付属資料-6

6-1 上エジプト地域の気象状況

	1989年
1) 気温	
最高気温	50°C
最低気温	2°C
最暑月の日平均最高気温	42°C
最寒月の日平均最低気温	9°C
2) 降雨	
降雨は殆どなく、たまに冬期に見られる。	
年最高雨量	8mm
年平均雨量	3mm
3) 雪、みぞれ	
今までに記録がない。	
4) 気圧	
高気圧発生月の平均	1,017mb
低気圧発生月の平均	1,005mb
年平均	1,011mb
最高気圧	1,027mb
最低気圧	999mb
5) 相対湿度	
最湿潤月の平均湿度	45%
最乾月の平均湿度	25%
年間平均湿度	34%
湿度はしばしば4%以下になることがあり、たまに0のことも起こる。	
6) 風速、嵐	
最高風速は120km/h.風向は一定でない。砂嵐は月1回の割でおこる。	
雷は過去14年間記録がなかった。	

6.2 ナイル川の月別放出水量及び各地水位(1987年)

月	最大放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)	最小放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)
Jan.	120	83.09	81.60	80	82.20	81.00
Feb.	145	83.60	82.40	120	83.09	81.70
Mar.	135	83.40	82.20	120	83.09	81.81
Apr.	135	83.40	82.25	135	83.40	81.80
May	–	84.26	82.25	–	83.50	82.10
Jun.	–	–	–	–	–	–
Jul.	230	85.11	83.60	215	84.87	83.30
Aug.	215	84.87	83.50	170	84.08	82.60
Sep.	170	84.08	82.80	135	83.40	82.20
Oct.	135	83.40	82.20	110	82.89	81.30
Nov.	110	82.89	81.70	105	82.78	81.50
Dec.	115	83.00	81.70	95	82.55	81.40

* アスワン水位の最大水位差： 2.91M＝85.11M － 82.20M
* エルガーフラ水位の最大水位差： 2.60M＝83.60M － 81.00M

注記： 1. アスワン水位はアスワンハイダムより6.5KM下流の水位。
2. エルガーフラ水位はアスワンハイダムより34KM下流の水位。
3. －印は資料無しを示す。

出所： Irrigation Department at Aswan , MPWWR

ナイル川の月別放出水量及び各地水位 (1988年)

月	最大放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)	最小放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)
Jan.	110	82.89	81.50	75	82.07	81.40
Feb.	120	83.10	81.95	115	83.00	81.50
Mar.	130	83.30	82.30	110	82.89	81.70
Apr.	135	83.40	82.20	130	83.30	81.95
May	190	84.26	82.80	140	83.50	82.20
Jun.	225	85.03	83.70	205	84.71	83.35
Jul.	225	85.03	83.70	210	84.79	83.40
Aug.	205	84.71	83.40	165	83.99	82.60
Sep.	165	83.99	82.70	125	83.20	82.10
Oct.	125	83.20	82.10	110	82.89	81.70
Nov.	110	82.89	81.85	100	82.67	81.60
Dec.	115	83.00	81.80	90	82.43	81.30

* アスワン水位の最大水位差： 2.96M＝85.03M － 82.07M

* エルガーフラ水位の最大水位差： 2.40M＝83.70M － 81.30M

注記： 1. アスワン水位はアスワンハイダムより6.5KM下流の水位。

2. エルガーフラ水位はアスワンハイダムより34KM下流の水位。

3. －印は資料無しを示す。

出所： Irrigation Department at Aswan , MPWWR

ナイル川の月別放出水量及び各地水位(1989年)

月	最大放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)	最小放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)
Jan.	115	83.00	81.80	75	82.07	81.35
Feb.	115	83.00	81.90	115	83.00	81.75
Mar.	130	83.30	82.15	120	83.10	81.85
Apr.	140	83.50	82.25	130	83.30	82.10
May	200	84.63	83.10	145	83.60	82.25
Jun.	245	85.39	84.00	210	84.87	83.20
Jul.	240	85.27	83.95	215	84.87	83.55
Aug.	210	84.79	83.60	170	84.08	82.65
Sep.	170	84.08	82.65	115	83.00	81.70
Oct.	115	83.00	81.75	105	82.78	81.40
Nov.	110	82.89	81.75	100	82.67	81.50
Dec.	110	82.89	81.75	90	82.43	81.30

* アスワン水位の最大水位差： 3.32M＝85.39M － 82.07M

* エルガーフラ水位の最大水位差： 2.70M＝84.00M － 81.30M

注記： 1. アスワン水位はアスワンハイダムより6.5KM下流の水位。

2. エルガーフラ水位はアスワンハイダムより34KM下流の水位。

3. － 印は資料無しを示す。

出所： Irrigation Department at Aswan , MPWWR

ナイル川の月別放出水量及び各地水位 (1990年)

月	最大放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)	最小放出量 (百万M3/日)	アスワン 水位 (M)	エルガーフラ 水位 (M)
Jan.	110	83.00	81.70	75	82.07	80.90
Feb.	145	83.60	82.15	115	83.00	81.70
Mar.	140	83.50	82.25	125	83.20	81.75
Apr.	140	83.50	82.35	140	83.50	82.25
May	230	85.11	83.70	145	83.60	82.30
Jun.	240	85.27	83.90	235	85.19	83.70
Jul.	235	85.19	83.80	210	84.79	83.40
Aug.	210	84.79	83.45	170	84.08	82.75
Sep.	170	84.08	82.85	105	82.78	81.80
Oct.	115	83.00	81.85	105	82.78	81.60
Nov.	115	83.00	81.85	95	82.55	81.35
Dec.	110	82.89	81.45	80	82.19	81.20

* アスワン水位の最大水位差： 3.20M＝85.27M － 82.07M

* エルガーフラ水位の最大水位差： 3.00M＝83.90M － 80.90M

注記： 1. アスワン水位はアスワンハイダムより6.5KM下流の水位。

2. エルガーフラ水位はアスワンハイダムより34KM下流の水位。

3. － 印は資料無しを示す。

出所： Irrigation Department at Aswan , MPWWR

ナイル川の月別放出水量及び各地水位(1991年)

月	最大放出量 (百万M3/日)	アスワン 水位(M)	エルガーフラ 水位(M)	最小放出量 (百万M3/日)	アスワン 水位(M)	エルガーフラ 水位(M)
Jan.	115	83.00	81.45	65	81.84	80.60
Feb.	150	83.70	82.45	115	83.00	81.75
Mar.	140	83.50	82.45	120	83.10	82.00
Apr.	145	83.60	82.40	135	83.40	82.20
May	230	85.11	83.80	145	83.60	82.35
Jun.	245	82.35	84.00	235	85.19	83.85
Jul.	235	85.19	83.95	210	84.79	83.50
Aug.	215	84.87	83.55	170	84.08	82.70
Sep.	170	84.08	82.70	105	82.78	81.65
Oct.	135	83.40	81.90	105	82.78	81.30
Nov.	125	83.20	81.80	95	82.55	81.55
Dec.	–	–	–	–	–	–

* アスワン水位の最大水位差： 3.27M＝85.11M － 81.84M

* エルガーフラ水位の最大水位差： 3.40M＝84.00M － 80.60M

注記： 1. アスワン水位はアスワンハイダムより6.5KM下流の水位。

2. エルガーフラ水位はアスワンハイダムより34KM下流の水位。

3. －印は資料無しを示す。

出所： Irrigation Department at Aswan , MPWWR

1987年から1991年11月までの5年間の最大水位差

* アスワン水位の最大水位差　　：　3.55MM＝85.39M－81.84M

* エルガーフラ水位の最大水位差　：　3.40M＝84.00M－80.60M

6.3(1) 上エジプト地域における作物別単位用水量

(単位：m3/フェダン②)

Grop	Jan.①	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Wheat		453	453	430	–	–	–	–	–	–	249	520	2,105
Beans		367	528	92	–	–	–	–	–	–	–	618	1,605
Barley		418	320	–	–	–	–	–	–	–	468	493	1,699
Fodder (summer)		–	–	–	825	1,111	1,393	696	–	–	–	–	4,025
Fodder (Nile)		–	–	–	–	–	–	1,409	1,813	1,711	–	–	4,933
Fodder (winter)		891	880	981	282	–	–	–	–	–	155	332	3,521
Onion		551	568	515	–	–	–	–	–	–	373	426	2,433
Garlic		388	413	364	–	–	–	–	–	655	874	995	3,689
Vegetable (W)		726	108	–	–	–	–	–	–	358	390	493	3,689
Vegetable (S)		556	1,090	1,186	1,345	1,122	203	–	–	–	–	–	5,502
Vegetable (N)		–	–	–	–	–	–	1,429	1,836	1,720	–	–	4,985
cone		–	–	–	686	904	1,154	565	–	–	–	–	3,309
Sugarcane		647	623	818	913	972	1,245	1,488	1,604	1,317	1,221	1,150	11,998
Maizc		–	–	–	–	420	800	749	859	459	–	–	3,287
Fruits		220	225	308	376	497	484	469	440	425	308	303	4,055

① January: Water closure ③ －印は用水不足を示す。

② 1フェダン＝0.42ha.

6.3(2) 計画地の作付実績

(1) 夏 作

(単位：フェダン)

ポンプ場	作物 / 年	トウモロコシ	野 菜	ベルシーム	その他	サトウキビ	果 樹	計
No.1 El Sheikh Fadl	1989	45	5	16	109	21	16	212
	1990	45	5	16	109	21	16	212
	1991	45	5	16	110	20	16	212
No.9 Gezirat Fares	1991	317	100	-	5	200	-	622

(1) 冬 作

(単位：フェダン)

ポンプ場	作物 / 年	小 麦	豆 類	野 菜	その他	サトウキビ	果 樹	計
No.1 El Sheikh Fadl	1989	55	6	12	110	21	16	212
	1990	60	22	7	86	21	16	212
	1991	80	4	8	84	20	16	212
No.9 Gezirat Fares	1991	160	2	300	409	27	120	1,018

Dec. 04, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

[One pump] 1/2

PS No. : 1 PS Name : _____

1. Commencing Year of the Pump Operation	1952
2. Manufacturers Name of the Pump	SULZER (Switzerland)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %
5. The pump performance Curve obtained or not?	No
6. Actual Head between the River Water Level and the Discharge Water Level	9.75 (10) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	54.53 m
8. Acrage of the Irrigated Field at Present	by rest (1800 Feddan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	YES
11. The Electric Motor	(Yugoslavia)
(1) Out put	66 kW
(2) Voltage	220/380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	975 rpm
(6) Present Workability	X
12. The Pump	Manufactured 1958
(1) Discharge Capacity	500 L/s
(2) Total Head	10 M
(3) Revolutional Speed	960 rpm
(4) Present Workability	784 HP X
13. The Transformer	250
(1) Capacity	~~250~~ KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	△
14. The Reservoir	
(1) Dimensions Length ____mxwidth ____mxwidth	____mxwidth
(2) Effective Volume	____m
(3) Material	____m³
(4) Present Workability	

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Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 1 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	1000 ~~500~~ mm dia
(2) Material	Iron
(3) Present Workability	X
16. The Discharge Pipe Line	
(1) Nominal Bore	700/~~500~~ mm dia
(2) Material	Iron
(3) Berried or not	
(4) Present Workability	X
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	
(1) Max	very slow _____ m/s
(2) Min	_____ m/s
(3) Ave	_____ m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

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Kamel T. Iwata

Km 38.250

STATION NAME: EL SHEIKH FADL

No. OF UNITS 1 [illegible]

