整備																				
			現場整備																				
ポンプ設備			ポンプ設備																				
パイプ			パイプ																				
仮設工事			仮設工事																				
			仮設工事																				
			仮設工事																				
道路運送物除去			道路運送物除去																				
技術ポイント	1,653 m3		技術ポイント																				
			技術ポイント																				
			技術ポイント																				
			技術ポイント																				
土工事			土工事																				
			土工事																				
			土工事																				
			土工事																				
			土工事																				
220V工事			220V工事																				
			220V工事																				
			220V工事																				
			220V工事																				
配管工事			配管工事																				
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電気工事			電気工事																				
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設備工事			設備工事																				
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越障工事			越障工事																				
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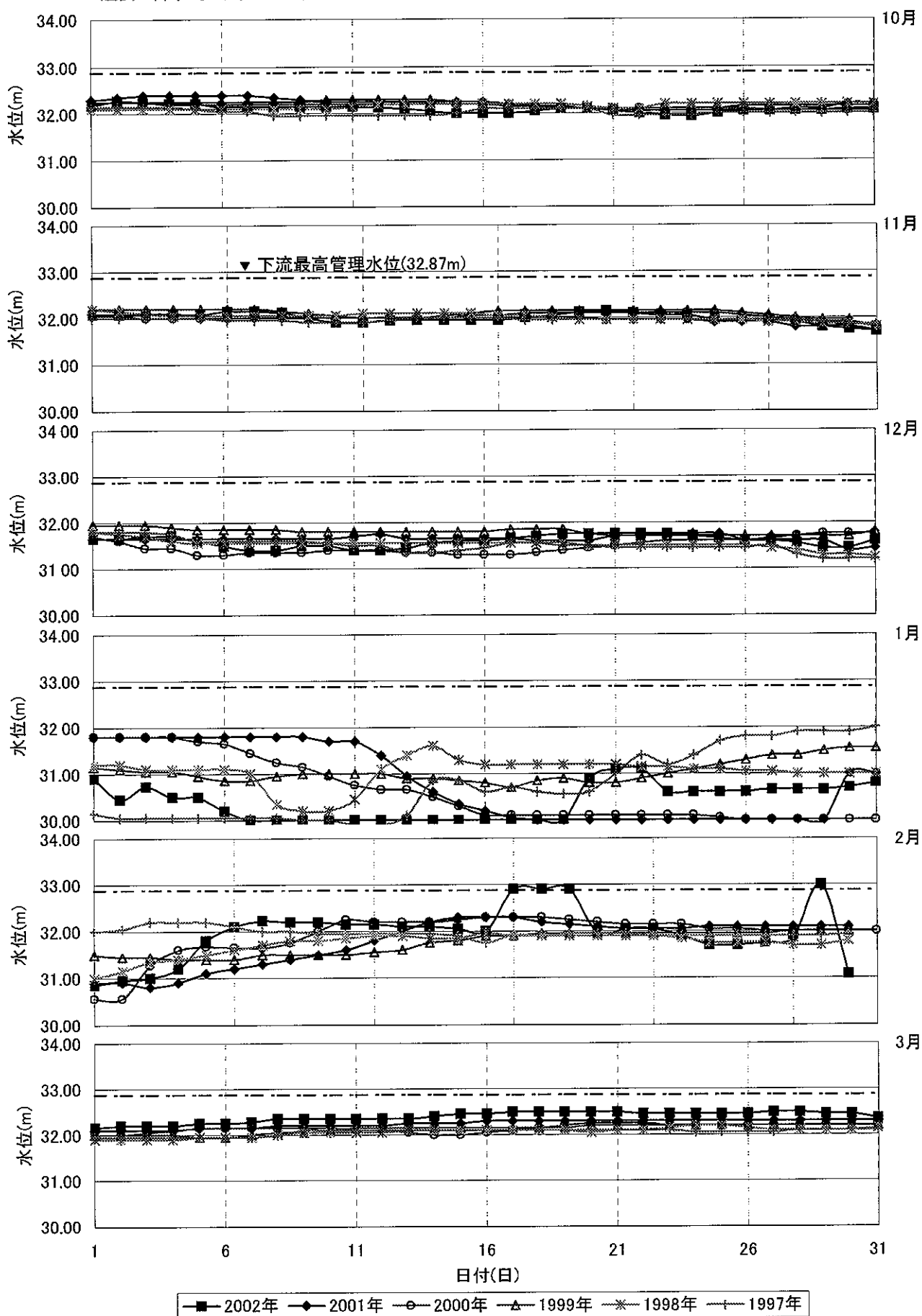


過去6年間に於けるサコーラ堰上流側水位(冬期)





過去6年間に於けるサコーラ堰下流側水位(冬期)



Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1992

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	33.10	31.10	29.93	29.90	33.10	31.60	33.35	31.90	33.85	31.75	32.57	31.90	33.80	32.35	32.55	32.50	33.33	32.25	32.80	38.55	32.60	31.80	33.42	31.60
2	33.10	31.25	29.95	29.90	33.20	31.60	33.45	31.80	33.95	31.70	32.35	31.90	33.85	32.35	32.65	32.50	33.05	32.25	32.55	38.75	32.63	31.80	33.40	31.55
3	33.00	31.15	30.45	30.40	33.27	31.60	33.55	31.80	33.90	31.65	32.25	31.95	33.40	32.40	32.60	32.50	32.87	32.25	32.40	38.60	32.57	31.80	33.35	31.50
4	33.35	30.90	31.75	30.80	33.20	31.60	33.72	31.75	33.80	31.65	32.40	32.00	33.05	32.40	32.55	32.50	32.95	32.20	32.35	38.60	32.57	31.80	33.45	31.50
5	33.57	30.90	33.00	31.10	33.37	31.60	33.87	31.70	33.60	31.65	32.37	32.05	33.05	32.40	32.65	32.50	32.32	32.20	32.37	38.63	32.57	31.80	33.70	31.45
6	33.20	31.00	33.45	30.75	33.20	31.60	33.80	31.70	33.40	31.65	32.35	32.05	32.90	32.40	32.70	32.45	32.93	32.10	32.37	38.57	32.85	31.80	33.95	31.45
7	32.60	31.00	33.90	30.75	33.05	31.60	33.62	31.70	33.45	31.65	32.60	32.00	32.75	32.40	32.75	32.45	33.22	32.05	32.35	38.40	32.90	31.80	33.75	31.45
8	31.70	31.10	33.95	30.95	32.85	31.60	33.55	31.70	33.58	31.65	32.80	32.00	32.55	32.40	32.65	32.45	33.25	32.05	32.30	38.40	33.00	31.80	33.60	31.45
9	30.65	30.60	33.85	30.85	32.85	31.60	33.55	31.75	33.70	31.65	32.80	32.00	32.63	32.40	32.55	32.45	32.90	32.00	32.32	38.40	33.15	31.80	33.80	31.35
10	30.25	30.22	33.35	31.00	32.85	31.60	33.58	31.75	33.85	31.65	32.80	32.00	32.55	32.45	32.50	32.45	32.40	32.00	32.35	38.40	33.25	31.80	33.80	31.35
11	30.05	30.02	33.85	31.20	32.90	31.60	33.60	31.75	33.80	31.65	32.63	32.10	32.53	32.45	32.50	32.45	32.05	32.00	32.27	38.45	33.35	31.75	33.57	31.35
12	30.05	30.02	32.90	31.30	32.90	31.60	33.55	31.75	33.58	31.65	32.60	32.10	32.53	32.45	32.55	32.45	32.00	31.95	32.27	38.40	33.15	31.75	33.57	31.35
13	30.05	30.02	32.10	31.50	32.85	31.65	33.20	31.80	33.47	31.65	32.75	32.10	32.53	32.45	32.55	32.45	32.12	32.00	32.25	38.40	32.95	31.75	33.65	31.30
14	30.05	30.02	33.30	31.60	32.75	31.70	32.70	31.80	33.45	31.65	32.65	32.15	32.53	32.45	32.57	32.45	32.90	32.00	32.15	38.60	32.98	31.75	33.75	31.25
15	30.03	30.00	32.25	31.70	32.65	31.75	32.50	31.80	33.38	31.65	32.45	32.20	32.48	32.40	32.58	32.53	32.90	32.00	32.30	38.64	32.95	31.75	33.80	31.25
16	30.03	30.00	32.05	31.80	32.15	31.75	32.15	31.85	33.35	31.70	32.28	32.20	32.50	32.42	32.55	32.50	32.92	32.00	32.55	38.67	32.70	31.75	33.80	31.25
17	30.03	30.00	32.20	31.80	32.05	31.75	32.45	31.85	33.45	31.70	32.35	32.20	32.55	32.45	32.55	32.50	32.70	31.95	32.65	38.90	32.85	31.75	33.72	31.25
18	30.03	30.00	32.20	31.80	32.05	31.75	32.45	31.85	33.25	31.70	32.45	32.25	32.70	32.45	32.50	32.45	32.85	31.90	32.75	38.88	32.95	31.75	33.72	31.25
19	29.93	29.90	32.80	31.80	32.15	31.75	32.42	31.85	33.35	31.70	32.65	32.30	32.57	32.50	32.97	32.45	32.82	31.90	32.85	38.72	33.05	31.75	33.72	31.25
20	29.93	29.90	32.20	31.80	32.45	31.75	32.75	31.80	33.37	31.70	32.73	32.30	32.55	32.50	32.80	32.45	32.80	31.90	32.80	38.77	32.97	31.75	33.80	31.20
21	29.93	29.90	33.70	31.80	32.60	31.75	32.90	31.75	33.47	31.70	32.75	32.30	32.55	32.50	32.85	32.45	32.72	31.90	32.85	38.79	33.03	31.70	33.73	31.20
22	29.93	29.90	33.95	31.80	32.65	31.75	33.05	31.75	33.57	31.70	32.80	32.35	32.55	32.50	32.85	32.45	32.80	31.85	32.03	38.67	32.95	31.70	33.65	31.20
23	29.93	29.90	33.95	31.80	32.68	31.75	33.20	31.75	33.50	31.75	32.85	32.35	32.60	32.50	32.85	32.45	33.15	31.85	33.22	38.68	32.95	31.70	33.65	31.20
24	29.93	29.90	33.95	31.80	32.82	31.80	33.27	31.75	33.48	31.75	32.90	32.35	32.57	32.50	32.90	32.45	33.30	31.85	33.30	38.68	32.98	31.65	33.67	31.20
25	29.93	29.90	33.95	31.60	32.88	31.85	33.25	31.75	33.55	31.75	32.85	32.40	32.55	32.50	32.80	32.45	33.40	31.85	33.50	38.68	33.10	31.65	33.62	31.25
26	29.93	29.90	33.95	31.60	32.85	31.90	33.35	31.75	33.58	31.80	32.90	32.40	32.55	32.50	32.70	32.40	33.28	31.85	33.58	38.50	33.22	31.65	33.58	31.25
27	29.93	29.90	33.90	31.60	32.70	31.90	33.47	31.75	33.52	31.85	33.05	32.40	32.55	32.50	32.70	32.40	33.15	31.85	33.45	38.81	33.28	31.65	33.60	31.25
28	29.93	29.90	33.85	31.55	32.65	31.90	33.60	31.75	33.40	31.85	33.20	32.40	32.55	32.50	32.65	32.40	33.03	31.85	33.32	38.48	33.37	31.60	33.62	31.25
29	29.93	29.90	33.50	31.60	32.80	31.90	33.80	31.75	33.00	31.90	33.40	32.35	32.55	32.50	32.63	32.35	33.03	31.85	33.10	38.48	33.43	31.60	33.37	31.25
30	29.93	29.90			32.97	31.90	33.87	31.75	32.85	31.90	33.80	32.35	32.55	32.50	32.77	32.35	33.97	31.85	32.85	38.50	33.55	31.60	33.07	31.30
31	29.93	29.90			33.10	31.90			32.65	31.90			32.55	32.50	32.15	32.30			32.75	38.51			32.82	31.35
Max	33.57	31.25	33.95	31.80	33.37	31.90	33.87	31.90	33.95	31.90	33.80	32.40	33.85	32.50	32.97	32.53	33.97	32.25	33.58	38.90	33.55	31.80	33.95	31.60
Min	29.93	29.90	29.93	29.90	32.05	31.60	32.15	31.70	32.65	31.65	32.25	31.90	32.48	32.35	32.15	32.30	32.00	31.85	32.03	38.40	32.57	31.60	32.82	31.20
Ave.	30.77	30.26	32.91	31.31	32.81	31.72	33.25	31.77	33.49	31.72	32.71	32.18	32.71	32.45	32.65	32.45	33.33	32.25	32.68	38.60	33.00	31.73	33.60	31.32

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1993

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	32.65	31.45	29.75	29.75	32.70	31.85	32.50	31.90	33.30	31.90	32.85	32.05	32.90	32.55	33.02	32.60	33.03	32.45	32.67	31.90	31.97	31.87	32.90	31.55
2	32.65	31.45	29.75	29.75	32.55	31.80	32.10	31.90	33.40	31.90	32.70	32.05	32.75	32.55	32.98	32.65	33.00	32.45	32.52	31.90	32.15	31.90	33.60	31.45
3	32.62	31.50	30.00	30.00	32.30	31.80	31.95	31.90	33.50	31.90	32.75	32.05	32.70	32.55	33.00	32.65	33.00	32.40	32.45	31.90	32.60	31.90	33.95	31.65
4	32.60	31.50	31.05	31.02	32.20	31.80	31.90	31.82	33.05	31.90	32.75	32.05	32.70	32.56	33.00	32.65	33.35	32.30	32.82	31.90	32.70	31.90	33.90	31.30
5	32.15	31.50	33.50	30.75	32.35	31.70	31.95	31.87	32.67	31.85	32.85	32.10	32.70	32.62	33.05	32.65	33.50	32.30	32.82	31.90	33.05	31.85	33.95	31.30
6	31.30	31.25	33.95	31.25	32.45	31.70	31.93	31.55	32.55	31.85	32.90	32.15	32.77	32.60	33.17	32.65	33.53	32.30	32.78	31.90	33.20	31.85	33.95	31.30
7	30.85	30.85	33.95	31.20	32.47	31.70	31.88	31.80	32.50	31.85	32.90	32.20	32.82	32.60	33.25	32.65	33.40	32.25	32.73	31.90	32.90	31.80	33.85	31.30
8	30.75	30.75	33.80	31.00	32.55	31.70	31.93	31.85	33.05	31.85	32.83	32.20	32.82	32.60	33.35	32.65	32.85	32.25	32.50	31.85	32.65	31.80	33.85	31.30
9	30.50	30.50	33.65	30.90	32.70	31.70	32.33	31.85	33.32	31.80	32.77	32.25	32.82	32.60	33.05	32.65	32.65	32.15	32.55	31.80	32.68	31.75	33.80	31.00
10	30.25	30.25	33.65	30.90	32.63	31.70	32.25	31.90	33.37	31.80	32.90	32.25	32.67	32.60	32.95	32.65	32.40	32.15	32.58	31.80	32.68	31.75	33.77	31.30
11	30.15	30.15	33.65	31.00	32.60	31.70	32.18	31.90	33.17	31.80	32.95	32.25	32.70	32.60	32.88	32.60	32.25	32.15	32.60	31.80	32.73	31.80	33.63	31.00
12	30.05	30.05	33.60	31.10	32.40	31.70	32.30	31.90	33.05	31.80	32.88	32.30	32.78	32.60	32.87	32.55	32.50	32.10	32.60	31.80	32.73	31.80	33.72	31.00
13	30.05	30.05	32.90	31.60	32.35	31.70	32.45	31.90	33.00	31.80	32.82	32.80	32.80	32.60	32.88	32.55	32.75	32.10	32.60	31.80	32.40	31.80	33.62	31.30
14	30.15	30.15	32.75	31.70	32.33	31.70	32.60	31.90	33.03	31.80	33.00	32.30	32.87	32.60	33.07	32.60	32.85	32.05	32.37	31.80	32.50	31.85	33.65	31.30
15	30.15	30.15	32.25	31.70	32.42	31.70	32.53	31.90	33.03	31.80	33.00	32.40	32.87	32.60	33.12	32.60	32.60	32.05	32.37	31.80	32.17	31.85	33.75	31.30
16	30.15	30.15	33.50	31.70	32.55	31.75	32.55	31.90	32.98	31.80	33.75	32.38	32.70	32.60	33.12	32.60	32.57	32.00	32.35	31.80	32.20	31.80	33.75	31.30
17	29.90	29.90	33.60	31.80	32.42	31.90	32.53	31.90	32.70	31.80	32.75	32.40	32.63	32.55	33.05	32.60	32.65	32.00	32.22	31.80	32.40	31.80	33.70	31.30
18	29.90	29.90	33.45	31.85	32.50	31.90	32.54	31.90	32.60	31.80	32.65	32.40	32.68	32.60	32.90	32.60	32.55	32.00	32.00	31.85	32.75	31.80	33.72	31.30
19	29.80	29.80	33.42	31.90	32.45	31.90	32.63	31.85	32.55	31.80	32.75	32.40	32.75	32.60	32.75	32.65	33.15	31.95	32.55	31.85	32.97	31.80	33.50	31.30
20	29.80	29.80	33.35	31.90	32.48	31.90	32.45	31.90	32.65	31.80	32.65	32.50	32.85	32.60	32.72	32.65	33.65	31.95	32.55	31.90	33.10	31.80	33.45	31.30
21	29.80	29.80	33.30	31.90	32.55	31.90	31.98	31.90	32.95	31.80	32.80	32.55	32.80	32.65	32.72	32.65	33.75	31.95	32.60	31.90	33.20	31.80	33.55	31.30
22	29.80	29.80	33.35	31.90	32.60	31.90	31.95	31.87	33.33	31.80	32.95	32.60	32.75	32.65	32.82	32.65	33.67	31.95	32.70	31.90	32.90	31.80	33.52	31.30
23	29.80	29.80	33.40	31.90	32.70	31.90	31.95	31.87	33.55	31.85	33.27	32.55	32.75	32.65	32.85	32.65	33.05	31.95	32.67	31.90	32.80	31.80	33.35	31.35
24	29.70	29.70	33.60	31.90	32.70	31.90	31.95	31.87	33.37	31.90	33.50	32.55	32.77	32.60	32.90	32.55	32.85	31.95	32.60	31.90	32.65	31.80	33.50	31.35
25	29.80	29.80	33.75	31.85	32.80	31.95	31.98	31.90	33.72	31.95	33.07	32.60	32.77	32.60	32.95	32.55	33.10	31.90	32.62	31.90	32.65	31.75	33.05	31.45
26	29.75	29.75	33.35	31.85	32.80	31.95	32.08	31.90	33.57	31.95	32.82	32.60	32.80	32.60	32.95	32.55	33.45	31.90	32.60	31.90	32.65	33.75	33.10	31.45
27	29.75	29.75	33.10	31.85	32.75	31.95	32.60	31.90	33.37	32.00	32.82	32.60	32.85	32.60	32.95	32.55	33.49	31.90	32.60	31.95	32.62	31.75	33.10	31.50
28	29.75	29.75	32.85	31.85	32.70	31.95	32.65	31.90	33.20	32.00	32.90	32.60	32.93	32.60	32.92	32.55	33.53	31.90	32.60	31.90	32.45	31.70	33.20	31.40
29	29.75	29.75			32.80	31.95	32.95	31.90	33.12	32.00	33.00	32.55	33.03	32.60	33.10	32.55	33.22	31.90	32.10	31.90	32.43	31.70	33.00	31.35
30	29.75	29.75			32.88	31.95	33.10	31.90	33.00	32.05	33.05	32.55	33.17	32.60	33.10	32.50	32.97	31.90	32.00	31.90	32.65	31.65	32.50	31.35
31	29.75	29.75			32.70	31.90			33.00	32.05			33.17	32.60	33.03	32.50			31.93	31.83			32.50	31.35
Max	32.65	31.50	33.95	31.90	32.88	31.95	33.10	31.90	33.72	32.05	33.75	32.60	33.17	32.65	33.35	32.65	33.75	32.45	32.82	31.95	33.20	33.75	33.95	31.65
Min	29.70	29.70	29.75	29.75	32.20	31.70	31.88	31.55	32.50	31.80	32.65	32.05	32.63	32.55	32.72	32.50	32.25	31.90	31.93	31.80	31.97	31.65	32.50	31.00
Ave.	30.44	30.27	32.94	31.35	32.56	31.82	32.29	31.87	33.09	31.87	32.92	32.36	32.81	32.60	32.98	32.60	33.03	32.45	32.50	31.87	32.65	31.87	33.50	31.33

