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oil and gas engineering services

www.eurpetrol.com



prizma group
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Innovative Automation & SCADA Systems Solutions



Oil & Gas Fields SCADA Systems

Enhance your operations
with reliable control and
remote monitoring



Oil & Gas Pipelines SCADA Systems

Advanced Operations
Management for your
Oil & Gas Pipelines

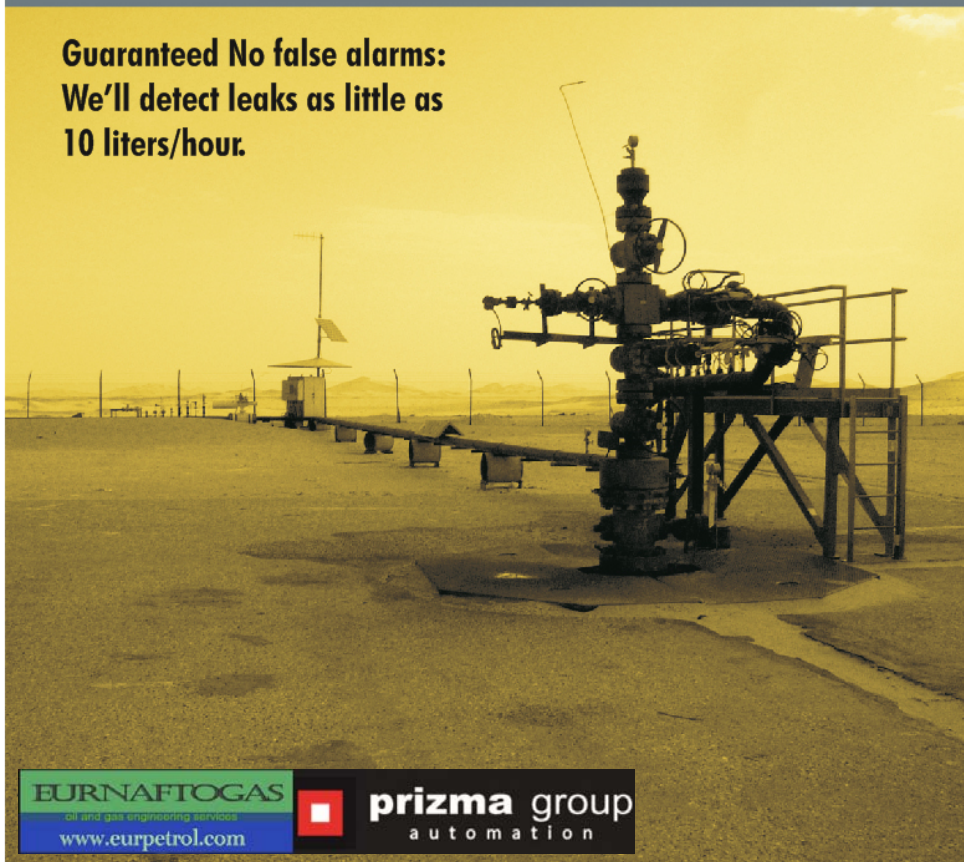


EURNAFTOGAS
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 **prisma group**
automation

Leak Detection Systems

**Guaranteed No false alarms:
We'll detect leaks as little as
10 liters/hour.**



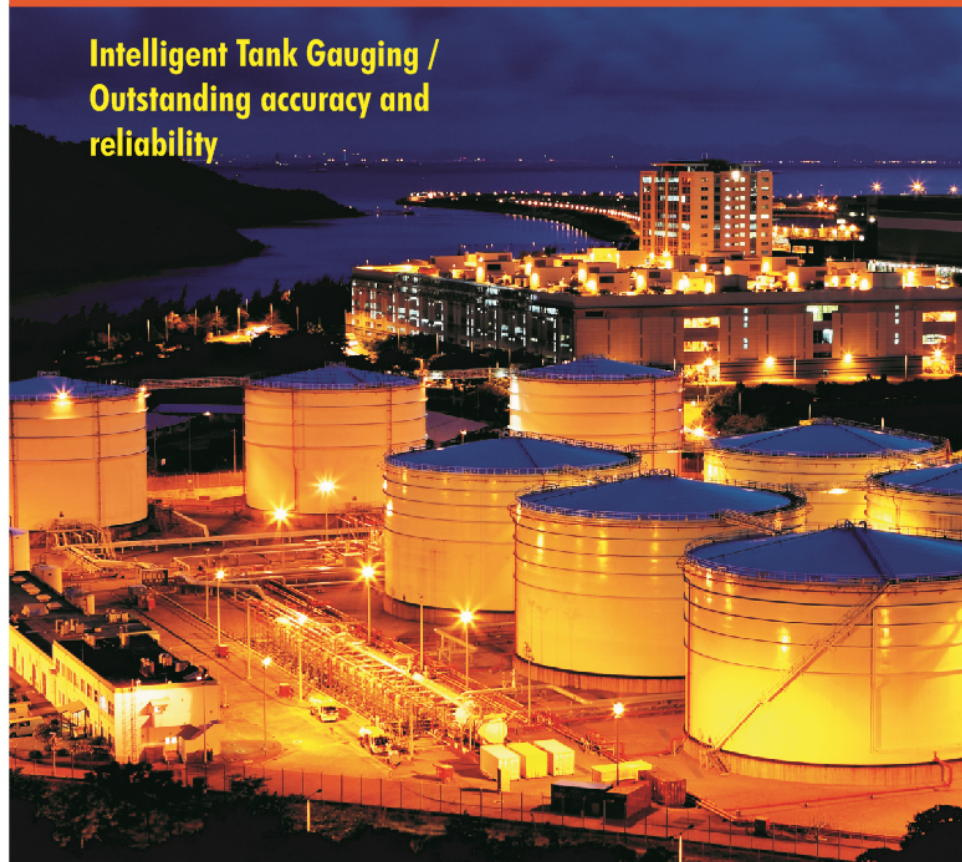
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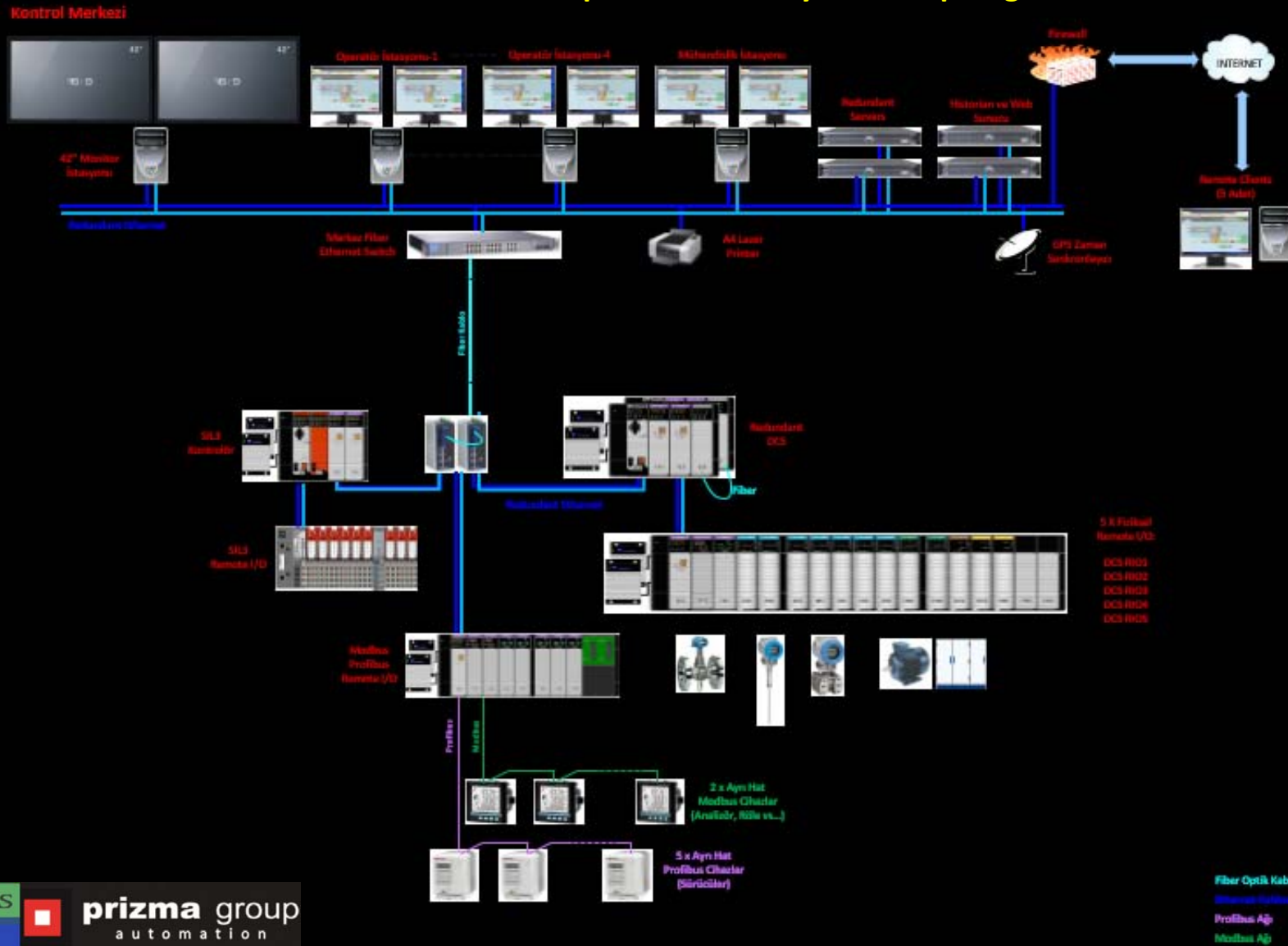
prizma group
automation

