



TAS Online

(Pty.) Ltd.

Pump Monitoring & Consultancy

from



WINTER UPDATE 2010



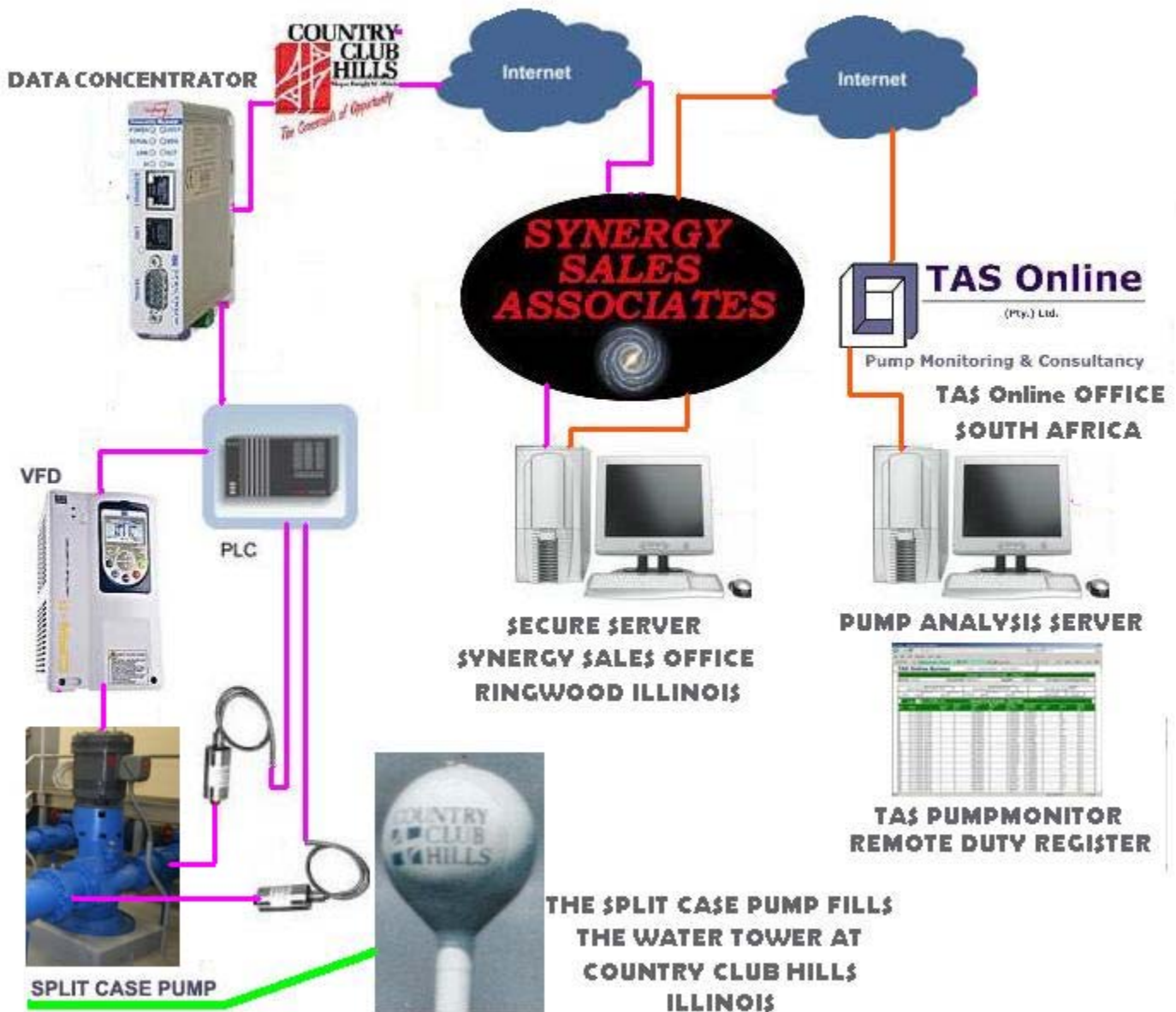
Welcome
to Country Club Hills
Honoring Our Heritage While Embracing Our Future

50 HP CLEAR WATER PILOT TEST @ COUNTRY CLUB HILLS

The Pilot test is underway now and we are collecting live data at the SSA office. A lot of interesting developments have happened and all good ones.



This is a Diagram of the Set Up for the Pilot Test System



All of the live streaming data from the Pump, VFD and Suction and Pressure Gauges are fed into the Programmable Logic Controller. The PLC sends all collected information to the Data Concentrator that uses encryption to transmit over the Virtual Private Network (VPN) and is received at the secure server at the Synergy Sales HQ in Ringwood, Illinois.

Then the data is run through the TAS PumpMonitor custom computer programs and all calculations are performed the resulting data is now accessed by TAS OnLine in South Africa from the SSA HQ secure server via VPN and reviewed by TAS pump engineering staff on their Pump Analysis Server that produces the Remote Duty Register of all the pump data.