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1994

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	32.47	31.50	30.00	30.00	32.25	32.15	33.02	31.95	33.45	31.85	32.22	32.15	32.92	32.65	32.62	32.57	32.42	32.37	32.82	31.90	32.42	31.95	33.40	31.55
2	32.47	31.60	30.00	30.00	32.15	32.05	32.70	31.95	33.45	31.85	32.20	32.13	32.98	32.65	32.65	32.60	32.50	32.45	32.72	31.90	32.65	31.95	33.90	31.55
3	32.53	31.60	30.00	30.00	32.05	31.97	32.65	31.95	33.60	31.85	32.24	32.17	33.10	32.65	32.65	32.60	32.52	32.47	32.75	31.90	33.50	31.95	33.90	31.55
4	32.77	31.60	30.20	30.20	32.05	31.97	32.68	31.90	33.70	31.80	32.32	32.25	33.27	32.65	32.72	32.67	32.52	32.47	32.95	31.90	33.85	31.95	33.85	31.55
5	33.00	31.60	31.20	31.15	32.08	32.00	32.67	31.90	33.62	31.80	32.32	32.25	33.30	32.65	32.75	32.70	32.65	32.45	32.80	31.90	33.90	31.90	33.75	31.55
6	33.15	31.60	31.95	31.30	32.28	32.18	32.85	31.90	33.75	31.80	32.60	32.25	33.35	32.65	32.78	32.73	32.73	32.45	32.75	31.70	33.90	31.70	33.65	31.45
7	33.15	31.60	32.65	30.80	32.35	32.20	33.25	31.90	33.85	31.80	32.75	32.35	33.45	32.65	32.77	32.75	32.45	32.45	32.85	31.95	33.70	31.65	33.90	31.35
8	33.10	31.60	33.45	31.70	32.45	32.20	33.40	32.30	33.75	31.80	32.75	32.35	33.43	32.65	32.80	32.75	32.50	32.35	32.80	31.95	33.50	31.65	33.80	31.35
9	32.00	31.60	33.50	31.10	32.65	32.20	33.50	31.90	33.60	31.80	32.90	32.35	33.43	32.65	32.72	32.67	32.52	32.25	32.65	31.95	33.30	31.65	33.60	31.35
10	31.10	31.05	33.35	31.10	32.70	32.15	33.45	31.90	33.70	31.80	32.85	32.35	33.05	32.65	32.72	32.67	32.47	32.42	32.65	31.90	33.25	31.65	33.50	31.35
11	30.75	30.72	33.40	30.50	32.80	32.05	33.25	31.90	33.55	31.80	32.85	32.45	32.92	32.65	32.72	32.67	32.53	32.15	32.70	31.90	33.10	31.65	33.35	31.35
12	30.35	30.32	33.00	31.40	33.00	31.90	33.15	31.90	33.45	31.80	32.88	32.50	32.85	32.60	32.74	32.69	32.45	32.05	32.85	31.85	32.80	31.75	33.20	31.40
13	30.05	30.02	32.75	31.25	33.50	31.90	32.80	31.90	33.30	31.80	32.95	32.50	32.70	32.65	32.75	32.70	32.35	32.05	32.85	31.85	32.80	31.75	33.10	31.40
14	30.05	30.02	32.75	31.35	33.55	31.90	32.82	31.90	33.12	31.80	32.98	32.50	32.70	32.65	32.85	32.75	32.00	31.95	32.85	31.85	32.85	31.75	33.10	31.40
15	30.00	30.00	32.75	31.50	33.50	31.70	32.83	31.90	32.90	31.80	33.00	32.50	32.72	32.67	32.88	32.75	32.05	32.00	32.80	31.85	32.75	31.85	33.35	31.35
16	29.90	29.90	32.75	31.65	33.65	31.80	32.65	31.90	32.80	31.80	32.67	32.60	32.72	32.67	32.80	32.75	32.10	32.05	32.85	31.85	32.75	31.80	33.60	31.35
17	29.90	29.90	32.40	31.90	33.70	31.85	32.25	31.85	32.60	31.90	32.65	32.60	32.70	32.65	32.75	32.70	32.20	32.05	32.85	31.90	32.85	31.75	33.65	31.35
18	29.90	29.90	32.05	31.90	33.65	31.90	32.28	31.85	32.45	31.90	32.65	32.60	32.72	32.67	32.75	32.70	32.40	32.05	32.90	31.90	33.30	31.80	33.75	31.35
19	29.90	29.90	32.20	31.90	33.50	31.95	32.17	31.85	32.10	32.00	32.65	32.60	32.85	32.70	32.72	32.67	32.70	32.05	33.30	31.90	33.50	31.80	33.60	31.35
20	29.90	29.90	32.50	32.05	33.10	32.00	32.20	31.85	32.04	31.97	32.65	32.60	32.80	32.75	32.75	32.70	32.90	32.05	33.40	31.95	33.50	31.80	33.60	31.35
21	29.90	29.90	33.05	32.05	32.80	32.05	32.50	31.85	32.10	32.00	32.80	32.60	32.80	32.75	32.77	32.72	33.10	32.05	33.20	31.95	33.42	31.85	33.42	31.35
22	29.90	29.90	33.45	32.05	32.70	32.05	33.05	31.85	32.40	32.00	33.00	32.60	32.80	32.75	32.80	32.70	33.30	32.05	33.15	31.95	33.25	31.85	33.15	31.40
23	29.90	29.90	33.57	32.05	32.90	32.05	33.35	31.85	32.80	32.05	33.08	32.65	32.80	32.75	32.85	32.70	33.10	32.05	32.85	31.95	32.95	31.85	33.05	31.40
24	29.90	29.90	33.00	32.15	33.25	32.05	33.80	31.85	33.30	32.05	32.90	32.65	32.75	32.70	32.75	32.65	33.05	32.00	32.80	31.95	32.93	31.85	33.10	31.40
25	29.90	29.90	32.60	32.15	33.50	32.05	33.90	31.85	33.75	32.10	32.75	32.65	32.80	32.75	32.65	32.60	33.00	32.00	32.70	31.95	33.05	31.85	33.20	31.40
26	29.90	29.90	32.90	32.15	33.58	32.05	33.55	31.85	33.72	32.10	32.70	32.65	32.80	32.75	32.62	32.57	33.05	32.00	32.55	31.95	33.30	31.80	33.10	31.45
27	29.90	29.90	32.20	32.15	33.35	32.05	33.25	31.85	33.20	32.20	32.80	32.65	32.70	32.65	32.60	32.55	33.05	31.95	32.52	31.95	33.40	31.70	32.55	31.50
28	29.90	29.90	32.25	32.15	32.98	32.05	33.15	32.85	32.85	32.20	32.83	32.65	32.70	32.65	32.60	32.55	33.20	31.95	32.47	31.95	33.30	31.70	32.55	31.55
29	29.90	29.90			32.85	32.05	33.25	31.85	32.70	32.15	32.77	32.65	32.70	32.65	32.55	32.50	32.90	31.95	32.37	31.95	33.25	31.70	32.35	31.55
30	30.00	30.00			-	-	33.40	31.85	32.70	32.10	32.85	32.65	32.72	32.67	32.43	32.38	32.82	31.90	32.37	31.95	33.38	31.60	32.35	31.55
31	30.00	30.00			32.88	32.00			32.53	32.15				32.65	32.60	32.42	32.37		32.35	31.95		31.70	31.55	
Max	33.15	31.60	33.57	32.15	33.70	32.20	33.90	32.30	33.85	32.20	33.08	32.65	33.45	32.75	32.88	32.75	33.30	32.47	33.40	31.95	33.90	31.95	33.90	31.55
Min	29.90	29.90	30.00	30.00	32.05	31.70	32.17	31.85	32.04	31.80	32.20	32.13	32.65	32.60	32.42	32.37	32.00	31.90	32.35	31.70	32.42	31.60	31.70	31.35
Ave.	30.82	30.48	32.34	31.42	32.93	32.02	32.99	31.90	33.12	31.93	32.72	32.48	32.91	32.67	32.71	32.65	32.42	32.37	32.79	31.91	33.21	31.78	33.29	31.43

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1995

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	31.75	31.55	33.55	30.90	33.25	31.90	33.00	31.90	33.75	31.75	32.50	32.35	32.78	32.75	33.08	32.75	32.92	32.55	32.75	32.05	33.55	32.00	33.05	31.65
2	32.20	31.35	33.35	31.15	33.10	31.90	32.90	32.00	33.65	31.75	32.65	32.35	32.88	32.75	33.07	32.75	32.90	32.55	33.00	32.05	33.53	32.00	33.75	31.65
3	32.50	31.35	33.35	31.30	33.00	31.90	32.45	32.00	33.53	31.75	32.85	32.40	32.90	32.75	33.00	32.75	32.83	32.50	33.20	32.05	33.20	32.00	33.65	31.65
4	32.25	31.35	33.45	31.45	32.95	31.90	32.15	32.00	33.57	31.75	32.85	32.50	32.05	32.75	33.00	32.75	32.65	32.50	32.93	32.05	32.50	32.00	33.40	31.60
5	31.40	31.20	33.65	31.45	33.00	31.90	32.07	32.00	33.70	31.75	33.00	32.50	33.25	32.75	33.05	32.75	32.53	32.50	32.50	32.05	32.45	32.00	33.10	31.55
6	30.65	30.60	33.90	31.50	33.00	31.90	32.15	32.00	33.80	31.75	33.05	32.55	33.40	32.75	33.80	32.75	32.57	32.50	32.37	32.00	32.55	32.00	32.80	31.55
7	30.45	30.40	33.65	31.50	32.90	31.95	32.50	32.00	33.82	31.75	32.85	32.60	33.05	32.75	32.76	32.73	32.57	32.45	32.20	32.00	32.40	31.90	32.75	31.40
8	30.23	30.20	33.40	31.55	32.95	31.95	32.80	32.05	33.70	31.80	32.83	32.60	32.97	32.75	32.76	32.73	32.52	32.40	32.20	32.00	32.35	31.85	32.75	31.40
9	30.11	30.10	33.25	31.65	32.80	31.95	32.85	32.05	33.20	31.80	32.88	32.60	32.90	32.75	32.76	32.73	32.43	32.40	32.15	31.95	32.25	31.85	32.75	31.40
10	30.07	30.05	33.30	31.80	32.70	32.09	32.85	32.05	33.00	31.80	32.88	32.60	32.85	32.75	32.76	32.73	32.35	32.30	32.25	31.95	32.85	31.80	32.55	31.35
11	30.02	30.00	33.30	31.80	32.70	32.10	32.88	32.05	33.10	31.80	33.00	32.55	32.76	32.71	32.78	32.75	32.15	32.12	31.95	31.90	32.00	31.85	32.45	31.35
12	29.95	29.95	33.05	31.90	32.85	32.10	32.95	32.00	33.25	31.85	33.02	32.65	32.80	32.75	32.75	32.72	32.13	32.10	31.92	31.87	32.15	31.85	32.45	31.35
13	29.90	29.90	32.85	31.90	32.90	32.15	32.90	32.00	33.20	31.85	33.05	32.65	32.95	32.75	32.73	32.73	32.10	32.07	31.90	31.85	32.55	31.85	32.37	31.35
14	29.90	29.90	32.95	31.90	33.00	32.15	32.65	32.00	33.80	31.85	33.02	32.70	32.98	32.75	33.05	32.75	32.15	32.12	31.92	31.87	32.90	31.90	32.55	31.35
15	29.90	29.90	33.15	31.90	32.75	32.10	32.45	31.95	32.50	31.85	33.00	32.70	32.98	32.75	32.95	32.75	32.30	32.15	31.97	31.92	33.55	31.90	33.50	31.35
16	29.90	29.90	33.20	32.00	32.55	32.15	32.37	31.95	32.15	31.85	32.90	32.70	33.00	32.75	32.95	32.75	32.52	32.15	32.20	31.95	33.73	31.90	34.00	31.40
17	29.90	29.90	33.20	32.00	32.70	32.15	32.25	31.95	32.00	31.85	32.80	32.70	33.25	32.75	33.00	32.75	32.53	32.10	32.50	32.00	33.73	31.90	33.60	31.40
18	29.90	29.90	33.45	32.00	32.85	32.15	32.20	31.95	32.25	31.85	32.95	32.70	33.40	32.75	33.02	32.75	32.62	32.10	32.65	32.00	33.65	31.90	33.42	31.40
19	29.90	29.90	33.55	32.00	33.05	32.15	32.65	31.95	32.85	32.00	33.02	32.70	33.55	32.75	33.10	32.75	32.75	32.10	32.68	32.00	33.45	31.90	33.45	31.40
20	30.50	30.45	33.25	32.00	33.75	32.05	33.00	31.95	33.08	32.00	33.20	32.70	33.67	32.75	33.10	32.75	32.75	32.05	32.60	32.00	33.40	31.90	33.65	31.35
21	31.20	31.05	33.25	32.00	33.90	32.15	33.25	31.95	33.10	32.00	33.25	32.70	33.72	32.75	32.95	32.75	32.80	32.05	32.70	32.00	33.15	31.90	33.70	31.35
22	32.35	31.05	33.25	32.00	33.90	32.15	33.65	31.95	33.03	32.05	33.03	32.70	33.35	32.75	32.85	32.75	32.83	32.05	32.85	32.00	32.85	31.90	33.65	31.35
23	33.55	30.75	33.20	32.00	33.90	32.15	33.80	31.90	32.60	32.10	32.93	32.70	33.30	32.75	32.88	32.75	32.88	32.05	32.90	32.00	32.55	31.90	33.40	31.40
24	33.65	30.65	33.30	31.80	33.90	32.00	33.90	31.70	32.75	32.05	32.93	32.70	33.05	32.75	32.88	32.75	33.05	32.05	32.93	32.00	32.30	31.90	33.05	31.40
25	33.65	30.65	33.50	31.80	33.85	32.00	33.85	31.75	32.70	32.10	32.93	32.70	33.00	32.75	32.88	32.75	33.22	32.10	32.70	32.05	32.00	31.80	33.15	31.40
26	33.65	30.65	33.45	31.80	33.90	32.00	33.90	31.75	32.75	32.10	32.93	32.70	33.00	32.75	32.95	32.75	32.90	32.15	32.22	32.05	32.00	31.80	32.80	31.45
27	33.65	30.65	33.60	31.80	33.90	31.95	33.85	31.75	32.75	32.25	32.80	32.70	33.05	32.75	33.20	32.70	32.65	32.10	32.08	32.05	32.20	31.70	32.30	31.55
28	33.65	30.65	33.55	31.90	33.90	31.85	33.80	31.75	32.90	32.30	32.80	32.75	33.10	32.75	33.22	32.70	32.55	32.10	32.12	32.05	32.55	31.65	31.60	31.55
29	33.95	30.65	33.95	31.85	33.83	31.75	32.70	32.35	32.70	32.35	32.78	32.75	33.10	32.75	33.07	32.70	32.45	32.10	32.40	32.05	32.90	31.65	30.68	30.65
30	33.70	30.70	33.90	31.85	33.90	31.75	32.55	32.35	32.55	32.35	32.78	32.75	33.10	42.75	32.90	32.65	32.52	32.05	32.65	32.05	33.40	31.65	31.70	31.55
31	33.70	30.70	33.45	31.90	33.45	31.90	32.47	32.35	32.47	32.35	32.47	32.35	33.10	42.75	32.82	32.60	33.15	32.05	33.15	32.05	30.32	30.40	30.32	30.40
Max	33.95	31.55	33.90	32.00	33.90	32.15	33.90	32.05	33.82	32.35	33.25	32.75	33.72	42.75	33.22	32.75	33.22	32.55	33.20	32.05	33.73	32.00	34.00	31.65
Min	29.90	29.90	32.85	30.90	32.55	31.85	32.07	31.70	32.00	31.75	32.50	32.35	32.05	32.71	32.75	32.60	32.10	32.05	31.90	31.85	32.00	31.65	30.32	30.40
Ave.	31.55	30.52	33.35	31.74	33.26	32.01	32.99	31.93	33.04	31.95	32.92	32.63	33.07	33.39	32.94	32.73	32.92	32.55	32.47	32.00	32.82	31.87	32.87	31.39

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water Levels and Discharges in 1996

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	30.10	30.10	33.60	31.40	32.45	28.70	32.50	31.95	33.40	31.75	32.57	32.52	33.27	32.70	32.95	32.80	32.70	32.60	32.23	32.20	32.85	32.05	33.55	31.75
2	30.05	30.05	33.72	31.50	32.45	28.70	32.50	32.00	33.53	31.85	32.62	32.57	33.35	32.70	32.83	32.80	32.65	32.55	32.25	32.15	32.80	32.05	33.20	31.75
3	30.05	30.05	33.30	31.80	32.35	28.80	32.45	32.05	32.30	31.85	32.65	32.55	33.10	32.70	32.83	32.80	32.72	32.50	32.35	32.10	32.75	32.05	33.00	31.60
4	30.00	30.00	32.65	31.80	32.30	28.75	32.15	32.10	31.95	31.90	32.75	32.55	32.85	32.75	32.80	32.77	32.67	32.50	32.30	32.10	32.65	32.05	32.80	31.60
5	29.95	29.95	32.50	31.90	32.20	28.75	32.12	32.07	31.95	31.90	32.90	32.60	32.80	32.75	32.80	32.77	32.70	32.45	32.25	32.10	32.72	32.00	32.63	31.55
6	29.90	29.90	30.40	31.90	32.23	28.75	32.20	32.10	31.90	31.85	32.93	32.65	32.78	32.75	32.80	32.77	32.78	32.45	32.20	32.10	32.75	31.95	32.85	31.50
7	29.95	29.95	32.55	31.80	32.32	28.65	32.50	32.00	31.90	31.85	33.00	32.65	32.77	32.74	32.80	32.77	32.70	32.45	32.10	32.07	33.07	31.85	33.10	31.45
8	29.90	29.90	32.55	32.00	32.50	28.70	32.50	32.00	32.15	31.90	32.95	32.70	32.78	32.75	32.82	32.80	32.53	32.45	32.08	32.07	33.15	31.85	33.27	31.50
9	29.90	29.90	32.40	32.00	32.65	28.70	32.60	32.00	32.75	31.85	32.90	32.70	32.78	32.75	32.82	32.80	32.48	32.45	32.03	32.00	33.10	31.85	32.95	31.55
10	29.90	29.90	32.40	32.00	33.00	29.05	32.73	32.00	32.90	32.00	32.78	32.70	32.80	32.75	32.82	32.80	32.42	32.10	32.10	32.00	32.92	31.90	32.55	31.55
11	29.90	29.90	32.35	32.00	32.95	28.90	32.65	32.00	32.90	32.00	32.90	32.70	32.78	32.75	32.77	32.75	32.42	32.40	32.10	32.07	32.85	31.90	32.55	31.60
12	29.90	29.90	32.38	32.00	32.70	28.60	32.60	32.00	32.88	32.05	32.80	32.70	32.78	32.75	32.78	32.76	32.45	32.40	32.35	32.10	32.95	31.90	32.40	31.65
13	29.90	29.90	32.55	32.00	32.68	28.70	32.65	32.10	32.75	32.20	32.83	32.70	32.78	32.75	32.82	32.80	32.58	32.40	32.40	32.10	32.93	31.95	32.85	31.65
14	29.90	29.90	32.75	32.00	32.65	29.00	32.63	32.20	32.45	32.20	33.00	32.70	32.85	32.75	32.82	32.80	32.65	32.35	32.40	32.10	32.95	31.95	32.90	31.65
15	29.90	29.90	33.10	32.00	32.75	29.10	32.45	32.20	32.55	32.20	33.50	32.70	33.00	32.75	32.89	32.80	32.90	32.35	32.52	32.10	32.75	31.95	32.60	31.65
16	30.30	30.28	33.40	31.95	33.00	29.53	32.22	32.17	33.00	32.20	33.25	32.70	33.10	32.75	32.84	32.80	32.80	32.30	32.47	32.05	32.50	31.95	32.50	31.60
17	30.75	30.72	33.45	31.95	33.10	29.97	32.27	32.15	33.00	32.20	33.10	32.70	33.08	32.75	32.82	32.80	32.70	32.25	32.45	32.05	32.25	31.95	32.38	31.55
18	30.98	30.95	33.45	31.95	33.50	29.60	32.70	32.15	32.85	32.20	33.08	32.70	32.95	32.75	32.77	32.75	32.68	32.25	32.47	32.05	32.25	31.95	32.30	31.55
19	31.30	31.00	33.25	31.95	32.70	29.35	32.73	32.15	32.50	32.20	33.15	32.70	32.85	32.75	32.77	32.75	32.70	32.20	32.53	32.05	32.28	31.95	32.40	31.55
20	32.30	30.75	33.10	31.95	32.95	29.10	32.83	32.10	32.48	32.20	33.30	32.70	32.85	32.75	32.80	32.75	32.70	32.20	32.65	32.05	32.27	31.95	32.50	31.50
21	33.02	30.50	33.05	31.90	32.85	29.45	32.90	32.05	32.53	32.20	33.33	32.70	32.85	32.75	32.80	32.75	32.80	32.20	32.73	32.05	32.15	31.95	32.20	31.50
22	33.45	30.75	32.95	31.85	33.10	29.60	33.10	32.05	32.60	32.20	33.25	32.70	32.82	32.80	32.90	32.75	32.78	32.21	32.57	32.05	32.25	31.90	32.10	31.50
23	33.45	30.60	32.80	31.80	33.75	29.50	33.20	32.05	32.70	32.20	33.38	32.70	32.83	32.80	33.10	32.75	32.75	32.25	32.48	32.10	32.30	31.90	32.40	31.50
24	33.45	30.60	32.85	31.80	33.17	29.50	33.48	31.90	32.63	32.20	33.33	32.70	32.83	32.80	33.23	32.75	32.90	32.25	32.55	32.10	32.35	31.90	32.50	31.55
25	33.60	30.60	32.55	31.80	32.80	29.45	32.90	31.80	32.60	32.20	33.30	32.70	32.87	32.80	33.25	32.75	32.98	32.30	32.60	32.10	32.45	31.90	32.35	31.55
26	33.75	30.75	32.35	31.80	32.45	29.45	33.60	31.85	32.17	32.10	33.30	32.70	32.83	32.80	33.23	32.75	32.98	32.30	32.95	32.05	32.55	31.85	32.35	31.50
27	33.75	30.75	32.27	31.80	32.15	29.40	33.60	31.85	32.23	32.18	33.28	32.70	32.83	32.80	33.15	32.75	32.95	32.30	33.35	32.05	32.33	31.75	32.30	31.50
28	33.70	30.70	32.10	31.90	32.10	29.20	33.63	31.85	32.32	32.27	33.10	32.70	32.90	32.80	33.10	32.75	32.75	32.30	33.55	32.05	33.25	31.75	32.10	31.35
29	33.60	30.90	32.30	31.90	32.05	28.90	33.75	31.70	32.35	32.27	33.00	32.70	33.10	32.80	33.15	32.75	32.50	32.30	33.60	32.05	33.77	31.75	32.35	31.50
30	33.35	31.05				31.97	28.90	33.70	31.70	32.38	32.30	33.00	33.25	32.80	33.10	32.70	32.30	32.25	33.45	32.05	33.75	31.75	32.35	31.50
31	33.30	31.25				32.10	28.85		32.46	32.41	33.38	32.80	32.90	32.70					33.15	32.05			32.35	31.50
Max	33.75	31.25	33.72	32.00	33.75	29.97	33.75	32.20	33.53	32.41	33.50	32.70	33.38	32.80	33.25	32.80	32.98	32.60	33.60	32.20	33.77	32.05	33.55	31.75
Min	29.90	29.90	30.40	31.40	31.97	28.60	32.12	31.70	31.90	31.75	32.57	32.52	32.77	32.70	32.77	32.70	32.30	32.10	32.03	32.00	32.15	31.75	32.10	31.35
Ave.	31.40	30.37	32.73	31.88	32.64	29.08	32.79	32.01	32.55	32.09	33.04	32.67	32.93	32.76	32.91	32.77	32.70	32.60	32.56	32.07	32.73	31.91	32.60	31.55