Tank Gauging / Management Systems

**Intelligent Tank Gauging /
Outstanding accuracy and
reliability**

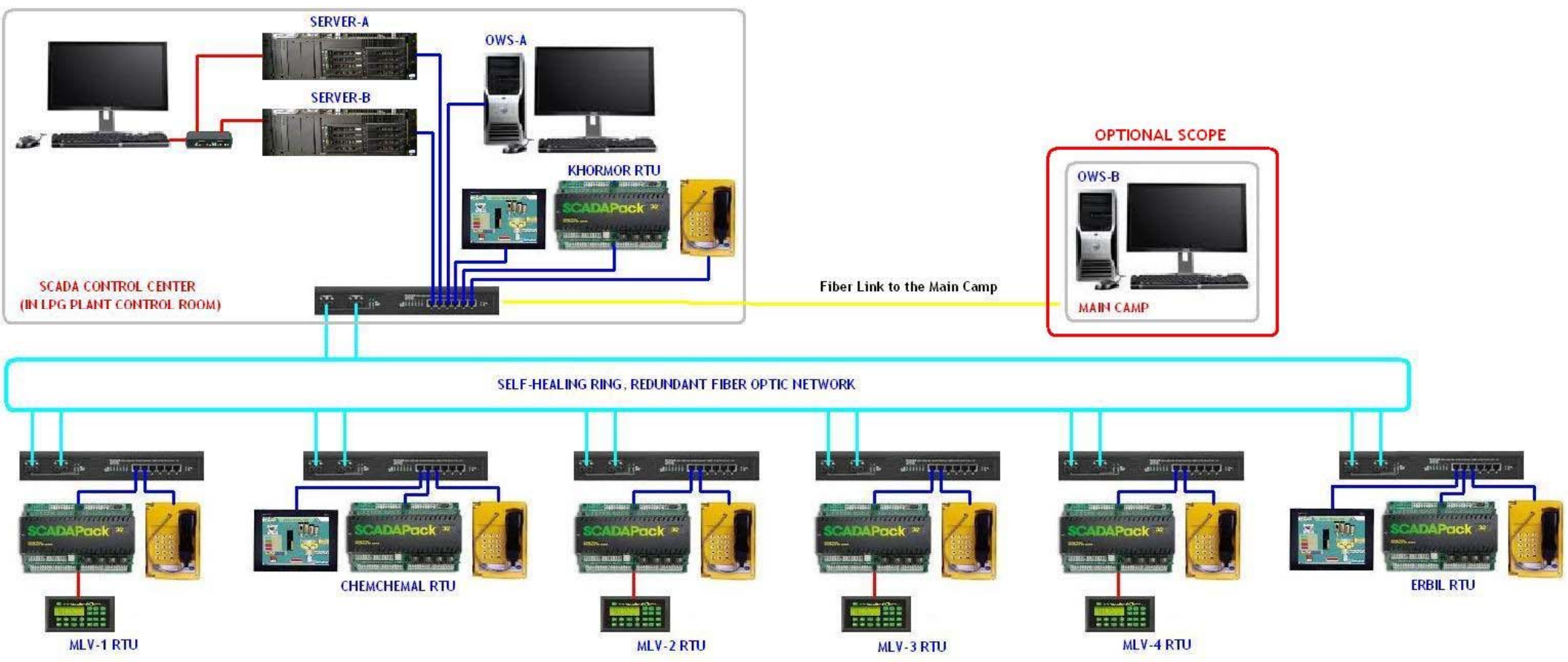


Oil & Gas Field/Pipeline SCADA Systems Topologies

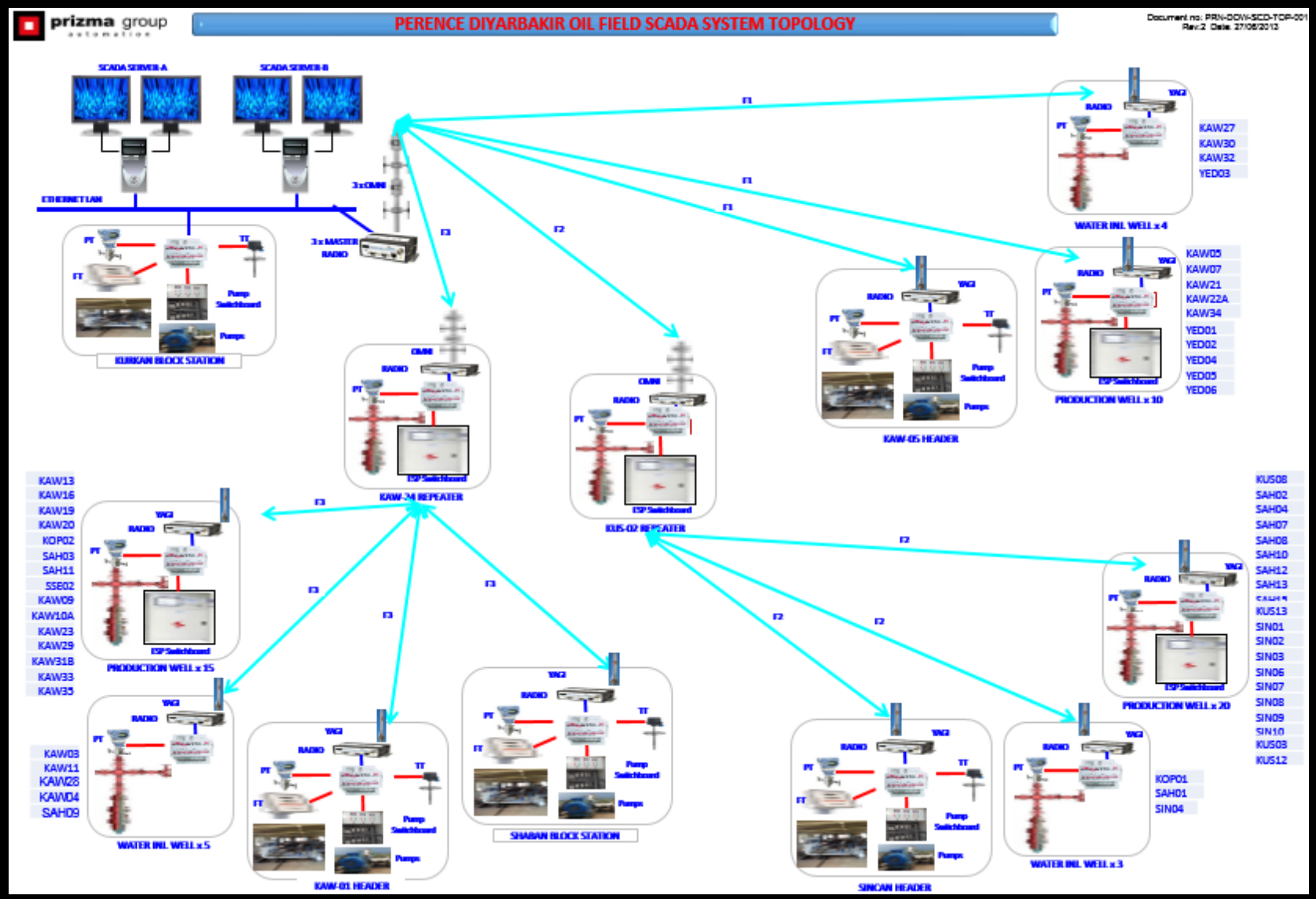


Oil & Gas Field/Pipeline SCADA Systems Topologies

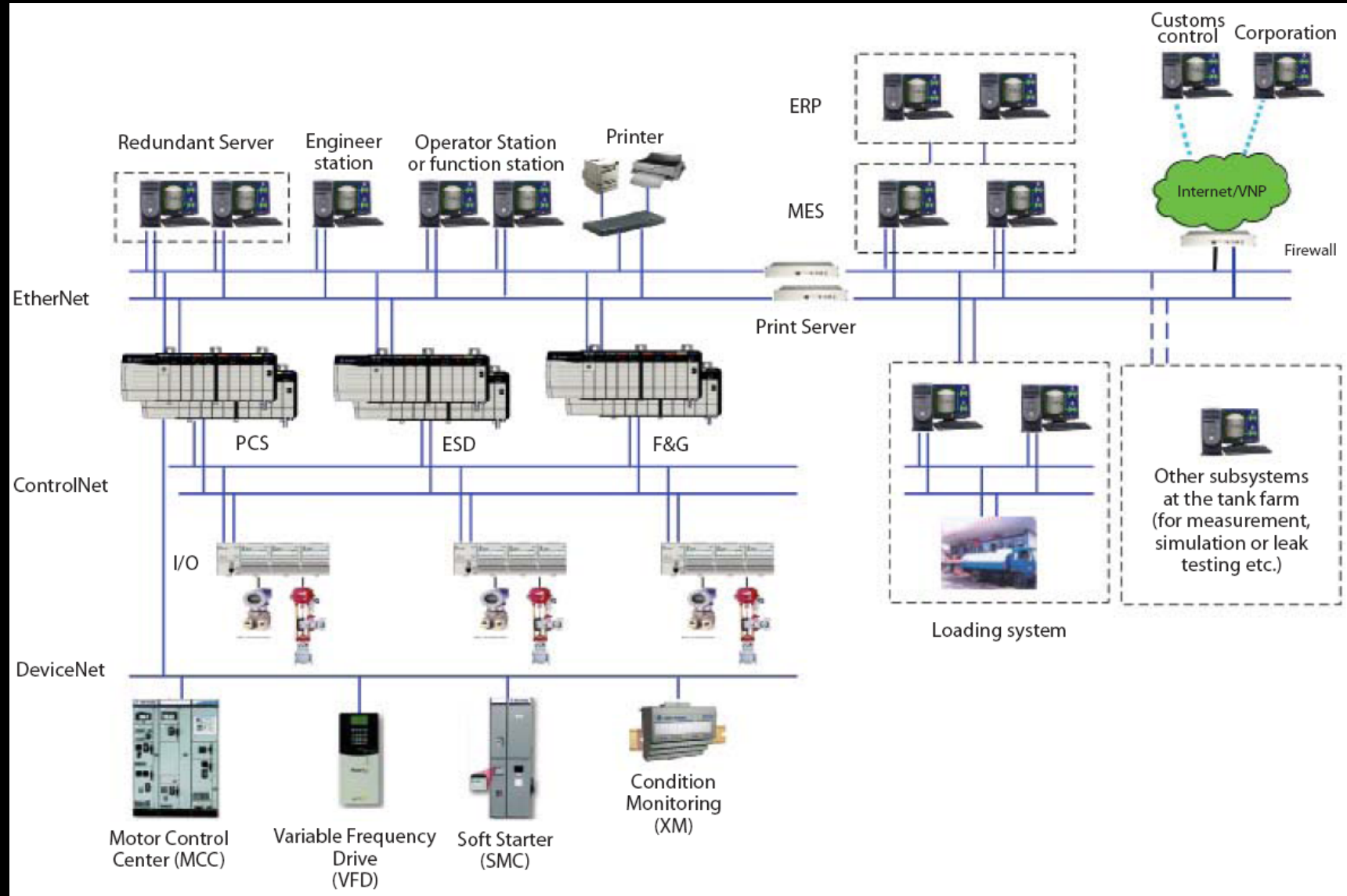
PGA-TOP-ETS-SCT-001 - CPDG LPG PIPELINE SCADA SYSTEM TOPOLOGY



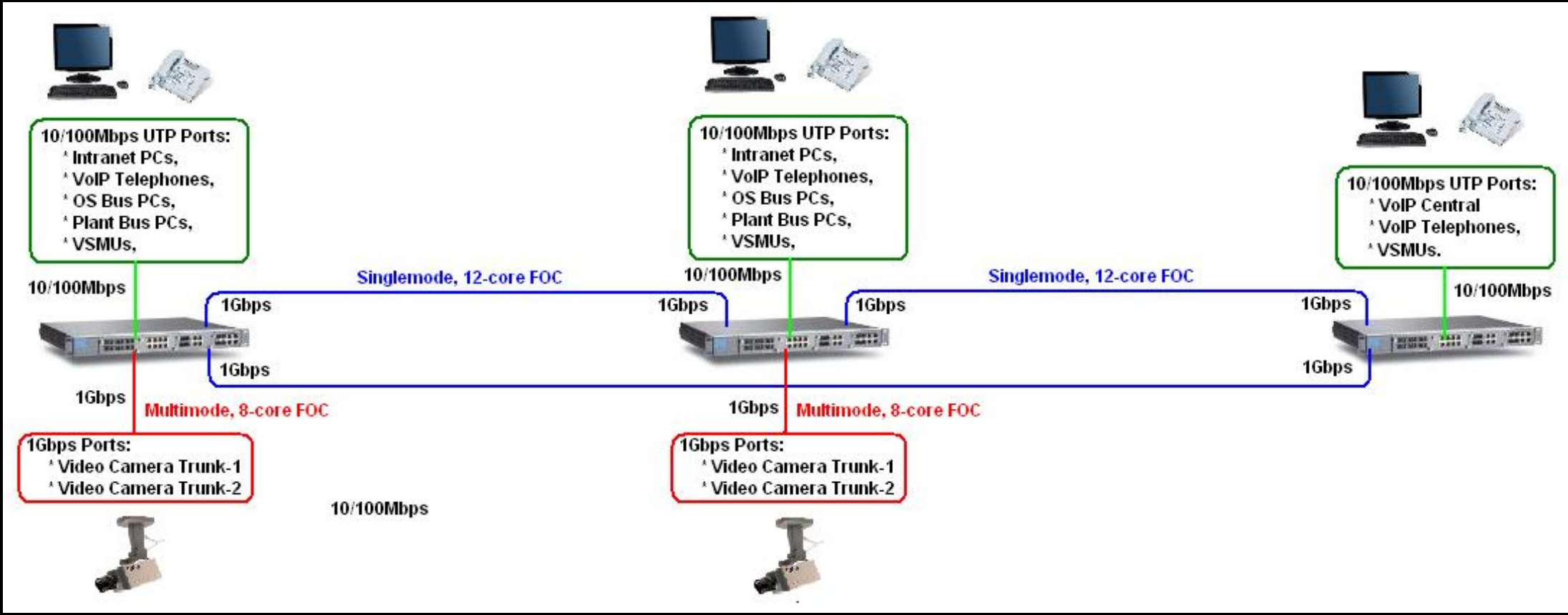
Oil & Gas Field/Pipeline SCADA Systems Topologies



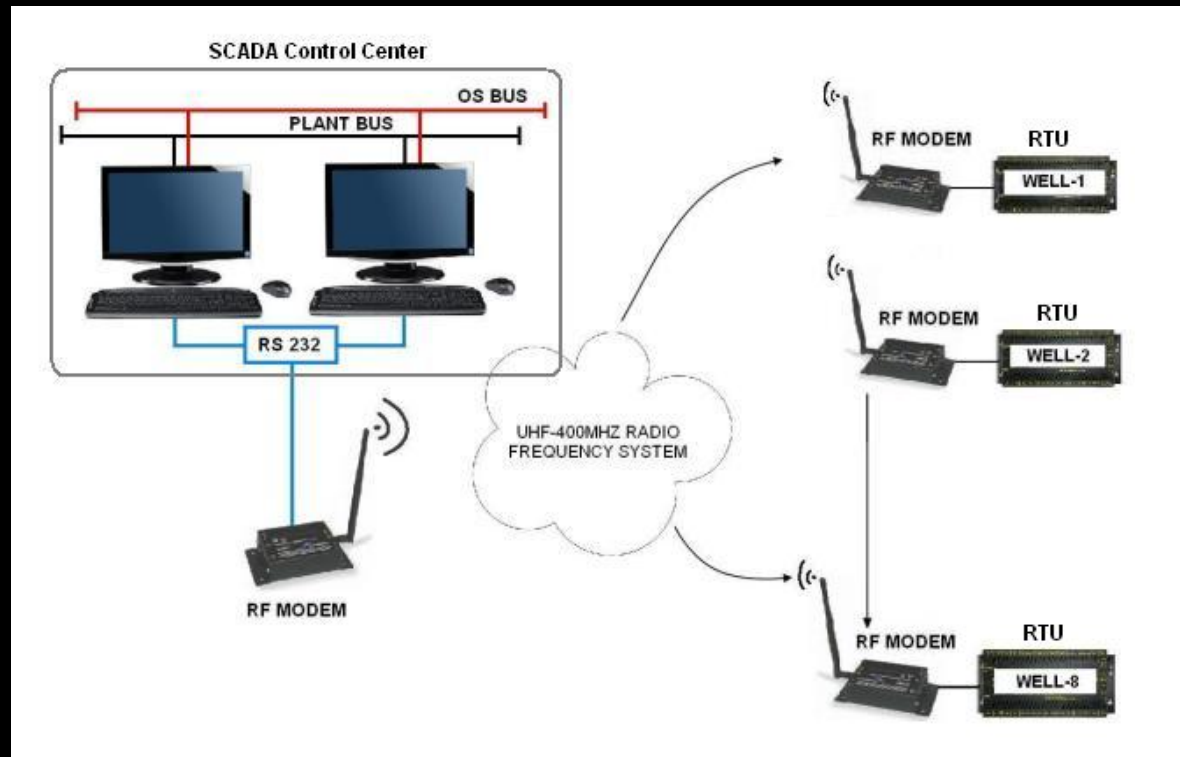
Oil & Gas Field/Pipeline SCADA Systems Topologies



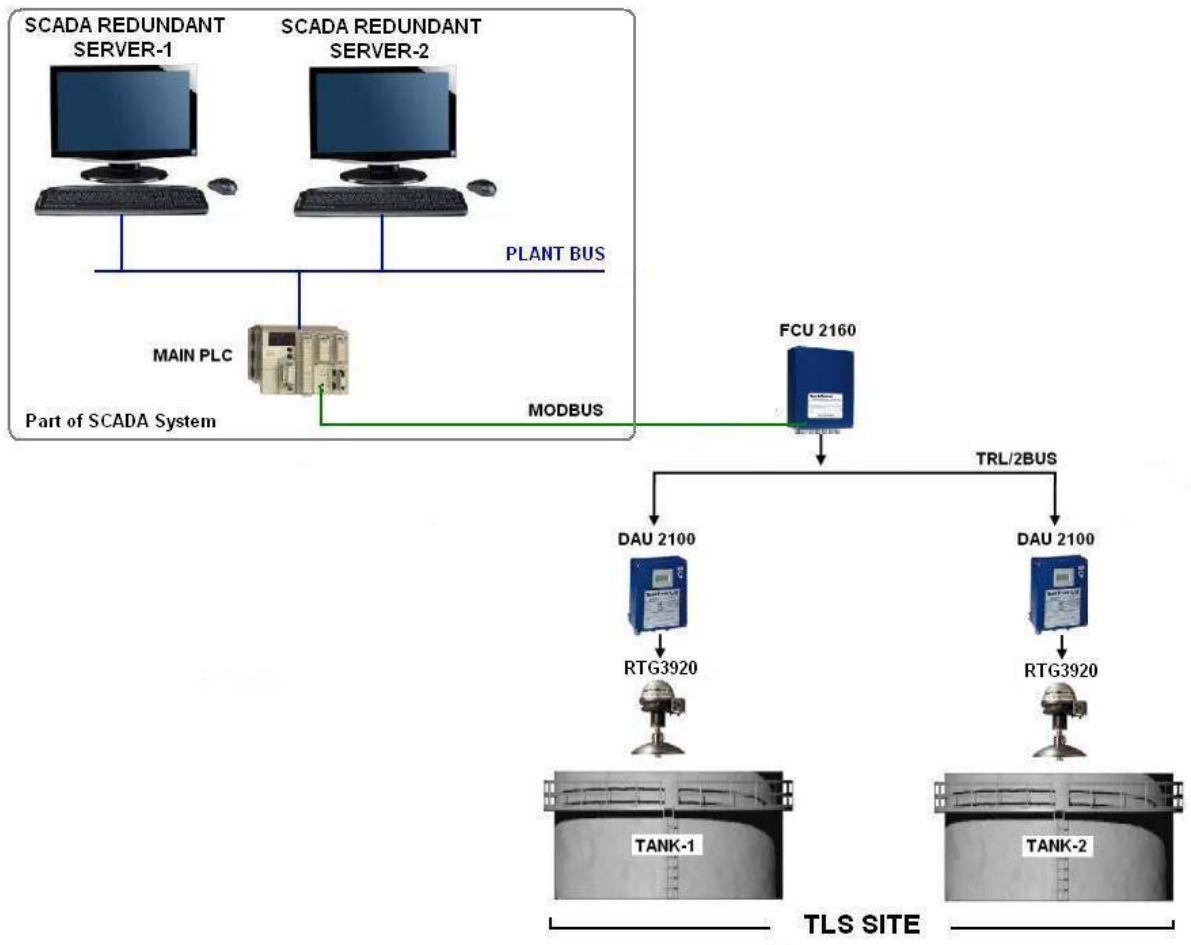
Oil & Gas Field/Pipeline SCADA Systems Topologies