CH01 - Windows Internet Explorer

http://tas-server/pm/ewdata/view.asp?FilterDate=26-01-2010+15%3A07&FilterDateEnd=29-01-2010+07%3A00

TAS Online Bureau | Home | Pump Register | Duty Register |

Chicago Country Club Hills Pump 01

Ref No. CH01 Pump Model 6X8X15 V Supplier UNKNOWN Vari Speed Centrifugal Pump

Start Period 26-01-2010 15:07 End Period 28-01-2010 07:08 Records per Page 1000

Flow Min 0 Max 0 Power Min 0 Max 0 Set Filters Reset

Page 1 of 2 1203 Remote Duty Register - Raw Data

No.	Date	On Tag PON	Pump Flow Q	Column Flow QT	Balance Flow Q1	Suction Pressure SP	Discharge Pressure DP	Power KW	Amps A	Pump Speed PM
1	27-1-2010 11:09	1	0	799.8047	0	9.378726	47.02937	0	40	51.6
2	27-1-2010 11:08	1	0	700.1953	0	9.378726	46.92343	0	40	51.6
3	27-1-2010 11:07	1	0	799.8047	0	9.378726	46.9764	0	40.1	51.6
4	27-1-2010 11:06	1	0	799.8047	0	9.378726	47.0218	0	39.9	51.6
5	27-1-2010 11:05	1	0	799.8047	0	9.377521	47.12774	0	40	51.6
6	27-1-2010 11:04	1	0	799.8047	0	9.378726	47.05207	0	39.9	51.6
7	27-1-2010 11:03	1	0	799.8047	0	9.377521	47.26395	0	40	51.6
8	27-1-2010 11:02	1	0	799.8047	0	9.377521	47.03694	0	39.8	51.6
9	27-1-2010 11:01	1	0	700.1953	0	9.37993	47.0899	0	39.9	51.6
10	27-1-2010 11:00	1	0	799.8047	0	9.377521	47.46069	0	39.8	51.6
11	27-1-2010 10:59	1	0	802.7344	0	9.378726	47.47583	0	39.2	51.6
12	27-1-2010 10:58	1	0	799.8047	0	9.378726	47.36232	0	41.6	52.2
13	27-1-2010 10:57	1	0	899.4141	0	9.378726	47.31692	0	41.6	52.2
14	27-1-2010 10:56	1	0	799.8047	0	9.378726	47.44556	0	41.7	52.2
15	27-1-2010 10:55	1	0	899.4141	0	9.378726	47.36989	0	41.5	52.2
16	27-1-2010 10:54	1	0	799.8047	0	9.378726	47.43042	0	42	52.2
17	27-1-2010 10:53	1	0	899.4141	0	9.37993	47.38502	0	41.9	52.2
18	27-1-2010 10:52	1	0	799.8047	0	9.37993	47.23368	0	42	52.2
19	27-1-2010 10:51	1	0	799.8047	0	9.37993	47.46069	0	41.7	52.2
20	27-1-2010 10:50	1	0	799.8047	0	9.37993	47.36232	0	41.5	52.2
21	27-1-2010 10:49	1	0	799.8047	0	9.381136	47.36989	0	41.7	52.2
22	27-1-2010 10:48	1	0	799.8047	0	9.37993	47.34719	0	41.6	52.2
23	27-1-2010 10:47	1	0	899.4141	0	9.381136	47.39259	0	41.6	52.2
24	27-1-2010 10:46	1	0	799.8047	0	9.38234	47.35475	0	42	52.2

REMOTE DUTY REGISTRY ~ RAW DATA ~ COUNTRY CLUB HILLS ~ PUMP 01

After the review of the information recommendations and consulting service are authored and documented and finally emailed to the end user.

TAS PumpMonitor Summary Report

Ref No	CH01	Date	2-2-2010 16:13
Client	Chicago	Location	Country Club Hills
Pump Model	6X8X15 V	Supplier	UNKNOWN
Start Period	18-1-2010 14:34	End Period	27-1-2010 10:59
No of Readings	445	Utilisation	33.23 %
ACTUAL DATA			
Average	Min.	Max.	
Flow Rate (l/sec)	83.52 (0)	6.28	105.5
Total Head (m)	28.17	1.14	29.96
Power Absorbed (kW)	38.21	10.51	42.23
Q8ep (%)	81.95	0	103
Impeller Diameter (mm)	298.4	298.4	1,750
COSTS (EXCL BP)			
Ideal	Actual	Variance	
Unit Cost (RMB) (21.86c/kWhr)	22.73	27.77	5.041
Power Cost (kW/hM)	104	127.1	23.07
Power Absorbed (kW)	31.27	38.21	6.935
Efficiency (%)	75	64.71	10.29
TOTAL COSTS			
Ideal	Actual	Variance	
Unit Cost (RMB) (21.86c/kWhr)	22.73	27.77	5.041
Power Cost (kW/hM)	104	127.1	23.07
Power Absorbed (kW)	31.27	38.21	6.935
Efficiency (%)	75	64.71	10.29
TOTALS FOR THE PERIOD			
Actual	Annual		
No of Days Monitored	8.851	days	365
Hours pumped	70.58	hrs	2,911
Flow Meters (M)	19.02		784.5
Water Pumped (M)	21.22		875.2
Actual Water Pumped	21.22	M	875.2
Power Consumed	2,657	W/hrs	111,208
Power Cost	589.4	R	24,305
Ideal Power	2,207	W/hrs	91,021
Ideal Cost	482.4	R	19,893
WASTAGE SUMMARY			
	Actual Period	Yearly Loss	
Total Loss	%Drop 10.58 14.10 6.935	kW/hrs 489.5 107.0	Rands 4,412
Wear Loss	9.047 12.05 5.932	418.7 91.51	3,774
Duty Loss	1.530 2.040 1.003	70.82 15.48	638.3
Volumetric Loss	0 0 0	0 0	0