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1997

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	30.15	30.15	32.45	32.00	32.00	31.95	32.75	32.10	33.40	31.95	33.63	32.65	32.98	32.80	33.30	32.80	33.00	32.67	33.27	32.15	33.75	32.00	33.50	31.80
2	30.05	30.05	32.65	32.05	32.00	31.95	32.65	32.10	33.60	31.95	33.65	32.70	33.23	32.80	33.30	32.80	33.12	32.62	33.33	32.15	33.45	32.00	33.55	31.80
3	30.05	30.05	32.75	32.20	32.00	31.95	32.65	32.10	33.70	31.95	33.67	32.70	33.45	32.80	33.35	32.80	33.25	32.60	33.30	32.15	33.15	32.00	33.50	31.80
4	30.05	30.05	32.75	32.20	32.00	31.95	32.65	32.10	33.70	31.95	33.68	32.70	33.45	32.80	33.45	32.80	33.25	32.57	32.85	32.15	32.90	32.00	33.55	31.75
5	30.05	30.05	32.75	32.20	32.00	31.95	32.65	32.10	33.55	31.95	33.60	32.70	33.40	32.80	33.20	32.80	33.20	32.55	32.65	32.10	32.60	32.00	33.63	31.60
6	30.05	30.05	33.00	32.10	33.25	31.95	32.65	32.10	33.45	31.95	33.40	32.70	33.25	32.80	32.90	32.80	33.00	32.55	32.60	32.05	32.45	31.95	33.65	31.60
7	30.05	30.05	33.75	32.00	33.35	31.95	32.70	32.10	33.35	31.95	33.25	32.70	33.20	32.80	32.87	32.80	33.80	32.55	32.62	32.05	32.53	31.95	33.45	31.60
8	30.05	30.05	33.60	32.00	33.20	32.00	32.85	32.00	33.28	31.95	33.10	32.80	33.13	32.80	32.83	32.80	32.60	32.52	32.95	31.95	32.40	31.95	33.25	31.60
9	30.00	30.00	33.55	31.95	33.20	32.10	32.90	32.00	33.35	31.95	33.05	32.80	33.10	32.80	32.83	32.80	32.60	32.50	32.90	31.95	32.30	31.90	33.05	31.60
10	30.00	30.00	33.60	31.95	33.25	32.10	32.93	32.00	33.35	32.00	33.00	32.80	32.97	32.80	32.90	32.80	32.48	32.45	32.70	31.95	32.33	31.90	32.95	31.55
11	30.20	29.90	33.20	31.95	33.45	32.10	32.90	32.00	33.60	32.05	32.90	32.80	33.05	32.80	32.97	32.80	32.33	33.30	32.67	31.95	32.40	31.90	33.02	31.50
12	30.20	29.90	32.87	31.95	33.65	32.10	32.82	32.00	33.25	32.15	32.85	32.80	33.25	32.80	32.97	32.80	32.33	32.30	32.85	31.95	32.45	31.95	33.92	31.50
13	30.70	30.10	33.35	31.95	33.75	32.10	32.75	32.00	33.00	32.15	32.88	32.80	33.28	32.80	33.10	32.80	32.35	32.32	32.85	31.95	32.50	32.00	33.45	31.35
14	30.90	30.85	31.95	31.90	33.55	32.10	32.65	32.00	32.60	32.15	32.88	32.80	33.20	32.80	33.08	32.80	32.40	32.37	32.88	31.95	32.75	32.00	33.20	31.35
15	31.60	30.85	31.80	31.75	33.50	32.10	32.50	32.00	32.50	32.15	32.88	32.80	33.20	32.80	33.05	32.80	32.50	32.40	32.30	32.00	32.85	32.00	32.90	31.40
16	33.20	30.60	31.97	31.92	33.80	32.10	32.40	32.00	32.65	32.15	32.85	32.80	33.35	32.80	33.00	32.80	32.52	32.40	32.27	32.10	32.90	32.00	32.90	31.45
17	33.55	30.70	32.20	31.90	33.80	32.10	32.35	32.00	32.65	32.15	32.85	32.80	33.35	32.80	32.97	32.80	32.70	32.35	33.20	32.10	32.20	31.95	32.90	31.55
18	33.45	30.60	32.30	31.95	33.80	32.10	32.50	32.00	32.85	32.15	32.85	32.80	33.35	32.80	32.95	32.80	32.80	32.35	33.05	32.10	32.20	31.95	32.90	31.55
19	33.40	30.55	32.45	31.95	33.80	32.10	32.60	32.00	33.30	32.20	32.92	32.80	33.30	32.80	32.90	32.80	32.75	32.35	32.70	32.10	33.05	31.95	33.00	31.50
20	33.15	30.60	32.75	31.95	33.80	32.10	32.60	32.00	32.65	32.20	32.98	32.80	33.35	32.80	32.83	32.80	32.75	32.30	32.55	32.10	32.90	31.95	33.03	31.50
21	32.80	31.00	32.70	31.90	33.80	32.10	32.40	32.00	33.60	32.25	32.85	32.80	33.20	32.80	32.80	32.77	32.85	32.25	32.67	31.95	32.67	31.95	33.13	31.45
22	32.35	31.40	32.65	31.90	33.80	32.10	32.20	32.00	33.60	32.30	32.85	32.80	33.10	32.80	32.95	32.75	32.97	32.25	32.75	31.95	32.60	31.95	33.20	31.45
23	32.80	31.20	32.65	31.90	33.70	32.10	32.95	32.05	33.45	32.35	32.85	32.80	33.10	32.80	32.95	32.75	33.10	32.20	32.90	31.95	32.45	31.95	33.30	31.45
24	33.30	31.40	32.65	31.90	33.85	32.05	32.85	32.10	33.40	32.40	32.85	32.80	33.20	32.80	32.98	32.75	33.32	32.20	32.85	31.95	32.30	31.95	33.40	31.45
25	32.80	31.70	32.65	31.90	33.80	32.05	32.85	32.10	33.40	32.40	32.87	32.80	33.25	32.80	32.97	32.75	33.35	32.15	32.70	32.00	32.25	31.95	33.30	31.45
26	32.30	31.80	32.25	31.90	33.60	32.05	32.80	32.10	33.35	32.45	32.87	32.80	33.25	32.80	32.85	32.75	33.32	32.15	32.70	32.00	32.25	31.95	33.05	31.45
27	32.25	31.80	32.10	31.90	33.50	32.05	32.72	32.10	33.35	32.50	32.90	32.80	33.05	32.80	32.88	32.75	33.35	32.15	32.88	32.00	32.35	31.95	32.83	31.50
28	31.95	31.90	32.00	31.95	33.25	32.10	32.53	32.10	33.25	32.50	32.92	32.80	33.25	32.80	32.88	32.72	33.35	32.15	33.00	32.00	32.53	31.90	32.93	31.30
29	31.95	31.90	32.00	31.95	33.17	32.10	32.68	32.00	33.05	32.50	32.93	32.80	33.37	32.80	32.90	32.70	33.30	32.15	33.05	32.00	32.65	31.85	33.05	31.20
30	32.15	31.90	32.00	31.95	33.95	32.10	32.95	32.00	33.05	32.50	32.93	32.80	33.30	32.80	32.85	32.70	33.25	32.15	33.35	32.00	33.10	31.85	33.60	31.20
31	32.32	32.00	32.00	31.95	32.75	32.10	32.00	32.00	33.40	32.55	33.30	32.80	33.20	32.80	32.82	32.70	33.30	32.80	33.80	32.00	33.80	32.00	33.75	31.20
Max	33.55	32.00	33.75	32.20	33.95	32.10	32.95	32.10	33.70	32.55	33.68	32.80	33.45	32.80	33.45	32.80	33.80	33.30	33.80	32.15	33.75	32.00	33.92	31.80
Min	30.00	29.90	31.80	31.75	32.00	31.95	32.20	32.00	32.50	31.95	32.83	32.65	32.85	32.80	32.80	32.70	32.33	32.15	32.27	31.95	32.20	31.85	32.83	31.20
Ave.	31.54	30.75	32.69	31.97	33.32	32.06	32.68	32.04	33.24	32.19	33.06	32.78	33.20	32.80	32.99	32.78	33.00	32.67	32.88	32.02	32.64	31.95	33.25	31.50

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1998

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	33.70	31.20	33.65	31.00	32.90	31.90	30.40	32.15	33.68	32.00	33.05	32.60	33.12	32.80	32.95	32.83	33.05	32.65	33.20	32.10	33.40	32.20	33.85	31.80
2	33.60	31.20	33.55	31.15	32.75	31.90	32.55	32.15	33.80	32.00	33.18	32.70	33.12	32.80	33.00	32.84	33.20	32.62	33.65	32.10	33.50	32.15	33.60	31.75
3	33.35	31.10	33.20	31.35	32.80	31.90	32.85	32.15	33.80	32.00	33.33	32.65	33.05	32.80	33.05	32.84	33.35	32.60	33.70	32.10	33.53	32.10	33.40	31.70
4	33.10	31.10	33.05	31.40	33.05	31.90	33.00	32.10	33.80	32.00	33.20	32.70	32.95	32.80	33.15	32.84	33.30	32.55	33.47	32.10	33.75	32.05	33.47	31.60
5	32.40	31.10	33.35	31.50	33.45	31.95	32.93	32.10	33.70	32.00	33.10	32.70	32.90	32.80	33.00	32.84	33.30	32.50	33.25	32.10	33.40	32.05	33.45	31.55
6	31.70	31.10	33.55	31.60	33.25	31.95	32.75	32.10	33.30	32.05	32.98	32.70	32.83	32.80	33.90	32.84	33.72	32.40	33.15	32.10	33.25	32.05	33.45	31.55
7	31.02	31.00	33.50	31.70	33.25	31.95	32.85	32.10	33.34	32.05	33.00	32.70	32.82	32.80	32.90	32.80	33.72	32.40	33.20	32.10	33.27	32.05	33.50	31.55
8	30.35	30.35	33.25	31.80	33.05	32.00	33.00	32.15	33.10	32.10	33.05	32.70	32.88	32.80	32.92	32.80	33.45	32.40	33.05	32.10	33.27	32.05	33.35	31.55
9	30.20	30.20	33.90	31.80	32.90	32.95	33.03	32.15	33.00	32.10	33.08	32.70	32.03	32.80	32.88	32.80	33.62	32.40	33.25	32.10	33.35	32.05	33.25	31.55
10	30.20	30.20	32.55	31.85	32.88	32.05	33.10	32.15	33.00	32.10	33.12	32.70	33.00	32.80	32.82	32.80	33.60	32.40	33.55	32.10	33.38	32.05	33.00	31.55
11	30.45	30.45	32.15	31.90	33.00	32.05	33.05	32.15	32.90	32.15	33.17	32.70	33.03	32.80	32.82	32.80	33.57	32.40	33.15	32.15	33.20	32.10	32.60	31.55
12	31.10	31.10	31.93	31.90	33.25	32.05	33.05	32.10	32.80	32.15	33.20	32.70	32.87	32.80	32.85	32.80	33.57	32.40	32.75	32.20	32.80	32.10	32.50	31.55
13	31.40	31.40	31.88	31.85	33.30	32.10	32.80	32.10	32.60	32.15	33.25	32.70	32.97	32.80	32.88	32.80	33.70	32.35	32.75	32.20	32.80	32.10	32.67	31.55
14	32.10	31.60	31.88	31.85	33.20	32.10	32.35	32.10	32.50	32.15	33.25	32.70	32.82	32.80	32.87	32.84	33.78	32.35	32.87	32.20	32.90	32.10	32.88	31.55
15	33.65	31.30	31.90	31.97	33.05	32.10	32.08	32.05	32.60	32.15	33.25	32.70	32.86	32.80	32.84	32.80	33.65	32.30	33.10	32.20	33.20	32.10	32.95	31.55
16	33.80	31.20	31.97	31.90	32.90	32.10	32.08	32.05	32.80	32.15	33.25	32.70	32.92	32.80	32.88	32.84	33.65	32.30	33.40	32.20	33.35	32.05	32.93	31.55
17	33.75	31.20	32.55	31.90	32.90	32.10	32.15	32.12	33.00	32.15	33.15	32.75	33.03	32.80	32.95	32.84	33.65	32.30	33.57	32.20	33.30	32.05	32.93	31.55
18	33.60	31.20	32.60	31.90	32.95	32.10	32.27	32.15	33.25	32.20	33.20	32.75	33.03	32.80	33.00	32.84	33.75	32.25	33.25	32.20	33.45	32.00	32.80	31.55
19	33.25	31.20	32.58	31.90	33.30	32.10	32.60	32.15	33.25	32.25	33.13	32.80	33.03	32.80	33.00	32.84	33.77	32.25	33.00	32.20	33.70	31.95	32.72	31.55
20	33.20	31.20	32.52	31.90	33.60	32.05	32.70	32.15	33.40	32.25	33.15	32.80	33.03	32.80	33.00	32.82	33.75	32.25	33.27	32.15	33.78	31.95	32.82	31.50
21	33.50	31.20	32.60	31.90	33.65	32.10	32.70	32.15	33.35	32.30	33.12	32.80	32.82	32.80	32.85	32.80	33.63	32.25	33.65	32.10	33.80	31.95	32.82	31.50
22	33.75	31.15	32.70	31.85	33.35	32.10	32.75	32.15	33.35	32.30	33.08	32.80	32.82	32.80	32.85	32.80	33.50	32.25	33.70	32.10	33.72	31.95	32.82	31.50
23	33.50	31.15	33.05	31.75	33.15	32.15	32.70	32.15	33.20	32.30	33.08	32.80	32.92	32.82	32.87	32.80	33.45	32.25	33.62	32.20	33.70	31.95	32.88	31.50
24	33.30	31.10	33.32	31.75	32.80	32.20	32.75	32.15	33.20	32.30	33.08	32.80	32.95	32.82	33.00	32.80	33.32	32.15	33.48	32.20	33.70	31.95	33.05	31.50
25	33.20	31.10	33.60	31.75	32.72	32.20	32.90	32.15	33.20	32.35	33.08	32.80	32.95	32.82	32.88	32.80	33.60	32.15	33.65	32.20	33.50	31.95	33.30	31.50
26	33.65	31.05	33.60	31.70	32.70	32.15	33.00	32.15	33.15	32.40	33.10	32.80	32.96	32.82	32.82	32.80	33.73	32.10	33.25	32.20	33.60	31.90	33.50	31.50
27	33.55	31.05	33.40	31.70	32.93	32.10	33.15	32.10	33.15	32.50	33.13	32.80	32.94	32.82	32.77	32.75	33.50	32.10	33.20	32.20	33.57	31.90	33.48	31.45
28	33.50	31.00	33.05	31.80	33.03	32.10	33.10	32.10	33.05	32.55	33.13	32.80	32.97	32.82	32.85	32.72	33.20	32.10	33.27	32.20	33.75	31.85	33.40	31.40
29	33.65	31.00			32.80	32.10	33.25	32.10	33.05	32.55	33.25	32.80	32.97	32.82	32.85	32.70	33.05	32.10	33.40	32.20	33.83	31.85	33.45	31.30
30	33.65	31.00			32.80	32.10	33.45	32.10	33.02	32.55	33.13	32.80	32.97	32.83	32.93	32.67	33.95	32.10	33.30	32.20	33.85	31.80	33.55	31.30
31	33.65	31.00			32.50	32.15			32.97	32.60			32.92	32.83	32.93	32.67			33.30	32.20			33.58	31.25
Max	33.80	31.60	33.90	31.97	33.65	32.20	33.45	32.15	33.80	32.60	33.33	32.80	33.12	32.83	33.90	32.84	33.95	32.65	33.70	32.20	33.85	32.20	33.85	31.80
Min	30.20	30.20	31.88	31.00	32.50	31.90	30.40	32.05	32.50	32.00	32.98	32.60	32.03	32.80	32.77	32.67	33.05	32.10	32.75	32.10	32.80	31.80	32.50	31.25
Ave.	32.74	31.04	32.89	31.73	33.04	32.06	32.71	32.12	33.17	32.22	33.14	32.74	32.92	32.81	32.94	32.80	33.05	32.65	33.30	32.16	33.45	32.01	33.16	31.53

