

Project / End-user	Purchaser	Location	FY	Scope of works	Nature of job
TRACK RECORD - PROCESS & EQUIPMENT PACKAGES					
Laticrete Singapore Grouting And Waterproof Material Production Plant Liquid Latex Production Process Upgrade	Laticrete Singapore	Singapore	2003	EPC Siemens PLC based automated batch processing with touch screen MMI for liquid production processes upgrading	Instrumentation PLC modification
Chemical Process Training Centre Kerosene Distillation Unit	CPTC Economic Development Board – Nanyang Polytechnic	Singapore	2003	Mechanical completion, SAT, precommissioning and commissioning for process and instrumentation including Honeywell DCS Training	Utilities such as steam, fuel systems, cooling water, storage tanks, hot oil heating. gas compressor Kerosene distillation columns Flare Waste water
AVA & AAB Platform Switchgear Room HVAC & Pressurisation System Arco, Indonesia	PT McDermott Indonesia	Java Sea	1989	Design & supply Technical support Commissioning of installation at yard & offshore	Air conditioning and Pressurisation unit
Nalco Singapore	Various end-users	Singapore	1989 to 1995	Design & supply	Chemical injection pump skids (approx. 15 sets per year)
24 Nos Of Test Separator Instrument Installation And Mechanical Completion Works Unocal, Thailand	Sembawang Engineering	Thailand	1989 to 1992	Installation and testing Provision of fabricated steels And bulk materials Acceptance test procedures	Instrumentation
Luizhou Hz-28-1 Glycol Dehydration Package Agip, Chevron, Texaco	NATCO international McDermott S.E.A.	China	1990	Installation, calibration Testing all electrical & instrumentation Provide steel items and bulk materials	Instrumentation Electric heat tracing
Satellite Well Test Modules Skid Mounted Instrument Installation And Mechanical Completion Works Brunei Shell Petroleum	Sembawang Engineering	Brunei	1991	Supply of bulk material Fabricated items Installation Calibration & testing	Instrumentation Fire and gas detection

EPMI's Glycol Regeneration Package Instrumentation Works Esso Production Malaysia Inc	NATCO international	China	1992	Installation, calibration Testing all electrical & instrumentation Provide steel items and bulk materials Receipt and storage of free issue Material	Instrumentation Fire & gas detection Electrical
Glycol Dehydration Package	Sembawang Engineering	Singapore	1992	Replacement and reinstatement of	Instrumentation
Instrument Repair Work	OPC international			Cable supports	Electrical
Esso Prod. Malaysia Inc, Malaysia					Fire & gas detection
BZ - 28 – 1	NATCO international	China	1992	Installation, calibration	Fuel gas conditioning,
Process Packages				Hook-up and function	Production sep.,
Bohai Oil Corp., China				Testing	Test sep.
					Surge vessel
WZ - 11	NATCO international	China	1992	Fabrication, installation, calibration	Bath heater
Process Packages				Design engineering	Test separator
NHWOC., China				Hook-up and function	Production sep.
				Testing	Main line pumps
Ozone Generator	Ozone generators	Singapore	1989	Fabrication, assemblies, tested	Unit engineering &
Palm Oil Refineries In Malaysia				Analysis and measurement of	Fabrication
	Patented design			Ozone gas output	
				Detail instrument & electrical	
Nitrogen Metering Station	Yokogawa Asia	Singapore	1992	Supply and installation of piping and	nitrogen metering station
Natsteel, Singapore				Instrument bulk materials	
				Commissioning	
Petrobras	NATCO international	Singapore	1992	Supply materials	2 production separator
Semi-Submersible Xviii	SEPL			Construction	1 test separator
Skid Mounted Process Equipment				Labour & tools	1 glycol contactor
(10 Skids)				Test equipment	1 glycol regenerator
Petrobras, Brazil				Acceptance/calibration/loop test	2 production heaters
				Detailed instrument and electrical design	1 test heater

Petrobras Semi Submersible Xviii Instrument And Electrical Engineering For Process; Production Equipment Production Separators, Test Separator Glycol Dehydration Process Heaters Petrobras, Brazil	NATCO international	Singapore	1992	Instrument specification Requisition specification Verification of vendors Documents and calculation Selection Detailed engineering Instrument hook-up Cable schedule Safety analysis Etc.	engineering design
Glycol Regeneration Package Instrument Work Brunei Shell, Indonesia	NATCO international	Singapore	1992	Supply, design fabricate and Shop testing	1 glycol regenerator Instrumentation
Fine Coarse Filter Packages Instrument Work Caltex, Indonesia	Baker Hughes	Indonesia	1993	Supply of material, hook-up and And testing	24 filter packages Instrumentation
Horizontal Filter Packages Instrument Work Caltex, Indonesia	Baker Hughes	Indonesia	1993	Supply of material Hook-up and testing	Instrumentation
Induced Static Flotation Skid Enhancement Works Caltex, Indonesia	Baker Hughes	Singapore	1993	Supply, design fabricate and Shop testing, including PLC and	Engineering / modification Instrumentation
Induced Static Flotation Packages (2 Nos) Electrical & Instrument Works Thai Oil, Thailand	Baker Hughes	Singapore	1993	Procurement & install	Engineering / modification Instrumentation Electrical
Fine Filter Packages (2 Nos) Caltex, Indonesia	baker Hughes	Singapore	1992	Supply, design fabricate and Shop testing	Installation works and Function testing
Horizontal Pump Test Bench	Reda pump	Singapore	1994	Supply, design fabricate and	Control panel