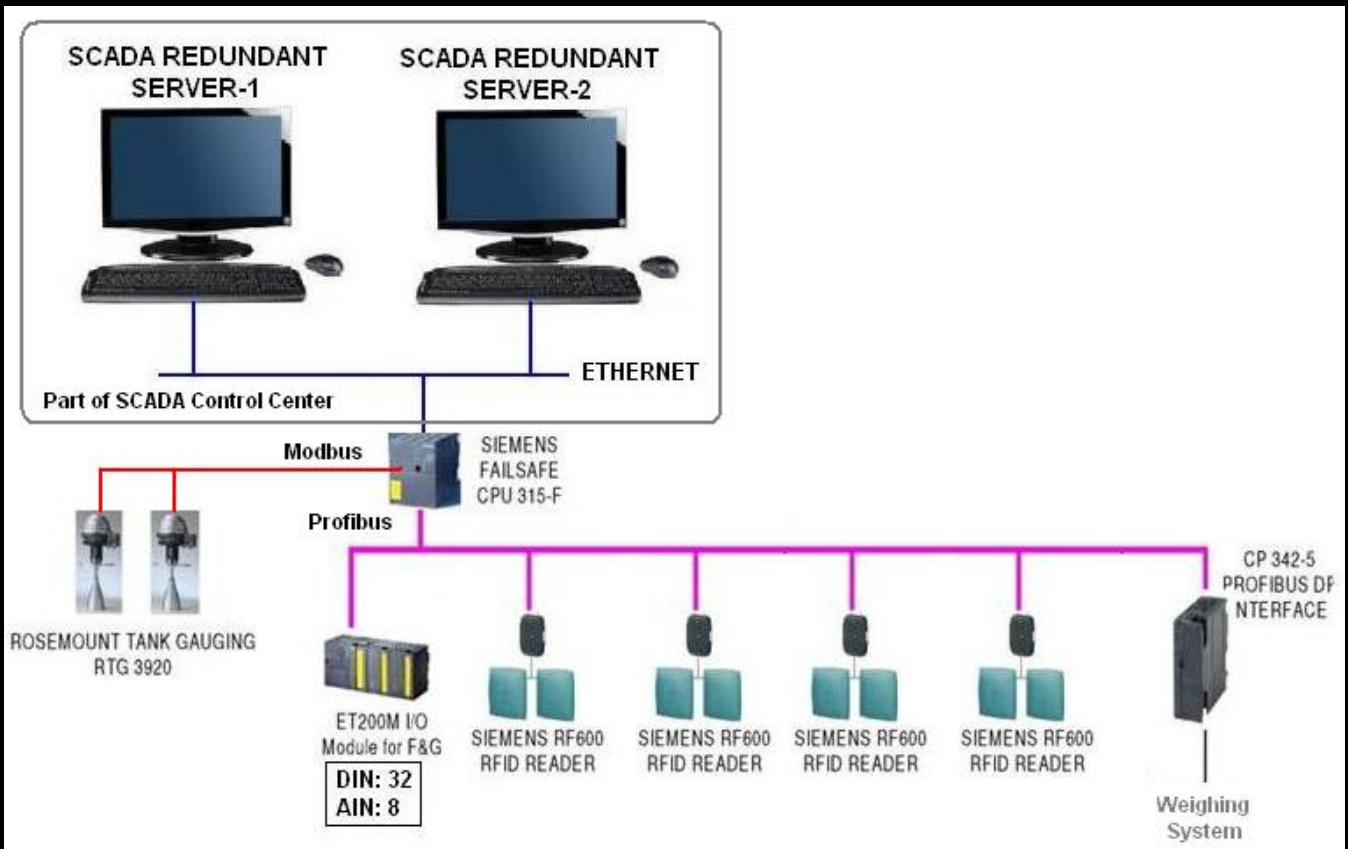
Oil & Gas Field/Pipeline SCADA Systems Topologies



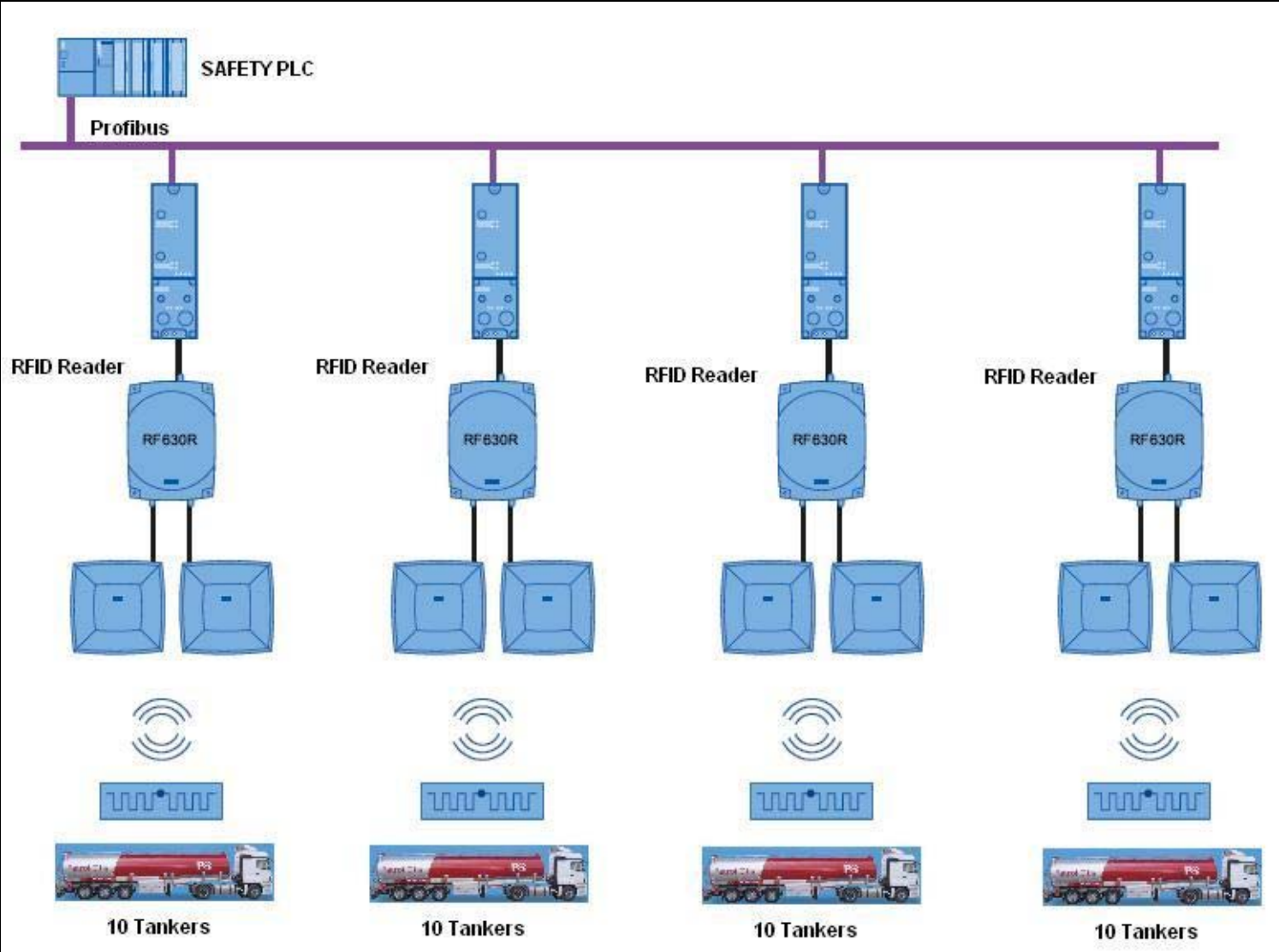
Oil & Gas Field/Pipeline SCADA Systems Topologies



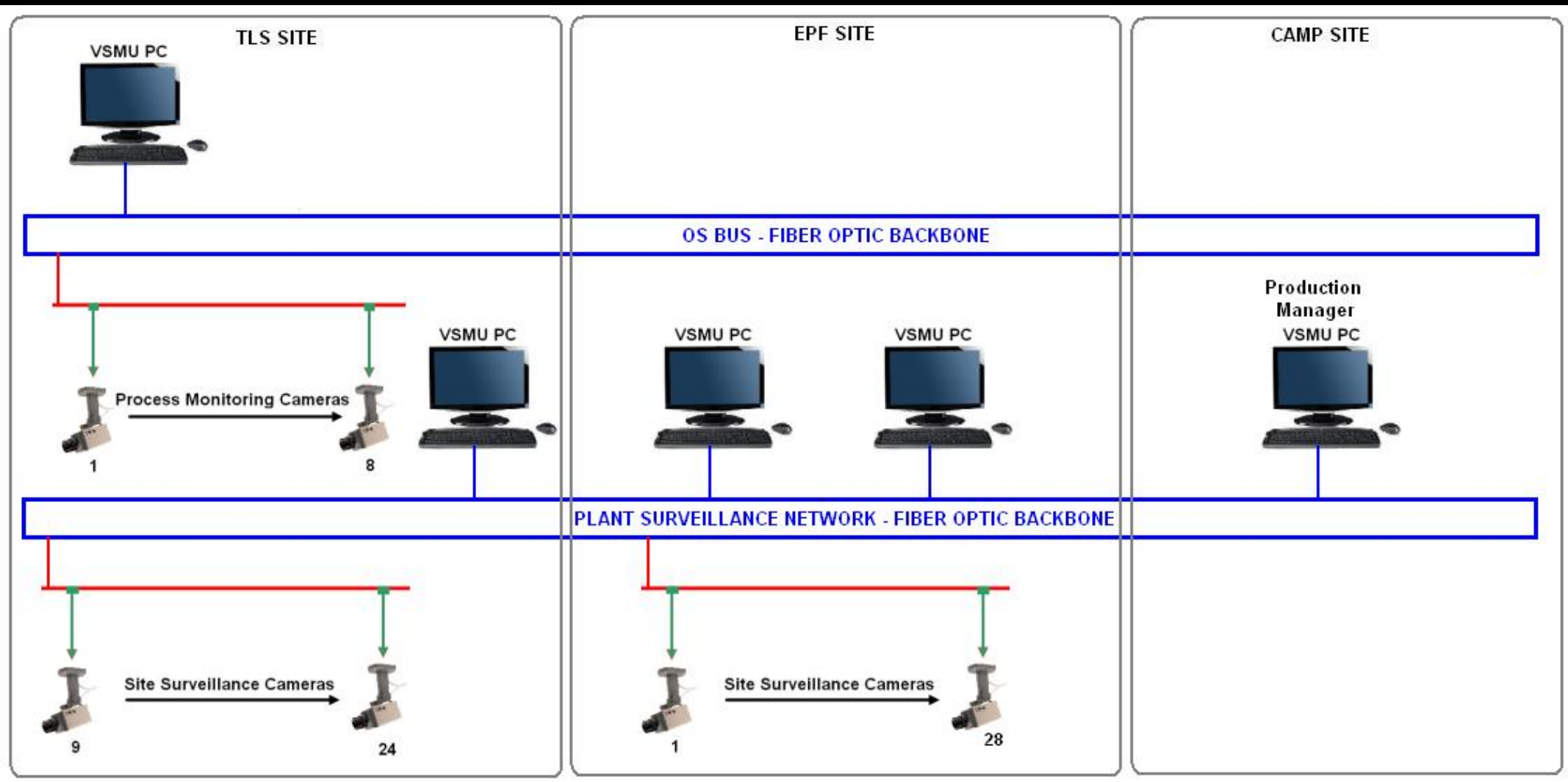
Oil & Gas Field/Pipeline SCADA Systems Topologies



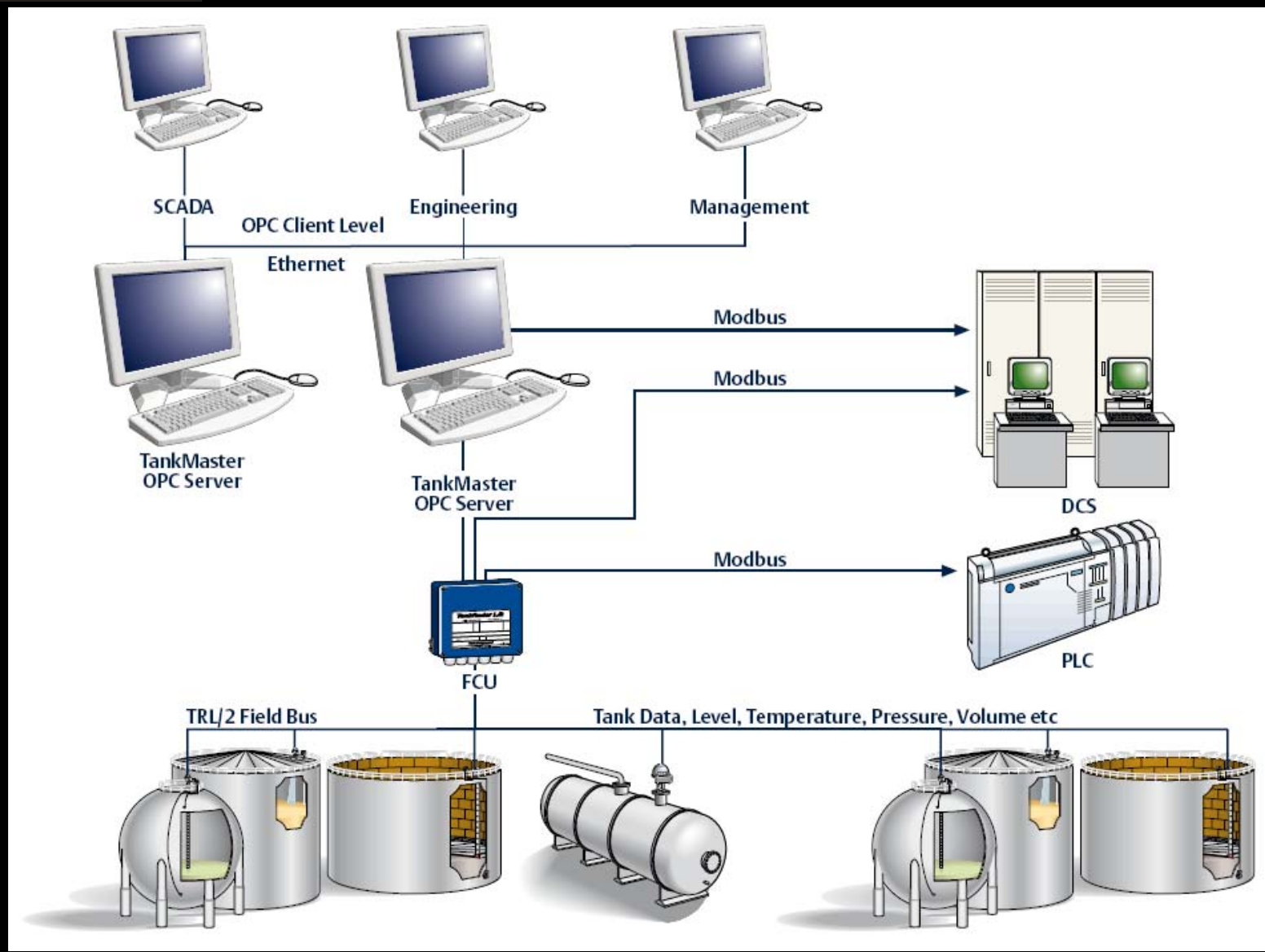
Oil & Gas Field/Pipeline SCADA Systems Topologies