DISCHARGE 500 lit/Sec H 10 mt

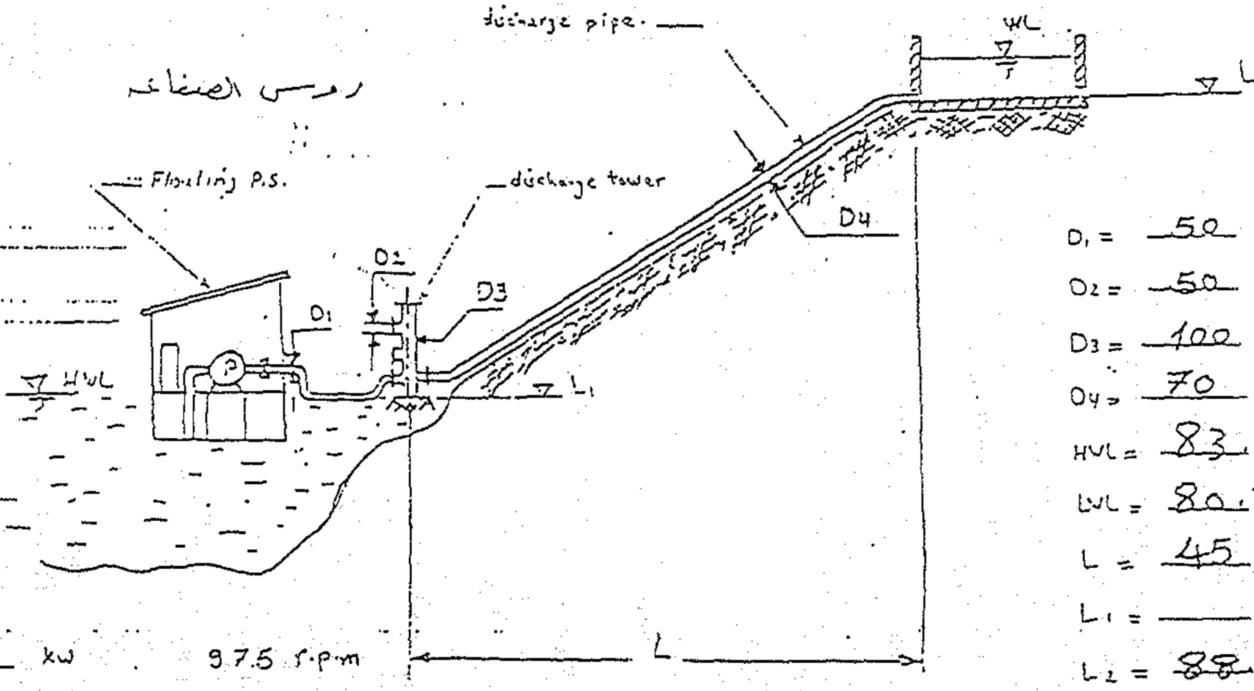
R.P.M 960

TRANSFORMER: [illegible]

11000/400

250 K.V.A

13.15/361.2 A



	1989	1990	1991
H.W.L	83.83	83.73	83.83
L.W.L	81.18	80.73	80.43
	2.65	3.0	3.4

D1 = 50 cm

D2 = 50 cm

D3 = 100 cm

D4 = 70 cm

HWL = 83.80

LWL = 80.78

L = 45 mt

L1 = ——

L2 = ~~88~~.60

WL = 90.10

Electric Equipment:-

- motor power : 66 kw 975 r.p.m
- motor rated voltage : 380/220 V 120/206 A
- motor type: RADE KONČAR YOGOUSLAVIA

[illegible]

3/60

Dec. 04, 1991

CHECK LIST

Page 1/3

(Equipment & Facilities for each existing Pump Station)

ASWAN - DRAW - BENBAN - EL. Sheikh Fadl

Legend

O : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

X : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 1 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	o
		Rust	o
	Appearance of installation	Bolts tightness	△
		Vibration	△
	Bearing	Noise	X (From cavitation Phenomena)
		Vibration	X
		Temperature	△
		Oil leak	o
	Coupling	Bolt tightness	△
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	△
		Water leak	△
		Wear	△

Kamel

PS No.: 1 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	X
		Vibration	X
		Temperature	X
		Oil leak	△
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	o
	Others	Rust	o
		Oil leak	o
		Wear	△
III. VALVE	Appearance	Water leak	o
		Rust	o
		Wear	o
	Operation	Smooth	o
IV. PIPE & HOSE	Appearance	Water leak	X
		Rust	X
		Wear	X
		Fitness	X
V. (1) SWITCH BORAD	appearance of outside	Rust	o
		Wear	o
		Noise	o
		Vibration	o
		Tightness	o
	Appearance of interior	Lighting	△
		Rust	o
	Meter	Zero setting	o
		Workability	o

Kamel

PS No.: 1 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure	△
		Rust	○
		Wear	○
		Covering	○
VI. POWER CABLE	Appearance	Damage	△
		Wear	△
		Covering	△
		Connection	△
		Insulation	○
VII. BARGE	Appearance of outside	Damage	△
		Rust	△
		Wear	△
		Vibration	△
	Appearance of interior	Damage	△
		Rust	△
		Wear	△
	Winch & Anchor	Tightness	△
		Rust	△
		Wear	△
		Operation smooth	△
		Lockability	△
VIII. DIS-CHARGE POND	Appearance	Damage	△
		Wear	△

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION Dec. 05. 1991

EDFO - EL-HAMAM

PS No. : 2 PS Name : _____ (One Type) 1/2

1. Commencing Year of the Pump Operation	1932
2. Manufacturers Name of the Pump	Wonder (Made in Egypt)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %
5. The pump performance Curve obtained or not?	NO
6. Actual Head between the River Water Level and the Discharge Water Level	8,74 (S) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	80,51 m
8. Acrage of the Irrigated Field at Present	By-rest (800 Feedan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	YES
11. The Electric Motor	USSR.
(1) Out put	100 kw
(2) Voltage	380 V
(3) No. of Poles	1735 rpm 4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1969 manufacto, 1987 installed
(6) Present Workability	Δ
12. The Pump	
(1) Discharge Capacity	500 L/s
(2) Total Head	10
(3) Revolutional Speed	750 rpm
(4) Present Workability	Δ
13. The Transformer	
(1) Capacity	300 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	o
14. The Reservoir	
(1) Dimensions Length ____mxwidth ____mxwidth	____mxwidth
(2) Effective Volume	____m
(3) Material	____m³
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 2 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	1000 500 mm dia
(2) Material	Iron
(3) Present Workability	X
16. The Discharge Pipe Line	
(1) Nominal Bore	700 500 mm dia
(2) Material	~~Rubber~~ iron
(3) Berried or not	Not berried
(4) Present Workability	X
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	
(1) Max	_____ m/s
(2) Min	_____ m/s
(3) Ave	_____ m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

Kamel Wado

STATION NAME :- SAHEL EL HAMMAM KM 80.00

NO. OF UNITS : 1 طلمبات وانذر ١٦/١٦"

DISCHARGE : 500 lit/sec H 10. mt

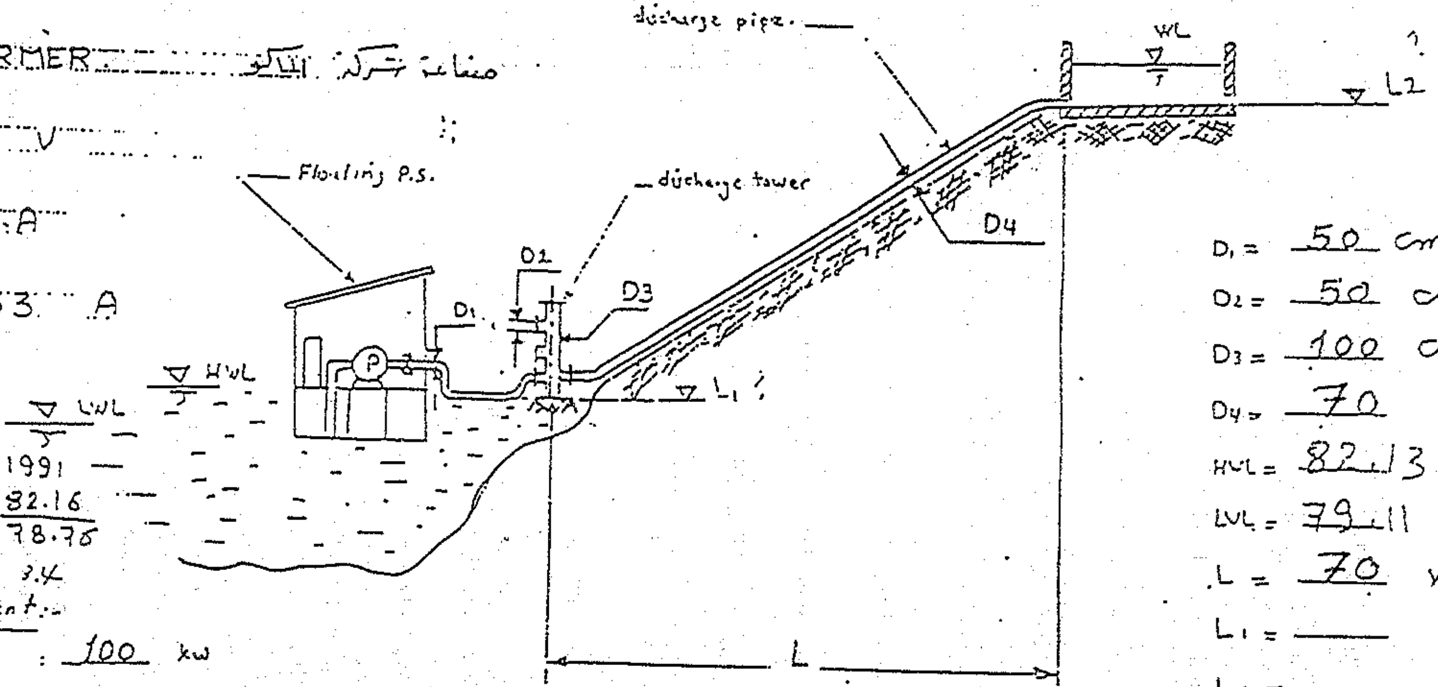
R.P.M 750

TRANSFORMER مصانع ترك ايلكو

11550/400 V

300 K.V.A

15.75/433 A



	1989	1990	1991
H.W.L	82.16	82.06	82.16
L.W.L	79.51	79.06	78.76
Difference	2.65	3.0	3.4

D1 = 50 cm
D2 = 50 cm
D3 = 100 cm
D4 = 70
HWL = 82.13
LWL = 79.11
L = 70 mt
L1 = ___
L2 = ___
WL = ~~86~~.80

Electric Equipment :-

motor power : 100 kw

motor rated voltage : 380 v

motor type : AO 102 – 8T C.C.C.P روسي

Dec. 05. 1991

CHECK LIST

(Equipment & Facilities for each existing Pump Station)

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 2 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	×
		Rust	△
	Appearance of installation	Bolts tightness	△
		Vibration	△
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	△ drip down on floor
	Coupling	Bolt tightness	△
		Eccentricity	○
		Wear	△
	Others	Rust	△
		Oil leak	△
		Water leak	△
		Wear	△ packing

Kamel Nasr

PS No.: 2 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	✱ O
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	△
	Others	Rust	△
		Oil leak	O
		Wear	△ Inside is very dirty
III. VALVE	Appearance	Water leak	△ leakage by shaft and flange
		Rust	△
		Wear	△ Shaft
	Operation	Smooth	△
IV. PIPE & HOSE	Appearance	Water leak	△
		Rust	△
		Wear	△
		Fitness	△ Leaky from rubber and coupling O
V. (1) SWITCH BORAD	appearance of outside	Rust	O
		Wear	O
		Noise	O
		Vibration	O
		Tightness	O There is no cover
	Appearance of interior	Lighting	No lighting
		Rust	Lamp is good △
	Meter	Zero setting	O
		Workability	O

Kamel Plant

PS No.: 2 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure	○
		Rust	○
		Wear	○
		Covering	X No cover
VI. POWER CABLE	Appearance	Damage	△ Connection portion damaged
		Wear	△
		Covering	△ Not enough cover
		Connection	△
		Insulation	△ Some parts are bad
VII. BARGE	Appearance of outside	Damage	△ Roof is damaged
		Rust	△
		Wear	○
		Vibration	△ Barge is lean
	Appearance of interior	Damage	△ floor
		Rust	△ Pump 2 Motor Base
		Wear	△
	Winch & Anchor	Tightness	△ front wind only
		Rust	△
		Wear	△
		Operation smooth	△
		Lockability	△ 4 clips locked Barge is lean
VIII. DIS-CHARGE POND	Appearance	Damage	No pond
		Wear	Direct to canal

Crane rail on ceiling is short. (Not extended to outside.)