CCH PUMP 01 SUMMARY

TAS PumpMonitor Summary Report

Ref No	CH02	Date	2-2-2010 16:15
Client	Chicago	Location	Country Club Hills
Pump Model	6X8X15	Supplier	UNKNOWN
Start Period	23-1-2010 08:46	End Period	26-1-2010 08:54
No of Readings	178	Utilisation	38.61 %
ACTUAL DATA			
Average	Min.	Max.	
Flow Rate (l/sec)	84.55 (0)	9.46	92.38
Total Head (m)	28.12	25.98	29.38
Power Absorbed (kW)	41.91	12.97	43.30
Q8ep (%)	85.39	14	98
Impeller Diameter (mm)	288.1	280.2	293.5
COSTS (EXCL BP)			
Ideal	Actual	Variance	
Unit Cost (RMB) (21.27c/kWhr)	22.12	29.28	7.163
Power Cost (kW/hM)	104	137.7	33.68
Power Absorbed (kW)	31.65	41.91	10.25
Efficiency (%)	75	58.96	16.04
TOTAL COSTS			
Ideal	Actual	Variance	
Unit Cost (RMB) (21.27c/kWhr)	22.12	29.28	7.163
Power Cost (kW/hM)	104	137.7	33.68
Power Absorbed (kW)	31.65	41.91	10.25
Efficiency (%)	75	58.96	16.04
TOTALS FOR THE PERIOD			
Actual	Annual		
No of Days Monitored	3.047	days	365
Hours pumped	28.97	hrs	3,470
Flow Meters (M)	8.447		1,012
Water Pumped (M)	8.817		1,056
Actual Water Pumped	8.817	M	1,056
Power Consumed	1,214	W/hrs	145,412
Power Cost	258.2	R	30,930
Ideal Power	917.0	W/hrs	108,844
Ideal Cost	195.0	R	23,365
WASTAGE SUMMARY			
	Actual Period	Yearly Loss	
Total Loss	%Drop 16.37 21.82 10.25	kW/hrs 206.9 63.16	Rands 7,566
Wear Loss	14.7 19.6 9.208	266.7 58.72	6,795
Duty Loss	1.668 2.224 1.044	30.25 6.435	770.9
Volumetric Loss	0 0 0	0 0	0

CCH PUMP 02 SUMMARY

Multiple Water Pump Summary Report

WaterPump_NoBF_Ver 2a

Start Date: 2010/01/18 02:34:00PM
 Pump Station : Country Club Hills
 Pump Station ID : 102

End Date: 2010/01/27 11:00:00AM
 Period (days): 8.9
 Period Monitored (days): 6.9

Monitor Ratio : 0.78

Total Peak Hrs: 34 Total Off Peak Hrs: 34
 Total On/Off Peak Hrs: 34 Total On/Off Peak Hrs: 34
 Peak Monitor Ratio: 0.78 Off Peak Monitor Ratio: 0.83

Pump No.	Pump Average										Peak Period					Standard Period					Off Peak Period							
	Eff. %	Flow US	Power KW	Vol. ML	W/hrs ML	W/hrs ML	Eff. %	Hrs Pumped	Pump Cost \$	Ave SP	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped			
COH1	84.7	34	33	27	3,443	121	42.5	63	150	62	84.7	8.5	83.8	1,075	128	28.1	84.7	14	83.1	1,132	128	48	84.7	8	10.0	143	125	18
COH2	58.0	35	42	11	1,851	138	17.4	37	333	65	59.9	2.9	28.2	387	135	9.4	59.9	7	28.8	196	137	21	59.9	2	8.3	323	141	8

Pump Chamber	Pump Chamber Average										Peak Period					Standard Period					Off Peak Period							
	Eff. %	Flow US	Power KW	Vol. ML	W/hrs ML	W/hrs ML	Eff. %	Hrs Pumped	Pump Cost \$	Ave SP	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped	Eff. %	Vol. ML	Power KW	W/hrs ML	Hrs Pumped			
COH	63.0	64	34	38	4,298	133	28.0	127	1,083	82	64.2	11.4	64	1,472	128	21.5	64.8	20	34	2,879	131	65	63.8	8	11	1,982	133	36

COMBINED PUMP REPORT

Our next communication to you will be the actual Formal Reports and Consulting Documents from our pilot test program and we will truly be ready to sell our System and Service for real world problematic pumps that do need monitoring to stay at optimum efficiency on the pump curve.

With the push in the USA to conserve energy this is an excellent time to offer the

TAS PumpMonitor solution



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