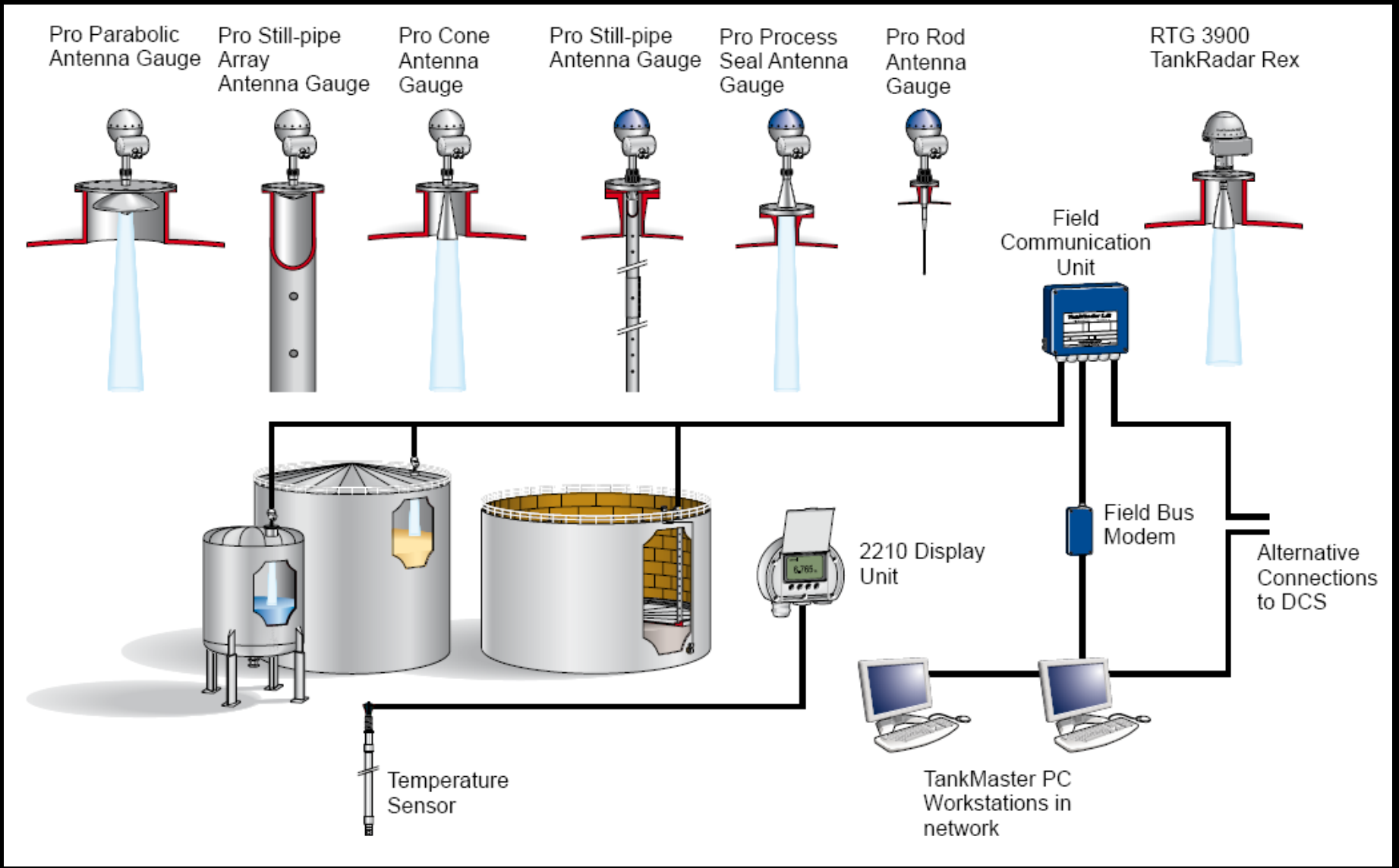
Oil & Gas Field/Pipeline SCADA Systems Topologies



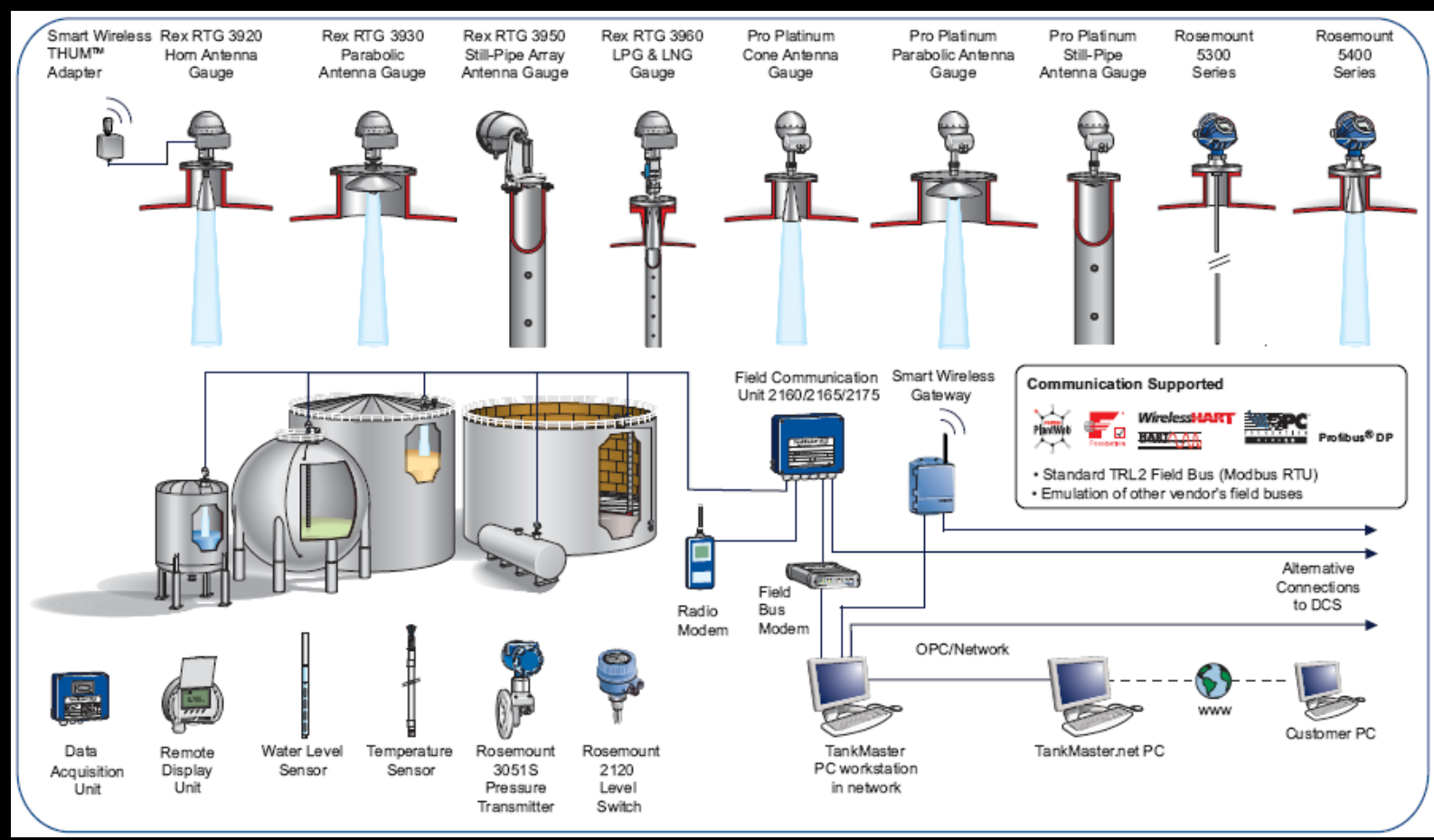
Oil & Gas Field Tank Farm Management System Topologies



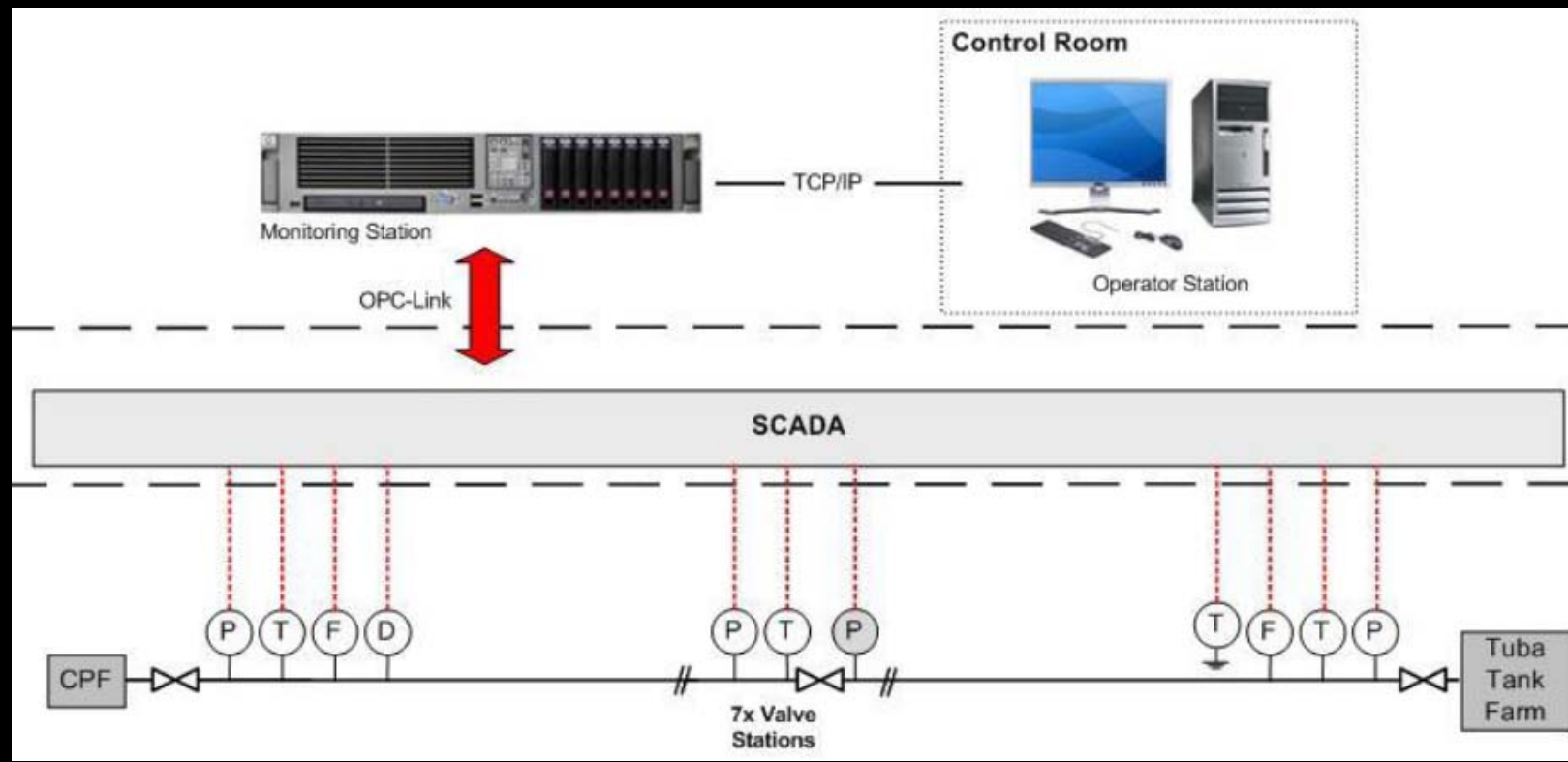
Oil & Gas Field Tank Farm Management System Topologies



Oil & Gas Field Tank Farm Management System Topologies



Oil & Gas Pipeline Leak Detection System Topologies



Oil & Gas Pipeline Leak Detection Systems

Leak Detection VLE - (Main) - EOP03_10N.Air

User: ADMINISTRATOR [2000] Measured Data PipePatrol 03-Apr-2008 11:36 KROHNE

PipePatrol	Signature Test (Difference) Test	Alarms			Systems				
		Standstill Test	Pumping Control Station Test	Pumping State	Safety Valve State	Main	Pipeline State	Watchdog	Data State
		Not Active	No Alarms	Not Piping	OK	Online	Normal Steady	OK	OK

Measured Data	Unit	Value	Control	Unit	Measured Data
Flow	m³/hr	434.65	434.65	m³/hr	Flow
Pressure	bar	19.95	5.97	bar	Pressure
Product Temperature	°C	15.00	15.00	°C	Product Temperature
Ground Temperature	°C	-	15.00	°C	Ground Temperature
Product Name		201-A1	201-A1		Product Name
Calculated Data	Unit	Value	Control	Unit	Calculated Data
Flow	m³/hr	435.4	437.8	m³/hr	Flow
Pressure	bars	20.95	6.96	bars	Pressure
Product Temperature	°C	15.00	15.04	°C	Product Temperature

Alarm messages:

Function Keys:

F0 Logout F2 Overview F3 Leak Data F4 Data Data F6 Profile F8 F7 F9 F10 Alarms F11 Login F12 Trending

Oil & Gas Pipeline Leak Detection Systems



Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq



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Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



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Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



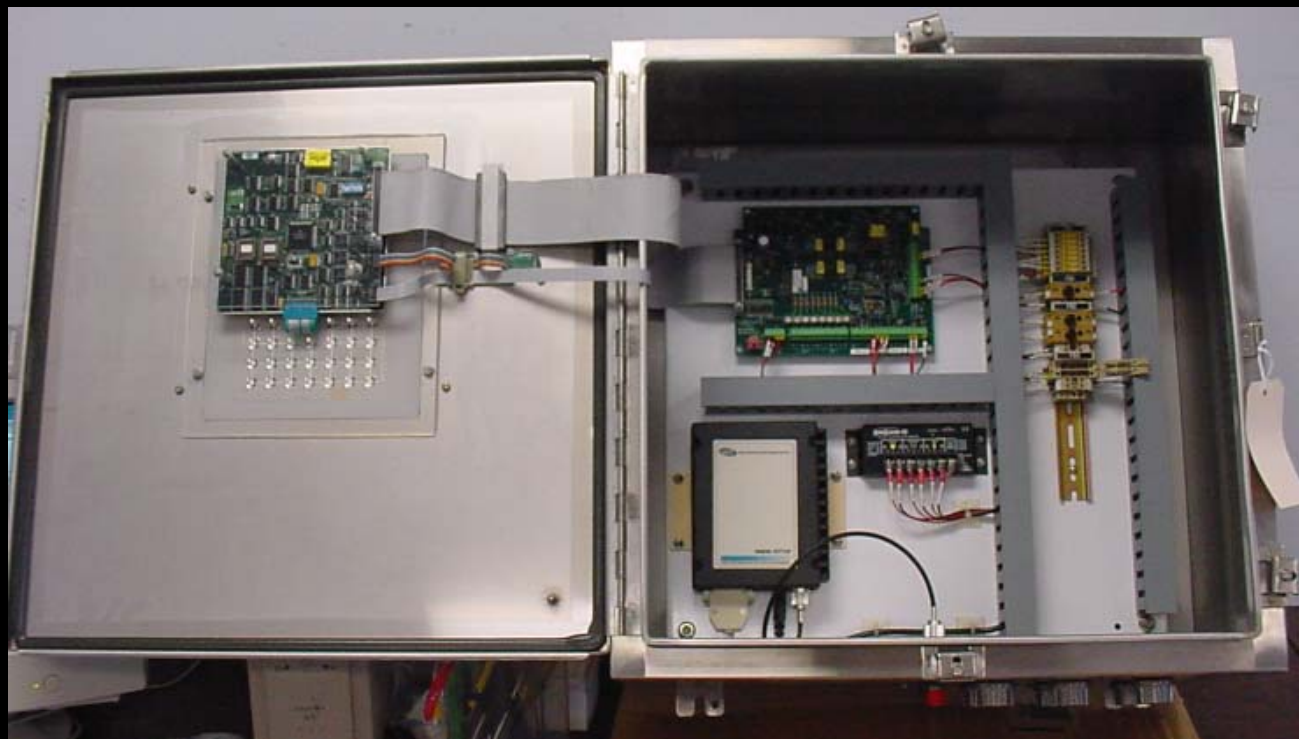
Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