Kamei

Dec. 03, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

EDFO - EL-FOWZA

PS No. : 3 PS Name : [One pump] 1/2

1. Commencing Year of the Pump Operation	1952 1988
2. Manufacturers Name of the Pump	SULZER (Switzerland)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %
5. The pump performance Curve obtained or not?	No
6. Actual Head between the River Water Level and the Discharge Water Level	7.43 (8) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	28.8 m
8. Acrage of the Irrigated Field at Present	By rest (300 Fedolan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	No
11. The Electric Motor	
(1) Out put	135 HP
(2) Voltage	380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1988 installed
(6) Present Workability	O
12. The Pump	1958 Manufactured
(1) Discharge Capacity	500 L/s
(2) Total Head	10 m
(3) Revolutional Speed	(784HP) 960 rpm
(4) Present Workability	X
13. The Transformer	
(1) Capacity	200 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	~~1956~~ 1985
(5) Present Workability	O (OK)
14. The Reservoir	
(1) Dimensions Length ___m x Width ___m x Width	No reservoir Direct to canal Concrete made ___m x Width
(2) Effective Volume	___ m
(3) Material	___
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 3 PS Name : _____ 2/2

15. The Discharge Tower (1) Nominal Bore (2) Material (3) Present Workability	No Tower. _____ mm dia
16. The Discharge Pipe Line (1) Nominal Bore (2) Material (3) Berried or not (4) Present Workability	ϕ600 500 mm dia Iron Not berried Δ
17. Water Level (1) Max (2) Min (3) Ave	_____ m _____ m _____ m
18. Water Velocity (1) Max (2) Min (3) Ave	_____ m/s _____ m/s _____ m/s
19. Wind (1) Spring a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (2) Summer a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (3) Fall a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (4) Winter a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity :	 _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s

Kamel

STATION NAME:- EL FAWAZA EL BAHARIA. Km 113-00

NO OF UNITS : 1 SULZER طلمبات سولزر

DISCHARGE : 500 lit/Sec H 10 mt

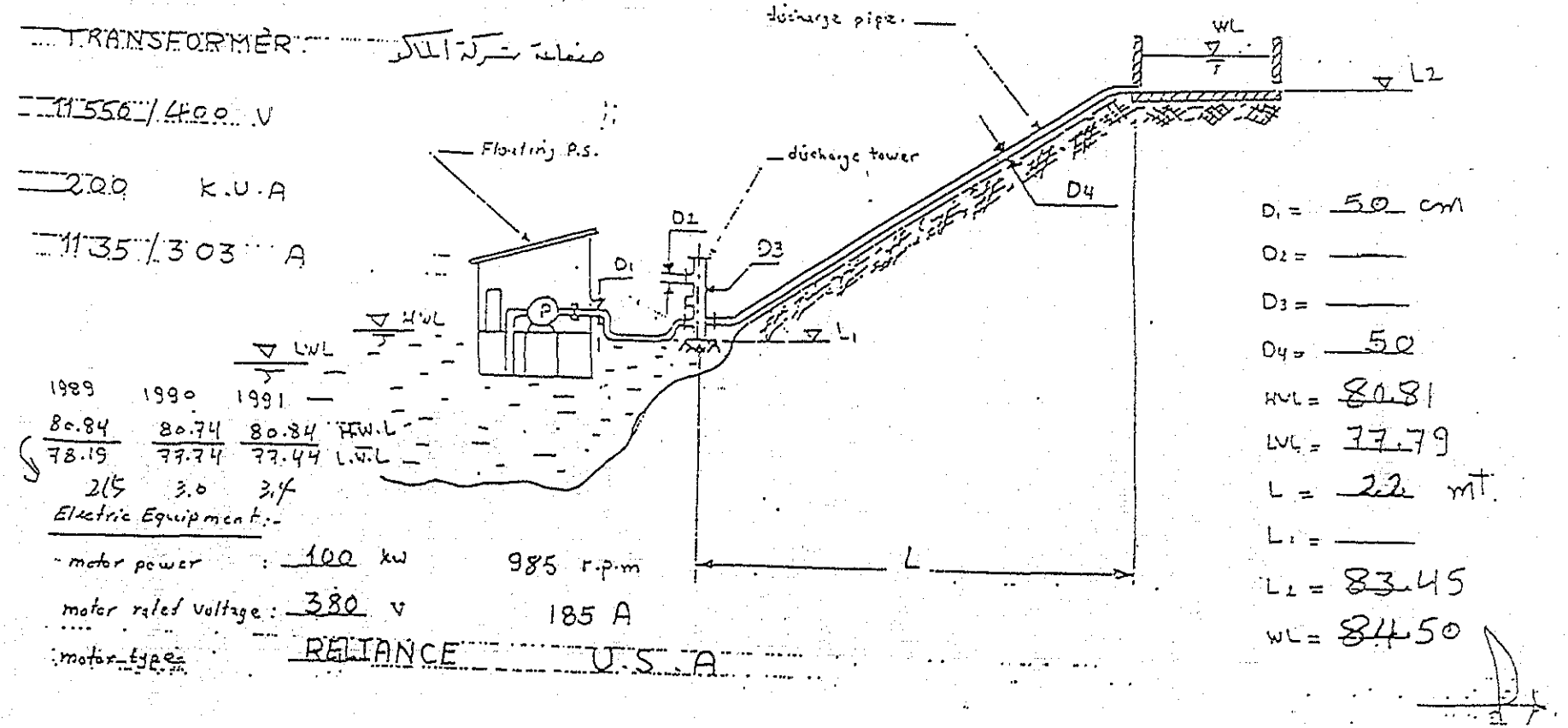
R.P.M. 960

TRANSFORMER : صناعية شركة الملك

11556/400 V

200 K.V.A

1135/303 A



1989	1990	1991	
80.84	80.74	80.84	H.W.L
78.19	77.74	77.44	L.W.L
2.65	3.0	3.4	

Electric Equipment:-

- motor power : 100 kw 985 r.p.m

motor rated voltage : 380 V 185 A

motor type: RELIANCE U.S.A

Dec. 03, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 3 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	△ It needs Coating
		Rust	△ not clean
	Appearance of installation	Bolts tightness	△ It needs instrument check
		Vibration	△ Comes from the shaft
	Bearing	Noise	△ It needs instrument check
		Vibration	△ ~ ~ ~ ~
		Temperature	△
		Oil leak	△
	Coupling	Bolt tightness	△
		Eccentricity	△
		Wear	△
	Others	Rust	○
		Oil leak	○
		Water leak	△
		Wear	

Kamel

PS No.: 3 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△ It needs Coating
		Rust	△ It needs cleaning
	Bearing	Noise	△ high
		Vibration	X very high
		Temperature	△ It rises during the day
		Oil leak	○
	Rotor & Fan	Noise	X
		Vibration	X
		Wind pressure	△
	Others	Rust	△
		Oil leak	○
		Wear	○
III. VALVE	Appearance	Water leak	○ No water Leak
		Rust	△ Not clean
		Wear	△ It needs gaskets between Flanges
	Operation	Smooth	△ It works in a good Conditions ~~but need control for on/off~~
IV. PIPE & HOSE	Appearance	Water leak	X } In very bad Condition
		Rust	X
		Wear	X
		Fitness	X
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	○ N.A
		Noise	○ No
		Vibration	○ No
		Tightness	△ It needs some bolts
	Appearance of interior	Lighting	△
		Rust	△
	Meter	Zero setting	X It is not working
		Workability	X It doesn't work

Kamel

PS No.: 3 PS Name: ______ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure Rust Wear Covering	o o o o
VI. POWER CABLE	Appearance	Damage Wear Covering Connection Insulation	o o o o o
VII. BARGE	Appearance of outside	Damage Rust Wear Vibration	△ 1th floor need some repairs. △ " " cleaning △ Some wear in parts in winch △ Some vibration happenies during operation
	Appearance of interior	Damage Rust Wear	△ It needs some repairs △ Not clean (the wall & roof) o
	Winch & Anchor	Tightness Rust Wear Operation smooth Lockability	The winch in one side only Not working In very bad Condition
VIII. DIS-CHARGE POND	Appearance	Damage Wear	~~△ In average bad~~ X ~~Condition~~ No Reservoir Area (Good Made by concrete)

It Reservoir

Kamel

[signature]

Dec. 04, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

ASWAN - SAHEL EL- KOBBANIA

PS No. : 4 PS Name : [One pump] 1/2

1. Commencing Year of the Pump Operation	1933
2. Manufacturers Name of the Pump	WONDER (Made in Egypt)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %
5. The pump performance Curve obtained or not?	No
6. Actual Head between the River Water Level and the Discharge Water Level	7.96 (9) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	59,29 m
8. Acrage of the Irrigated Field at Present	By rest, (800 Feddan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	YES
11. The Electric Motor	(USSR)
(1) Out put	100 kw
(2) Voltage	380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1969
(6) Present Workability	Δ
12. The Pump	
(1) Discharge Capacity	500 L/s
(2) Total Head	10
(3) Revolutional Speed	750 rpm
(4) Present Workability	Δ
13. The Transformer	
(1) Capacity	300 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	o
14. The Reservoir	
(1) Dimensions Length ___m x width ___m x width	___m x width
(2) Effective Volume	___m
(3) Material	___m³
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 4 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	1000 ~~500~~ mm dia
(2) Material	Iron
(3) Present Workability	X
16. The Discharge Pipe Line	
(1) Nominal Bore	600 ~~500~~ mm dia
(2) Material	Rubber
(3) Berried or not	Berried
(4) Present Workability	X (leakage of water)
17. Water Level	
(1) Max	____ m
(2) Min	____ m
(3) Ave	____ m
18. Water Velocity	
(1) Max	____ m/s
(2) Min	____ m/s
(3) Ave	0.27 m/s
19. Wind	
(1) Spring	
a) Direction :	____ m/s
b) Ave velocity :	____ m/s
c) Max velocity :	____ m/s
d) Min velocity :	____ m/s
(2) Summer	
a) Direction :	____ m/s
b) Ave velocity :	____ m/s
c) Max velocity :	____ m/s
d) Min velocity :	____ m/s
(3) Fall	
a) Direction :	____ m/s
b) Ave velocity :	____ m/s
c) Max velocity :	____ m/s
d) Min velocity :	____ m/s
(4) Winter	
a) Direction :	____ m/s
b) Ave velocity :	____ m/s
c) Max velocity :	____ m/s
d) Min velocity :	____ m/s

Kamal

STATION NAME:- SAHEL EL KOBBANIA　　KM 25.500

No. OF UNITS　"٦٦/٦٦" طلمبات زالزر

DISCHARGE 500 lit/Sec　　H 10 mt

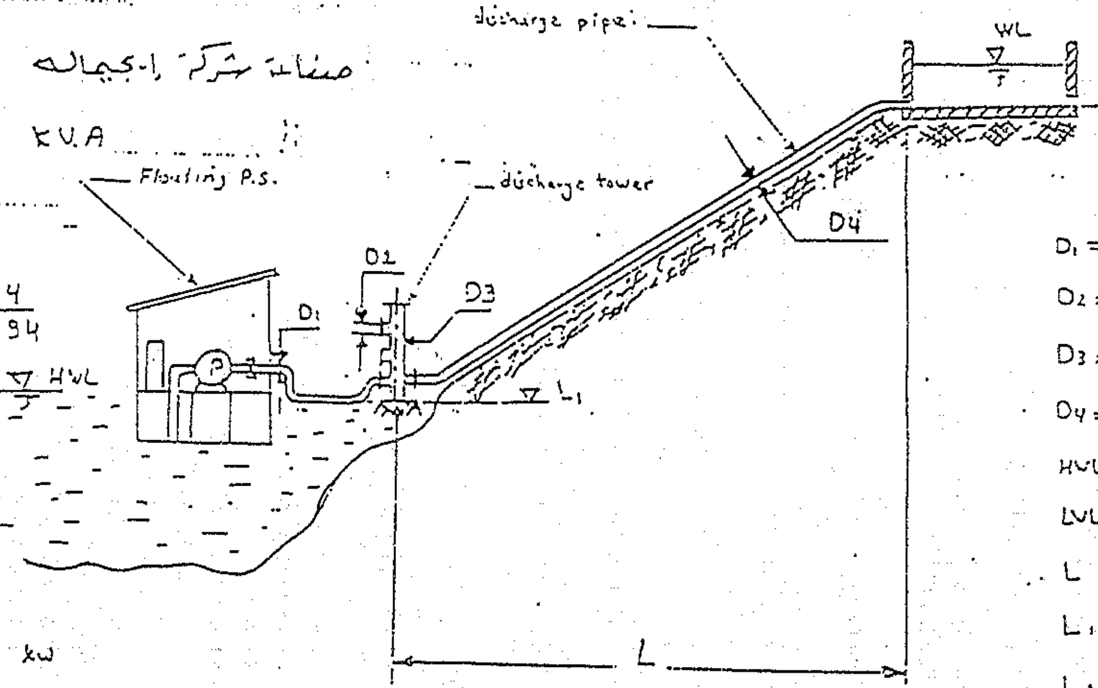
R.P.M 750

TRANSFORMER: صناعة شركة الكيماء

11000/380　300 KVA

16/442 Amp.