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 1999

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	33.65	31.15	33.83	31.50	33.15	32.00	32.82	32.20	33.18	31.95	32.95	32.75	32.85	32.83	32.86	32.84	32.93	32.75	33.58	32.25	32.85	32.20	33.35	31.95
2	33.65	31.10	33.75	31.45	33.65	32.00	32.95	32.20	33.22	31.95	32.78	32.75	32.85	32.83	32.80	32.78	32.07	32.70	33.77	32.25	32.60	32.20	33.35	31.95
3	33.70	32.05	33.70	31.45	33.58	32.00	33.08	32.15	33.22	31.95	32.78	32.75	32.85	32.83	32.84	32.82	33.17	32.65	33.80	32.25	32.60	32.20	33.25	31.95
4	33.20	31.05	33.75	31.40	33.50	32.00	33.18	32.15	33.25	31.95	32.78	32.75	32.84	32.82	32.84	32.82	33.20	32.60	33.83	32.25	32.55	32.20	33.30	31.90
5	33.05	30.95	33.70	31.40	33.40	31.95	33.25	32.15	33.25	32.05	32.78	32.73	32.82	32.80	32.84	32.82	33.23	32.55	33.80	32.25	32.75	32.20	33.30	31.85
6	32.78	30.85	33.72	31.40	33.48	31.95	33.13	32.15	32.80	32.05	32.76	32.75	32.84	32.82	32.84	32.82	33.15	32.55	33.60	32.25	32.90	32.20	33.10	31.85
7	32.45	30.85	33.40	31.50	33.58	32.00	33.62	32.10	32.00	32.05	32.78	32.75	32.90	32.82	32.84	32.82	33.07	32.50	33.30	32.25	33.05	32.20	32.60	31.85
8	32.00	30.95	33.25	31.50	33.58	32.05	33.62	32.90	32.75	32.05	32.78	32.75	32.90	32.84	32.84	32.82	32.98	32.50	33.32	32.25	33.17	32.15	32.47	31.85
9	31.80	31.00	33.45	31.50	33.58	32.05	33.85	32.10	32.75	32.10	32.78	32.75	32.85	32.83	32.84	32.82	32.75	32.50	33.40	32.25	33.40	32.10	32.75	31.80
10	31.30	31.00	33.65	31.50	33.40	32.10	33.50	32.10	33.00	32.15	32.82	32.79	32.93	32.84	32.84	32.82	32.75	32.45	33.40	32.30	33.40	32.05	32.95	31.80
11	31.15	31.00	33.45	31.55	33.20	32.15	33.50	32.10	33.35	32.20	32.84	32.82	32.88	32.84	32.84	32.82	32.85	32.45	33.15	32.30	33.52	32.00	33.05	31.80
12	31.00	31.00	33.25	31.60	33.25	32.15	33.50	32.10	33.80	32.30	32.90	32.82	32.86	32.84	32.84	32.82	32.92	32.45	33.12	32.30	33.55	32.00	33.05	31.80
13	31.00	30.90	33.05	31.75	33.50	32.15	33.60	32.10	33.85	32.35	32.85	32.82	32.92	32.84	32.84	32.82	33.15	32.40	33.12	32.30	33.60	32.00	33.00	31.80
14	31.15	30.90	32.70	31.80	33.75	32.15	33.72	32.10	33.77	32.40	32.85	32.82	32.95	32.84	32.84	32.82	33.45	32.35	33.12	32.30	33.30	32.05	32.90	31.80
15	32.50	30.85	32.40	31.90	33.80	32.15	33.74	32.10	33.83	32.45	32.85	32.82	32.88	32.84	32.84	32.82	33.72	32.30	33.40	32.25	33.15	32.10	32.77	31.80
16	33.30	30.80	32.45	31.90	33.75	32.15	33.65	32.10	33.80	32.45	32.85	32.82	32.86	32.84	32.84	32.82	33.83	32.25	33.47	32.25	33.05	32.15	32.80	31.80
17	33.40	30.70	32.65	31.95	33.57	32.15	33.45	32.05	33.75	32.45	32.86	32.82	32.86	32.84	32.84	32.82	33.80	32.25	33.62	32.20	33.10	32.15	32.90	31.85
18	33.55	30.85	32.80	31.95	33.53	32.15	33.40	32.05	33.70	32.45	32.86	32.83	32.82	32.80	32.84	32.82	33.80	32.20	33.78	32.15	33.05	32.15	32.95	31.85
19	33.60	30.90	32.95	31.95	33.63	32.15	33.75	32.05	33.67	32.45	32.87	32.84	32.82	32.80	32.84	32.82	33.53	32.20	33.75	32.10	33.95	32.15	33.30	31.85
20	33.50	30.80	33.20	31.95	33.50	32.20	33.85	32.00	33.77	32.45	32.87	32.84	32.82	32.80	32.84	32.82	33.20	32.20	33.77	32.10	33.80	32.15	33.70	31.75
21	33.45	30.80	33.50	31.95	33.67	32.20	33.85	32.00	33.77	32.45	32.93	32.82	32.80	32.78	32.84	32.82	33.85	32.20	33.70	32.10	33.63	32.15	33.50	31.70
22	33.25	30.90	33.55	31.95	33.72	32.20	33.85	32.00	33.65	32.50	32.94	32.82	32.84	32.82	32.84	32.82	33.62	32.25	33.77	32.10	32.50	32.15	33.10	31.70
23	33.05	31.00	33.45	31.95	33.45	32.20	33.85	31.95	33.45	32.50	32.92	32.82	32.84	32.82	32.84	32.82	33.32	32.30	33.73	32.10	32.45	32.15	32.70	31.70
24	33.00	31.10	33.25	31.95	33.10	32.20	33.85	31.10	33.25	32.55	32.87	32.84	32.84	32.82	32.84	32.82	32.45	32.30	33.52	32.10	32.55	32.15	32.35	31.70
25	33.20	31.20	33.20	31.95	32.80	32.20	33.80	31.95	33.02	32.60	32.87	32.84	32.82	32.82	32.84	32.82	32.73	32.30	33.25	32.10	32.80	32.10	32.25	31.70
26	33.70	31.30	32.92	32.00	32.75	32.20	33.58	31.95	32.85	32.65	32.85	32.82	32.87	32.85	32.84	32.82	32.75	32.35	33.15	32.15	33.10	32.05	32.35	31.70
27	33.60	31.40	32.75	32.00	32.35	32.20	33.60	31.95	32.70	32.65	33.84	32.82	32.88	32.86	32.84	32.82	32.75	32.35	33.23	32.15	33.48	32.00	32.65	31.70
28	33.50	31.40	32.90	32.00	32.40	32.20	33.70	31.95	32.90	32.65	33.84	32.82	32.89	32.87	32.84	32.82	32.87	32.35	33.33	32.15	33.73	31.95	32.70	31.70
29	33.07	31.50			32.55	32.20	33.60	31.95	33.05	32.70	32.85	32.83	32.89	32.87	32.84	32.82	33.30	32.30	33.35	32.15	33.75	32.95	32.75	31.70
30	33.65	31.55			32.85	32.20	33.40	31.95	33.23	32.70	32.85	32.83	32.89	32.87	32.82	32.80	33.55	32.25	33.22	32.15			32.85	31.70
31	33.80	31.55			32.85	32.20			33.10	32.70			32.89	32.87	32.77	32.75			33.12	32.15			32.95	31.80
Max	33.80	32.05	33.83	32.00	33.80	32.20	33.85	32.90	33.85	32.70	33.84	32.84	32.95	32.87	32.86	32.84	33.83	32.75	33.83	32.30	33.95	32.95	33.70	31.95
Min	31.00	30.70	32.40	31.40	32.35	31.95	32.82	31.10	32.00	31.95	32.85	32.73	32.80	32.78	32.77	32.75	32.07	32.20	33.12	32.10	32.45	31.95	32.25	31.70
Ave.	32.87	31.08	33.24	31.74	33.32	32.12	33.54	32.06	33.28	32.35	31.55	32.80	32.86	32.83	32.84	32.82	32.93	32.75	33.47	32.20	33.11	32.15	32.94	31.80

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 2000

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	33.05	31.80	30.10	30.55	33.15	32.00	33.07	32.20	33.75	32.00	32.82	32.70	33.28	32.85	32.89	32.87	32.90	32.60	32.70	32.25	33.80	32.05	33.67	31.70
2	33.50	31.80	30.55	30.55	33.10	32.90	32.98	32.20	33.05	32.00	32.98	32.75	33.20	32.85	32.89	32.87	32.67	32.65	32.70	32.25	33.80	32.05	33.70	31.60
3	33.75	31.80	31.30	31.27	33.00	32.05	32.98	32.20	33.40	32.00	33.10	32.80	33.23	32.85	32.88	32.88	32.62	32.65	32.80	32.25	33.70	32.00	33.85	31.45
4	33.75	31.80	31.60	31.60	32.92	32.10	32.98	32.25	33.70	32.00	33.03	32.80	33.17	32.85	33.00	32.88	33.05	32.65	32.10	32.20	33.65	32.00	33.90	31.45
5	33.90	31.70	31.72	31.67	32.73	32.15	33.10	32.30	33.60	32.05	33.00	32.80	33.15	32.85	33.17	32.88	33.00	32.65	33.13	32.20	33.30	32.00	33.70	31.30
6	33.85	31.65	31.68	31.65	32.95	32.15	33.13	32.35	33.45	32.10	33.00	32.80	33.15	32.85	33.00	32.88	33.00	32.65	33.22	32.20	33.22	32.00	33.40	31.30
7	33.77	31.45	31.68	31.65	32.35	32.15	33.28	32.35	33.50	32.15	33.00	32.80	33.23	32.85	33.00	32.88	32.85	32.65	33.05	32.20	33.25	32.00	32.65	31.35
8	33.47	31.25	31.80	31.75	33.45	32.15	33.50	32.35	33.65	32.20	33.00	32.80	33.23	32.85	32.90	32.88	32.80	32.60	32.90	32.20	33.20	32.00	32.40	31.35
9	33.30	31.15	32.05	32.00	33.45	32.15	33.40	32.35	33.75	32.25	33.00	32.80	33.23	32.85	32.90	32.88	32.80	32.60	32.70	32.20	33.20	32.00	32.55	31.35
10	33.15	30.95	32.33	32.25	33.65	32.15	33.25	32.35	33.90	32.30	33.12	32.80	33.20	32.85	32.90	32.88	32.90	32.55	32.60	32.20	33.07	32.00	32.60	31.40
11	32.75	30.75	32.50	32.20	33.83	32.10	33.30	32.35	33.90	32.30	33.08	32.80	33.12	32.85	32.89	32.87	33.38	32.45	32.60	32.20	33.12	32.00	32.95	31.40
12	32.45	30.65	32.37	32.20	33.73	32.10	33.20	32.35	33.90	32.25	33.10	32.80	33.00	32.85	32.89	32.87	33.80	32.40	32.85	32.20	33.00	32.00	33.25	31.40
13	32.15	30.65	32.62	32.20	33.53	32.05	33.12	32.35	33.70	32.20	33.00	32.80	33.05	32.85	32.88	32.86	33.60	32.40	32.90	32.20	32.95	32.00	33.48	31.35
14	30.53	30.50	32.90	32.25	33.40	32.00	33.15	32.30	32.80	32.20	33.00	32.80	33.12	32.87	32.88	32.86	33.45	32.40	32.87	32.20	32.70	32.00	33.65	31.35
15	30.30	30.30	32.95	32.30	33.27	32.00	33.12	32.30	32.27	32.20	32.85	32.83	33.00	32.87	32.88	32.86	33.30	32.40	32.85	32.20	32.35	32.05	33.55	31.30
16	30.10	31.10	33.25	32.30	33.25	32.05	33.08	32.25	32.40	32.20	32.85	32.83	32.97	32.87	32.88	32.86	33.20	32.40	32.82	32.20	32.35	32.05	33.25	31.30
17	30.10	31.10	33.65	32.30	33.05	32.10	32.95	32.25	32.77	32.25	32.85	32.83	33.03	32.87	32.88	32.86	33.10	32.40	32.80	32.15	32.40	32.10	33.50	33.10
18	30.10	31.10	33.83	32.25	32.98	32.15	32.80	32.25	32.90	32.30	32.85	32.83	33.12	32.87	32.88	32.86	33.10	32.40	33.05	32.15	32.70	32.10	33.50	31.35
19	30.10	31.10	33.75	32.20	33.05	32.20	32.50	32.25	32.95	32.40	32.87	32.83	33.13	32.87	32.93	32.86	33.10	32.40	33.50	32.10	32.83	32.10	33.25	31.40
20	30.10	31.10	33.60	32.15	33.20	32.25	32.60	32.20	32.65	32.50	32.92	32.85	33.00	32.87	32.90	32.86	33.22	32.40	33.65	32.10	32.87	32.10	33.20	31.45
21	30.10	31.10	33.43	32.15	32.95	32.25	32.90	32.15	32.80	32.55	33.07	32.85	33.95	32.88	32.90	32.86	33.50	32.40	33.50	32.10	32.87	32.10	32.85	31.50
22	30.10	31.10	33.45	32.15	32.85	32.25	33.52	32.10	32.25	32.60	33.07	32.85	33.97	32.88	32.90	32.85	33.65	32.35	33.40	32.10	32.82	32.10	32.70	31.55
23	30.10	31.10	33.70	32.05	33.13	32.20	33.83	32.80	33.63	32.65	33.00	32.85	33.15	32.87	32.85	32.83	33.68	32.30	33.30	32.10	32.85	32.10	32.65	31.60
24	30.10	31.10	33.80	32.05	33.37	32.20	33.60	32.05	33.68	32.65	32.87	32.85	32.89	32.87	32.85	32.83	33.78	32.25	33.15	32.10	32.87	32.10	32.75	31.60
25	30.05	30.05	33.62	32.00	33.73	32.20	32.95	32.05	33.82	32.55	32.87	32.85	32.89	32.87	32.90	32.75	33.68	32.25	33.12	32.10	32.95	32.05	32.87	31.60
26	30.00	30.00	33.40	32.00	33.63	32.20	32.93	32.05	33.82	32.55	33.00	32.85	32.89	32.87	32.95	32.70	33.55	32.25	33.10	32.10	33.17	32.00	32.93	31.60
27	30.00	30.00	33.45	32.00	33.48	32.20	33.00	32.05	33.85	32.55	33.13	32.85	32.89	32.87	33.05	32.65	33.45	32.25	33.40	32.05	33.50	31.95	32.82	31.65
28	30.00	30.00	33.40	32.00	33.40	32.20	32.95	32.05	33.70	32.55	33.12	32.85	32.89	32.87	33.15	32.65	33.10	32.25	33.80	32.70	33.60	31.90	33.10	31.70
29	30.00	30.00	33.37	32.00	33.37	32.20	32.87	32.05	33.25	32.60	33.12	32.85	32.89	32.87	33.35	32.60	33.85	32.25	33.65	32.05	33.45	31.90	33.30	31.75
30	30.00	30.00	33.37	32.00	33.30	32.20	32.95	32.00	33.03	32.65	33.15	32.85	33.89	32.87	33.52	32.60	32.70	32.25	33.55	32.05	33.50	31.80	33.40	31.75
31	30.00	30.00	33.22	32.20	33.22	32.20	33.22	32.20	32.82	32.70	33.10	32.60	32.89	32.87	33.10	32.60	33.60	32.05	33.60	32.05	33.35	31.75	33.35	31.75
Max	33.90	31.80	33.83	32.30	33.83	32.25	33.83	32.80	33.90	32.70	33.15	32.85	33.97	32.88	33.52	32.88	33.85	32.65	33.80	32.70	33.80	32.10	33.90	33.10
Min	30.00	30.00	30.10	30.55	32.35	32.00	32.50	32.00	32.25	32.00	32.82	32.70	33.89	32.85	32.60	32.62	32.25	32.10	32.05	32.35	31.80	32.40	31.30	31.30
Ave.	31.44	30.91	32.69	31.92	33.24	32.14	33.10	32.24	33.31	32.34	32.99	32.82	32.83	32.86	32.97	32.82	32.90	32.60	33.08	32.17	33.10	32.02	33.18	31.54

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 2001

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	33.20	31.80	33.80	30.90	32.95	32.10	32.70	32.30	33.60	32.00	32.77	32.75	33.45	32.85	32.94	32.88	33.35	32.65	32.95	32.30	33.15	32.10	33.65	31.65
2	33.20	31.80	33.90	30.90	33.00	32.10	32.87	32.30	33.65	32.00	32.95	32.75	33.30	32.85	32.92	32.88	33.50	32.60	32.95	32.35	33.55	32.05	33.50	31.65
3	33.20	31.80	33.80	30.80	33.00	32.10	32.95	32.30	33.37	32.00	33.05	32.75	33.30	32.85	32.13	32.88	33.30	32.60	32.95	32.40	33.60	32.10	33.20	31.65
4	33.20	31.80	33.50	30.90	32.82	32.10	32.95	32.30	33.23	32.50	33.00	32.77	33.28	32.87	33.07	32.88	33.10	32.60	32.95	32.40	33.35	32.10	33.95	31.65
5	33.40	31.80	33.25	31.10	33.15	32.15	32.95	32.30	33.20	32.10	33.90	32.80	33.23	32.87	32.95	32.90	33.08	32.55	32.90	32.40	33.05	32.05	33.00	31.65
6	33.45	31.80	32.95	31.20	33.30	32.15	32.95	32.30	33.10	32.15	32.85	32.80	33.15	32.87	33.05	32.90	33.15	32.50	32.95	32.40	32.70	32.05	33.20	31.65
7	33.57	31.80	32.95	31.30	33.30	32.15	32.90	32.30	33.05	32.15	32.88	32.82	33.13	32.87	32.97	32.90	33.33	32.45	32.90	32.40	32.65	32.05	33.30	31.65
8	33.75	31.80	32.93	31.40	33.05	32.20	32.85	32.35	32.90	32.15	32.84	32.82	33.15	32.87	32.96	32.90	33.50	32.40	33.00	32.35	32.65	32.05	33.30	31.65
9	33.50	31.80	32.98	31.50	32.45	32.20	32.65	32.35	32.80	32.15	32.84	32.82	33.20	32.87	32.96	32.90	33.45	32.40	33.10	32.30	32.75	32.00	33.05	31.65
10	33.25	31.70	33.00	31.60	32.42	32.20	32.45	32.35	32.60	32.20	32.84	32.82	33.22	32.87	32.93	32.90	33.40	32.40	33.45	32.25	33.05	32.00	33.05	31.65
11	32.40	31.70	32.90	31.80	32.27	32.20	32.37	32.35	32.35	32.25	32.87	32.82	33.25	32.87	33.10	32.90	33.50	32.40	33.45	32.25	33.30	32.00	32.85	31.70
12	31.42	31.40	32.80	32.00	32.24	32.20	32.37	32.35	32.55	32.25	32.90	32.85	33.25	32.87	33.15	32.90	33.45	32.40	33.40	32.25	33.50	32.00	32.95	31.75
13	30.95	30.95	32.90	32.20	32.33	32.25	32.45	32.35	32.70	32.30	33.12	32.85	33.25	32.87	33.83	32.90	33.40	32.40	33.40	32.25	33.25	32.00	33.20	31.65
14	30.60	30.60	32.00	32.30	32.50	32.25	32.75	32.35	33.00	32.30	33.23	32.85	33.25	32.87	33.02	32.90	33.40	32.40	33.30	32.25	33.15	32.00	33.30	31.65
15	30.35	30.35	33.20	32.30	32.73	32.25	32.85	32.35	33.20	32.30	33.30	32.85	33.25	32.87	32.92	32.90	33.30	32.40	33.40	32.25	33.15	32.00	33.30	31.65
16	30.20	30.20	33.40	32.30	32.85	32.30	32.90	32.35	33.20	32.30	33.33	32.85	33.20	32.87	32.90	32.88	33.25	32.40	33.50	32.25	33.15	32.00	33.50	31.65
17	30.05	30.05	33.55	32.20	32.88	32.30	32.90	32.35	33.05	32.35	33.15	32.85	33.00	32.87	32.90	32.88	33.20	32.40	33.73	32.20	33.20	32.00	33.50	31.65
18	30.00	30.00	33.63	32.15	32.92	32.30	32.95	32.30	32.50	32.40	32.98	32.85	32.92	32.87	32.90	32.88	33.25	32.35	33.70	32.15	33.35	32.00	33.45	31.60
19	30.00	30.00	33.72	32.10	32.75	32.30	33.15	32.25	32.60	32.40	32.92	32.85	32.95	32.87	32.90	32.88	33.40	32.30	33.50	32.15	33.40	32.00	33.40	31.60
20	30.00	30.00	33.75	32.05	32.80	32.30	33.75	32.20	32.65	32.40	32.97	32.85	33.00	32.88	32.90	32.88	33.40	32.30	33.50	32.10	33.45	31.95	33.25	31.60
21	30.00	30.00	33.50	32.05	32.95	32.30	33.60	32.15	32.80	32.40	33.00	32.85	33.10	32.88	32.90	32.88	33.45	32.25	33.30	32.10	33.55	31.95	33.05	31.70
22	30.00	30.00	33.15	32.05	32.90	32.30	33.90	32.10	32.85	32.40	33.05	32.85	33.05	32.88	32.90	32.88	33.50	32.25	33.65	32.05	33.25	31.95	33.15	31.70
23	30.00	30.00	32.67	32.10	32.90	32.30	33.70	32.10	32.90	32.50	33.05	32.85	33.00	32.88	32.90	32.88	33.35	32.25	33.75	32.05	33.15	31.95	33.15	31.75
24	30.00	30.00	32.50	32.10	32.70	32.30	33.50	32.05	32.65	32.55	33.05	32.85	33.00	32.88	32.90	32.85	33.10	32.25	33.65	32.05	33.20	31.90	33.20	31.75
25	30.00	30.00	32.20	32.10	32.32	32.30	33.30	32.05	32.62	32.60	33.05	32.85	33.05	32.88	32.90	32.85	33.00	32.25	33.55	32.05	33.35	31.90	33.10	31.75
26	30.00	30.00	32.12	32.10	32.32	32.30	33.25	32.05	32.70	32.65	33.10	32.85	33.07	32.88	32.85	32.83	33.00	32.25	33.45	32.05	33.35	31.90	33.25	31.60
27	30.00	30.00	32.12	32.10	32.32	32.30	33.30	32.05	32.72	32.70	33.20	32.85	33.06	32.88	32.82	32.80	32.90	32.25	33.45	32.05	33.30	31.80	33.10	31.60
28	30.00	30.00	22.60	32.10	32.32	32.30	33.35	32.05	32.72	32.70	33.35	32.85	33.10	32.88	32.88	32.77	32.90	32.25	33.25	32.10	33.90	31.80	33.00	31.60
29	30.10	30.00			32.32	32.30	33.35	32.00	32.72	32.70	33.45	32.85	33.05	32.88	32.98	32.70	32.95	32.25	33.15	32.10	33.90	31.80	31.80	31.60
30	31.00	31.00			32.50	32.30	33.48	32.00	32.77	32.70	33.45	32.85	32.95	32.90	33.00	32.65	32.90	32.30	33.00	32.20	33.75	31.70	31.40	31.40
31	33.00	31.00			32.70	32.30			32.77	32.73			32.95	32.88	33.12	32.65			33.29	32.20			31.35	31.45
Max	33.75	31.80	33.90	32.30	33.30	32.30	33.90	32.35	33.65	32.73	33.90	32.85	33.45	32.90	33.83	32.90	33.50	32.65	33.75	32.40	33.90	32.10	33.95	31.75
Min	30.00	30.00	22.60	30.80	32.24	32.10	32.37	32.00	32.35	32.00	32.77	32.75	32.92	32.85	32.13	32.65	32.90	32.25	32.90	32.05	32.65	31.70	31.35	31.40
Ave.	31.41	30.81	32.71	31.78	32.71	32.24	33.05	32.23	32.89	32.36	33.08	32.83	33.13	32.87	32.95	32.86	33.35	32.65	33.31	32.21	33.29	31.97	33.05	31.64