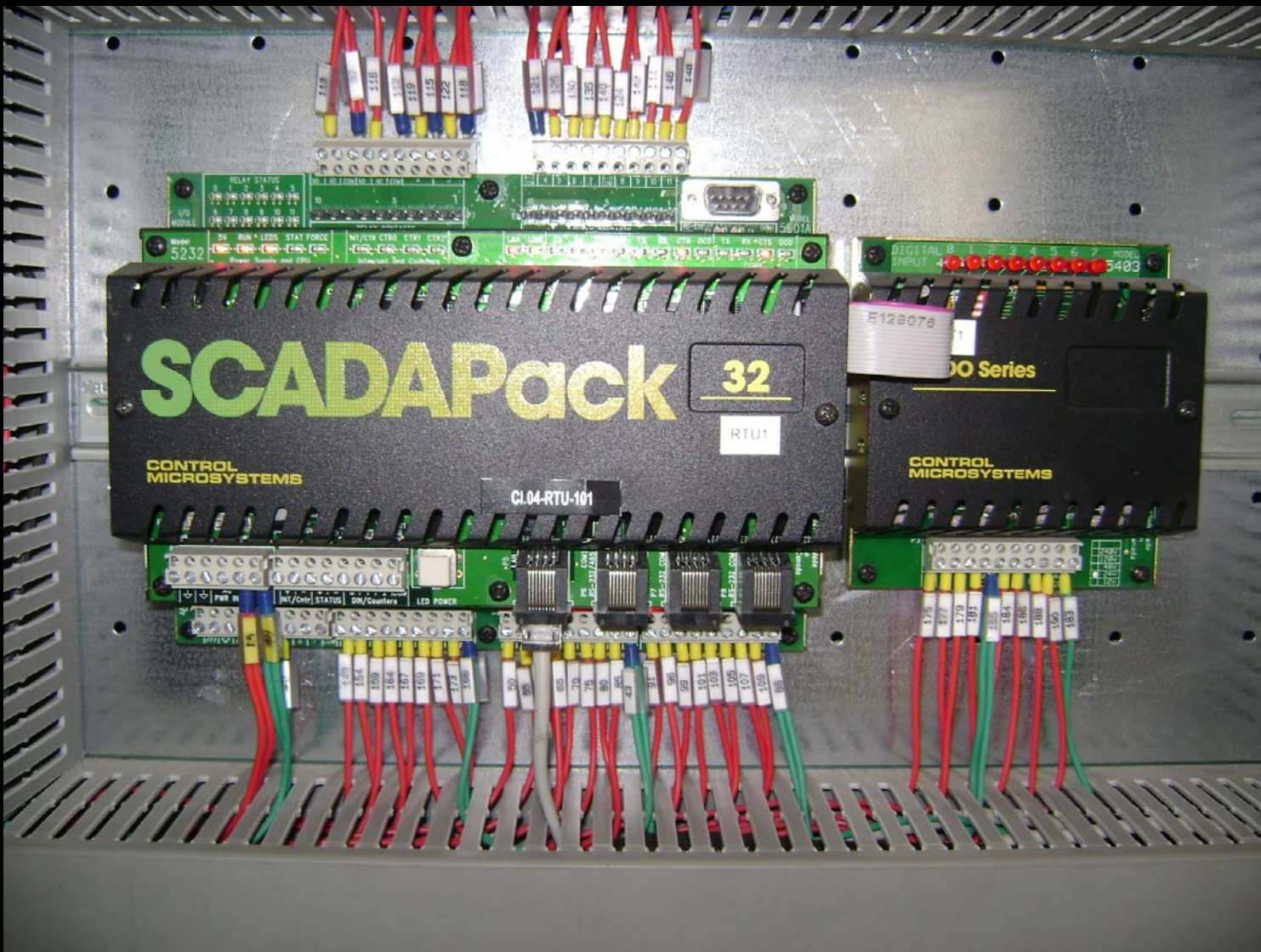
Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



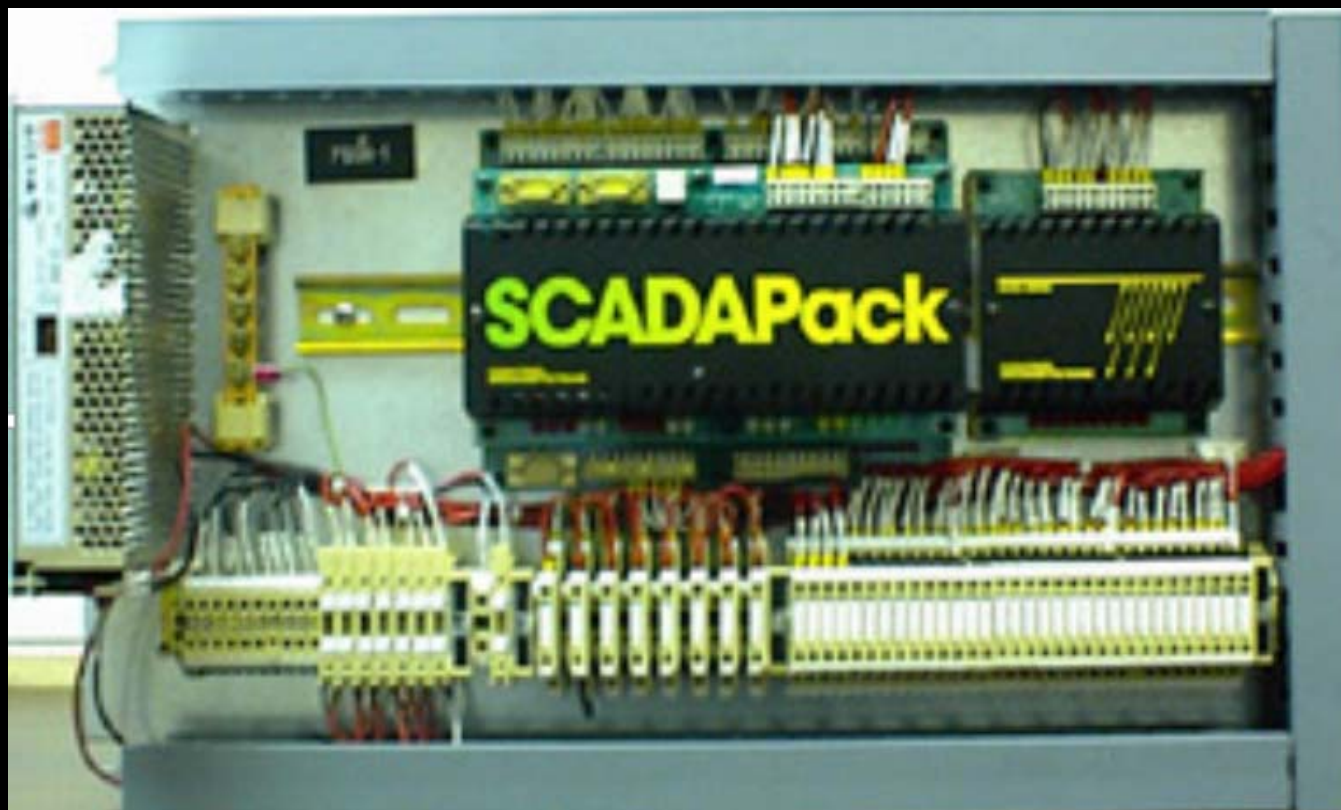
Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Kandhkot Oil&Gas Field/Pipeline SCADA System, Pakistan



Sonatrach LR1 Pipeline SCADA System, Algeria



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Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq

PIPELINE MAIN SCREEN
Server-A Server-B

Upstream Pressure	36.2 bar
Upstream Temperature	0.0 °C
Downstream Pressure	36.1 bar

Upstream Pressure	35.3 bar
Battery Voltage	25.93 V
Solar Panel Voltage	27.12 V

Upstream Pressure	33.8 bar
Battery Voltage	25.62 V
Downstream Pressure	33.8 bar
Solar Panel Voltage	39.06 V

Upstream Pressure	33.8 bar
Battery Voltage	25.16 V
Solar Panel Voltage	36.49 V

Upstream Pressure	34.5 bar
Battery Voltage	26.19 V
Solar Panel Voltage	36.01 V

Upstream Pressure	34.7 bar
Battery Voltage	26.11 V
Solar Panel Voltage	36.66 V

Upstream Pressure	35.7 bar
Downstream Pressure	34.4 bar

KHORMOR
PIGGING STATION

MLV-1
VALVE STATION

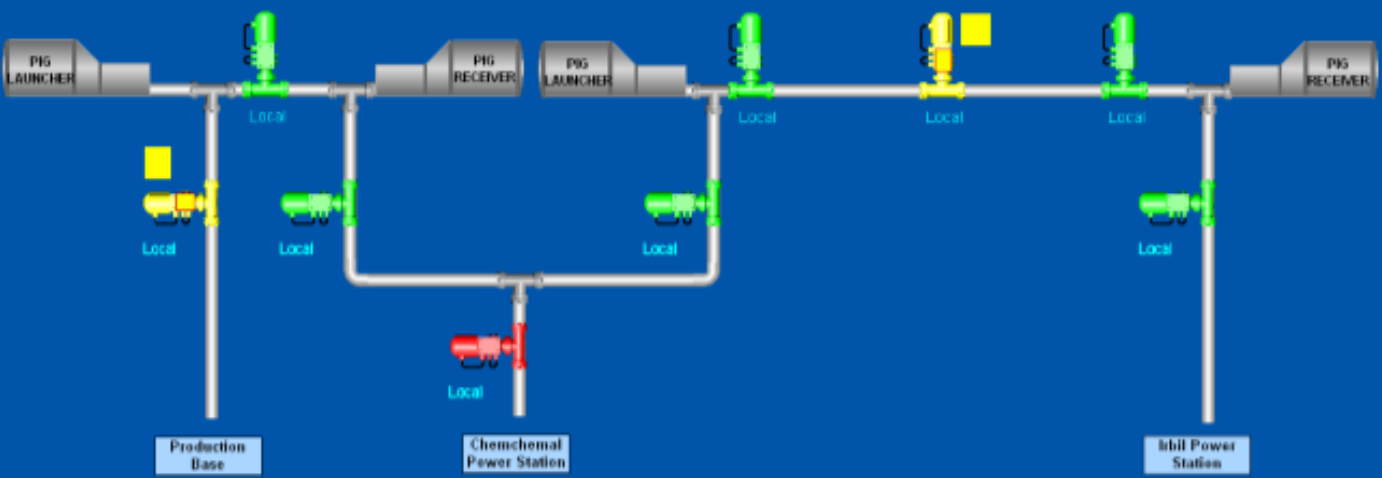
CHEMCHEMICAL
VALVE STATION

MLV-2
VALVE STATION

MLV-3
VALVE STATION


MLV-4
VALVE STATION

IRBIL
PIGGING STATION



IRBIL	MLV-1	CHEMML_RCV	CHEMML_LMC
MLV-2	MLV-3	MLV-4	IRBIL
PIPELINE MAIN PAGE		COMM	

03:19:53 PM 6/22/2009	MLV-4	Downstream Low Pressure Alarm	ON
01:16:28 PM 6/22/2009	MLV-3	High Differential Pressure Alarm	ON
01:06:46 PM 6/22/2009	MLV-3	Downstream Low Pressure Alarm	ON