	1989	1990	1991
H.W.L	84.34	84.24	84.34
L.W.L	81.69	81.69	80.94
Difference	2.65	2.55	3.4



D1 = 50 cm

D2 = 50 cm

D3 = 100 cm

D4 = 60 cmt

HWL = 84.31

LWL = 81.44

L = 28 mt

L1 = ____

L2 = ~~89~~.50

WL = 90.45

Electric Equipment:-

motor power : 100 kw

motor rated voltage : 380 v.

motor type : AO 102 - 8T　C.C.C.P

Dec. 04, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

ASWAN - EL KOBBANIA

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 4 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	△
		Rust	△
	Appearance of installation	Bolts tightness	△
		Vibration	△
	Bearing	Noise	△
		Vibration	△
		Temperature	○
		Oil leak	○
	Coupling	Bolt tightness	△
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	○
		Water leak	○
		Wear	△

Kamel

PS No.: 4 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	△
		Vibration	△
		Temperature	o
		Oil leak	o
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	o
	Others	Rust	△
		Oil leak	o
		Wear	o
III. VALVE	Appearance	Water leak	△
		Rust	△
		Wear	△
	Operation	Smooth	△
IV. PIPE & HOSE	Appearance	Water leak	△
		Rust	△
		Wear	X
		Fitness	△
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△
		Noise	o
		Vibration	▽
		Tightness	△
	Appearance of interior	Lighting	△
		Rust	△
	Meter	Zero setting	X
		Workability	X

Kamel

PS No.: 4 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure Rust Wear Covering	△ △ △ ○
VI. POWER CABLE	Appearance	Damage Wear Covering Connection Insulation	△ X X O △
VII. BARGE	Appearance of outside	Damage Rust Wear Vibration	△ △ △ ○
	Appearance of interior	Damage Rust Wear	△ △ X
	Winch & Anchor	Tightness Rust Wear Operation smooth Lockability	No winch & Anchor
VIII. DIS-CHARGE POND	Appearance	Damage Wear	△ △

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

Dec. 05, 1991

Korombo - FARS

PS No. : 5 PS Name : [Two pumps] 1/2

1. Commencing Year of the Pump Operation	1952
2. Manufacturers Name of the Pump	Andreles (W.G)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %
5. The pump performance Curve obtained or not?	No
6. Actual Head between the River Water Level and the Discharge Water Level	7.235 8 m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	55.35 m
8. Acrage of the Irrigated Field at Present	By rest (2000 Feddan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	YES
11. The Electric Motor	(France)
(1) Out put	110 kw
(2) Voltage	380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1980 installed
(6) Present Workability	Δ
12. The Pump	
(1) Discharge Capacity (625 l/s = 2250 m³/h)	750 L/s
(2) Total Head	10M (8 m)
(3) Revolutional Speed	600 rpm
(4) Present Workability	120PS Δ
13. The Transformer	
(1) Capacity	500 KVA
(2) Primary Voltage	71000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	o
14. The Reservoir	
(1) Dimensions Length ___mxwidth ___mxwidth	___mxwidth
(2) Effective Volume	___m
(3) Material	___m³
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 5 PS Name : _____ 2/2

15. The Discharge Tower (1) Nominal Bore (2) Material (3) Present Workability	1000 ~~500~~ mm dia Iron Δ (leakage of water)
16. The Discharge Pipe Line (1) Nominal Bore (2) Material (3) Berried or not (4) Present Workability	700 ~~500~~ mm dia ~~rubber~~ iron Not berried X
17. Water Level (1) Max (2) Min (3) Ave	_____ m _____ m _____ m
18. Water Velocity (1) Max (2) Min (3) Ave	_____ m/s _____ m/s _____ m/s
19. Wind (1) Spring a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (2) Summer a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (3) Fall a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (4) Winter a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity :	 _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s

Kamel

STATION NAME: SAHEL FARIS KM 71.05

NO OF UNITS : 2 ANDRITZ طلمبات اندريتز

DISCHARGE : 750 lit/Sec H = 10. mt

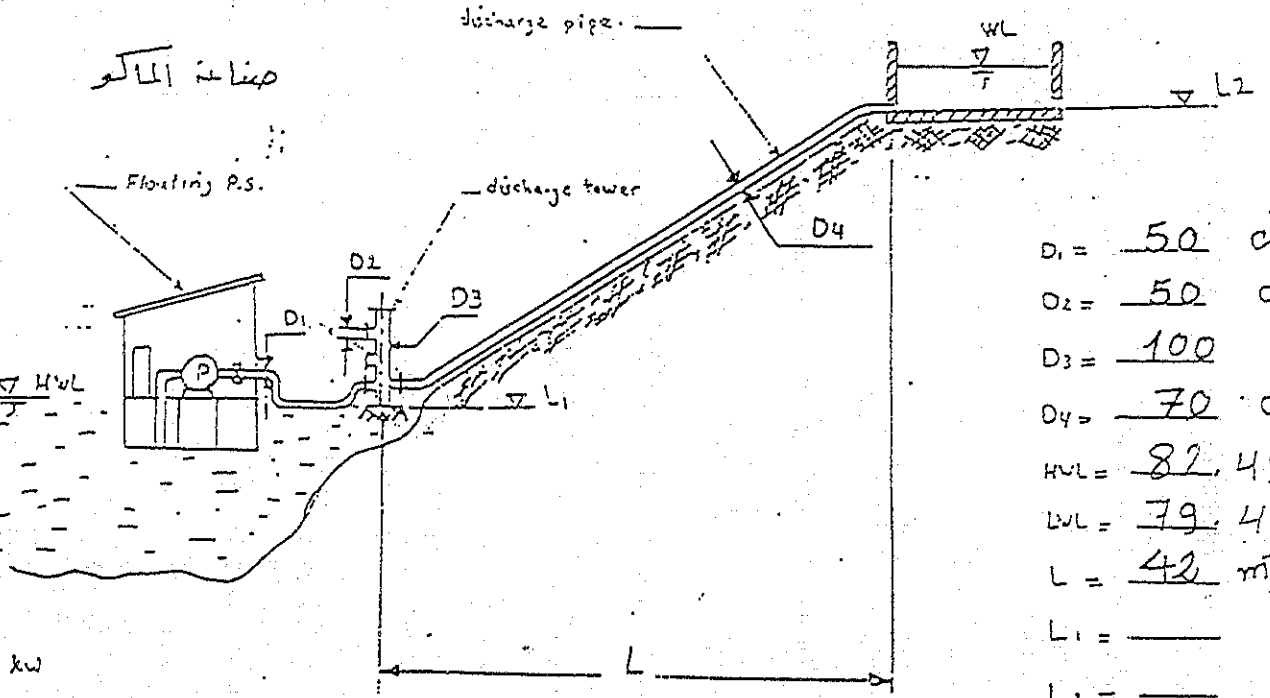
R.P.M 600

TRANSFORMER: صناعة الماكو

11550 / 393 V

500 K.V.A

26.3 / 735 Amp



	1989	1990	1991
HWL	82.52	82.42	82.52
LWL	79.87	79.42	79.12
	2.65	3.0	3.4

Electric Equipment:-

motor power : 110 kW

motor rated voltage : 380 V 234 A

motor type: LSP 355 MG LEROY SOMER – FRANCE

A-48

27/60

Dec. 05. 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 5 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	△
		Rust	△
	Appearance of installation	Bolts tightness	△
		Vibration	△
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	× leak from bearing
	Coupling	Bolt tightness	○
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	△
		Water leak	△
		Wear	△

Kamal

PS No.: 5 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	X
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	O
	Others	Rust	△
		Oil leak	O
		Wear	△ Fan cover
III. VALVE	Appearance	Water leak	O
		Rust	△
		Wear	△ packing
	Operation	Smooth	△
IV. PIPE & HOSE	Appearance	Water leak	O
		Rust	△
		Wear	X Suffer hose
		Fitness	△ water leakage from Faucet's mouth
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△ Brd Door mesh broken
		Noise	O
		Vibration	O.
		Tightness	△ Front door not fixed
	Appearance of interior	Lighting	No lighting
		Rust	~~Surface wall broken~~ △
	Meter	Zero setting	△ One meter not working
		Workability	△

Kamel

PS No.: 5 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure	O
		Rust	Δ
		Wear	O
		Covering	X No cover,
VI. POWER CABLE	Appearance	Damage	O
		Wear	O
		Covering	No cover
		Connection	O
		Insulation	Δ No cover of points
VII. BARGE	Appearance of outside	Damage	Δ
		Rust	Δ
		Wear	Δ
		Vibration	Δ little leaving
	Appearance of interior	Damage	Δ ※ Part of power wall of broken
		Rust	Δ floor
		Wear	Δ floor
	Winch & Anchor	Tightness	front portion only
		Rust	Δ
		Wear	Δ
		Operation smooth	— N.D.
		Lockability	N.A 4 edges — anchoring
VIII. DIS-CHARGE POND	Appearance	Damage	Δ Shed of blocks
		Wear	Δ Surface broken.

Kamal

Dec. 11, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

NAGA EL-WEHDA - LUXOR

PS No. : 6 PS Name : _____ 1/2

1. Commencing Year of the Pump Operation	1952	1952
2. Manufacturers Name of the Pump	SULZER	SULZER
3. Does it exist still now?	YES	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	50 %	50
5. The pump performance Curve obtained or not?	NOT	NOT
6. Actual Head between the River Water Level and the Discharge Water Level	21 ~~28~~ m	21
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	1000 m	1000
8. Acrage of the Irrigated Field at Present	~~YES~~ YES	YES
9. Acrage of the Irrigable Field at Initial Design Stage	N.A	N.A.
10. Acrage of the Irrigable Field to be Extended on This Project	YES	YES
11. The Electric Motor		
(1) Out put	440 kW	600 HP
(2) Voltage	~~5~~000 V	6000 V
(3) No. of Poles	12 ~~16~~ poles	12
(4) Frequency	~~5~~0 Hz	50
(5) Year of Manufacturing	1989	1978
(6) Present Workability	O	Δ
12. The Pump		
(1) Discharge Capacity	1.3 m^3/s	1.3 m^3/s
(2) Total Head	28 m	28
(3) Revolutional Speed	~~5~~00 rpm	500
(4) Present Workability	Δ	Δ
13. The Transformer		
(1) Capacity	2500 KVA	2500
(2) Primary Voltage	11000 V	11000
(3) Secondary Voltage	6000 V	6000
(4) Year of Manufacturing	1976	1976
(5) Present Workability	O	O
14. The Reservoir		
(1) Dimensions Length ___mxwidth ___mxwidth	___mxwidth	
(2) Effective Volume	___m	
(3) Material	___m'	
(4) Present Workability		

Kamil

GENERAL INFORMATION OF EXISTING PUMP STATION

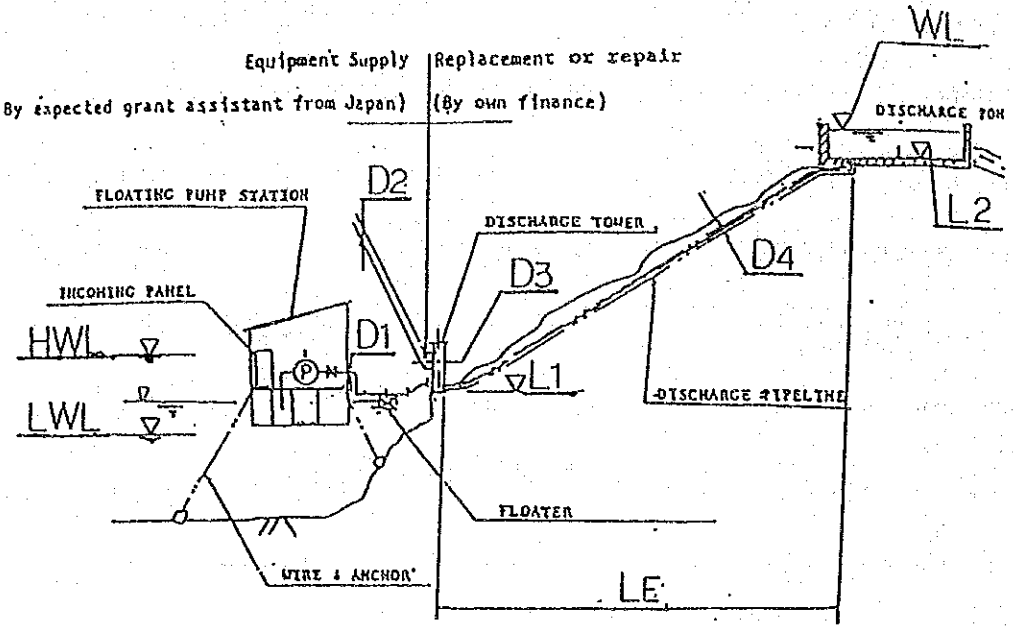
PS No. : 6 PS Name : _____ 2/2

15. The Discharge Tower (1) Nominal Bore (2) Material (3) Present Workability	700 mm dia Iron △	700 Iron △
16. The Discharge Pipe Line (1) Nominal Bore (2) Material (3) Berried or not (4) Present Workability	1000<br~~1000~~ mm dia Iron Berried X	1000 Iron Berried X
17. Water Level (1) Max (2) Min (3) Ave	_____ m _____ m _____ m	
18. Water Velocity (1) Max (2) Min (3) Ave	_____ m/s _____ m/s _____ m/s	
19. Wind (1) Spring a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (2) Summer a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (3) Fall a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity : (4) Winter a) Direction : b) Ave velocity : c) Max velocity : d) Min velocity :	 _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s _____ m/s	