Rehabilitation and Improvement of Sakoula Regulator on Bahr Yusef Canal Water levels and Discharges in 2002

Date	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.	U.S.	D.S.
1	30.90	30.90	33.85	30.85	32.18	32.16	33.65	32.35	33.90	31.90	33.35	32.90	33.32	32.87	32.96	32.94	33.20	32.58	32.20	32.18	32.73	32.08	33.75	31.65
2	30.45	30.45	33.85	30.95	32.30	32.20	33.50	32.35	32.80	31.90	33.30	32.87	33.30	32.90	32.94	32.92	33.17	32.55	32.30	32.28	32.77	32.08	33.65	31.65
3	30.72	30.72	33.90	31.00	32.30	32.20	33.30	32.30	32.40	31.95	33.15	32.85	33.15	32.90	32.96	32.95	33.17	32.55	32.40	32.25	33.25	32.08	33.45	31.70
4	30.50	30.50	33.90	31.20	32.30	32.20	33.00	32.30	32.35	32.00	33.00	32.85	33.05	32.90	32.97	32.95	33.17	32.55	32.70	32.22	33.40	32.08	33.00	31.70
5	30.50	30.50	33.50	31.80	32.40	32.25	32.80	32.30	32.15	32.12	33.15	32.85	33.00	32.92	32.97	32.95	33.10	32.63	32.90	32.22	33.40	32.08	33.25	31.60
6	30.20	30.20	32.50	32.10	32.65	32.25	33.00	32.30	32.12	32.10	33.10	32.87	33.03	32.92	33.05	32.95	33.00	32.98	33.00	32.15	32.95	32.15	33.80	31.50
7	30.00	30.00	32.25	32.23	32.30	32.28	33.00	32.30	32.60	32.15	32.98	32.90	33.10	32.92	33.07	32.95	33.00	32.98	33.00	32.15	32.55	32.15	33.70	31.40
8	30.00	30.00	32.45	32.20	32.37	32.35	33.30	32.30	32.90	32.25	33.00	32.90	33.20	32.92	33.00	32.95	32.95	32.62	32.90	32.15	32.62	32.12	33.45	31.40
9	30.00	30.00	32.60	32.20	32.65	32.35	33.20	32.30	33.00	32.30	33.05	32.90	33.02	32.92	32.94	32.92	33.25	32.50	32.85	32.15	32.90	32.00	32.85	31.50
10	30.00	30.00	32.70	32.15	32.65	32.35	33.25	32.30	33.15	32.30	32.95	32.90	32.94	32.92	32.86	32.84	33.35	32.40	32.80	32.15	33.15	31.90	32.50	31.50
11	30.00	30.00	32.70	32.15	32.90	32.35	33.40	32.30	33.15	32.30	32.92	32.90	32.94	32.92	32.94	32.92	33.40	32.40	32.70	32.15	33.55	31.90	32.50	31.40
12	30.00	30.00	32.75	32.10	32.90	32.35	33.75	32.25	33.50	32.25	32.92	32.90	32.94	32.92	32.97	32.95	33.30	32.45	32.75	32.13	33.30	31.95	32.58	31.40
13	30.00	30.00	32.75	32.10	32.85	32.35	33.80	32.20	33.45	32.35	33.10	32.90	32.94	32.92	32.97	32.95	33.15	32.45	32.75	32.10	33.08	31.95	32.70	31.45
14	30.00	30.00	32.80	32.05	32.70	32.40	33.70	32.15	33.05	32.50	33.20	32.90	32.97	32.92	32.97	32.95	33.30	32.40	32.55	32.05	32.90	31.95	32.95	31.55
15	30.00	30.00	32.83	32.00	32.70	32.45	33.80	32.15	32.62	32.60	33.50	32.90	33.10	32.92	32.97	32.95	33.60	32.20	32.47	32.00	32.90	31.95	33.05	31.60
16	30.00	30.00	32.98	32.90	32.90	32.45	33.45	32.20	32.62	32.60	33.90	32.75	33.02	32.93	32.98	32.95	33.40	32.20	32.50	32.00	32.90	31.95	33.15	31.60
17	30.00	30.00	33.05	32.90	33.25	32.50	33.35	32.20	32.62	32.60	33.70	32.80	33.00	32.94	32.97	32.95	33.20	32.20	32.65	32.00	32.90	32.00	32.15	31.65
18	30.00	30.00	33.02	32.90	33.40	32.50	33.15	32.20	32.80	32.55	33.40	32.80	33.00	32.94	32.97	32.95	32.80	32.25	32.90	32.05	33.00	32.05	33.10	31.70
19	30.00	30.00	32.80	31.95	33.10	32.50	33.05	32.20	33.15	32.45	33.35	32.80	33.00	32.94	32.97	32.95	32.32	32.30	32.98	32.10	32.90	32.12	32.95	31.75
20	30.90	30.90	32.40	32.05	32.72	32.50	33.15	32.15	33.00	32.45	33.25	32.85	33.02	32.94	32.97	32.95	32.45	32.30	33.07	32.10	32.45	32.15	33.00	31.75
21	31.10	31.10	32.45	32.05	32.68	32.50	33.35	32.15	32.80	32.55	33.20	32.90	33.03	32.94	33.05	32.95	32.35	32.30	33.05	32.05	32.53	32.10	33.00	31.75
22	32.40	31.10	33.00	31.90	32.87	32.45	33.75	32.10	32.65	32.60	33.25	32.90	33.02	32.94	33.15	32.93	32.55	32.20	33.10	32.00	32.55	32.05	32.95	31.75
23	33.10	30.60	33.50	31.70	32.98	32.45	33.90	32.00	32.70	32.67	33.85	32.85	33.05	32.95	33.18	32.90	32.70	32.15	32.85	31.95	32.55	32.05	32.90	31.75
24	33.10	30.60	33.60	31.70	33.05	32.45	33.90	32.00	32.73	32.70	33.55	32.80	33.04	32.95	33.25	32.82	32.85	32.10	32.75	31.93	32.95	31.95	32.95	31.70
25	33.80	30.60	33.30	31.75	32.90	32.45	33.90	32.00	32.90	32.75	33.35	32.80	32.96	32.94	33.50	32.80	32.80	32.10	32.75	32.00	33.12	31.95	32.95	31.65
26	33.80	30.60	32.85	31.85	32.70	32.45	33.90	31.95	33.00	32.80	32.92	32.90	32.96	32.94	33.75	32.70	32.75	32.15	32.85	32.05	33.20	31.95	33.00	31.60
27	33.70	30.65	32.10	33.00	32.55	32.50	33.90	31.75	33.20	32.80	32.92	32.90	32.96	32.94	33.80	32.70	32.65	32.15	32.95	32.05	33.25	31.90	32.90	31.60
28	33.80	30.65	32.10	31.08	32.55	32.50	33.90	31.65	33.45	32.75	33.00	32.90	33.00	32.95	33.50	32.75	32.65	32.15	32.80	32.05	33.25	31.80	32.85	31.55
29	33.80	30.65			32.90	32.45	33.60	31.75	33.55	32.85	33.10	32.90	32.96	32.94	33.25	32.75	32.35	32.20	32.67	32.05	33.30	31.75	33.65	31.45
30	33.80	30.70			33.00	32.45	33.50	31.85	33.50	32.90	33.25	32.87	32.96	32.94	32.80	32.72	32.27	32.25	32.65	32.08	33.65	31.70	33.55	31.45
31	33.90	30.80			33.45	32.35			33.45	32.90			32.97	32.95	32.85	32.67				32.67	32.08		33.50	31.60
Max	33.90	31.10	33.90	33.00	33.45	32.50	33.90	32.35	33.90	32.90	33.90	32.90	33.32	32.95	33.80	32.95	33.60	32.98	33.10	32.28	33.65	32.15	33.80	31.75
Min	30.00	30.00	32.10	30.85	32.18	32.16	32.80	31.65	32.12	31.90	32.92	32.75	32.94	32.87	32.80	32.67	32.27	32.10	32.20	31.93	32.45	31.70	32.15	31.40
Ave.	31.31	30.39	32.95	31.96	32.75	32.39	33.47	32.14	32.94	32.45	33.22	32.87	33.03	32.93	33.08	32.89	32.94	32.37	32.76	32.09	33.00	32.00	33.09	31.59

Rehabilitation and Improvement of Sakouls Regulator on Baher Yusef Canal
 Specification and Service Area of Pump Stations

No.	Station	Location	Purpose	Suction From	Delivery To	Service area (Feddan)	Year of starting operation	Levels (m)			Units	
								Suction	Exit	Head	Number	Position
1	Dier El Sankouria	B	D	El Sankoura drain	Bahr Yusef	53000	1981	31.60	34.50	2.90	4	45°
2	Beni Mazar	B	D	Beni Mazar drain	Bahr Yusef	53000	1984	31.00	34.00	3.00	4	45°
3	Manshid El Dahb	S	D	Manshid El Dahb drain	El Moheat	21000	1986	33.87	35.07	1.20	3	45°
4	Terfa 1 (old)	S	I	Bahr Yusef	Terfa	14649	1968	34.50	36.70	2.20	6	Vertical
5	Terfa 2 (old)	S	I	Terfa	Terfa	14649	1968	36.80	45.80	9.00	6	Vertical
6	Terfa 3A (old)	S	I	Terfa	Branch (5) & (6)	11048	1968	45.74	86.45	40.71	5	Vertical
7	Terfa 3B (old)	S	I	Terfa	Branch (4)	1944	1968	45.74	50.50	4.76	2	Vertical
8	Terfa 4 (old)	S	I	Branch (5)	Branch (7)	1133	1968	55.38	60.30	4.92	3	Vertical
9	Terfa 1 (new)	S	I	Bahr Yusef	Main Terfa		1988	34.40	36.55	2.15	4	Vertical
10	Terfa 2 (new)	S	I	Main Terfa	Main Terfa	Old stations area	1988	36.00	45.85	9.85	4	Vertical
11	Terfa 3A (new)	S	I	Main Terfa	Branch (5) & (6)		1988	45.60	56.40	10.80	3	Vertical
12	Terfa 3B (new)	S	I	Main Terfa	Branch (4)		1988	45.60	56.40	10.80	2	Vertical
13	Kamader 5 (old)	S	I	Manshid El Dahb	Kamader	8727	1968	36.70	38.30	1.60	4	Vertical
14	Kamader 6 (old)	S	I	Kamader	Kamader	8727	1968	37.94	53.50	15.56	5	Vertical
15	Kamader 7A (old)	S	I	Kamader	Branch (8)	4878	1968	53.53	65.00	11.47	3	Vertical
16	Kamader 7B (old)	S	I	Kamader	Branch (9)	703	1969	53.53	65.00	11.47	2	Vertical
17	Kamader 6 (new)	S	I	Kamader	Kamader		1988	38.02	54.00	15.98	6	Vertical
18	Kamader 7A (new)	S	I	Kamader	Branch (8)	Old stations area	1988	53.65	65.25	11.60	3	Vertical
19	Kamader 7B (new)	S	I	Kamader	Branch (9)		1988	53.65	65.25	11.60	2	Vertical
20	Abo Raheb	M	D	Abo Raheb drain	El Moheat drain	67000	1984	28.90	31.00	2.10	4	45°
21	Sakoula		D	Sakoula	Bahr Yusef	400000	1978	27.50	29.50	2.00	4	
22	Sakoula 4 (old)	M	I	Bahr Yusef	Sakoula	15696					4	
23	Sakoula 5A (old)	M	I	Sakoula	Branch 7 & 8	1216					2	Vertical
24	Sakoula 5B (old)	M	I	Sakoula	Branch 7 & 8	11984					6	Vertical
25	Sakoula 6A (old)	M	I	Branch 8	Branch 9 & 10	5734					4	Vertical
26	Sakoula 6B (old)	M	I	Branch 8	Branch 9 & 11	3700					4	Vertical
27	Sakoula 4 (new)	M	I				1987	31.55	33.85	2.30	4	Vertical
28	Sakoula 5 (new)	M	I			13200	1987	32.99	44.25	11.26	4	Vertical
29	Sakoula 6 (new)	M	I			9934	1987	43.89	53.65	9.76	4	Vertical

B : Beni Mazar D : Drainage

S : Samaloot I : Irrigation

M : Magaga

Rehabilitation and Improvement of Sakouls Regulator on Baher Yusef Canal
Specification and Service Area of Pump Stations

No.	Station	Pumps			Motors				Transformers		
		Discharge (m ³ /sec)	Rotation per min.	Manufacturer	Power KW	Rotation / min.	Insulation type	Manufacturer	No.	Power KW	Manufacturer
1	Dier El Sankouria	3.50	213	Czech	150	992	380	Czech	2	1000	Czech
2	Bemi Mazar	3.00	405	Austria	170	1490	380	Austria	2	1000	Austria
3	Manshid El Dahb	1.63	230	Austria	30	1465	380	Austria	1	200	Austria
4	Terfa 1 (old)	1.46	585	Italy	73.60	585	380	Italy	1	1500	Italy
5	Terfa 2 (old)	1.47	735	Italy	243	740	380	Italy	1	1600	Italy
6	Terfa 3A (old)	1.35	735	Italy	247	740	380	Italy	1	1600	Italy
7	Terfa 3B (old)	0.50	980	Italy	46.30	980	380	Italy	1	1500	Italy
8	Terfa 4 (old)	0.36	980	Italy	36.70	980	380	Italy	1	1000	Hungary
9	Terfa 1 (new)	1.90	485	Italy	145	485	380	Hungary	1	2000	Hungary
10	Terfa 2 (new)	1.90	735	Hungary	360	740	6000	Hungary	1	2000	Hungary
11	Terfa 3A (new)	2.10	585	Hungary	360	561	6000	Hungary	1	2000	Hungary
12	Terfa 3B (new)	1.20	735	Hungary	180	732	6000	Hungary	1	2000	Conneted with Station 3(new)
13	Kamader 5 (old)	1.34	585	Germany	70(H.P)	585	380	Italy	1	250	Italy
14	Kamader 6 (old)	1.00	980	Germany	330(H.P)	980	380	Italy	1	1500	Italy
15	Kamader 7A (old)	1.00	980	Germany	260(H.P)	980	380	Italy	1	1100	Italy
16	Kamader 7B (old)	0.72	980	Germany	220(H.P)	980	380	Italy	1	500	Conneted with Station 7(A)
17	Kamader 6 (new)	1.75	735	Hungary	460	740	6000	Hungary	1	2000	
18	Kamader 7A (new)	1.00	980	Hungary	230	980	6000	Hungary	1	2000	
19	Kamader 7B (new)	0.85	970	Hungary	230	980	6000	Hungary	1	2000	Conneted with Station 7(A)new
20	Abo Raheb	4.20	248	Austria	116	1490	380	Austria	2	1000	Austria
21	Sakoula	4.50		Czech	200			Czech	1		
22	Sakoula 4 (old)	1.22	585	Germany	66		380	AEG	1	300	Italy
23	Sakoula 5A (old)	0.36	1450	Germany	44		380	AEG	1	1250	Italy
24	Sakoula 5B (old)	0.92	980	Germany	162.00		380	AEG	1	550	Conneted with Station 5A
25	Sakoula 6A (old)	0.59	970	Germany	103		380	AEG	1	550	Italy
26	Sakoula 6B (old)	0.47	970	Hungary	145.00		380	AEG	1	100	Conneted with Station 6A
27	Sakoula 4 (new)	1.80	485	Hungary	295	485	380	Hungary	1	1000	Hungary
28	Sakoula 5 (new)	1.50	735	Hungary	100	7350	6000	Hungary	1	2000	Hungary
29	Sakoula 6 (new)	1.50	970	Hungary	100	980	380	Hungary	1	1000	Hungary

Old Terfa Station 1

2000/2001

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	2,263	11,993,900	133,265.55	128,170	2,776.9	14,534.58	31.0					
August	2,497	13,234,100	147,045.55	1,516	2,776.9	17,185.77	31.5					
September	2,541	13,467,300	149,636.66	15,785	2,776.9	17,900.19	40.5					
October	2,375	12,087,500	13,986.11	147,840	2,776.9	16,765.06	11.5					
November	2,096	11,108,800	123,431.10	143,710	2,776.9	16,296.71	31.5					
December	1,878	9,953,400	110,593.33	134,610	2,776.9	15,264.37	22.5					
January	735	3,895,500	43,283.33	59,640	2,776.9	6,763.18	9.0					9,549.076
February	2,472	13,101,600	145,573.30	160,790	2,776.9	182,233.59	22.5					9,862.576
March	2,625	13,912,500	154,583.33	183,820	2,776.9	20,845.18	22.5					23,644.580
April	2,362	12,518,600	139,095.55	160,020	2,776.9	18,146.27	27.0					20,954.618
May	1,900	10,070,000	119,888.88	116,270	2,776.9	13,185.01	33.8					15,995.660
June	2,143	11,357,900	126,198.88	129,080	2,776.9	14,637.69	285.0					17,699.570
Total	25,887	136,701,100	1,406,581.57	1,381,251	33,322.8	353,757.59	568.25	0.00	0.00			97,706.080

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Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	2,441	12,937,300	143,747.77	133								
August	2,743	14,537,900	161,532.22	174,160	2,776.9	27.00						22,553.64
September	2,658	14,087,400	156,526.66	167,930	2,776.9	33.75						21,853.41
October	2,800	14,840,000	164,888.88	182,210	2,776.9	31.50			85.80			23,556.81
November	2,190	11,607,000	128,966.66	171,430	2,776.9	31.50			231.00			22,479.56
December	1,906	10,101,800	112,242.22	127,330	2,776.9	31.50						17,247.62
January	413	2,188,900	24,321.10	28,560	2,776.9	9.00			61.30			17,308.92
February	2,509	13,297,700	147,752.22	183,610	2,776.9	31.50			211.20			23,840.97
March	2,752	14,585,600	16,062.22	189,420	2,776.9	31.50			262.50			24,556.13
April	2,535	13,435,500	149,283.33	182,280	2,776.9	31.50						23,478.63
May	2,079	11,018,700	122,430.60	144,550	2,776.9	31.50			11.25			19,211.62
June	2,597	13,764,100	152,934.24	165,760	2,776.9	31.50						21,616.83
Total	27,623	146,401,900	1,480,688.12	1,717,373	30,545.9	321.75		0.0	863.05	0.0		237,704.14

2002/2003

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	2,726	14,447,800	160,531	170,730	1,893.51	19,360.87	31.50		6.75	182.85		21,475.5
August	2,830	4,995,000	166,026	171,990	1,893.51	19,503.66	31.50			52.50		21,481.2
September	2,846	15,083,800	167,598	200,270	1,893.51	2,271.61	40.46					24,644.6
October	2,828	14,988,400	166,538	196,490	1,893.51	22,281.96	40.46		210.00			24,425.9
November	2,600	13,780,000	153,111	197,750	1,893.51	22,424.82	40.46		10.00			24,368.8
December	2,157	11,432,100	127,023	140,070	1,893.51	15,883.93	40.46		7.00			17,825.4
January												
February												
March												
April												
May												
June												
Total	15,987	74,727,100	940,827	1,077,300	11,361.06	101,727	224.84	0	233.75	235		134,221

New Terfa Station 1

2000/2001

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	1,458	9,972,720	13,186 51	118,800	2,128 69	13,471 92	115 0					
August	1,433	9,801,720	129,600 51	139,200	2,128 69	5,785 28	115 0					
September	1,424	9,740,160	128,786 55	136,800	2,128 69	15,513 12	138 0		8 70			
October	1,406	9,617,040	127,158 63	142,800	2,128 69	16,193 52	138.0		40 50			
November	1,348	9,220,320	121,913.11	130,600	2,128 69	46,811 04	138 0		13 40			
December	854	5,841,360	77,235 75	90,000	2,128 69	10,206 50	115 0					
January	430	2,941,200	38,889 19	49,200	2,128 69	5,579 28	46 0					
February	1,081	7,394,040	977,765 60	105,600	2,128.69	11,975 01	75 0		34 00			16,403.92
March	1,507	10,307,880	136,293.08	107,200	2,128.69	17,826 48	115 0					20,092 67
April	1,436	9,822,240	129,871 83	126,000	2,128.69	14,288.40	138 0		59 10			16,641.19
May	1,478	10,150,560	133,670 31	145,200	2,128 69	16,465 68	161 0		18 25			18,807.37
June	1,388	9,493,920	125,530 71	128,400	2,128 69	14,560 56	16 0		82.00			16,954 25
Total	15,243	104,303,160	2,139,901 78	1,419,800	25,544 28	188,676 79		0.00	255 95			88,899 40