Fri Jul 10 2009 01:58:37 PM

Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq

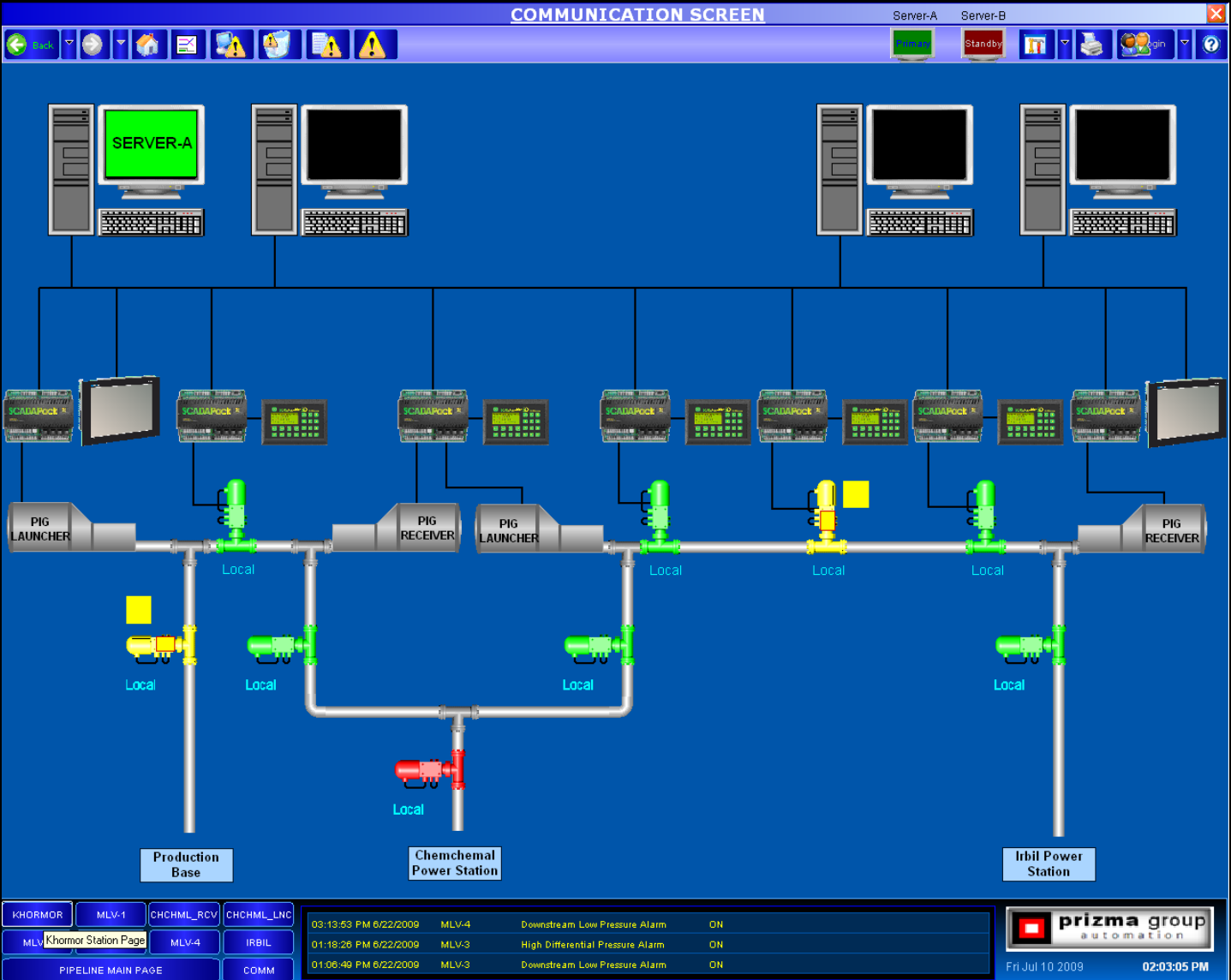
PIPELINE MAIN SCREEN

Server-A Server-B

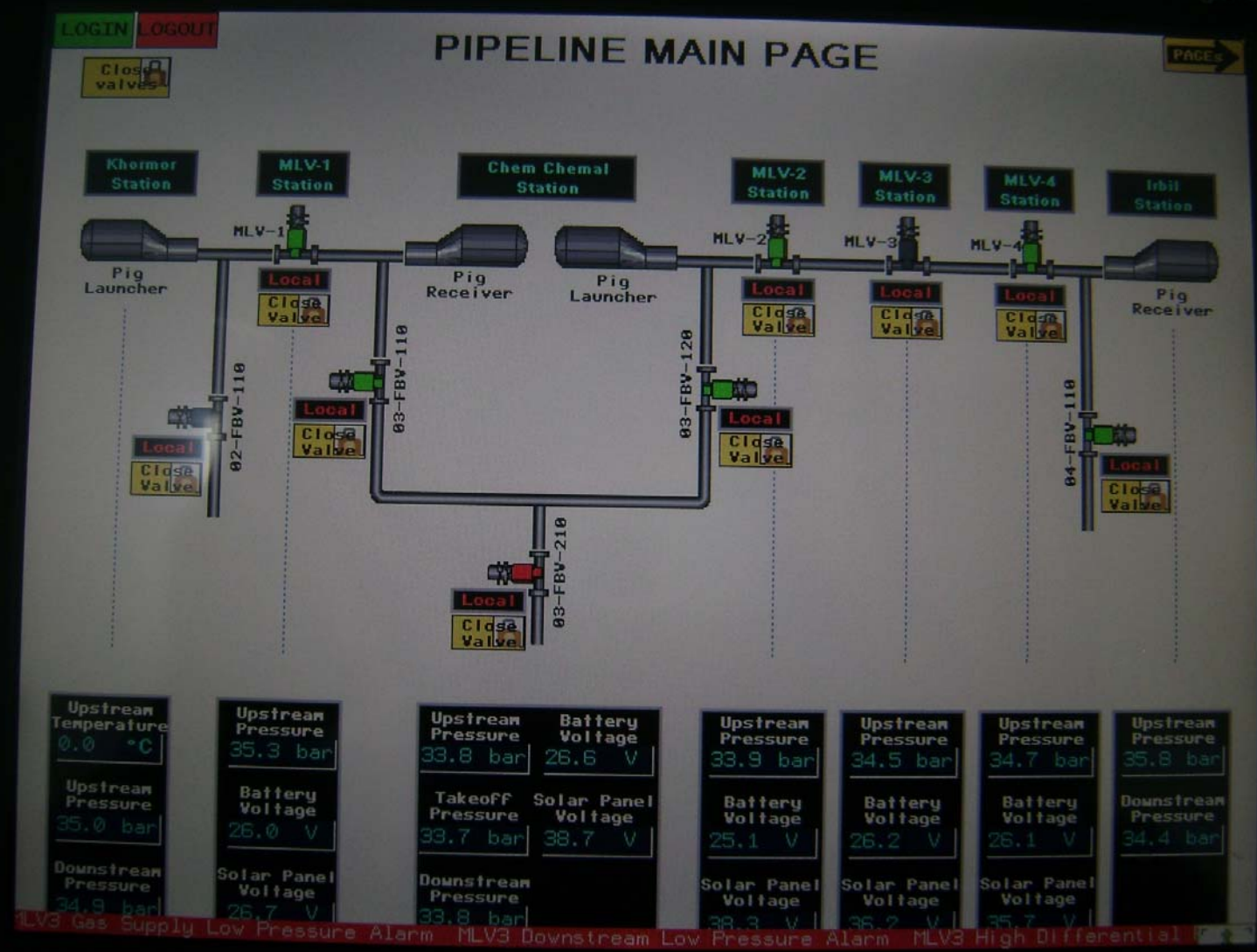
Prima
 Standby

Upstream Pressure	35.3 bar	Upstream Pressure	33.8 bar	Upstream Pressure	33.9 bar	Upstream Pressure	34.5 bar	Upstream Pressure	34.7 bar
Battery Voltage	26.97 V	Battery Voltage	26.62 V	Battery Voltage	25.17 V	Battery Voltage	26.23 V	Battery Voltage	26.11 V
Solar Panel Voltage	27.00 V	Downstream Pressure	33.9 bar	Solar Panel Voltage	38.47 V	Solar Panel Voltage	35.53 V	Solar Panel Voltage	36.12 V
MLV-1 VALVE STATION		Upstream Pressure	33.8 bar	MLV-2 VALVE STATION		Solar Panel Voltage	39.00 V	MLV-3 VALVE STATION	
		CHEMICAL VALVE STATION				MLV-4 VALVE STATION			

Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq



Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq



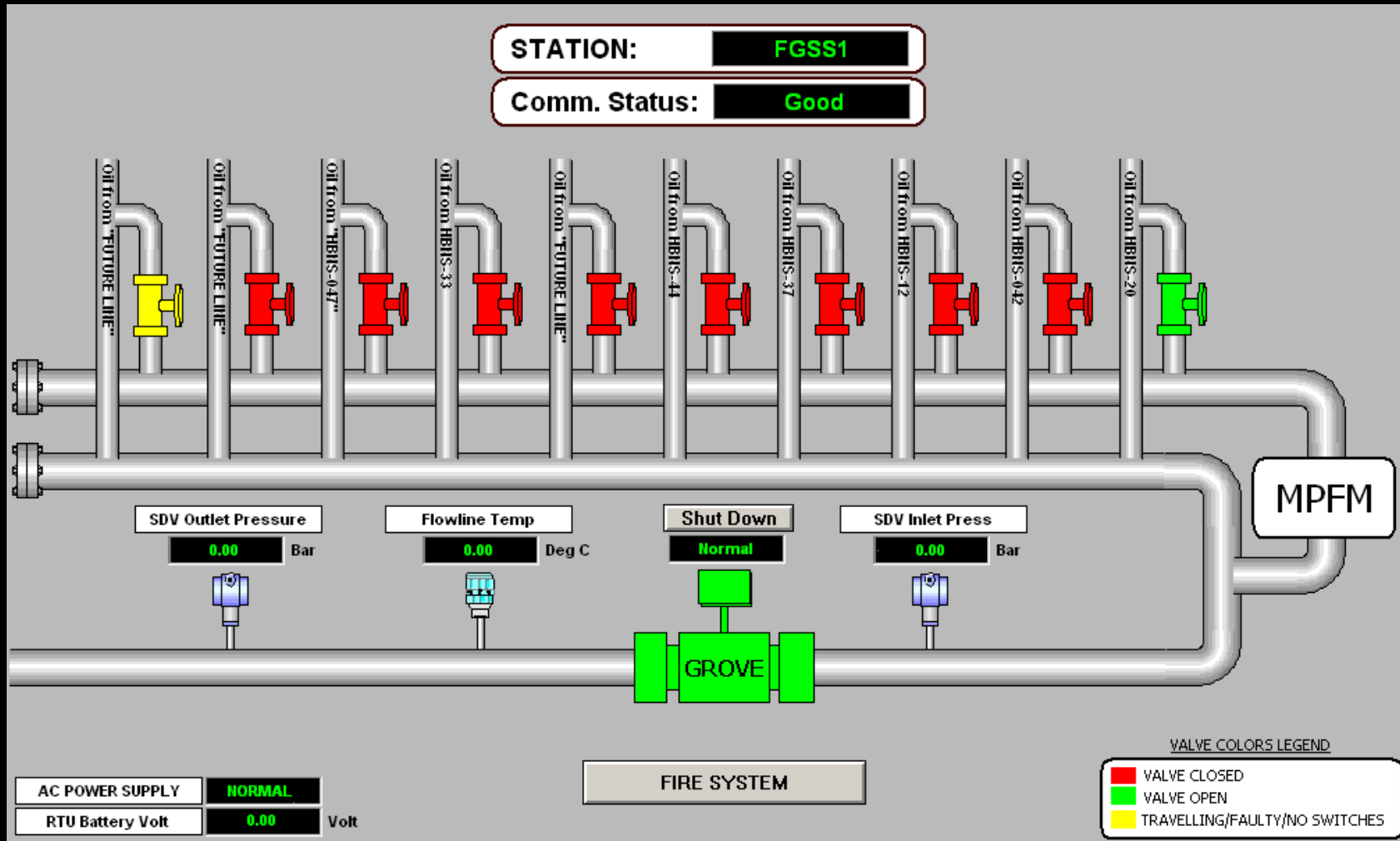
Crescent & Dana Gas Khormor LPG Pipeline SCADA System, Iraq

Techniques Magelis

PAGE 6

Date	Time	State	Message
18/06/09	23:01:33	ACK	Chmchml 03-FBV-210 High Differential Pressure Alarm
18/06/09	23:01:33	ACK	MLV1 Gas Supply Low Pressure alarm
18/06/09	23:01:33	ACK	MLV1 Downstream Low Pressure Alarm
22/06/09	20:37:39	ACTIVE	MLV4 Gas Supply Low Pressure Alarm
22/06/09	21:31:21	RTN	MLV3 High Differential Pressure Alarm
22/06/09	21:41:52	RTN	MLV3 Gas Supply Low Pressure Alarm
22/06/09	21:44:50	RTN	MLV3 Gas Supply Low Pressure Alarm
22/06/09	21:44:51	ACTIVE	MLV3 Gas Supply Low Pressure Alarm
22/06/09	22:13:23	ACTIVE	MLV3 Downstream Low Pressure Alarm
22/06/09	22:22:24	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:22:24	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:22:53	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:22:54	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:22:59	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:23:00	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:24:53	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:24:56	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:24:56	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:24:59	RTN	MLV3 High Differential Pressure Alarm
22/06/09	22:24:59	ACTIVE	MLV3 High Differential Pressure Alarm
23/06/09	00:15:50	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:17:33	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:17:34	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:17:34	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:17:35	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:17:35	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:19:03	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:19:05	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:19:06	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:19:07	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:20:12	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:20:27	RTN	MLV4 Downstream Low Pressure Alarm
23/06/09	00:20:27	ACTIVE	MLV4 Downstream Low Pressure Alarm
23/06/09	00:23:40	RTN	MLV4 High Differential Pressure Alarm

Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria



Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria

GAS LIFT

GL-FC Comm. Status	NORMAL	
Gas Lift Auto/Manual	AUTO	
GL - MicroMV PID Output	0.00	%
GL - RTU Viv Ctrl Output	0.00	%
GL - Line Pressure	0.00	Psig
GL - Line Temperature	0.00	Deg F
GL - Net Flow Rate	0.00	MCF
GL - Today Net Total	0.00	MCF
GL - Yesterday Net Total	0.00	MCF
GL - Cumulative Net Total	0.00	MCF

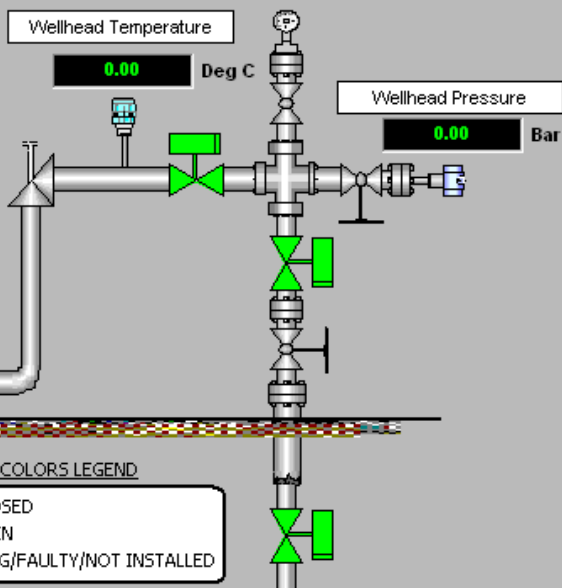
Station Name : HBNS-025
GB Name : HBNS-025

Comm. Status : Good

DILUTION WATER

DW-FC Comm. Status	NORMAL	
Dilution Water Auto/Manual	AUTO	
DW - MicroMV PID Out	0.00	%
DW - RTU Viv Ctrl Output	0.00	%
DW - Line Pressure	0.00	Psig
DW - Line Temperature	0.00	Deg F
DW - Net Flow Rate	0.00	BBL
DW - Today Net Total	0.00	BBL
DW - Yesterday Net Total	0.00	BBL
DW - Cumulative Net Total	0.00	BBL

Flowline Temperature	0.00	Deg C
Flowline Pressure	0.00	Bar



Wellhead Temperature	0.00	Deg C
Wellhead Pressure	0.00	Bar

RTU Battery Voltage	0.00	Volt
ESD/TSE Status	Normal	
Flowline Pressure Status	Normal	
Hydraulic Oil Pressure Status	Normal	