Kamal

PS No. 6 PS Name _____

GENERAL LAYOUT PLAN FOR EXISTING FLOATING PUMP STATION



D1 :	700 mm	D1 : Diameter of existing floating pump station output pipe
D2 :	700 mm	D2 : Diameter of existing land based tower's mouth of water income from floating pump station
D3 :	1000 mm	D3 : Diameter of existing land based tower's horizontal section
D4 :	700 mm	D4 : Diameter of existing pipe line from tower to discharge pond
LE :	1000 M	LE : Length of existing pipe line from tower to discharge pond
L1 :	71.20 M	L1 : Land level of the base of tower
L2 :	90 M	L2 : Land level of discharge pond
HWL:	_____ M	HWL: Water level of the highest
LWL:	_____ M	LWL: Water level of the lowest
WL :	_____ M	WL : Discharge water level of discharge pond

Dec. 11, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 6 PS Name: _____

I. PUMP	Appearance of casing	Finished coat ○	×
		Rust ○	×
	Appearance of installation	Bolts tightness ○	○
		Vibration △	△
	Bearing	Noise ×	×
		Vibration △	△
		Temperature ×	△
		Oil leak ○	○
	Coupling	Bolt tightness ○	○
		Eccentricity ○	○
		Wear △	△
	Others	Rust ○	×
		Oil leak △	○
		Water leak ○	△
		Wear △	△

Kamel

PS No.: 6 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	○	○
		Rust	○	○
	Bearing	Noise	X	△
		Vibration	○	○
		Temperature	○	○
		Oil leak	○	○
	Rotor & Fan	Noise	X	○
		Vibration	△	○
		Wind pressure	○	○
	Others	Rust	○	○
		Oil leak	○	△
		Wear	○	△
III. VALVE	Appearance	Water leak	○	△
		Rust	△	△
		Wear	△	△
	Operation	Smooth	△	△
IV. PIPE & HOSE	Appearance	Water leak	X	X
		Rust	△	△
		Wear	△	X
		Fitness	△	△
V. (1) SWITCH BORAD	appearance of outside	Rust	△	△
		Wear	○	△
		Noise	○	○
		Vibration	○	○
		Tightness	○	△
	Appearance of interior	Lighting	○	△
		Rust	○	△
	Meter	Zero setting	○	○
		Workability	○	○

Kamel

PS No.: 6 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure	o
		Rust	o
		Wear	o
		Covering	o
VI. POWER CABLE	Appearance	Damage	Δ
		Wear	Δ
		Covering	o
		Connection	o
		Insulation	o
VII. BARGE	Appearance of outside	Damage	Δ
		Rust	Δ
		Wear	Δ
		Vibration	Δ
	Appearance of interior	Damage	o
		Rust	o
		Wear	Δ
	Winch & Anchor	Tightness	Δ
		Rust	Δ
		Wear	Δ
		Operation smooth	Δ
		Lockability	Δ
VIII. DIS-CHARGE POND	Appearance	Damage	Δ
		Wear	Δ

o	
o	
o	
o	
o	
o	
o	
o	
✗	
Δ	
Δ	
Δ	
X	
Δ	
Δ	
X	
X	
X	
X	
X	
Δ	
Δ	

- Water Quality { · Temperature 20°C · 7.19 pH · 2.6x100 µs/cm

Rec. 04. 1991

37/60

GENERAL INFORMATION OF EXISTING PUMP STATION

KOMOMBO - GEZIERT EL-HARBIAB

PS No. : 7 PS Name : _____ [Two pumps] 1/2

1. Commencing Year of the Pump Operation	1932
2. Manufacturers Name of the Pump	K.S.B (W.G)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	60 %
5. The pump performance Curve obtained or not?	NO
6. Actual Head between the River Water Level and the Discharge Water Level	853 (13) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	3010 m
8. Acrage of the Irrigated Field at Present	By rest (800 Feddan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	NO
11. The Electric Motor	(USSR)
(1) Out put	DP/75A. 40 kw
(2) Voltage	220Y/380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1965 / 1969
(6) Present Workability	X
12. The Pump	Manufactured 1951
(1) Discharge Capacity	250 L/s
(2) Total Head	13 m
(3) Revolutional Speed	800 rpm
(4) Present Workability	X
13. The Transformer	
(1) Capacity	100 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	O
14. The Reservoir	
(1) Dimensions Length ____m x width ____m x width	____m x width
(2) Effective Volume	____m
(3) Material	____m³
(4) Present Workability	

Kamal

GENERAL INFORMATION OF EXISTING PUMP STATION

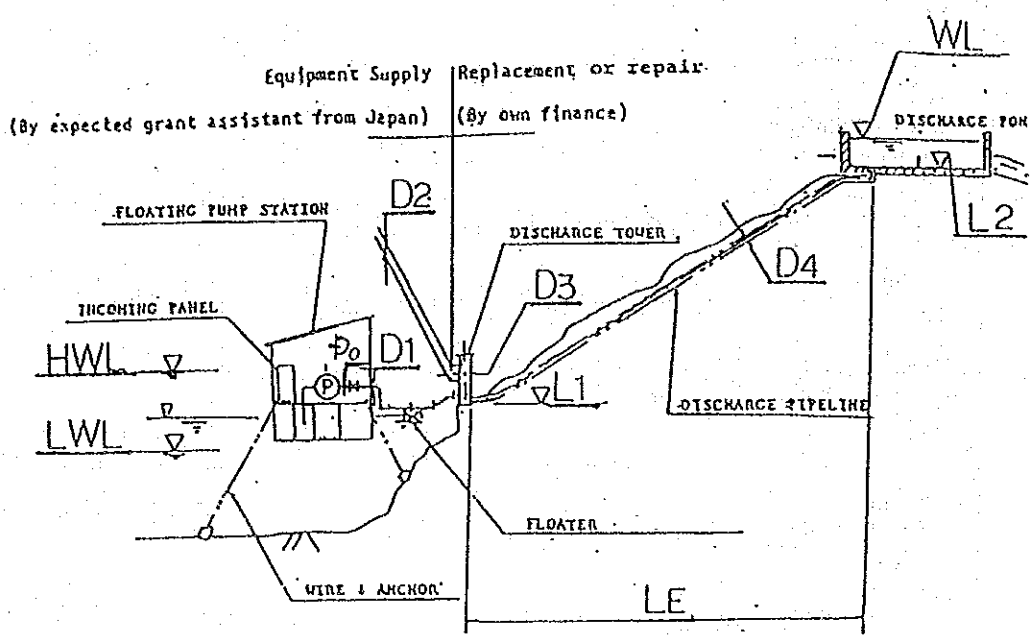
PS No. : 7 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	1000 500 mm dia
(2) Material	Iron
(3) Present Workability	X
16. The Discharge Pipe Line	
(1) Nominal Bore	500 mm dia
(2) Material	Iron
(3) Berried or not	
(4) Present Workability	△
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	
(1) Max	_____ m/s
(2) Min	_____ m/s
(3) Ave	_____ m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

Kamel

PS No. 7 PS Name _____

GENERAL LAYOUT PLAN FOR EXISTING FLOATING PUMP STATION



Do 1260/3.14 = 401.3

D1 : _____ mm — D1 : Diameter of existing floating pump station output pipe

D2 : 1670/3.14 = 531.8 mm — D2 : Diameter of existing land based tower's mouth of water income from floating pump station

D3 : 1000 mm — D3 : Diameter of existing land based tower's horizontal section

D4 : 500 mm — D4 : Diameter of existing pipe line from tower to discharge pond

LE : _____ M — LE : Length of existing pipe line from tower to discharge pond

L1 : _____ M — L1 : Land level of the base of tower

L2 : _____ M — L2 : Land level of discharge pond

HWL: _____ M — HWL: Water level of the highest

LWL: _____ M — LWL: Water level of the lowest

WL : _____ M — WL : Discharge water level of discharge pond

Dec. 04. 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

DRAWN - EL-TOWISSA-GEEIERT EL-HARBIAB

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks:
- Noise : by a sense of hearing
- Vibration : by a sense of touch
- Temperature : by a sense of touch
- Oil leak : by a sense of sight
- Wear, Rust : by a sense of sight and touch
- Tightness : by a sense of sight and touch

PS No.: 7 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	△
		Rust	△
	Appearance of installation	Bolts tightness	△
		Vibration	△
	Bearing	Noise	△
		Vibration	△
		Temperature	○
		Oil leak	○
	Coupling	Bolt tightness	△
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	○
		Water leak	△
		Wear	△

Kamel

PS No.: 7 PS Name: Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	X
		Vibration	△
		Temperature	X
		Oil leak	o
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	o
	Others	Rust	△
		Oil leak	o
		Wear	△
III. VALVE	Appearance	Water leak	o
		Rust	o
		Wear	△
	Operation	Smooth	o
IV. PIPE & HOSE	Appearance	Water leak	o
		Rust	△
		Wear	X
		Fitness	△
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△
		Noise	o
		Vibration	o
		Tightness	△
	Appearance of interior	Lighting	X
		Rust	△
	Meter	Zero setting	X
		Workability	X

Kamd [signature] [signature]

PS No.: 1 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure △ Rust △ Wear △ Covering X
VI. POWER CABLE	Appearance	Damage △ Wear △ Covering △ Connection ○ Insulation ○
VII. BARGE	Appearance of outside	Damage △ Rust X Wear X Vibration △
	Appearance of interior	Damage △ Rust △ Wear △
	Winch & Anchor	Tightness △ Rust △ Wear △ Operation smooth △ Lockability △
VIII. DIS-CHARGE POND	Appearance	Damage Wear

Kanel

Dec. 01. 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

GHARB ASWAN BAHARY

PS No. : 8 PS Name : GHARB ASWAN BAHARY [Two pumps] 1/2

1. Commencing Year of the Pump Operation	1933
2. Manufacturers Name of the Pump	Wonder
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	65 %
5. The pump performance Curve obtained or not?	NO
6. Actual Head between the River Water Level and the Discharge Water Level	8.14 (10) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	61.16 (12) m
8. Acrage of the Irrigated Field at Present	by rest 600 Feddan Fodder
9. Acrage of the Irrigable Field at Initial Design Stage	NO
10. Acrage of the Irrigable Field to be Extended on This Project	NO
11. The Electric Motor (1) Out put (2) Voltage (3) No. of Poles (4) Frequency (5) Year of Manufacturing (6) Present Workability	(France) 110 kw 380 V 6 poles 50 Hz 1983 Δ
12. The Pump (1) Discharge Capacity (2) Total Head (3) Revolutional Speed (4) Present Workability	500 L/s 10 m 600 rpm (82.8HP) Δ
13. The Transformer (1) Capacity (2) Primary Voltage (3) Secondary Voltage (4) Year of Manufacturing (5) Present Workability	500 KVA 11000 V 380 V 1984 O
14. The Reservoir (1) Dimensions Length 5.19 m x width — m x width (2) Effective Volume (3) Material (4) Present Workability	NO (Direct to the canal) Not applicable 5.19 m x width — m — m³ Concrete O

Kamel

A—64

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 8 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	φ1000 L
(2) Material	3240 mm ~~dia~~
(3) Present Workability	Cast Iron
	X Leakage water
16. The Discharge Pipe Line	
(1) Nominal Bore	φ700 L
(2) Material	2250 mm ~~dia~~
(3) Berried or not	φ=70"
(4) Present Workability	Cast Iron
	NOT
	X Leakage water
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	Very slow
(1) Max	_____ m/s
(2) Min	_____ m/s
(3) Ave	_____ m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