2001/2002

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	1,488	10,177,920	134,574 7	127,200	2,128 69							
August	1,446	9,890,640	130,776 2	98,400	2,128 69	11,158 56	29.3	230.0	5 5			13,552 0
September	1,435	9,815,400	129,781 4	90,000	2,128 69	10,206 0	33 8	184 0	12.0			12,564 4
October	1,466	10,027,440	132,585 0	94,800	2,128 69	10,750 3	31 5	184.0				13,094 5
November	1,434	9,808,560	129,691 0	109,200	2,128.69	12,383 3	31 5	184 0				14,727 5
December	938	6,415,920	87,832 7	56,400	2,128.69	6,395 8	15 8	72 0				8,612 2
January	257	175,788	23,243 0	20,400	2,128 69	2,313 4	9 0	46 0	1,419 8			
February	1,331	9,104,040	120,375 6	94,800	2,128 69	10,750 3	31 5	138 0				
March	1,519	10,389,960	137,378.4	99,600	2,128 69	11,294 6	31 5	138 0				
April	1,619	11,073,960	147,422 4	115,200	2,128 69	13,033 7	31 5	138 0				
May	1,405	9,610,200	127,068 9	94,800	2,128 69	10,750.32	31 5	161 0	107 8			
June	1,443	9,870,120	130,504.9	331,200	2,128 69	37,558 1	31 5	161 0				
Total	15,781	106,359,948	1,431,234	1,332,000	25,544 3	136,594 3	308	1,636 0	1,545	0 0		62,551

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Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	1,467	1,034,280	132,675 48	92,400	2,238 88	10,478 16	161 0					12,909 5
August	1,486	10,164,240	134,393 83	84,000	2,238.88	9,525 60	161 0		75.0	181.40		12,213 4
September	1,498	10,246,320	135,479 11	72,000	2,238.88	8,164 80	161 0					10,605 1
October	1,468	10,041,120	1,327,659 10	78,000	2,238.88	8,845 20	184 0					11,308 5
November	1,386	9,480,240	125,349 84	60,000	2,238.88	68 40	184 0		271 4			9,538 7
December	969	6,627,960	87,636 36	36,000	2,238.88	4,082 40	184 0		7 5			6,553 2
January												
February												
March												
April												
May												
June												
Total	8,274	47,594,160	1,943,193 72	422,400	13,433 28	41,164 56	1,035	0	354	181		63,129

Old Terfa Station 2

2000/2001

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	2,354	12,476,200	554,497.8	247,200	3,916.23	28,032.48	33.75		128.0		
August	2,361	12,513,300	558,502.2	291,600	3,916.23	33,067.44	33.75		46.5		
September	2,396	12,698,800	564,391.1	446,400	3,916.23	5,621.67	40.50		139.3		
October	2,091	11,082,300	492,546.7	390,000	3,916.23	44,226.00	33.75		79.2		
November	2,094	11,098,200	493,253.3	381,900	3,916.23	43,307.46	33.75				
December	1,568	8,310,400	319,351.1	304,800	3,916.23	34,224.12	22.50		189.8		
January	723	3,831,900	170,306.7	153,300	1,916.23	17,384.22	54.25		243.0		
February	2,244	11,893,200	528,586.6	419,700	1,916.23	47,593.98	22.50		2,916.8	34,721.85	13,007.15
March	2,779	14,728,700	654,608.9	562,200	1,916.23	63,753.48	22.50		29.0		41,671.60
April	2,364	12,529,200	556,853.3	468,300	1,916.23	53,105.22	27.00		76.0		39,086.75
May	2,332	12,359,200	549,315.6	458,700	1,916.23	52,016.58	33.75		40.0		386,030.60
June	2,598	13,769,400	611,973.3	513,300	1,916.23	58,208.22	29.25		109.8		38,640.50
Total	25,904	137,290,800	6,054,186.5	4,637,400	34,994.76	480,540.87	387.25		3,997.4	34,721.85	518,436.60

2001/2002

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	2,605	13,806,500	613,622.2	475,200							
August	2,829	14,993,700	666,386.7	596,100	1,916.3	67,597.7	27.0				69,540.8
September	2,764	14,649,200	651,075.6	526,800	1,916.3	59,739.1	36.0				61,691.2
October	2,855	15,131,500	672,511.1	536,100	1,916.3	60,793.7	31.5		16.8		62,758.1
November	2,483	13,159,900	584,884.4	498,600	1,916.3	56,541.2	31.5		231.0		58,719.8
December	1,857	9,842,100	437,426.7	389,700	1,916.3	44,192.0	31.5		80.8		46,220.3
January	496	2,628,800	116,835.6	72,000	1,916.3	8,164.8	11.3		86.9		10,178.9
February	2,495	13,223,500	587,711.1	511,500	1,916.3	58,004.1	31.5				59,951.6
March	2,866	15,189,800	675,102.2	549,000	1,916.3	62,256.6	31.5		108.5		64,312.6
April	2,715	14,389,500	639,533.3	533,400	1,916.3	60,487.6	31.5		20.5		62,455.6
May	2,071	10,976,300	487,835.5	400,200	1,916.3	45,382.6	31.5				47,330.1
June	2,616	13,864,800	616,213.3	522,300	1,916.3	59,228.8	31.5		7.5		61,183.9
Total	28,652	151,855,600	6,749,137.7	5,610,900	21,079.3	582,388.3	326.3		552.0		604,342.8

2002/2003

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	2,908	15,412,400	684,995.54	579,000	1,724.67	65,658.6	31.50		113,462.5		121,784.27
August	2,912	15,433,600	685,937.77	588,000	1,724.67	66,679.2	31.50		4,292.3		72,727.67
September	2,740	14,522,000	645,422.22	548,100	1,724.67	62,154.5	40.46		182.0		14,101.17
October	2,802	14,850,600	660,026.66	531,300	1,724.67	60,249.4	40.46		89.4		62,103.95
November	2,540	13,462,000	598,311.10	533,100	1,724.67	60,453.5	40.46				62,218.67
December	2,130	11,289,000	501,733.33	378,300	1,724.67	42,899.2	40.46		109,530.0		54,194.35
January											
February											
March											
April											
May											
June											
Total	16,032	84,969,600	3,776,426.62	3,157,800	10,348.02	358,094.5	224.8		227,556.2		387,130.08

Old Terfa Station 3

2000/2001

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,723	8,373,780	409,384.80		2,213.5	36,004.50	33.8		128.00		
August					2,213.5	39,973.50	33.8		46.50		
September					2,213.5	37,733.85	40.5		139.30		
October					2,213.5	35,239.05	33.8		79.20		
November					2,213.5	32,999.40	33.8				
December					2,213.5	24,862.95	22.5		189.80		
January					2,213.5	11,453.40	97.3		243.00		
February					2,213.5	29,569.05	22.5		2,916.80	34,721.85	13,007.15
March					2,213.5	3,946.50	22.5		29.00		41,671.60
April					2,213.5	36,769.95	27.0		76.00		39,086.75
May	1,604	7,795,440	381,110.40	320,250	2,213.5	36,316.32	33.8		40.00		388,030.60
June					2,213.5	36,288.00	29.3		109.75		38,640.50
Total	3,327	16,169,220	790,495.20	320,250	26,562.0	361,156.47	430.25	0.00	3,997.35	34,721.85	518,436.60

2001/2002

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July											
August					2,213.50	42,411.60	27.0		35.0		44,687.10
September	1,714	8,330,040	407,246.4	330,500	2,213.50	37,478.70	36.0		49.0		39,777.20
October					2,213.50	37,875.60	31.5		9.0		40,129.60
November	1,475	7,168,500	350,460.0	288,500	2,213.50	32,715.90	31.5		231.0		35,191.90
December					2,213.50	24,636.15	15.8		6,222.80		33,088.20
January					2,213.50	5,613.30	9.0		18.1		7,853.90
February					2,213.50	34,133.40	31.5				36,378.40
March					2,213.50	36,769.95	31.5		111.0		39,125.95
April					2,213.50	41,532.75	31.5		19.0		43,796.75
May					2,213.50	37,705.50	31.5		21,807.8		61,758.30
June					2,213.50	40,001.85	31.5		12,967.9		55,214.70
Total	3,189	15,498,540	757,706	619,000	24,348.50	370,874.70	308.3	0.00	41,470.55		437,002.00

2002/2003

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July					2,036.07	41,929.7	31.50				43,997.220
August	1,810	8,796,600	480,056.0	393,750	2,036.07	44,651.3	31.50		1,045.0		47,796.820
September	1,811	8,801,460	430,293.6	369,750	2,036.07	41,929.7	40.46		41.6		44,047.780
October	1,741	8,461,260	413,661.6	342,500	2,036.07	38,839.1	40.46		22.9		40,938.930
November	1,563	7,596,180	371,368.8	346,250	2,036.07	39,264.8	40.46		15.8		41,357.080
December					2,036.07	27,329.4	40.46		10.0		29,415.930
January											
February											
March											
April											
May											
June											
Total	6,925	33,655,500	1,695,380	1,452,250	12,216	233,944	224.84	0	1,135	0	247,553.760

New Terfa Station 2

2000/2001

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	2,146	14,678,640	630,637.8	477,600	2,550.6	5,459.84	33.75	115.0		5.0		
August	2,139	14,630,760	628,580.8	559,200	2,550.6	63,413.28	33.75	115.0				
September	2,118	14,487,120	622,409.6	506,400	2,550.6	57,425.46	40.75	138.0		18.0		
October	2,082	14,240,880	611,830.4	501,600	2,550.6	5,688.44	33.75	138.0		60.0		
November	1,737	11,874,240	510,152.5	412,800	2,550.6	46,811.52	33.75	138.0		176.4		
December	1,315	8,994,600	386,434.7	316,800	2,550.6	35,925.12	22.50	115.0				
January	609	4,165,560	178,964.8	156,000	2,550.6	17,690.40	54.25	46.0		420.0	2,070.7	
February	1,354	9,261,360	397,895.4	300,000	2,550.6	34,020.00	22.50	115.0		266.0	39,367.6	
March	1,820	12,448,800	534,837.3	424,800	2,550.6	48,172.34	22.50	115.0		50.7	33,460.7	
April	1,977	13,522,680	580,974.4	475,200	2,550.6	53,887.68	27.00	138.0		750.0	57,352.7	
May	1,464	10,013,760	430,220.8	345,600	2,550.6	39,191.40	33.75	161.0		186.0	42,121.9	
June	1,411	9,651,245	414,645.9	338,400	2,550.6	38,374.50	29.25	161.0		30,278.7	71,393.6	
Total	20,172	137,969,645	5,927,584.4	4,814,400	30,607	446,059.98	387.50	1,495.0		32,210.8	245,767.1	

2001/2002

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	2,040	13,953,600	599,488.0	482,400								
August	2,143	14,658,120	629,756.3	470,400	2,550.6	53,343.4	29.25	230		275.0	56,427.67	
September	2,048	14,008,320	601,838.9	432,000	2,550.6	48,988.8	33.75	184		286.3	52,642.91	
October	2,165	14,808,600	636,221.3	472,800	2,550.6	53,615.5	31.50	184		57.2	56,438.28	
November	1,529	16,458,360	449,322.1	360,000	2,550.6	40,824.0	31.50	240			43,645.56	
December	1,041	7,120,440	305,915.2	247,200	2,550.6	28,032.5	22.50	78			30,683.04	
January	222	1,518,480	65,238.4	55,200	2,550.6	6,259.7	11.25	46		3.0		
February	1,400	9,576,000	411,413.3	316,800	2,550.6	35,925.1	31.50	138				
March	1,646	11,258,640	483,704.5	376,800	2,550.6	42,729.1	31.50	138				
April	1,970	13,474,800	578,917.3	482,400	2,550.6	54,704.2	31.50	184		20.0		
May	1,907	13,043,880	560,403.7	448,800	2,550.6	50,893.9	31.50	207		295.5		
June	2,047	14,001,480	601,545.6	482,400	2,550.6	54,704.2	31.50	207		200.0		
Total	20,158	143,880,720	5,923,764.7	4,627,200	28,056.6	470,020.3	317.25	1,836		1,137.0	239,837.46	

2002/2003

Month	Operating Data					Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses	
			(HP)	(kwh)								
July	1,772	12,120,480	58,073.7	408,000	1,556.11	46,267.20	1,588.1	207	9.8		49,628.2	
August	2,164	14,801,760	635,927.5	523,200	1,556.11	59,330.88	31.5	207	1,376.3		62,501.8	
September	2,086	14,268,240	613,005.9	504,000	1,556.11	57,153.60	40.5	207	113.0		57,514.1	
October	1,745	11,935,800	512,797.3	405,600	1,556.11	45,995.04	40.5	230	7.0		47,828.6	
November	1,579	10,800,360	464,015.5	420,000	1,556.11	4,762.80	40.5	230			49,454.6	
December	1,169	7,995,960	343,530.1	184,800	1,556.11	20,956.32	40.5	230	11.0		22,793.9	
January												
February												
March												
April												
May												
June												
Total	10,515	71,922,600	2,627,350	2,445,600	9,336.66	234,465.8	1,781.4	1,311	1,517.1		289,721.08	

Old Terfa Station 3A

2000/2001

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July											
August	1,696	8,242,560	402,969.6	352,500.0							
September	1,702	8,271,720	404,395.2	332,750.0							
October	1,552	7,542,720	368,755.2	310,750.0							
November	1,547	7,518,420	367,567.2	291,000.0							
December	1,148	5,579,280	272,764.8	219,250.0							
January	453	2,201,580	107,632.8	10,100.0							
February	1,428	9,640,080	339,292.8	260,750.0							
March	1,641	7,975,260	389,901.6	347,500.0							
April	1,745	7,994,700	390,852.0	324,250.0							
May											
June	1,558	7,571,880	370,180.8	320,000.0							
Total	14,470	72,538,200	3,414,312.0	2,768,850.0							

2001/2002

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,771	8,607,030	420,789.6	325,250							
August	1,767	8,587,620	419,839.2	374,000							
September	1,768	8,592,480	420,076.8	334,000							
October											
November											
December	975	4,738,500	231,660.0	217,250							
January	304	1,477,440	72,230.4	49,500							
February	1,481	7,197,660	351,885.6	301,000							
March	1,689	8,208,540	401,306.4	324,250							
April	1,769	8,597,340	420,314.4	366,250							
May	1,690	8,213,400	401,544.0	332,500							
June	1,749	8,500,140	415,562.4	352,750							
Total	14,963	72,720,150	3,555,208.8	2,976,750							

2002/2003

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,867	9,073,620	443,599.2	369,750							
August											
September											
October											
November											
December	1,235	6,002,100	293,436.0	241,000							
January											
February											
March											
April											
May											
June											
Total	3,102	15,075,720	737,035.2	610,750							

New Tefar Station 3A

2000/2001

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,450	10,962,000	144,942 0	522,000							
August	1,442	10,901,520	518,831 6	477,000							
September	1,383	80,455,480	497,603 4	678,000							
October	1,327	10,032,120	477,454 6	333,000							
November	1,054	1,968,240	379,730 9	360,000							
December	803	6,070,680	288,919.4	921,000							
January	423	3,197,880	152,195 4	171,000							
February	1,067	8,066,520	383,906 6	174,000							
March	1,362	10,296,720	490,047 6	192,000							
April	1,327	10,032,120	47,744 6	444,000							
May	1,050	7,938,000	377,790 0	408,000							
June	1,295	9,790,200	465,941 0	495,000							
Total	13,983	169,711,480	4,225,107 1	5,175,000							

2001/2002

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,368	10,342,080	492,206 4	53,100							
August	1,389	10,500,840	499,762 2	54,600							
September	1,406	10,629,360	505,878 8	50,100							
October	1,413	10,682,280	508,397 4	522,000							
November	1,182	8,935,920	425,283.6	471,000							
December	805	6,085,800	289,639 0	351,000							
January	226	1,708,560	81,314 8	75,000							
February	1,160	8,769,600	417,368 0	330,000							
March	1,428	10,795,680	513,794 4	351,000							
April	1,381	10,440,360	496,883 8	354,000							
May	1,221	9,630,760	439,315 8	30,000							
June	1,393	1,053,108	501,201 4	366,000							
Total	14,372	99,574,348	5,171,045.60	3,007,800							

2002/2003

Month	Operating Data				Expenses Data						
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	1,436	10,856,160	516,672 8	351,000							
August	1,461	11,045,160	525,667 8	375,000							
September	1,416	10,704,960	509,476 8	372,000							
October	1,432	10,825,920	515,233 6	351,000							
November	1,289	9,744,840	463,782 2	354,000							
December	969	7,325,640	348,646 2	243,000							
January											
February											
March											
April											
May											
June											
Total	8,003	60,502,680	2,879,479 4	2,046,000							

New Terfa Station 3B

2000/2001

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	364	1,572,480	41,799.84								
August	331	1,249,920	39,919.36								
September	280	1,209,600	32,076.80								
October	332	1,434,240	38,033.42								
November	376	1,624,320	43,074.56								
December	186	803,520	21,308.16								
January	73	315,360	8,362.88								
February	264	1,140,480	30,243.84								
March	351	1,516,320	40,210.56								
April	344	1,486,080	39,408.64								
May	349	1,507,680	39,981.44								
June	285	1,231,200	32,649.60								
Total	3,535	13,966,272	407,069.1								

2001/2002

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	307	1,326,240	35,169.9								
August	362	1,563,840	41,470.7								
September	347	1,499,040	39,752.3								
October	323	1,395,360	37,002.9								
November	358	1,546,560	41,012.5								
December	217	937,440	24,859.5								
January	35	151,200	4,009.6								
February	288	1,244,160	32,993.3								
March	347	1,494,720	39,637.8								
April	304	1,313,280	34,826.2								
May	299	1,291,680	34,253.4								
June	356	1,537,920	40,783.4								
Total	3,543	15,301,440	405,771.5								

2002/2003

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	316	1,365,120	36,200.96								
August	291	1,257,120	33,336.96								
September	337	1,455,840	38,606.72								
October	304	1,313,280	34,826.24								
November	158	682,560	18,100.48								
December	299	1,291,680	34,253.44								
January											
February											
March											
April											
May											
June											
Total	1,705	7,365,600	195,324.80								

Old Terfa Station 4

2000/2001

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	642	839,094	20,200.4	17,250	211.22	1,956.15	13.5	36.8			
August	742	969,794	23,346.9	16,600	211.22	1,882.44	13.5	46.0			
September	767	1,002,469	24,133.5	18,700	211.22	2,120.58	15.8	46.0			
October	648	846,936	20,389.2	18,950	211.22	2,148.93	13.5	46.0			
November	588	768,516	18,501.3	15,450	211.22	1,752.03	12.5	46.0			
December	475	620,825	14,945.8	15,000	211.22	1,701.00	11.3	27.6		24.80	
January	176	230,032	5,537.8	5,250	211.22	595.35	4.5	13.8		280.00	3,004.87
February	480	758,060	18,249.5	12,500	211.22	1,417.50	11.3	27.6		1,147.97	4,715.54
March	666	870,462	20,955.6	8,700	211.22	986.58	11.3	26.6		45.25	31,819.00
April	631	824,717	19,854.3	18,600	211.22	2,109.24	11.3	46.0			4,277.71
May	623	814,261	19,602.6	13,250	211.22	1,502.55	11.3	59.8			3,684.82
June	685	895,295	21,553.4	16,000	211.22	1,814.40	9.0	46.0		111.20	4,091.82
Total	7,123	9,440,461	227,270.2	176,250	2,534.64	19,986.75	138.5	468.2		1,609.22	51,593.76

2001/2002

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	751	981,557	23,630.1	19,350	2,111.22						
August	668	893,076	21,018.5	18,200	2,111.22	2,097.9	11.25	92.0		1.25	4,313.62
September	755	986,785	23,755.9	15,500	2,111.22	1,757.7	15.75	69.0			3,953.62
October	813	1,062,591	25,580.9	20,050	2,111.22	2,273.7	11.25	69.0		9.50	4,474.64
November	586	765,902	18,438.4	16,750	2,111.22	1,899.5	11.25	69.0			4,090.92
December	490	640,430	15,417.8	12,300	2,111.22	1,394.8	11.25	30.0			3,547.29
January	107	139,849	3,367.0	1,500	2,111.22	170.1	4.50	23.0			2,308.82
February	710	927,970	22,340.8	12,500	2,111.22	1,417.5	11.25	46.0			3,085.97
March	624	815,568	19,634.0	18,150	2,111.22	2,058.2	11.50	46.0			7,226.93
April	721	942,347	22,686.1	17,500	2,111.22	1,984.5	11.50	46.0			4,153.55
May	678	886,146	21,333.1	18,100	2,111.22	2,052.5	11.50	46.0		5.0	4,226.26
June	683	879,611	21,175.8	18,650	2,111.22	211,491.0	11.50	46.0			4,283.63
Total	7,586	9,921,832	238,378.44	188,550	25,334.64	228,597.4	122.50	582.0		15.75	45,665.25

2002/2003

Month	Operating Data					Expenses Data					
	Working Hours	Discharge × 1,000m ³	Power		Wages	Power	Oil	Grease	Fuel	Maintenance	Other Expenses
			(HP)	(kwh)							
July	655	856,085	20,609.5	15,950	1,343.75	1,808.7	11.5	46.0			3,210.0
August	852	1,048,214	25,234.8	16,550	1,343.75	1,876.8	11.5	46.0			3,278.0
September	688	899,216	21,647.8	22,000	1,343.75	2,494.8	14.5	69.0			3,922.0
October	815	1,065,205	25,643.8	10,000	1,343.75	1,134.0	14.5	69.0			2,561.2
November	703	918,821	22,119.8	26,250	1,343.75	2,976.8	14.5	69.0			4,404.0
December	527	688,789	16,582.0	11,400	1,343.75	1,292.8	14.5	69.0	10.5		2,730.5
January											
February											
March											
April											
May											
June											
Total	4,240	5,476,330	131,837.6	102,150	8,062.50	11,583.8	81	368	11	0	20,106