Shut Down
Normal

VALVE COLORS LEGEND

	VALVE CLOSED
	VALVE OPEN
	TRAVELLING/FAULTY/NOT INSTALLED

Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria

Station Name : HBNS-007

GB Name : HBNS-007

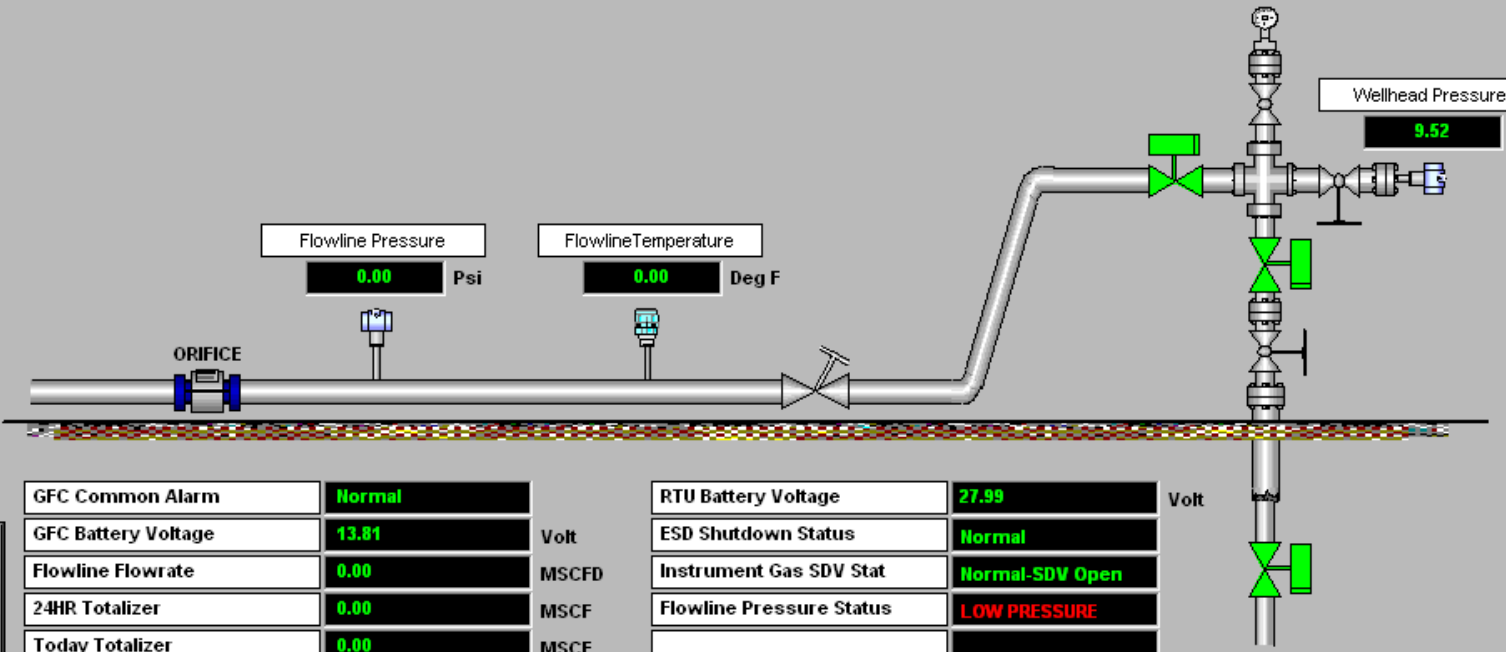
Comm. Status : Good

VALVE COLORS LEGEND

- VALVE CLOSED
- VALVE OPEN
- TRAVELLING/FAULTY/NOT INSTALLED

Shut Down

Normal



Flowline Pressure

0.00 Psi

Flowline Temperature

0.00 Deg F

Wellhead Pressure

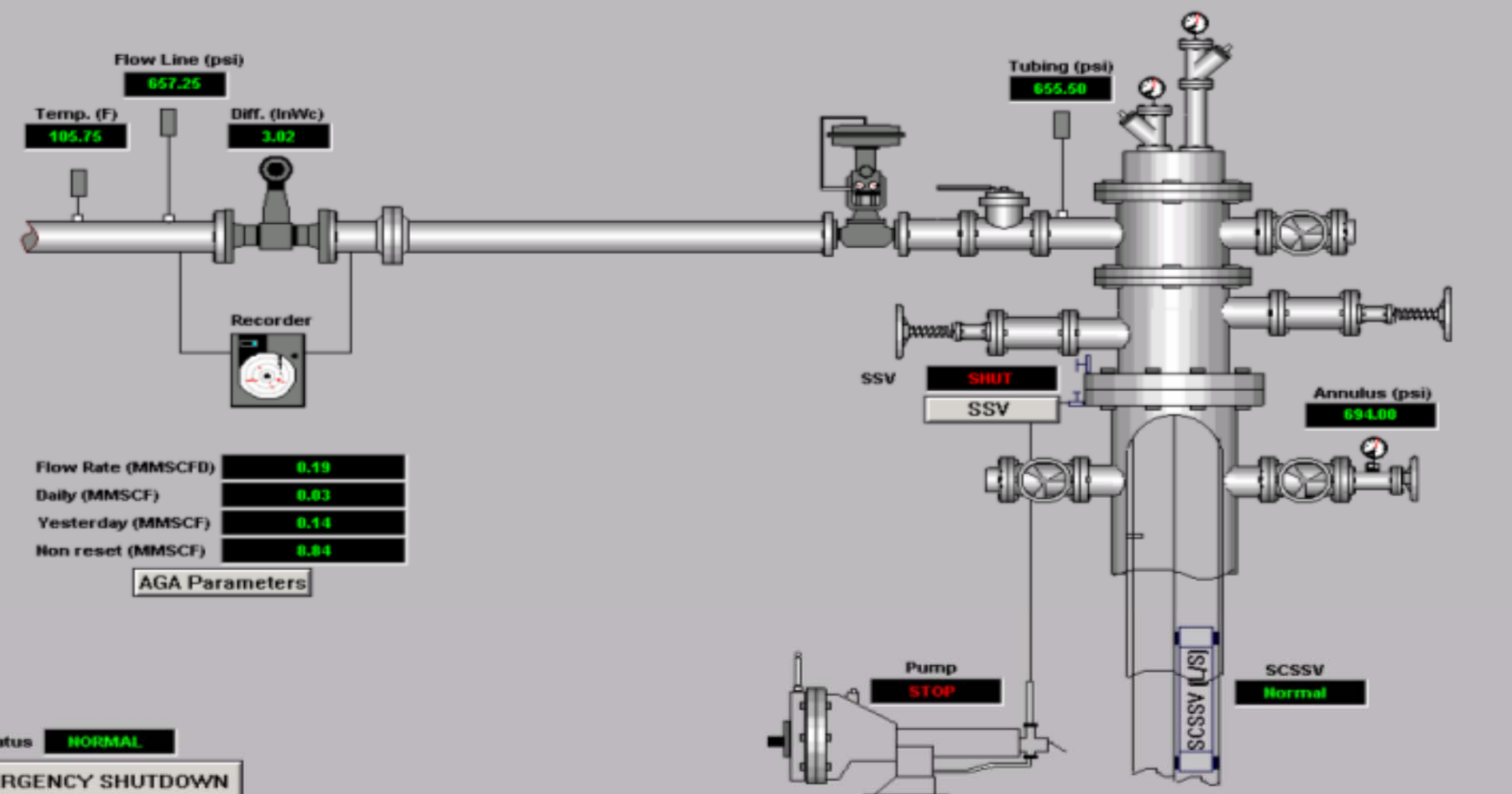
9.52 Bar

GFC		
GFC Common Alarm	Normal	
GFC Battery Voltage	13.81	Volt
Flowline Flowrate	0.00	MSCFD
24HR Totalizer	0.00	MSCF
Today Totalizer	0.00	MSCF
II-Reset Totalizer	0.00	MSCF

RTU Battery Voltage	27.99	Volt
ESD Shutdown Status	Normal	
Instrument Gas SDV Stat	Normal-SDV Open	
Flowline Pressure Status	LOW PRESSURE	

Hassi Berkine Oil&Gas Field/Pipeline SCADA System, Algeria

Well Station No.4



Flow Line (psi)
657.25

Temp. (F)
105.75

Diff. (InWc)
3.02

Recorder

Flow Rate (MMSCFD)
0.19

Daily (MMSCF)
0.03

Yesterday (MMSCF)
0.14

Non reset (MMSCF)
0.04

AGA Parameters

Tubing (psi)
655.50

SSV
SHUT

SSV

Annulus (psi)
694.00



SCSSV (L/S)
Normal

Pump
STOP

SD Status **NORMAL**

EMERGENCY SHUTDOWN

	Main Page	Log On/Off	Date	Time	Type	Cmt	Name	Val
05/05/2004	Station List	Report	05/05/04	19:37:34	DSC	Communication GOOD FAILED Stat	Comm_IOServer_Sta	Failed
7:38:02 PM	Communication	Utilities	05/05/04	19:37:33	DSC		MODE_PPE_STATUS	Down
administrator	Alarm	System Status	05/05/04	19:37:22	DSC	CI Pump Status	Well_8_XA_006	STOP
ADR-LAPTOP	Trending	Print Window	05/05/04	19:37:22	DSC	SSV Status	Well_8_XA_004	SHUT

PPE MODBUS

Sonatrach LR1 Pipeline SCADA System, Algeria

PIPELINE MAP



STATION NAME
UNIT 02

TAG	VALUE	EU
PT_3	0.00	

15/10/2007	Overview	Map	Log On/Off
2:47:07 PM	System Status	Trending	System Utility
None	Diagnostics	Report	Help
MOC_A	Alarm/Event	DCC Control	Last Window

Date	Time	Type	Name	Value	Comment
15/10/07	18:40:37	LO	BCC_MOC_STATUS_2	1	
15/10/07	18:41:45	HRH	BCC_STATUS	5	
15/10/07	18:41:44	LO	BCC_MOC_STATUS_1	1	
15/10/07	13:38:10	DSC	HOBE_RSLIBX_STATUS	Down	Status of OPCLink (1-Normal, 0-Do...
15/10/07	13:38:46	DSC	U39C_H12_EH	Fault	
15/10/07	13:38:46	DSC	U39C_H11_EH	Fault	
15/10/07	13:38:46	DSC	U38C_H22_EH	Fault	

POLLER_A

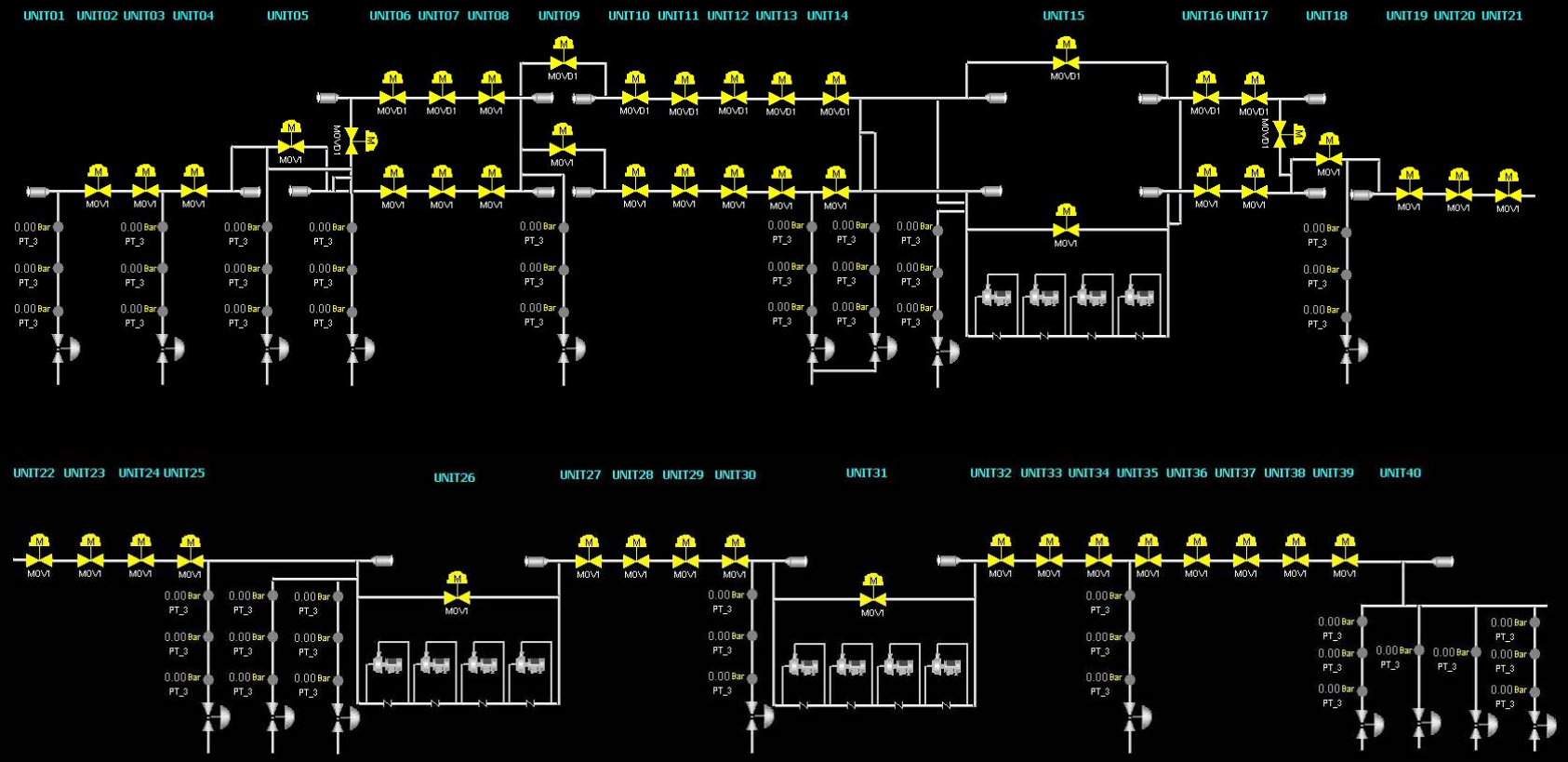
None

OPCLink INSOL



Sonatrach LR1 Pipeline SCADA System, Algeria

PIPELINE OVERVIEW



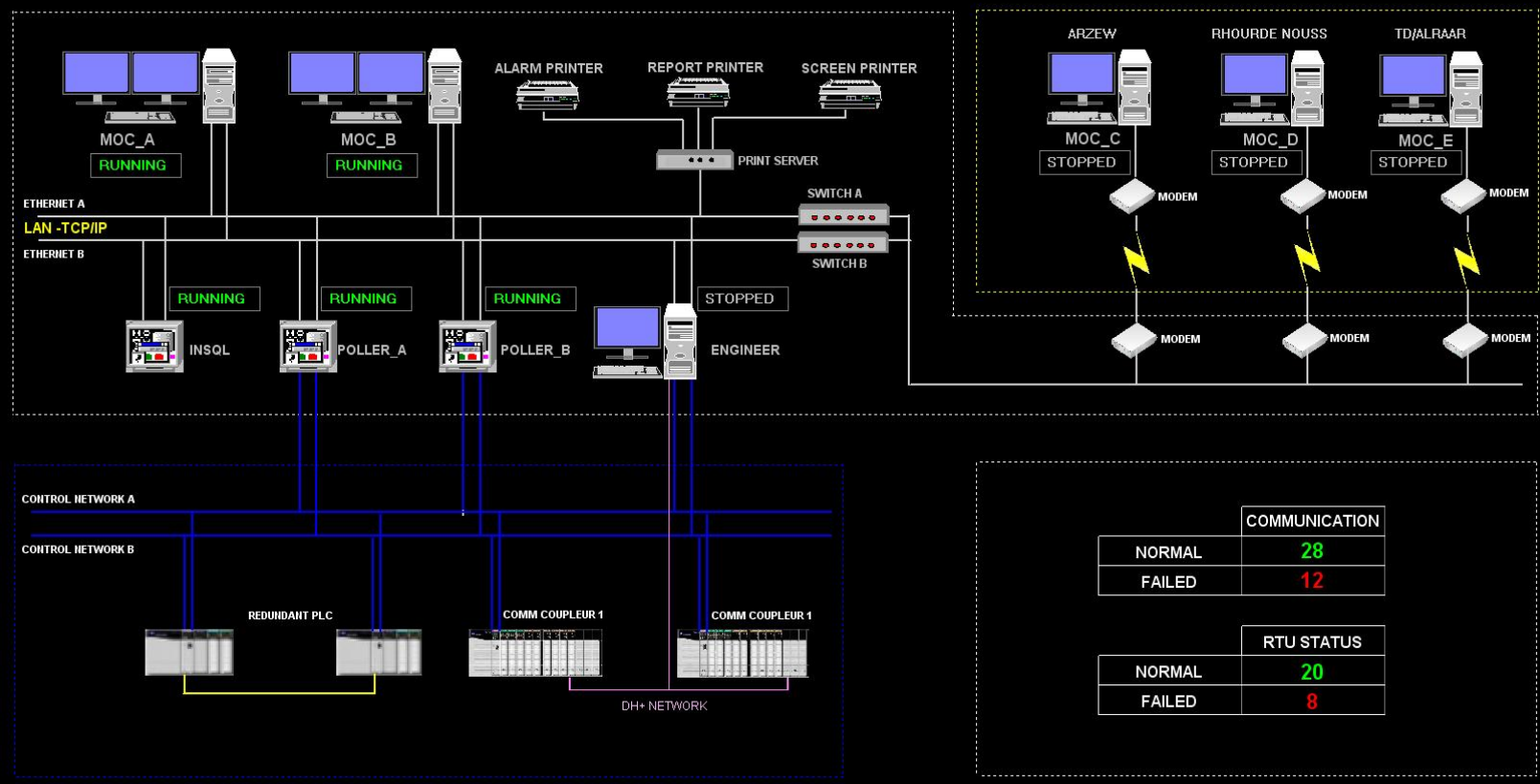
15/10/2007	Overview	Map	Log On/Off
2:42:52 PM	System Status	Trending	System Utility
None	Diagnostics	Report	Help
MOC_A	Alarm/Event	DCC Control	Last Window

Date	Time	Type	Name	Value	Comment
15/10/07	18:40:37	LO	BCC_MOC_STATUS_2	1	
15/10/07	18:41:45	IBBB	BCC_STATUS	5	
15/10/07	18:41:44	LO	BCC_MOC_STATUS_1	1	
15/10/07	13:40:10	DSC	NOBE_RSLINK_STATUS	Down	Status of OPCLink (1-Normal, 0-Do...
15/10/07	13:38:46	DSC	U39C_H12_EH	Fault	
15/10/07	13:38:46	DSC	U39C_H11_EH	Fault	
15/10/07	13:38:46	DSC	U38C_H22_EH	Fault	