Kamel

STATION NAME:- GHARB ASWAN EL BAHARIA KM 12.700

NO OF UNITS: 2 طلمبات واندر ٦٧/٦٦

DISCHRGE 0.5 m^3/sec H = 10 mt

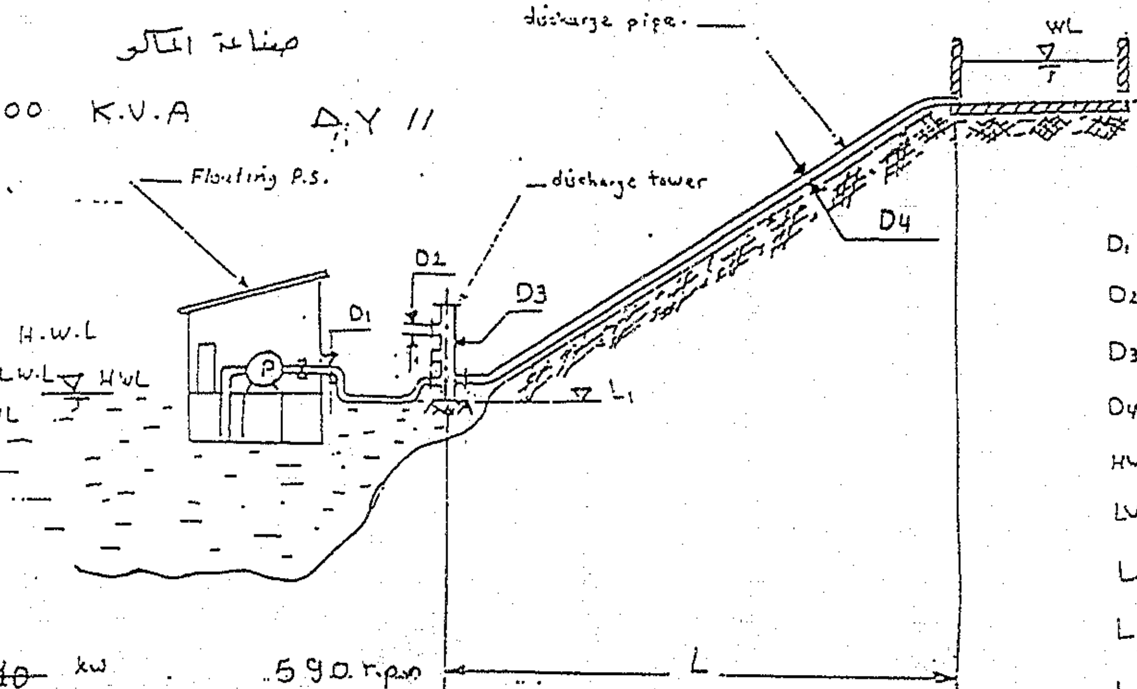
R.P.M 800

TRANSFORMER : صناعة الماكو

11000/380 500 K.V.A D.Y 11

7.5/735 Amp.

	1989	1990	1991	
	85.14	85.02	85.10	H.W.L
	81.82	81.82	81.59	L.W.L
Difference	3.32	3.20	3.51	



D1 = 50 cm

D2 = 50 cm

D3 = 100 cm

D4 = 70 cm

HWL = 85.09

LWL = 81.74

L = 20 mt.

L1 = ____

L2 = 90.50

WL = 91.40

Electric Equipment:-

motor power : 110 kw 590 r.p.m

motor rated voltage : 380 v 234 A

motor type 1 SP 355 MG LEROY SOMER FRANCE.

Dec. 01, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 3 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	△
		Rust	△
	Appearance of installation	Bolts tightness	○
		Vibration	
	Bearing	Noise	○
		Vibration	○
		Temperature	○
		Oil leak	○
	Coupling	Bolt tightness	○
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	○
		Water leak	○
		Wear	○

Kamal

PS No.: 3 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	△
		Rust	△
	Bearing	Noise	○
		Vibration	○
		Temperature	○
		Oil leak	○
	Rotor & Fan	Noise	△
		Vibration	○
		Wind pressure	△
	Others	Rust	△
		Oil leak	○
		Wear	△
III. VALVE	Appearance	Water leak	△ water leak
		Rust	△
		Wear	△
	Operation	Smooth	△
IV. PIPE & HOSE	Appearance	Water leak	X
		Rust	X
		Wear	△
		Fitness	
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△
		Noise	○
		Vibration	○
		Tightness	△
	Appearance of interior	Lighting	△
		Rust	△
	Meter	Zero setting	△
		Workability	△

PS No.: 8 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure Δ Rust Δ Wear ○ Covering Δ
VI. POWER CABLE	Appearance	Damage ○ Wear ○ Covering ○ Connection ○ Insulation ○
VII. BARGE	Appearance of outside	Damage X Rust X Wear X Vibration Δ
	Appearance of interior	Damage X Rust X Wear X
	Winch & Anchor	Tightness Δ Rust Δ Wear Δ Operation smooth Δ Lockability Δ
VIII. DIS-CHARGE POND	Appearance	Damage ○ Wear ○

Kamel

Dec. 03, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

Kom Ombo - ~~FARS~~ EKLEET GEZIERT FARS

PS No. : 9 PS Name : [Two pumps] 1/2

1. Commencing Year of the Pump Operation	1952
2. Manufacturers Name of the Pump	Pulsmeter (U.K)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	20 %
5. The pump performance Curve obtained or not?	No
6. Actual Head between the River Water Level and the Discharge Water Level	5,94 (8) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	44.0 m
8. Acrage of the Irrigated Field at Present	63 rest (500 Feddan)
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	YES
11. The Electric Motor	
(1) Out put	810 kW
(2) Voltage	380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1980 installed
(6) Present Workability	X
12. The Pump	
(1) Discharge Capacity	500 L/s
(2) Total Head	8 m
(3) Revolutional Speed	630 rpm
(4) Present Workability	X
13. The Transformer	
(1) Capacity	300 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	o
14. The Reservoir	Direct to reservoir
(1) Dimensions Length ____m x width ____m x width	____m x width
(2) Effective Volume	____m
(3) Material	____m³
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 9 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	~~500~~ 1000 mm dia
(2) Material	Iron
(3) Present Workability	△
16. The Discharge Pipe Line	
(1) Nominal Bore	500 mm dia
(2) Material	rubber ring
(3) Berried or not	~~not~~ berried
(4) Present Workability	
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	
(1) Max	_____ m/s
(2) Min	_____ m/s
(3) Ave	0.58 m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

Kamol

STATION NAME :- GAZIRAT FARIS   Km 67-800

No OF UNITS 2   طلمبات بلسومير

DISCHARGE 350 / 500 lit /sec   H 13 / 10 mt

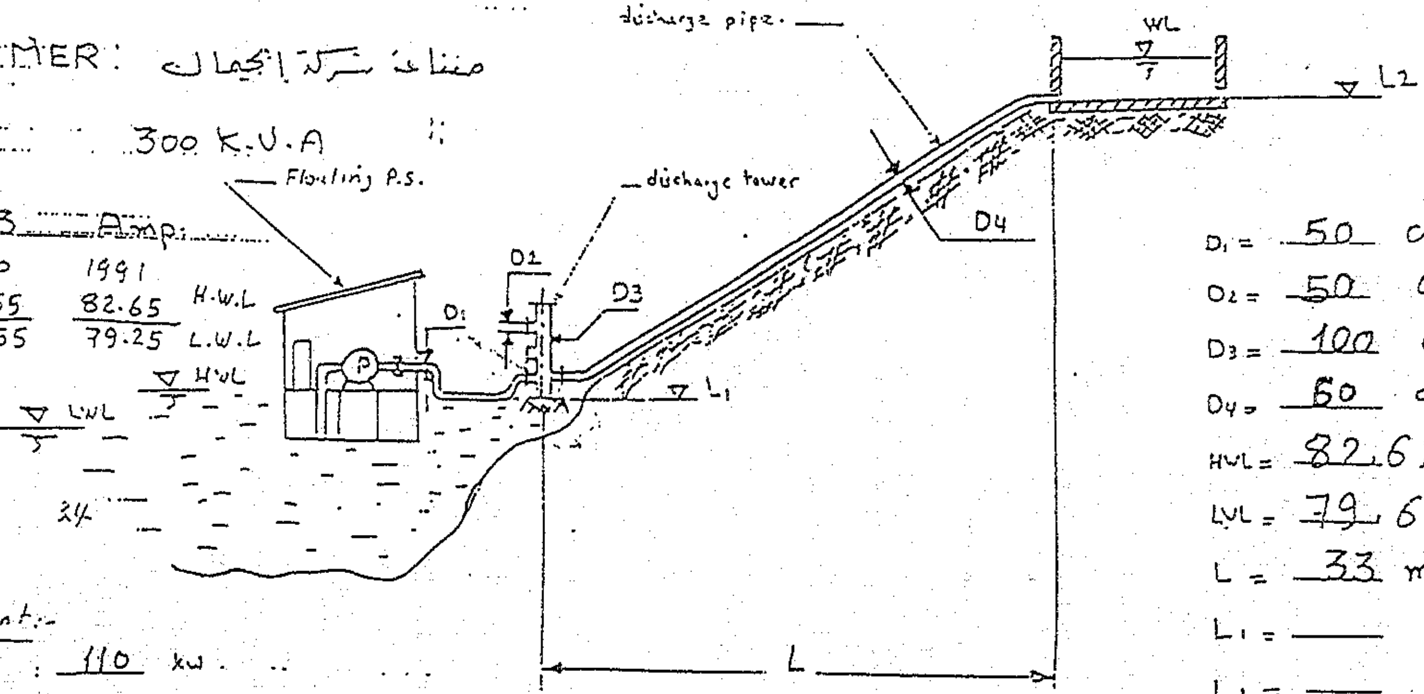
R.P.M

TRANSFORMER : ملك شركة الكهرباء

11000 / 380   300 K.V.A

22.7 / 393 Amp.

	1989	1990	1991
H.W.L	82.65	82.55	82.65
L.W.L	80.0	79.55	79.25
Difference	2.65	3.00	3.4



D1 = 50 cm
D2 = 50 cm
D3 = 100 cm
D4 = 60 cm
HWL = 82.62
LVL = 79.60
L = 33 mt
L1 =
L2 =
WL = 86.80

Electric Equipment :-

motor power : 110 kw

motor rated voltage : 380 v   234 Amp

motor type   LSP 355 MG   LEROY SOMER - FRANCE

Dec. 03, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

KOKOMBO - EKLEET - GEZIERT FARS

Legend

○ : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks: Noise : by a sense of hearing
Vibration : by a sense of touch
Temperature : by a sense of touch
Oil leak : by a sense of sight
Wear, Rust : by a sense of sight and touch
Tightness : by a sense of sight and touch

PS No.: 9 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	×
		Rust	△
	Appearance of installation	Bolts tightness	△
		Vibration	
	Bearing	Noise	△
		Vibration	△
		Temperature	○
		Oil leak	○
	Coupling	Bolt tightness	○
		Eccentricity	△
		Wear	△
	Others	Rust	△
		Oil leak	○
		Water leak	△
		Wear	△

Kamel

PS No.: 9 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	X
		Rust	△
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	o
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	o
	Others	Rust	△
		Oil leak	o
		Wear	△
III. VALVE	Appearance	Water leak	△
		Rust	△
		Wear	△
	Operation	Smooth	o
IV. PIPE & HOSE	Appearance	Water leak	X
		Rust	X
		Wear	△
		Fitness	△
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△
		Noise	X
		Vibration	X
		Tightness	X
	Appearance of interior	Lighting	X
		Rust	X
	Meter	Zero setting	X
		Workability	X

Kamei

PS No.: 9 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure	X
		Rust	X
		Wear	X
		Covering	△
VI. POWER CABLE	Appearance	Damage	o
		Wear	o
		Covering	o
		Connection	o
		Insulation	o
VII. BARGE	Appearance of outside	Damage	△
		Rust	△
		Wear	△
		Vibration	o
	Appearance of interior	Damage	△
		Rust	△
		Wear	△
	Winch & Anchor	Tightness	△
		Rust	△
		Wear	△
		Operation smooth	△
		Lockability	△
VIII. DIS-CHARGE POND	Appearance	Damage	△
		Wear	△