Last 5-year's Expenditure by the Project of ID

(Unit: Thousand LE)

Financial Year	Financial Expenditure on Finance Sources						Total
	Local Portion			Foreign Portion			
	National Bank	Self Finance	Local Total	Grant Aids	External loans	Foreign Total	
1. Naga Hamady Regulator and its Electrical Station							
1997/98	41		41	4,156		4,156	4,197
1998/99	1,079		1,079	1,427	1,385	2,812	3,891
1999/00	2,025		2,025	1,356	2,991	4,347	6,372
2000/01	14,517		14,517	1,162	3,832	4,994	19,511
2001/02	15,593		15,593	1,360	15,594	16,954	32,547
Total	33,255	0	33,255	9,461	23,802	33,263	66,518
2. Improvement of Irrigation Systems in different Areas							
1997/98	25,791	24	25,815	2,052	13,920	15,972	41,787
1998/99	20,964	4,089	25,053	9,186	11,852	21,038	46,091
1999/00	37,072	337	37,409	5,116	32,076	37,192	74,601
2000/01	47,667	43	47,710	31,390	54,400	85,790	133,500
2001/02	73,966		73,966	48,178	74,801	122,979	196,945
Total	205,460	4,493	209,953	95,922	187,049	282,971	492,924
3. Protection and Improvement of River Nile Canal							
1997/98	5,731	312	6,043			0	6,043
1998/99	9,637		9,637			0	9,637
1999/00	5,852		5,852			0	5,852
2000/01	6,839	826	7,665			0	7,665
2001/02	11,658		11,658			0	11,658
Total	39,717	1,138	40,855	0	0	0	40,855
4. Overcoming Irrigation Difficulties in West Delta Area							
1997/98			0			0	0
1998/99			0			0	0
1999/00			0			0	0
2000/01			0			0	0
2001/02	501		501			0	501
Total	501	0	501	0	0	0	501
5. Esna New Lock							
1997/98			0			0	0
1998/99			0			0	0
1999/00			0			0	0
2000/01			0			0	0
2001/02	500		500			0	500
Total	500	0	500	0	0	0	500
6. National Structure for Expansion in Upper Egypt							
1997/98	1,752		1,752			0	1,752
1998/99	16,302		16,302			0	16,302
1999/00	9,254		9,254			0	9,254
2000/01	5,803	101	5,904			0	5,904
2001/02	3,030		3,030			0	3,030
Total	36,141	101	36,242	0	0	0	36,242
7. National Structure for Expansion in Middle Egypt							
1997/98	429		429			0	429
1998/99	562		562			0	562
1999/00	971		971			0	971
2000/01	757	66	823			0	823
2001/02	795		795			0	795
Total	3,514	66	3,580	0	0	0	3,580

(Unit: Thousand LE)

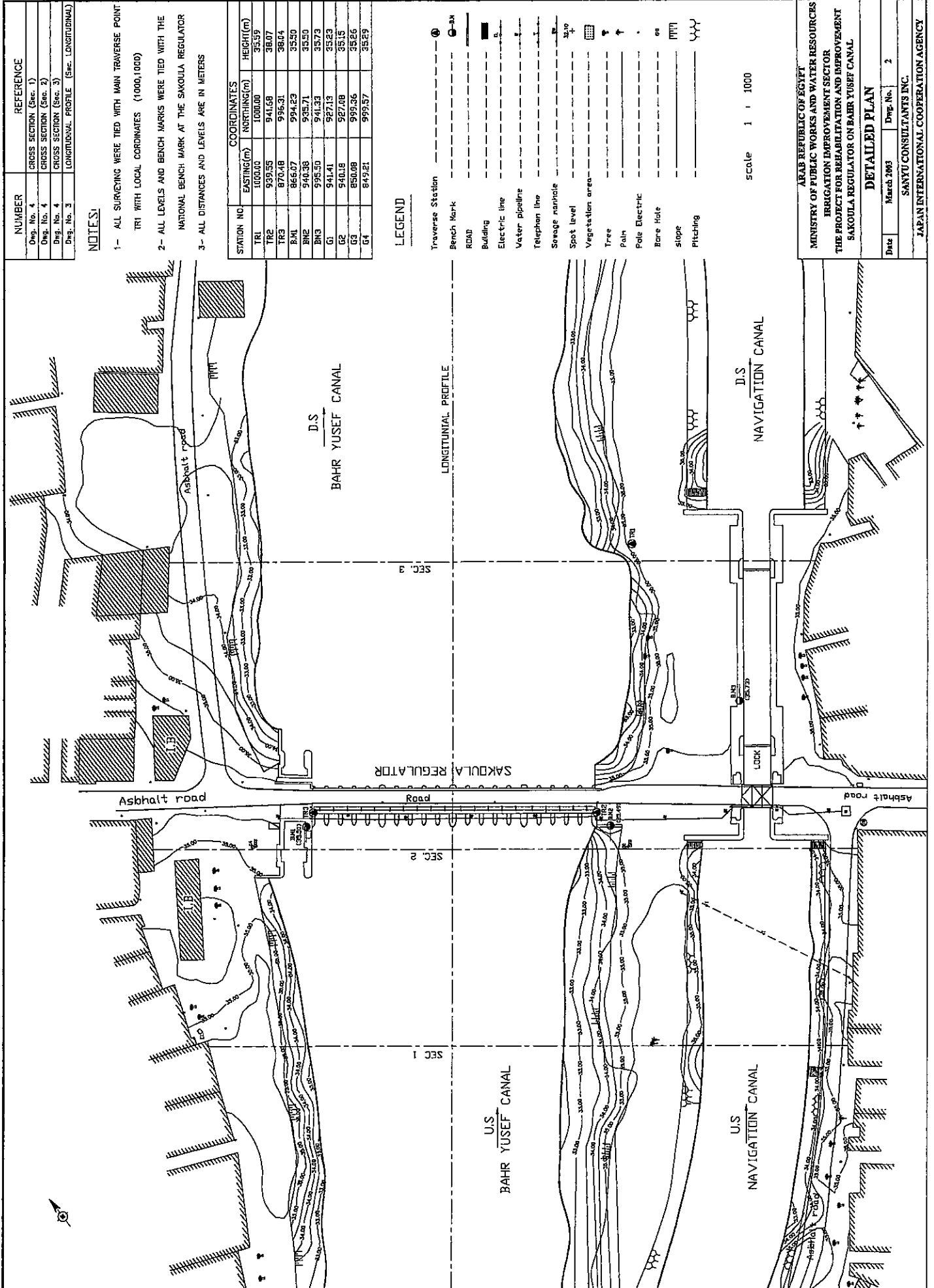
Financial Year	Financial Expenditure on Finance Sources						Total
	Local Portion			Foreign Portion			
	National Bank	Self Finannce	Local Total	Grant Aids	External loans	Foreign Total	
8 Reusing Drainage Water in Irrigation							
1997/98	561		561			0	561
1998/99	150		150			0	150
1999/00	100		100			0	100
2000/01	100		100			0	100
2001/02	2,445		2,445			0	2,445
Total	3,356	0	3,356	0	0	0	3,356
9 Resisting Water Grass							
1997/98	3,252	822	4,074			0	4,074
1998/99		6,956	6,956			0	6,956
1999/00	4,270		4,270			0	4,270
2000/01	4,021		4,021			0	4,021
2001/02	2,788		2,788			0	2,788
Total	14,331	7,778	22,109	0	0	0	22,109
10 Getting use of and Prevention from flood							
1997/98	44,583	137	44,720			0	44,720
1998/99	31,250	441	31,691			0	31,691
1999/00	27,930		27,930			0	27,930
2000/01	19,197	75	19,272			0	19,272
2001/02	17,916		17,916			0	17,916
Total	140,876	653	141,529	0	0	0	141,529
11. Reusing Agriculture Drainage water in Irrigation							
1997/98	6,160	568	6,728			0	6,728
1998/99	16,628	4,881	21,509			0	21,509
1999/00	15,722	288	16,010			0	16,010
2000/01	5,639	1,000	6,639			0	6,639
2001/02	6,208		6,208			0	6,208
Total	50,357	6,737	57,094	0	0	0	57,094
12 Supporting Nile Barrages							
1997/98	4,138		4,138			0	4,138
1998/99	8,792	33	8,825			0	8,825
1999/00	29,727		29,727			0	29,727
2000/01	24,238		24,238			0	24,238
2001/02	17,586		17,586			0	17,586
Total	84,481	33	84,514	0	0	0	84,514
13 Using winter Water Dam							
1997/98			0			0	0
1998/99			0			0	0
1999/00	45		45			0	45
2000/01			0			0	0
2001/02			0			0	0
Total	45	0	45	0	0	0	45
14. El-Saf Canal							
1997/98	620		620			0	620
1998/99	1,572	772	2,344			0	2,344
1999/00	4,073	2,015	6,088			0	6,088
2000/01	20,000		20,000			0	20,000
2001/02	17,695		17,695			0	17,695
Total	43,960	2,787	46,747	0	0	0	46,747
15. Improvement and Protection of Rasheed Branch							
1997/98	342		342			0	342
1998/99	140		140			0	140
1999/00	250		250			0	250
2000/01	100		100			0	100
2001/02	1,600		1,600			0	1,600
Total	2,432	0	2,432	0	0	0	2,432

(Unit: Thousand LE)

Financial Year	Financial Expenditure on Finance Sources						Total
	Local Portion			Foreign Portion			
	National Bank	Self Finannce	Local Total	Grant Aids	External loans	Foreign Total	
16. Total of Irrigation Department							
1997/98	284,770	7,908	292,678	56,233	13,920	70,153	362,831
1998/99	271,478	26,501	297,979	88,621	40,377	128,998	426,977
1999/00	327,203	10,253	337,456	8,817	35,067	43,884	381,340
2000/01	246,344	9,175	255,519	67,241	58,232	125,473	380,992
2001/02	312,335		312,335	80,482	90,395	170,877	483,212
Total	1,442,130	53,837	1,495,967	301,394	237,991	539,385	2,035,352
17. Development of Water Resources at Sinai							
1997/98	9,922	333	10,255			0	10,255
1998/99	12,764	874	13,638			0	13,638
1999/00	13,436	806	14,242			0	14,242
2000/01	11,548	899	12,447			0	12,447
2001/02	11,550		11,550			0	11,550
Total	59,220	2,912	62,132	0	0	0	62,132
18. Underground Wells for Irrigation							
1997/98	18,808	3,968	22,776			0	22,776
1998/99	19,793	6,876	26,669	3,800		3,800	30,469
1999/00	30,088	4,955	35,043			0	35,043
2000/01	17,475	4,430	21,905			0	21,905
2001/02	25,508		25,508			0	25,508
Total	111,672	20,229	131,901	3,800	0	3,800	135,701
19. El-Nasr Canal and El-Hamam and El-Bously							
1997/98	8,223	41	8,264	13,000		13,000	21,264
1998/99	10,551	55	10,606	13,000		13,000	23,606
1999/00	3,636	2	3,638			0	3,638
2000/01	4,653	150	4,803			0	4,803
2001/02	5,558		5,558			0	5,558
Total	32,621	248	32,869	26,000	0	26,000	58,869
20. Feeding Bahr El- Wahbi from El-Omom Drainage							
1997/98	547		547			0	547
1998/99	98		98			0	98
1999/00	5		5			0	5
2000/01	1,500		1,500			0	1,500
2001/02	500		500			0	500
Total	2,650	0	2,650	0	0	0	2,650
21. El-Salam Canal - First Stage							
1997/98	53,776	71	53,847			0	53,847
1998/99	25,512	160	25,672			0	25,672
1999/00	25,120		25,120			0	25,120
2000/01	17,238		17,238			0	17,238
2001/02	46,689		46,689			0	46,689
Total	168,335	231	168,566	0	0	0	168,566
22. Expansion of El-Riah El-Nassery and El-Noubaria Canal							
1997/98	16,611	108	16,719			0	16,719
1998/99	6,764	1,003	7,767			0	7,767
1999/00	5,952	376	6,328			0	6,328
2000/01	2,066	531	2,597			0	2,597
2001/02	2,064		2,064			0	2,064
Total	33,457	2,018	35,475	0	0	0	35,475
23. Feeding El-Noubaria Canal from El-Omom							
1997/98	3,369		3,369			0	3,369
1998/99	1,567		1,567			0	1,567
1999/00	1,093	46	1,139			0	1,139
2000/01	1,938		1,938			0	1,938
2001/02	500		500			0	500
Total	8,467	46	8,513	0	0	0	8,513

(Unit: Thousand LE)

Financial Year	Financial Expenditure on Finance Sources						Total
	Local Portion			Foreign Portion			
	National Bank	Self Finance	Local Total	Grant Aids	External loans	Foreign Total	
24 El-Esmailia Canal and its branches							
1997/98	18,100		18,100	37,000		37,000	55,100
1998/99	20,402		20,402	56,573		56,573	76,975
1999/00	40,311		40,311	771		771	41,082
2000/01	20,048		20,048	6,397		6,397	26,445
2001/02	12,988		12,988	897		897	13,885
Total	111,849	0	111,849	101,638	0	101,638	213,487
25 Rationlisation and Administration of Irrigation Systems							
1997/98	35,049	48	35,097	25		25	35,122
1998/99	38,050		38,050	4,565		4,565	42,615
1999/00	51,571	1,433	53,004	1,574		1,574	54,578
2000/01	4,393	161	4,554	16,193		16,193	20,747
2001/02	22,495		22,495	18,605		18,605	41,100
Total	151,558	1,642	153,200	40,962	0	40,962	194,162
26 Improvement and Rehabilitation of Irrigation Utilities							
1997/98	19,541	1,048	20,589			0	20,589
1998/99	23,571		23,571			0	23,571
1999/00	17,149		17,149			0	17,149
2000/01	15,346	893	16,239	7,750		7,750	23,989
2001/02	8,778		8,778	7,750		7,750	16,528
Total	84,385	1,941	86,326	15,500	0	15,500	101,826
27 Assuit Barrages							
1997/98	200		200			0	200
1998/99			0			0	0
1999/00	29		29			0	29
2000/01			0	4,349		4,349	4,349
2001/02	708		708	5,051		5,051	5,759
Total	937	0	937	9,400	0	9,400	10,337
28. Barrage and Lock of Damitta Dam							
1997/98			0			0	0
1998/99	4,778		4,778			0	4,778
1999/00	28		28			0	28
2000/01			0			0	0
2001/02			0			0	0
Total	4,806	0	4,806	0	0	0	4,806
29 Nagea Hamady Lock							
1997/98	860		860			0	860
1998/99			0			0	0
1999/00			0			0	0
2000/01			0			0	0
2001/02			0			0	0
Total	860	0	860	0	0	0	860
30. Esna Barrages							
1997/98	6,361	428	6,789			0	6,789
1998/99	552	361	913	70	27,140	27,210	28,123
1999/00	1,494		1,494			0	1,494
2000/01	1,261		1,261			0	1,261
2001/02	2,716		2,716			0	2,716
Total	12,384	789	13,173	70	27,140	27,210	40,383



NUMBER	CROSS SECTION	REFERENCE
Dwg. No. 1-2	CROSS SECTION (Sec. 1)	
Dwg. No. 1-2	CROSS SECTION (Sec. 2)	
Dwg. No. 1-2	CROSS SECTION (Sec. 3)	
Dwg. No. 1-2	LONGITUDINAL PROFILE (Sec. LONGITUDINAL)	

NOTES:

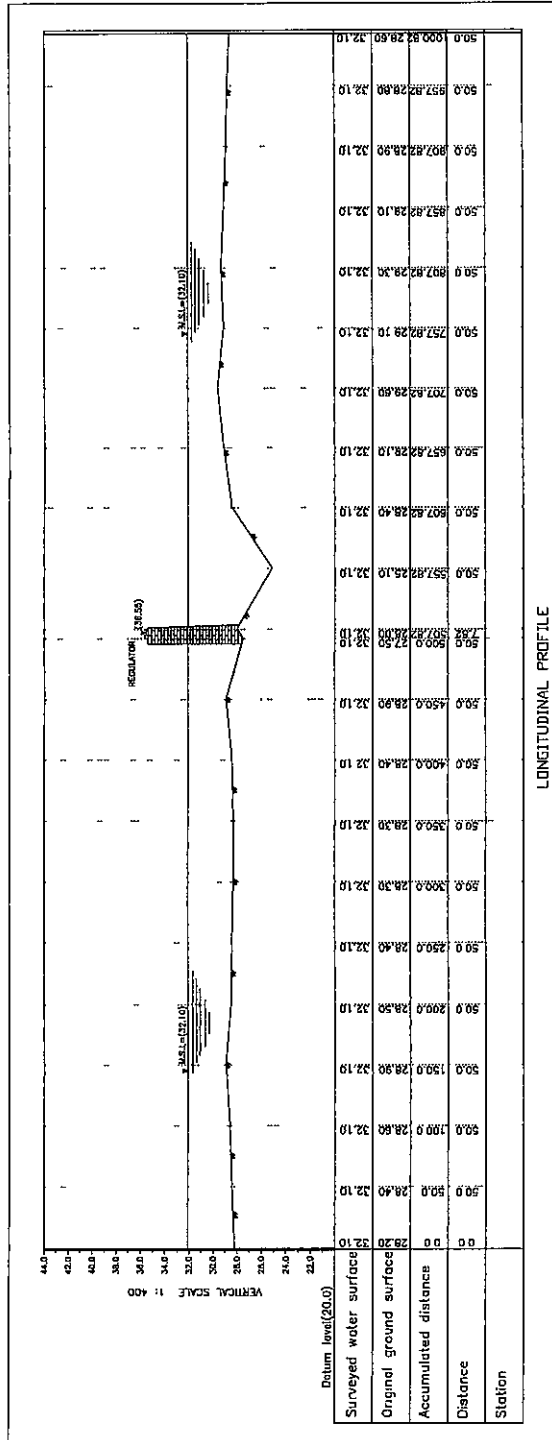
- 1- ALL SURVEYING WERE TIED WITH MAIN TRAVERSE POINT TRI WITH LOCAL COORDINATES (1000,1000)
- 2- ALL LEVELS AND BENCH MARKS WERE TIED WITH THE NATIONAL BENCH MARK AT THE SAKOULA REGULATOR
- 3- ALL DISTANCES AND LEVELS ARE IN METERS

STATION NO	COORDINATES		
	EASTING(m)	NORTHING(m)	HEIGHT(m)
TRI	1000.00	1000.00	35.59
TR2	939.55	941.68	38.07
TR3	870.48	956.31	30.04
B.M	866.07	954.23	35.50
B.M3	940.38	955.71	35.50
B1	955.50	941.33	35.73
G2	941.41	927.13	35.63
G3	940.18	957.08	35.13
G4	850.08	959.36	35.86
G4	849.21	959.57	35.89

LEGEND

- Traverse Station
- Bench Mark
- ROAD
- Building
- Electric line
- Veter pipeline
- Telephone line
- Sewage manhole
- Spot level
- Vegetation area
- Tree
- Palm
- Pole Electric
- Bare Hole
- slope
- Pitching

scale 1 : 4000



ARAB REPUBLIC OF EGYPT
 MINISTRY OF PUBLIC WORKS AND WATER RESOURCES
 IRRIGATION IMPROVEMENT SECTOR
 THE PROJECT FOR REHABILITATION AND IMPROVEMENT
 SAKOULA REGULATOR ON BAHIG YUSEF CANAL

LONGITUDINAL PROFILE

Date: March 2003 Dwg. No.: 3

SANTU CONSULTANTS INC.
 JAPAN INTERNATIONAL COOPERATION AGENCY

NUMBER	REFERENCE
Dwg. No. 1-2	CROSS SECTION DETAILS(See. 1)
Dwg. No. 1-2	CROSS SECTION DETAILS(See. 2)
Dwg. No. 1-2	CROSS SECTION DETAILS(See. 3)
Dwg. No. 1-2	LONGITUDINAL PROFILE (See. LONGITUDINAL)

NOTES:

- 1- ALL SURVEYING WERE TIED WITH MAIN TRAVERSE POINT TR1 WITH LOCAL COORDINATES (1000,1000)
- 2- ALL LEVELS AND BENCH MARKS WERE TIED WITH THE NATIONAL BENCH MARK AT THE SAKOULA REGULATOR
- 3- ALL DISTANCES AND LEVELS ARE IN METERS

STATION NO.	COORDINATES		HEIGHT(m)
	EASTING(m)	NORTHING(m)	
TR1	1000.00	1000.00	35.59
TR2	939.55	941.68	38.07
TR3	870.48	996.31	38.04
BM1	866.07	994.23	35.50
BM2	944.38	955.71	35.50
BM3	995.50	941.33	35.73
GL	941.41	927.13	35.23
G2	940.18	927.08	35.15
G3	850.08	999.56	35.26
G4	849.21	999.57	33.89

LEGEND

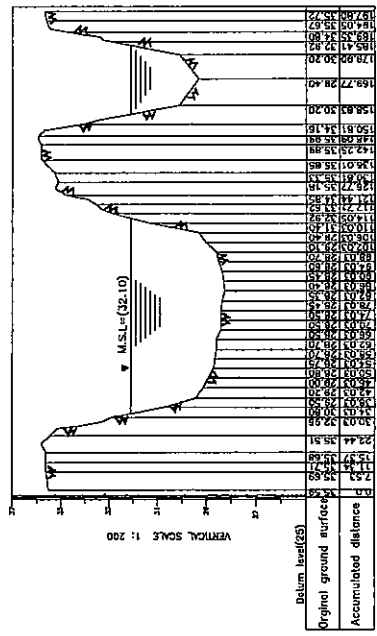
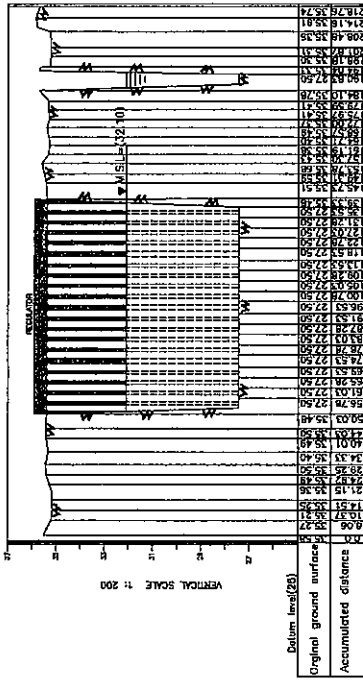
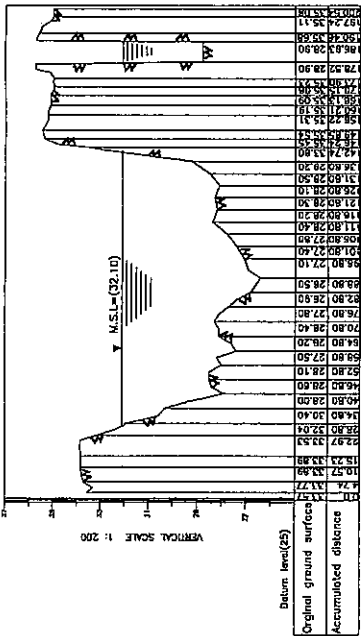
- Traverse Station
- Bench Mark
- Road
- Building
- Electric line
- Water pipeline
- Telephone line
- Storage menthole
- Spot level
- Vegetation area
- Tree
- Palm
- Pole Electric
- Bare hole
- slope
- Fitching

scale 1 : 1000

ARAB REPUBLIC OF EGYPT
 MINISTRY OF PUBLIC WORKS AND WATER RESOURCES
 IRRIGATION IMPROVEMENT SECTOR
 THE PROJECT FOR REHABILITATION AND IMPROVEMENT
 SAKOULA REGULATOR ON BAHY YUSEF CANAL.