POLLER_A
 None
 OPCLink INSOL

Sonatrach LR1 Pipeline SCADA System, Algeria

TOPOLOGY AND NETWORK STATUS



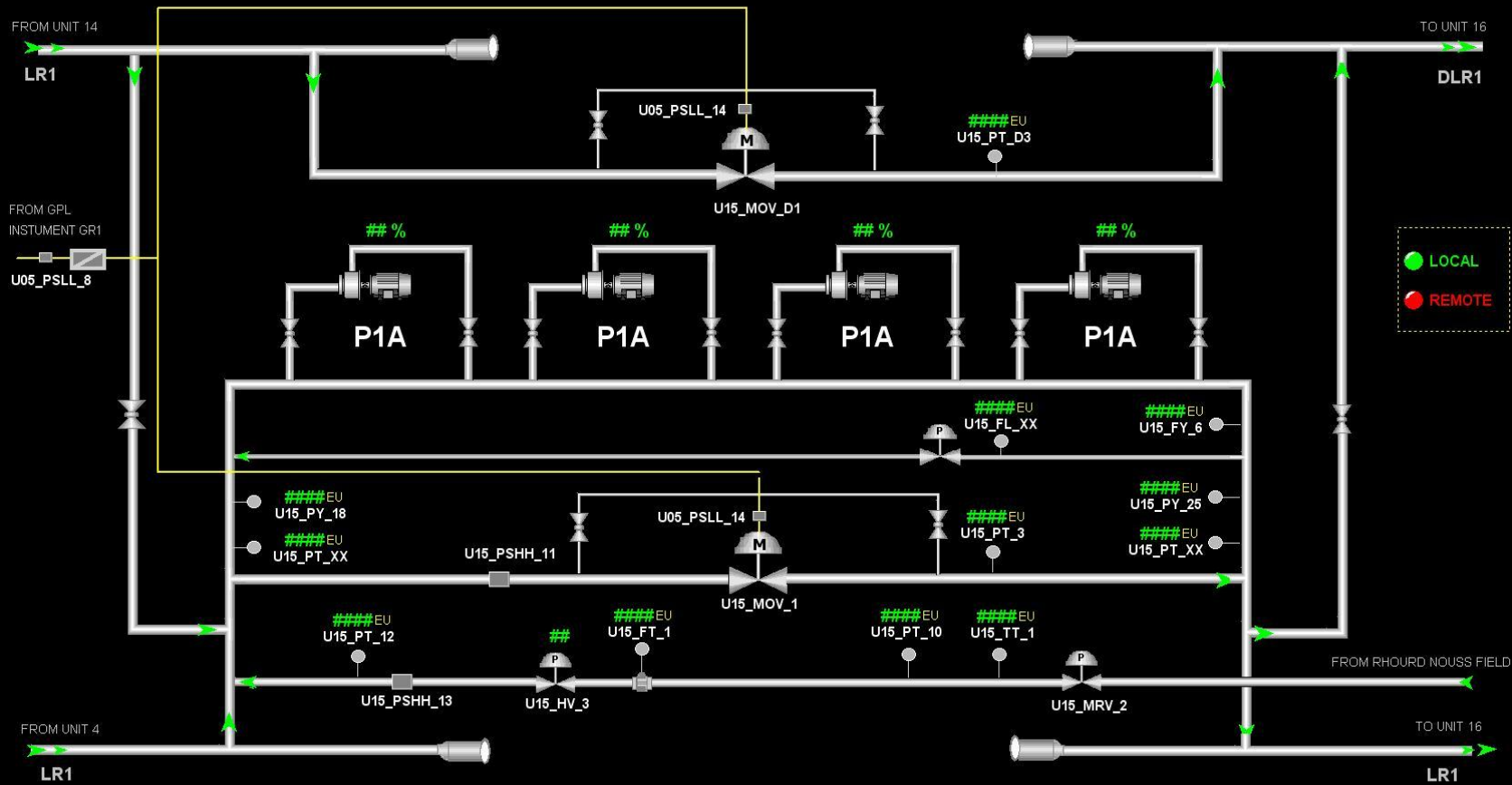
COMMUNICATION	
NORMAL	28
FAILED	12

RTU STATUS	
NORMAL	20
FAILED	8

15/10/2007	Overview	Map	Log On/Off	Date	Time	Type	Name	Value	Comment	POLLER_A None OPCLink INSQL
2:47:37 PM	System Status	Trending	System Utility	15/10/07	14:47:37	LO	DCC_MOC_STATUS_2	1		
None	Diagnostics	Report	Help	15/10/07	14:41:45	HHH	DCC_STATUS	5		
MOC_A	Alarm/Event	DCC Control	Last Window	15/10/07	14:41:44	LO	DCC_MOC_STATUS_1	1		
				15/10/07	13:40:10	DSC	MODE_RSLINK_STATUS	Down	Status of OPCLink (1-Normal, 0-Do...	
				15/10/07	13:39:46	DSC	U39C_I12_EH	Fault		

Sonatrach LR1 Pipeline SCADA System, Algeria

UNIT 15 COMMUNICATION NORMAL

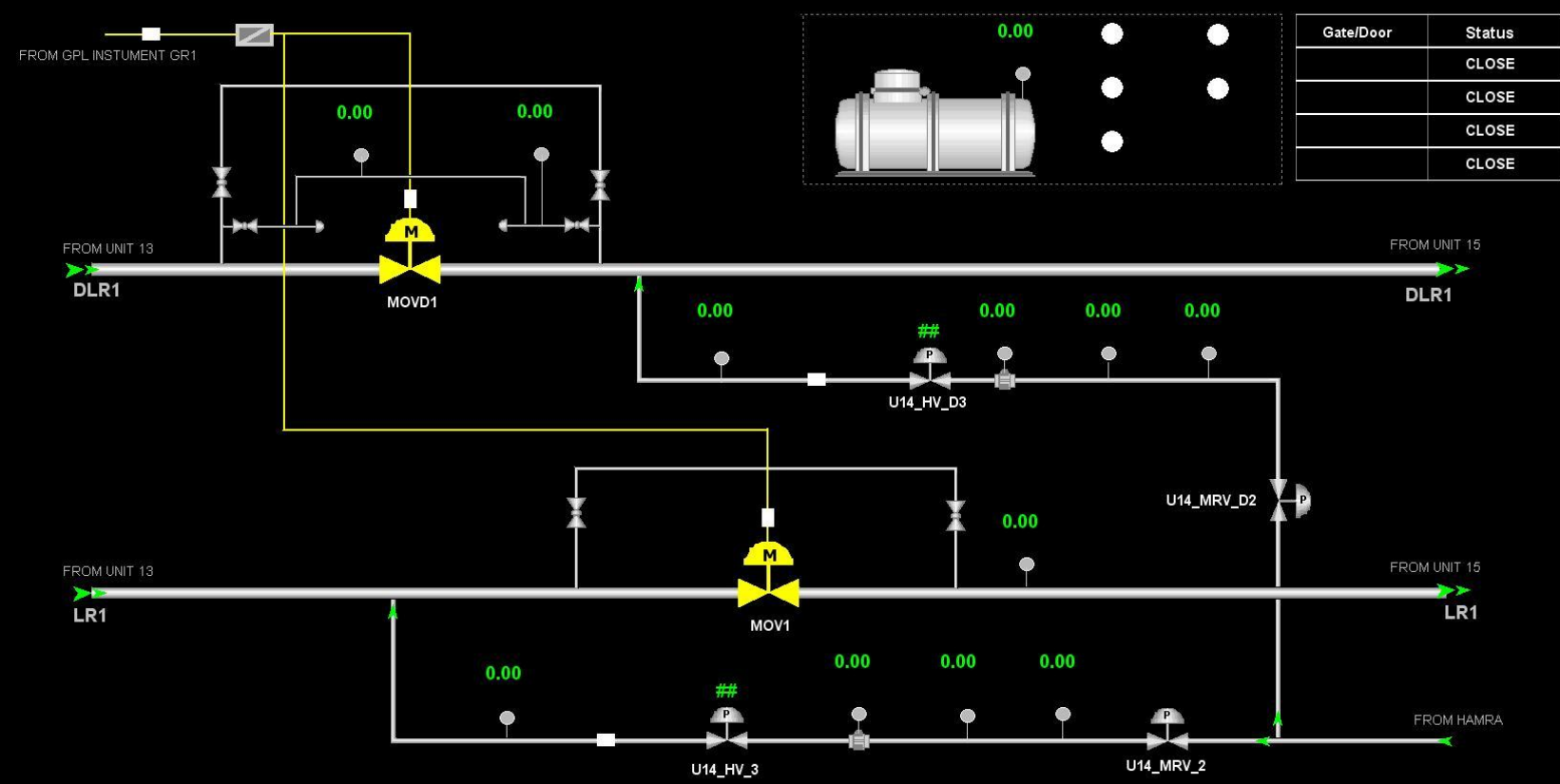


15/10/2007	Overview	Map	Log On/Off	Date	Time	Type	Name	Value	Comment
2:53:55 PM	System Status	Trending	System Utility	15/10/07	18:42:37	LO	DCC_MOC_STATUS_2	1	
operator	Diagnostics	Report	Help	15/10/07	13:38:10	DSC	NODE_RSLINK_STATUS	Down	Status of OPCLink (1-Normal, 0-Do...
MOC_A	Alarm/Event	DCC Control	Last Window	15/10/07	13:39:46	DSC	U39C_IH12_EH	Fault	
				15/10/07	13:39:46	DSC	U39C_IH11_EH	Fault	
				15/10/07	13:39:46	DSC	U39C_IH22_EH	Fault	
				15/10/07	13:39:46	DSC	U39C_IH21_EH	Fault	
				15/10/07	13:39:46	DSC	U37C_IH12_EH	Fault	

POLLER A
MOC_A
OPCLink INSOL

Sonatrach LR1 Pipeline SCADA System, Algeria

UNIT 14 COMMUNICATION NORMAL

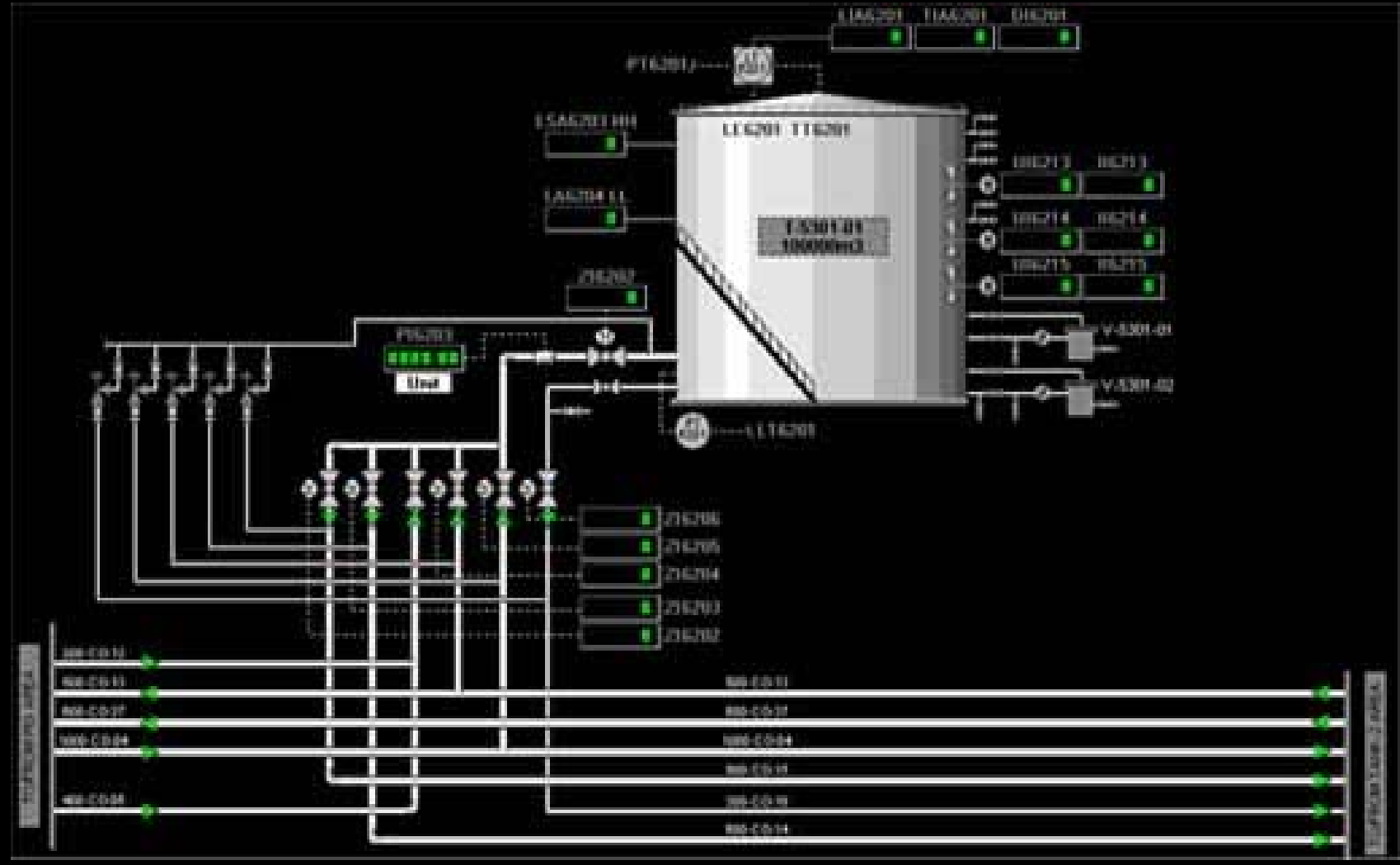


15/10/2007	Overview	Map	Log On/Off
2:56:55 PM	System Status	Trending	System Utility
None	Diagnostics	Report	Help
MOC_A	Alarm/Event	DCC Control	Last Window

Date	Time	Type	Name	Value	Comment
15/10/07	14:58:42	NRN	DCC_STATUS	0	
15/10/07	14:58:42	LO	DCC_MOC_STATUS_1	1	
15/10/07	14:42:37	LO	DCC_MOC_STATUS_2	1	
15/10/07	13:40:10	DSC	NODE_RSLINK_STATUS	Down	Status of OPCLink (1-Normal, 0-Do...
15/10/07	13:39:46	DSC	U39C_H12_EH	Fault	
15/10/07	13:39:46	DSC	U39C_H11_EH	Fault	
15/10/07	13:39:46	DSC	U38C_H22_EH	Fault	


POLLER A
None
OPCLink INSOL

Huade Petrochemical Oil Storage Field SCADA System, China



Huade Petrochemical Oil Storage Field SCADA System, China

COMMUNICATIONS GATEWAY



REDUNDANT MAIN PLC SYSTEM



SYSTEM STATUS	
OPCLINK STATUS:	0.00
RSLINK LINK STATUS:	0.00
GATEWAY STATUS	
CNBR MODULE STATUS:	0.00000000
CNBR FAULTCODE:	0.00000000
CNBR FAULT INFO:	0.00000000
ENET MODULE-1 STATUS:	0.00000000
ENET-1 FAULT CODE:	0.00000000
ENET-1 FAULT INFO:	0.00000000
ENET MODULE-2 STATUS:	0.00000000
ENET-2 FAULT CODE:	0.00000000
ENET-2 FAULT INFO:	0.00000000

CONTROLLER STATUS	
DEVICE TYPE:	0.00000000
SERIAL NUMBER:	0.00000000
REVISION:	0.00000000
CONTROLLER STATUS:	0.00000000
FAULT STATUS:	0.00000000
CNBR MODULE STATUS:	0.00000000
CNBR FAULT CODE:	0.00000000
CNBR FAULT INFO:	0.00000000

REDUNDANCY STATUS	
CHASSIS STATUS:	0.00
MODULE STATUS:	0.00
PHYSICAL ID:	0.00
QUALIF. PROGRESS:	0.00

NETWORK SCREEN