Kamel

Water Quality { • Temperature 21 °C
• 7.60 pH
• 2.4 x 100 µS/cm } 55/60

Dec. 04, 1991

GENERAL INFORMATION OF EXISTING PUMP STATION

ASWAN-GEZIERT BANARIF

PS No. : 10 PS Name : _____ [Two pumps] 1/2

1. Commencing Year of the Pump Operation	1952
2. Manufacturers Name of the Pump	~~[redacted]~~ ANDRIDIES (N.G)
3. Does it exist still now?	YES
4. Presumable Percentage of the Pump Discharge Capacity Comparing with the Initial Design Capacity	60 %
5. The pump performance Curve obtained or not?	NO
6. Actual Head between the River Water Level and the Discharge Water Level	8.99 (9.5) m
7. Expectable Length of the Pump Discharge Pipe Line up to the Reservoir	64.38 m
8. Acrage of the Irrigated Field at Present	By rest 800 FEDDAN
9. Acrage of the Irrigable Field at Initial Design Stage	N.A
10. Acrage of the Irrigable Field to be Extended on This Project	No
11. The Electric Motor	
(1) Out put	110 kw
(2) Voltage	380 V
(3) No. of Poles	4 poles
(4) Frequency	50 Hz
(5) Year of Manufacturing	1985 installed
(6) Present Workability	Δ
12. The Pump	Manufactured 1957
(1) Discharge Capacity	750 L/S
(2) Total Head	10 m
(3) Revolutional Speed	(Design) 800 rpm
(4) Present Workability	(120 PH) Δ
13. The Transformer	
(1) Capacity	500 KVA
(2) Primary Voltage	11000 V
(3) Secondary Voltage	380 V
(4) Year of Manufacturing	
(5) Present Workability	o
14. The Reservoir	
(1) Dimensions Length ____m x width ____m x width	____m x width
(2) Effective Volume	____m
(3) Material	____m
(4) Present Workability	

Kamel

GENERAL INFORMATION OF EXISTING PUMP STATION

PS No. : 10 PS Name : _____ 2/2

15. The Discharge Tower	
(1) Nominal Bore	1000 ~~500~~ mm dia
(2) Material	Iron
(3) Present Workability	X
16. The Discharge Pipe Line	
(1) Nominal Bore	600 ~~500~~ mm dia
(2) Material	Iron
(3) Berried or not	Half berried
(4) Present Workability	Δ
17. Water Level	
(1) Max	_____ m
(2) Min	_____ m
(3) Ave	_____ m
18. Water Velocity	
(1) Max	_____ m/s
(2) Min	_____ m/s
(3) Ave	0.22 m/s
19. Wind	
(1) Spring	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(2) Summer	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(3) Fall	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s
(4) Winter	
a) Direction :	_____ m/s
b) Ave velocity :	_____ m/s
c) Max velocity :	_____ m/s
d) Min velocity :	_____ m/s

Kamel

STATION NAME :- GAZIRAT BAHAREIF

NO OF UNITS 2 65/50 ANDRITZ محطات الجزيرة KM 15.600

DISCHARGE 750 lit / sec H 10 mt.

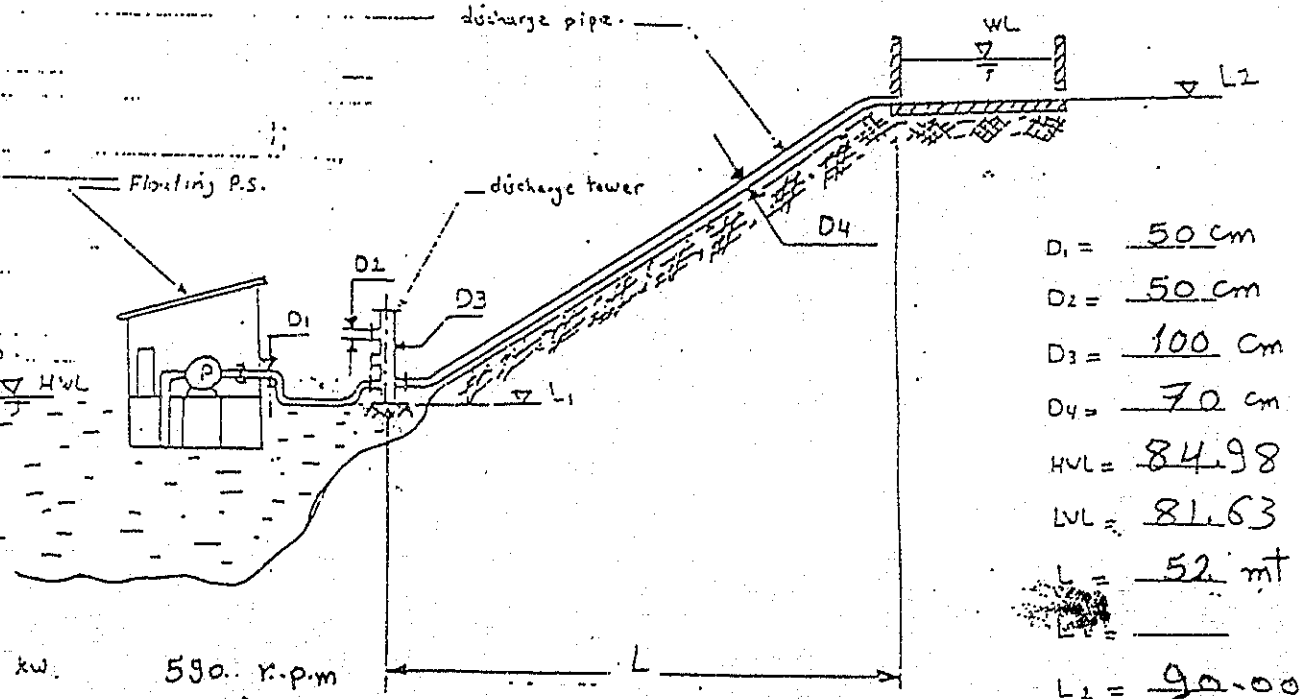
R.P.M 600

TRANSFORMER

11000 / 400

500 K.V.A

28.3 / 722 Amp



	1989	1990	1991
H.W.L	85.03	84.91	84.99
L.W.L	81.71	81.71	81.48
Difference	3.32	3.2	3.51

D1 = 50 cm

D2 = 50 cm

D3 = 100 cm

D4 = 70 cm

HWL = 84.98

LWL = 81.63

L = 52 mt

L1 = ____

L2 = 90.00

WL = 91.00

Electric Equipment :-

motor power : 110 kw. 590 r.p.m

motor rated voltage : 380 v 234A

motor type : 1 SP 355 MG LEROY SOMER - FRANCE

A-78

57/80

Dec. 04, 1991

CHECK LIST Page 1/3

(Equipment & Facilities for each existing Pump Station)

ASWAN - ABO EL RISH - GEZIERT BAHARIF

Legend

O : There is no trouble nor problem. Equipment can be used normally.

△ : Equipment has a little problem. It is better to change some parts of equipment or to maintain properly.

× : Equipment has a heavy problem. It is necessary to replace it.

Remarks:

Noise	: by a sense of hearing
Vibration	: by a sense of touch
Temperature	: by a sense of touch
Oil leak	: by a sense of sight
Wear, Rust	: by a sense of sight and touch
Tightness	: by a sense of sight and touch

PS No.: 12 PS Name: _____

I. PUMP	Appearance of casing	Finished coat	o
		Rust	o
	Appearance of installation	Bolts tightness	o
		Vibration	△
	Bearing	Noise	△
		Vibration	△
		Temperature	o
		Oil leak	o
	Coupling	Bolt tightness	o
		Eccentricity	o
		Wear	o
	Others	Rust	o
		Oil leak	o
		Water leak	o
		Wear	o

Kamel

PS No.: 10 PS Name: _____ Page 2/3

II. MOTOR	Appearance	Finished coat	○
		Rust	○
	Bearing	Noise	△
		Vibration	△
		Temperature	△
		Oil leak	○
	Rotor & Fan	Noise	△
		Vibration	△
		Wind pressure	○
	Others	Rust	○
		Oil leak	○
		Wear	○
III. VALVE	Appearance	Water leak	△
		Rust	○
		Wear	△
	Operation	Smooth	△
IV. PIPE & HOSE	Appearance	Water leak	X
		Rust	△
		Wear	X
		Fitness	X
V. (1) SWITCH BORAD	appearance of outside	Rust	△
		Wear	△
		Noise	○
		Vibration	○
		Tightness	△
	Appearance of interior	Lighting	△
		Rust	△
	Meter	Zero setting	△
		Workability	△

Kanel

PS No.: 10 PS Name: _____ Page 3/3

V. (2) SWTICH BOARD	Breaker	Point pressure △ Rust △ Wear ○ Covering △
VI. POWER CABLE	Appearance	Damage △ Wear △ Covering △ Connection ○ Insulation ○
VII. BARGE	Appearance of outside	Damage △ Rust △ Wear △ Vibration △
	Appearance of interior	Damage △ Rust ○ Wear △
	Winch & Anchor	Tightness △ Rust ○ Wear △ Operation smooth △ Lockability △
VIII. DIS-CHARGE POND	Appearance	Damage △ Wear △

Kamei

6.5 10ヶ所のフローティングポンプの年間管理記録

1/4
(1987)

Site. No.	Station Name	No. of operat-ing hours	Discharge in cu.m (year)	Cost of Mainte-nance (L.E)	Cost of consumption of electric power and fuel	Wages & sallary (L.E)	Cost of oils & grease (L.E.)	Inspection and Repairing cost	Total cost (L.E.)	Cost of irrigation per feddan (L.E.)	Area served
1	El Sheikh Fadl	2,397	4,314,600	55.00	6,800.830	9,148.500	44.880	11,667	27,716.210	86.634	320
2	Sahel El Hamam	2,185	3,988,800	34.900	4,600.002	7,263.852	264.440	7,292	19,455.194	97.275	200
3	El Fosa El Baharia	930	1,674,000	22.400	825.730	5,008.000	248.380	5,469	11,573.000	77.175	150
4	Sahel El Kobania	1,947	3,504,600	20.890	1,558.750	7,164.679	13.520	10,937	19,695.839	65.650	300
5	Sahel Fares	6,198	1,673,460	62.000	1,910.110	11,075.760	59.760	40,524	53,632.000	83.800	640
7	El Twise	3,011	2,210,605	30.000	5,303.353	8,715.252	52.320	10,573	24,673.925	84.100	290
8	Gharb Aswan Baharia	6,237	11,226,000	110.380	5,982.000	16,360.719	34.180	9,115	31,602.017	126.400	250
9	Gezirat Fares	2,477	4,458,600	73.000	6,301.000	6,022.260	37.440	7,292	19,725.481	98.630	200
10	Gezirat Behrif	4,821	8,781,000	83.120	8,419.000	18,508.054	28.560	10,938	37,976.566	126.300	300