CROSS SECTIONS

Date	March 2003	Dwg. No.	4
SANYU CONSULTANTS INC.			
JAPAN INTERNATIONAL COOPERATION AGENCY			



NUMBER	REFERENCE
Dwg. No. 4	CROSS SECTION DETAILS(SEC. 1)
Dwg. No. 4	CROSS SECTION DETAILS(SEC. 2)
Dwg. No. 4	CROSS SECTION DETAILS(SEC. 3)
Dwg. No. 3	LONGITUDINAL PROFILE (Sec. LONGITUDINAL)

NOTES:

- 1- ALL SURVEYING WERE TIED WITH MAIN TRAVERSE POINT TR1 WITH LOCAL COORDINATES (1000,1000)
- 2- ALL LEVELS AND BENCH MARKS WERE TIED WITH THE NATIONAL BENCH MARK AT THE SAKOULA REGULATOR
- 3- ALL DISTANCES AND LEVELS ARE IN METERS

STATION NO	COORDINATES		
	EASTING(m)	NORTHING(m)	HEIGHT(m)
TR1	1000.00	1000.00	35.59
TR2	939.55	941.68	38.07
TR3	870.48	996.31	38.04
BM1	866.07	994.23	35.50
BM2	940.38	926.71	35.50
BM3	955.50	941.33	35.73
G1	941.41	927.13	35.23
G2	940.18	927.08	35.15
G3	850.08	959.36	35.26
G4	848.21	959.57	35.29

LEGEND

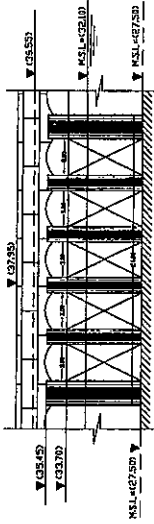
- Traverse Station
- Bench Mark
- Road
- Building
- Electric line
- Water Pipeline
- Telephone line
- Seepage manhole
- Spot level
- Vegetation area
- Tree
- Palm
- Pole Electric
- Bore Hole
- slope
- Pitching

scale 1 : 400

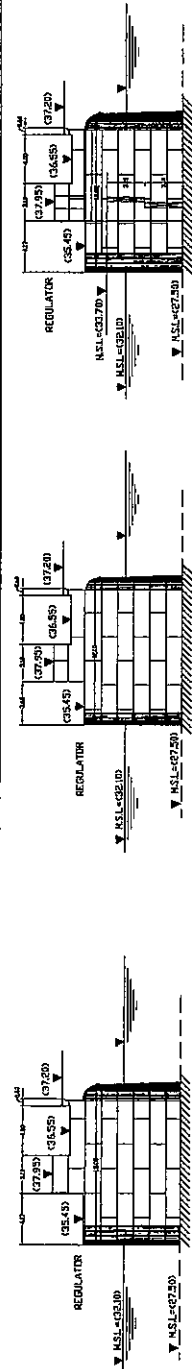
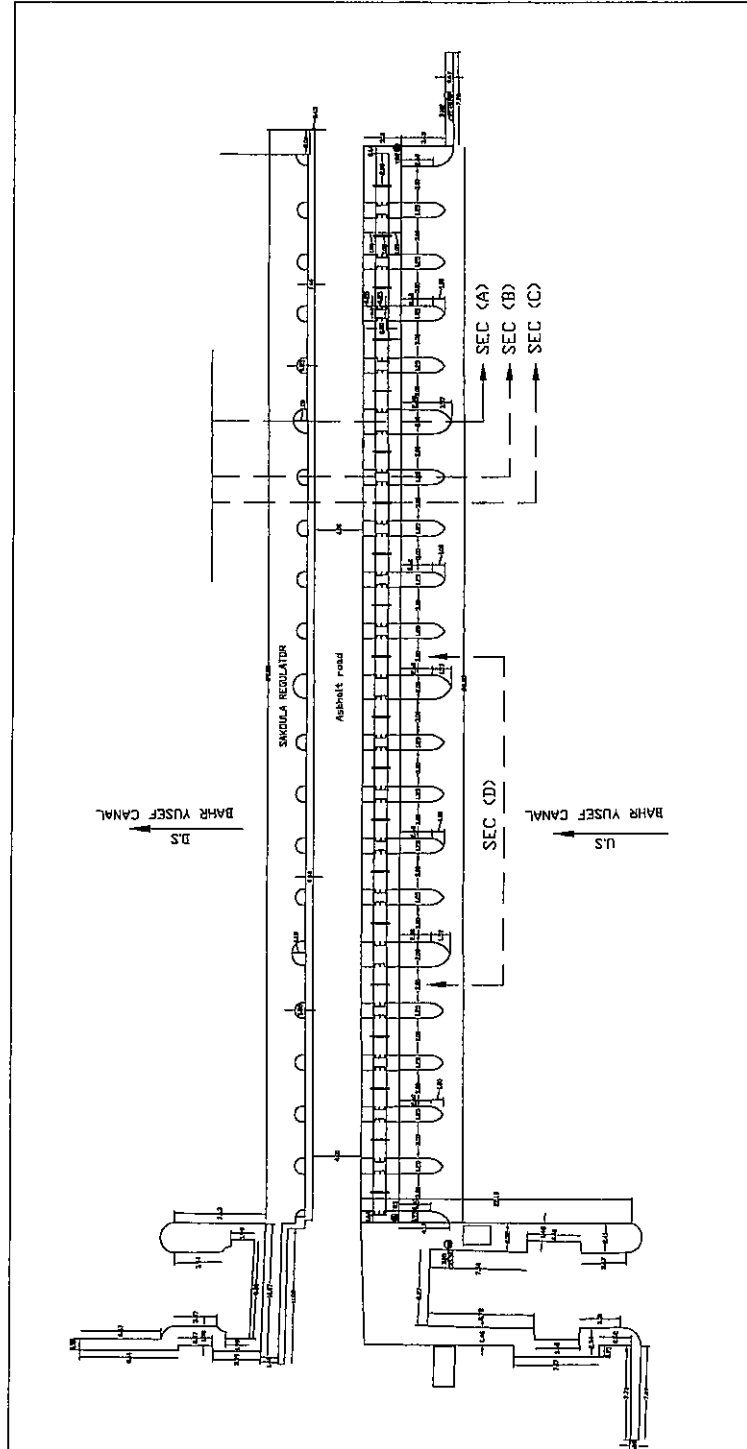
ARAB REPUBLIC OF EGYPT
 MINISTRY OF PUBLIC WORKS AND WATER RESOURCES
 IRRIGATION IMPROVEMENT SECTOR
 THE PROJECT FOR REHABILITATION AND IMPROVEMENT
 SAKOULA REGULATOR ON BAHR YUSEF CANAL
SAKOULA REGULATOR SKETCH

Date March 2003 Dwg. No. 5

SANTU CONSULTANTS INC.
 JAPAN INTERNATIONAL COOPERATION AGENCY



SEC (D)



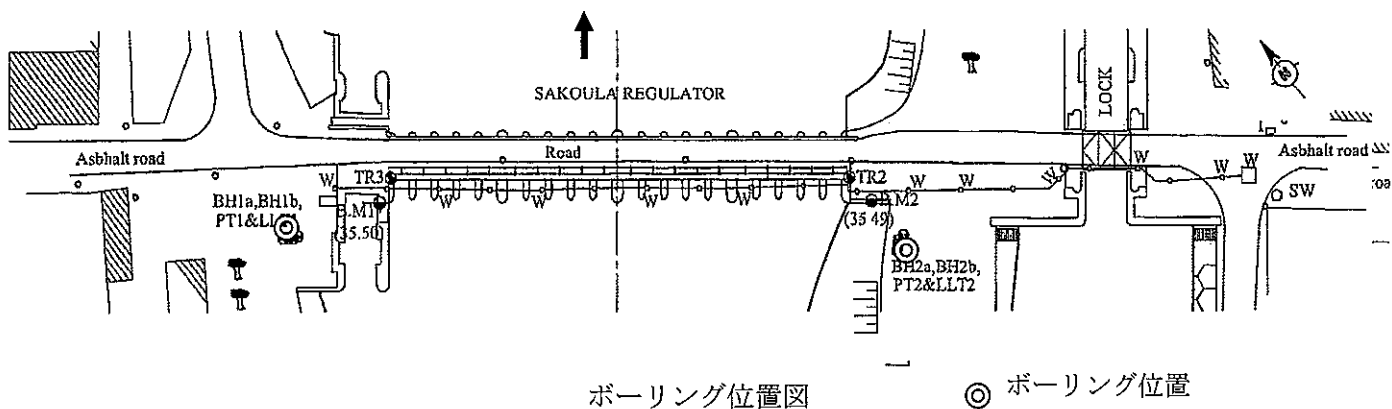
SEC (A)

SEC (B)

SEC (C)

調査数量一覧表

項目	仕様	数量	備考
ボーリング BH1	口径 75mm	30m	
ボーリング BH2	口径 75mm	30m	
標準貫入試験	2孔 1m毎	60回	ボーリング孔で実施、ASTM D 1586
サンプリング	ローリーコアリング	8試料	粘土部固く、シウォールサンプリング困難
透水試験	注水変水位	4回	
孔内水平载荷試験	LLT	6回	
室内土質試験			
土粒子の密度試験		12試料	ASTM D 854
含水比試験		8試料	ASTM D 2216
粒度試験		20試料	ASTM D 422
液性限界・塑性限界試験		8試料	ASTM D 4318
単位堆積重量試験		8試料	
一軸圧縮試験		8試料	ASTM D 2166
土取場試料採取、試験			
現場密度試験	砂置換	3箇所	ASTM D 1556
試料採取		3箇所	
含水比試験		3試料	ASTM D 2216
粒度試験		3試料	ASTM D 422
突き固め試験		3試料	ASTM D 698



BH1

GH=35.27m

L = 30.00m

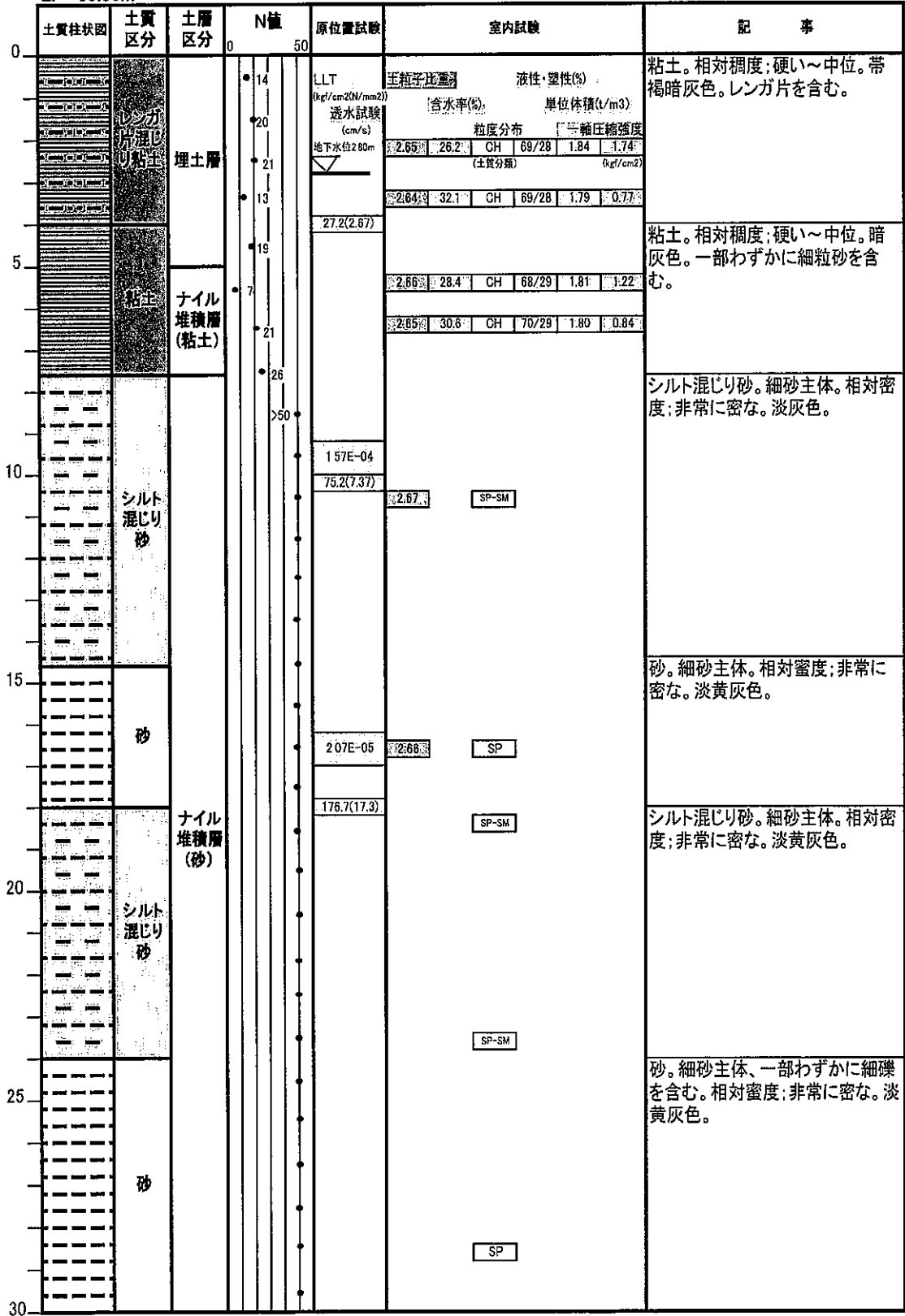
土質柱状図	土質区分	土層区分	N値	原位置試験	室内試験	記 事
0	埋土層	埋土層	24	LLT : 主粒子比重 (kg/cm ² ・N/mm ²) 透水試験 (cm/s) 地下水位3.30m	液性・塑性(%) 含水率(%) 単位体積(1/m ³) 粒度分布 一軸圧縮強度 CH 60/27 1.86 3.62 (土質分類) (kgf/cm ²)	粘土。相対稠度, 硬い~中位。帯 褐暗灰色。レンガ片を含む。
5	粘土	ナイル堆積層 (粘土)	17 9 9 5 6 9	22.3(2.19)	2.64 22.7 CH 67/28 1.85 2.44 2.64 31.5 CH 69/30 1.80 0.91 2.65 33.5 CH 72/27 1.78 0.82	粘土。相対稠度, 中位。暗灰色。5.8 ~6.6m間わずかに細砂を含む。
10	シルト 混じり 砂	ナイル 堆積層 (砂)	12 29 30 >50	5.54E-05 76.7(7.52)	SP-SM	シルト混じり砂。細砂主体。相対密 度; 中ぐらい。淡灰色。
15	シルト 質砂		157.6(15.5)	SM	シルト質砂。細砂主体。厚さ1cmま たはそれ以下のシルトの薄層を頻 繁に挟む。相対密度, 非常に密な。 淡灰色。	
20	シルト 混じり 砂		2.66	SP-SM	シルト混じり砂。細砂主体。相対密 度; 非常に密な。帯黄淡灰色。	
25	砂		SP	砂。細砂。一部わずかに細礫含		
25	シルト 混じり 砂		2.66	SP-SM	シルト混じり砂。細砂主体。相対密 度; 非常に密な。帯黄淡灰色。	
30	砂	SP	砂。細砂主体。一部わずかに細礫 を含む。相対密度; 非常に密な。帯 黄淡灰色。			
30	シルト 混じり 砂	SP-SM	シルト混じり砂。中砂主体。相対密 度, 非常に密な。帯黄淡灰色。			

ボーリング柱状図 BH1

BH2

GH=35.23m

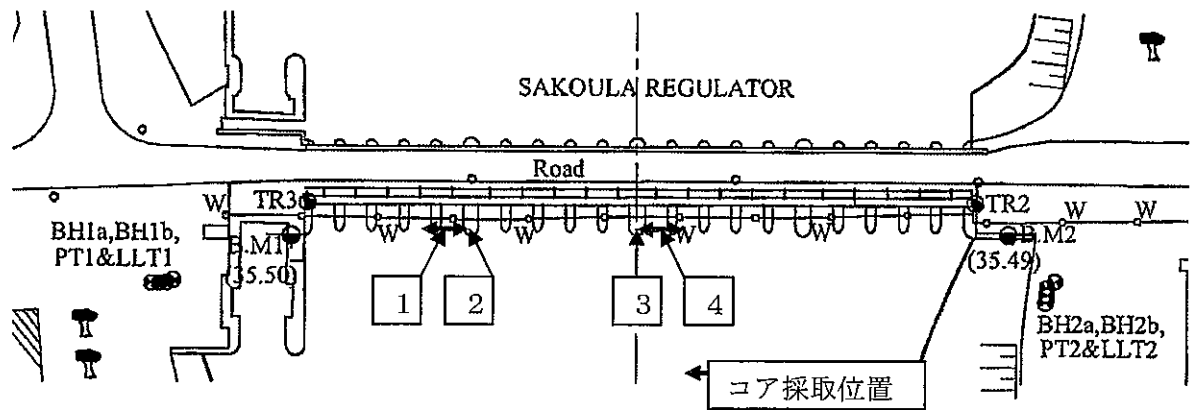
L =30.00m



ボーリング柱状図 BH2

サコーラ堰 堰柱部コアの一軸圧縮強度試験結果

コア No.	コア採取箇所	試験箇所	コア状態	圧縮強度	
				(kgf/cm ²)	(N/mm ²)
1	第4堰柱上流右岸 側面 上端より1.50m下	表面より10~24cm (表面部やや奥)	目地部 (レンガ及び間詰め部)	29.2	2.86
		表面より55~68cm (中間部)	目地部 (レンガ及び間詰め部)	12.0	1.18
2	第5堰柱上流左岸 側面 上端より1.53m下	表面より5~17cm (表面部)	目地部 (レンガ及び間詰め部)	13.8	1.35
		表面より65~79cm (奥部)	目地部 (レンガ及び間詰め部)	19.1	1.87
3	第10堰柱上流右岸 側面 上端より1.51m下	表面より5~17cm (表面部)	目地部 (レンガ及び間詰め部)	25.0	2.45
		表面より60~74cm (奥部)	レンガ粘土充填部 (均質)	41.1	4.03
4	第11堰柱上流左岸 側面 上端より1.52m下	表面より10~23cm (表面部やや奥)	目地部 (レンガ及び間詰め部)	18.2	1.78
		表面より61~75cm (奥部)	レンガ粘土充填部 (均質)	48.5	4.75



堰柱部コア採取位置