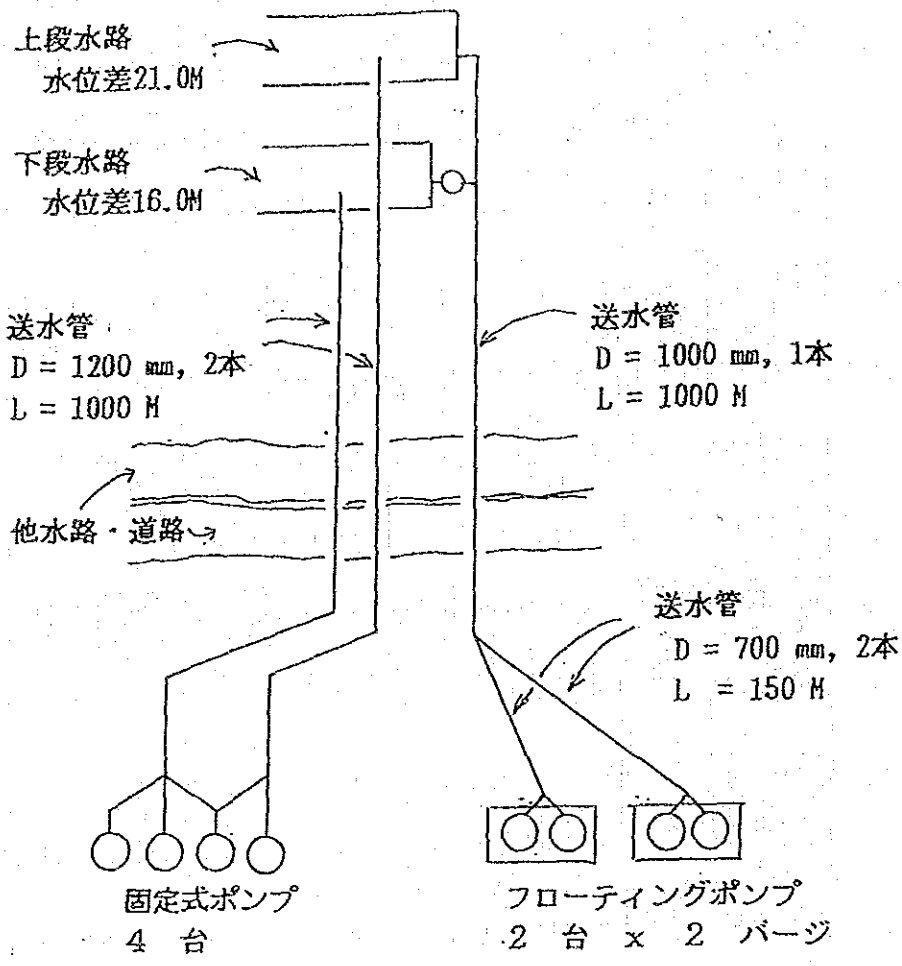
Site. No.	Station Name	No. of operating hours	Discharge in cu.m (year)	Cost of Maintenance (L.E)	Cost of consumption of electric power and fuel	Wages & sallary (L.E)	Cost of oils & grease (L.E.)	Inspection and Repairing cost	Total cost (L.E.)	Cost of irrigation per feddan (L.E.)	Area served
1	El Sheikh Fadl	2,718	4,910,400	71.00	1,700.000	9,380.000	44.880	16,960	28,155.88	87.987	320
2	Sahel El Hamam	2,506	4,510,800	36.640	6,300.200	11,129.000	44.880	10,600	28,110.144	140.550	200
3	El Fosa El Baharia	1,274	2,293,200	211.175	1,623.080	4,762.320	258.510	7,950	14,805.085	98.700	150
4	Sahel El Kobania	2,166	3,898,000	11.420	2,299.752	6,426.223	13.640	15,900	24,651.035	82.170116	300
5	Sahel Fares	6,210	1,723,280	85.0	31,000.430	4,843.000	59.760	23,920	59,908.19	107.21	640
7	El Twise	2,816	1,798,925	12.610	6,000.000	11,805.000	52.320	15,370	33,237.581	114.612	290
8	Gharb Aswan Baharia	6,188	11,138,400	263.500	23,608.9.9	16,717.257	27.280	13,250	53,867.946	222.667	250
9	Gezirat Fares	2,570	4,626,000	46.00	8,500.898	14,004.000	37.440	10,600	33,188.338	165.941	200
10	Gezirat Behrif	4,462	8,924,000	97.420	13,999.152	20,783.292	17.980	15,900	50,797.844	169.32614	300

Site. No.	Station Name	No. of operating hours	Discharge in cu.m (year)	Cost of Maintenance (L.E)	Cost of consumption of electric power and fuel	Wages & sallary (L.E)	Cost of oils & grease (L.E.)	Inspection and Repairing cost	Total cost (L.E.)	Cost of irrigation per feddan (L.E.)	Area served
1	El Sheikh Fadl	2,812	5,066,600	722.00	14,000.52	9,180.00	20.54	13,705	37,651.00	117.60	320
2	Sahel El Hamam	2,297	4,134,600	327.00	8,000.37	10,500.00	39.92	8,568	27,435.29	137.10	200
3	El Fosa El Baharia	1,479	2,662,200	7.44	19.80	4,823.06	38.44	6,426	11,314.74	75.43	150
4	Sahel El Kobania	2,048	3,686,000	193.47	3,146.84	15,761.70	32.40	12,852	31,986.40	106.60	300
5	Sahel Fares	6,041	1,673,460	300.00	32.313,28	15,210.66	26.74	27,417	75,287.60	117.60	640
7	El Twise	2,902	2,535,250	340.00	8,000.07	12,120.00	41.78	12,423	32,924.80	113.50	290
8	Gharb Aswan Baharia	5,647	1,016,500	210.50	20,123.53	28,408.15	33.20	10,710	59,494.38	237.90	250
9	Gezirat Fares	2,435	4,383,900	527.160	11,000.70	82,170.24	43.54	8,568	101,256.30	506.25	200
10	Gezirat Behrif	3,250	8,700,000	205.64	16,165.56	31,368.54	36.12	12,852	60,627.30	202.00	300

Site No.	Station Name	No. of operat-ing hours	Discharge in cu.m (year)	cost of Mainte-nance (L.E)	Cost of consumption of electric power and fule	Wages & sallary (L.E)	Cost of oils & grease (L.E.)	Inspection and Repairing cost	Total cost (L.E.)	Cost of irrigation per feddan (L.E.)	Area served
1	El Sheikh Fadl	3,210	5,778,000	110	19,533.46	9,863.16	34.96	18,816	48,357.58	151.117	320
2	Sahel El Hamam	2,487	4,476,600	200	13,504.651	9,767.76	36.82	11,760	35,269.231	176.346	200
3	El Fosa El Baharia	1,489	2,680,200	25.325	1,098.276	5,795.235	140.625	8,820	24,879.461	165.863	150
4	Sahel El Kobania	2,119	388,900	128.310	4,163.856	10,428.195	16.120	176,400	191,136.48	637.121	300
5	Sahel Fares	6,595	17,806,500	258	31,000.765	1,596.600	31.005	37,632	70,531	110.204	640
7	El Twise	2,984	2,232,450	120	12,220.818	12,497.88	38.680	17,052	41,929.378	144.584	290
8	Gharb Aswan Baharia	6,472	11,764,800	522.160	42,046.194	25,680.548	31.400	14,700	82,980.302	331.921	250
9	Gezirat Fares	2,670	4,806,900	68	13,060.235	8,424.480	34.34	11,760	33,287.055	166.435	200
10	Gezirat Behrif	4,844	9,515,600	254.560	22,414.292	24,095.661	32.240	17,640	64,436.753	214.789	300
6	El Biadiea El Ollia	10,395	68,085,000	4,439.0	489,657.0	104,674.0	2,766	10,566	612,098.0	161.0	3,800

6.6 No.6 (El Biadiea El Ollia) ポンプ場の現状及び適性更新配置図

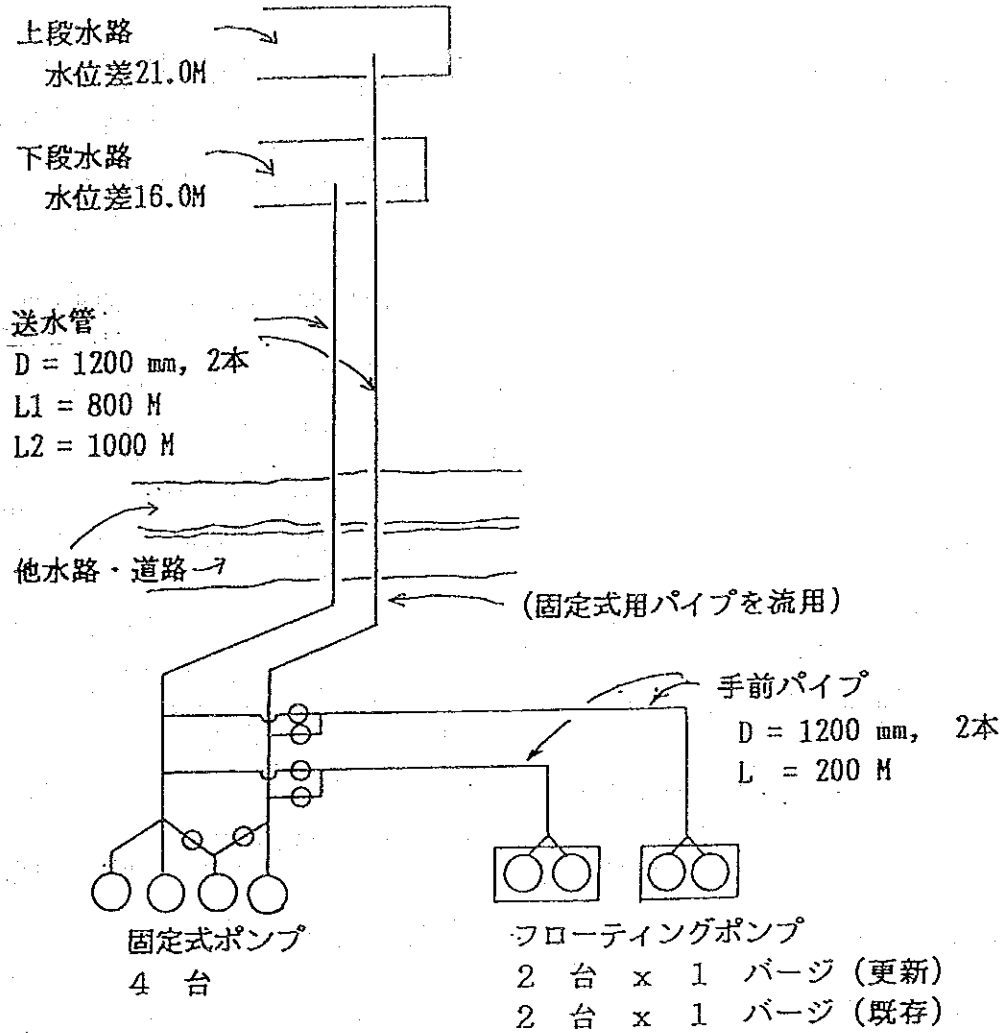
1) 現状配置図



2) 現状揚程

(1) 実揚程	21.0 M
(2) ポンプ回り損失水頭	1.0 M
(3) タワー損失水頭	0.5 M
(4) 手前旧パイプ損失水頭 (Dia 700 mm x 150 M)	10.7 M
(5) 中間旧パイプ損失水頭 (下段水路まで) (Dia 1000 mm x 800 M)	21.2 M
(6) 先端旧パイプ損失水頭 (上段水路まで) (Dia 1000 mm x 200 M)	1.5 M
(7) 先端速度損失水頭	0.32 M
全揚程	56.22 M
(必要動力	950 KW)

3) 適性水路に更新後の配置図



4) 適性水路に更新後の揚程

(1) 実揚程	21.0 M
(2) ポンプ回り損失水頭	1.0 M
(3) タワー損失水頭	0.5 M
(4) 手前更新パイプ損失水頭 (Dia 1200 mm x 200 M, 2本)	0.87 M
(5) 中間変更パイプ損失水頭 (下段水路まで) (Dia 1200 mm x 800 M, 1本)	3.47 M
(6) 先端変更パイプ損失水頭 (上段水路まで) (Dia 1200 mm x 200 M, 1本)	0.87 M
(7) 先端速度損失水頭	0.27 M
全揚程	27.97 M
(必要動力	460 KW)

6.7 ポンプ場維持管理運営体制及び人員配置

組　　織	責任者名	人　員
General Directorate Upper Egypt	Dir. Eng Wahbu Sabet Lauka	1 技師 75 職員
A South Upper Egypt General Directorate	Dir. Mohamed Abd Al Rahaman	4 技師 650 職員
1 : Directorate of Aswan		4 技師 66 職員
a) Khafar Handasa		1 技師 112 職員
b) Draw Handasa		2 技師 173 職員
c) Edfu Handasa		2 技師 159 職員
B Middle East General Directorate (Naga Hamady)	Dir. Abd Rawof Marhaly	8 技師 1,100 職員
2 : Directorate of Luxsor	Eng. Sabry Maghazy	3 技師 53 職員
a) El Hebeit Handasa		1 技師 82 職員
b) GL Gherea Handasa		113 (技師、職員)
c) Shanhour Handasa		100 (技師、職員)

6.8 年間維持管理費算出根拠

(1) 維持費 ..... 7,000 LE

1990年の実績 6,125LEより

(2) 電力費 ..... 960,000 LE

1m3当り電力単価 =647,895/127,600,000=0.0051LE/m^3

年間ポンプ送水量 =188,375,000m^3

(付属資料6.4より)

電力費 =0.0051 * 188,375,000m^3=960,700LE

(3) 人件費 ..... 264,000 LE

技師 =6,000LE * 1人 * ハンダーサ=24,000LE

職員 =2,400LE * 10人 * 10ヵ所=240,000LE

(4) 潤滑油・グリース費 ..... 4,000 LE

1990年実績3,162LEより推定

(5) 点検、修理費 ..... 100,000 LE

1987、88、90年実績より。(付属資料4.4参照)

合計 1,335,000 LE