Reda Pump, Singapore				Shop testing, including PLC and Pump testing software	System integration Software development
				Bench modification	
				Metering manifold	
Induced Static Flotation Packages (2 Package) Baker Hughes, Usa	baker Hughes	Singapore	1993	Procurement & install	Instrumentation
Sludge Dewatering Panel Mobil Oil Singapore	baker Hughes	Singapore	1994	Design, procurement & install Including PLC in Nema 4x enclosure	Control panel
Depurator 1 + 1 Control Panel And Skid Hook-Up Pertamina, Indonesia	baker Hughes	Singapore	1994	Design, procurement & install	Instrumentation
Act 32-3/33-3 Process Packages Agip/Chevron/Texaco, Usa	Lanzhou oil corporation	Singapore	1994	Installation works	Instrumentation Electric heat trace
Act 32-2 Hydrocyclone Package Agip/Chevron/Texaco, Usa	Sembawang Engineering	Singapore	1994	Supply of material Design Installation	Instrumentation Electric heat trace
Process Packages For Aromatic Plant Singapore Aromatics Company	Forster wheeler/ Applied engineering	Singapore	1995	Procurement & install And mechanical completion test	Instrumentation Electrical Total 14 vessels
Process Modules Flare K.O. Vessels	NATCO	Singapore	1995	Procurement & install And mechanical completion test	Instrumentation Electrical Process heating
Shell Todd, New Zealand Woodlands Grease Treatment	Sembawang Engineering	Singapore	1997	Food grease and solid treatment And BOD control	Fire & gas detection Erection work Startup
Jurong Town Corp, Singapore Process Package Seal Oil Module Shell Eastern,	Toe	Singapore	1997	Procurement & install And mechanical completion test	Instrumentation Electrical Process heating

					Fire & gas detection
Floating, Production Storage & Offloading Vessel	Gusto Engineering	Singapore	1998	Supply of material	Piping
				Design	Electrical
				Installation	Instrument
Japan Vietnam Petroleum Company, Ltd					
Geothermal Steam Transmission Pertamina, Indonesia	Pertamina	Indonesia	1998	EPC turnkey project	Process
				Including separation, scrubber	Civil
				Pipeline transportation	Mechanical
				Brine treatment	Electrical
					Instrumentation
Glycol Dehydration Package Chevron's Angola Kuito Field Kuito Field Project	Frames process	Singapore	1999	Supply of material	Instrumentation
				Design	Electrical
				Installation	Process heating
				For electrical , instrument	
Floating, Production Storage & Offloading Vessel Process Modules Chevron's Angola Kuito Field	Single buoy moorings, inc	Singapore	1999	Supply of material	Separation modules
				Design	
				Installation	
				For electrical , instrument	
Water Injection Fine Filters Sbm / Petrobras Espardarte Fpso (Marlin Field Project)	Us filter	Singapore	1999	Supply of material	Instrumentation
				Design	Electrical
				Installation	
				For electrical , instrument	
Glycol Dehydration Package Petrobras P40 FPSO	Baker process	Singapore	1999	Supply of material	Instrumentation
				Design	Electrical
				Installation	Process heating
				For electrical , instrument	
Separation Module Petrobras P40 FPSO	Baker process	Singapore	1999	Supply of material	Instrumentation
				Design	Electrical
				Installation	Process heating

				For electrical , instrument	
Gas Compressor Packages Conoco Syria Dezgas Project	Weatherford	Singapore	2000	Supply of material Design Installation For electrical , instrument	Instrumentation Electrical Process heating
Water Flood Bmf Filtration Units Chevron Bechamas Project, Thailand	Esco	Batam	2000	Package modifications	
Gas Compressor Packages Shengli Field Gas Project		Singapore	2000	Supply of material Design Installation For electrical , instrument	Instrumentation Electrical Process heating
Corrosion Inhibition Skid Brunei Shell Petroleum		Brunei	2000	Total skid package supply Including tankage, h p injection Pumps and metering	Multidiscipline
White Tiger Central Processing Platform Instrument And Electrical Engineering For Process Production Equipment Vietsovetro, Vietnam	Jurong Engineering ltd	Singapore	2001	Instrument specification Requisition specification Verification of vendors Documents and calculation Selection Detailed engineering Instrument hook-up Cable schedule Safety analysis Electrical heat trace	engineering design Process packages are Crude heating package Pilot gas package Fuel gas conditioning package
Water Flood Package Chevron Pogo Bechamas	Thailand / Indonesia	Thailand	2002	Specification refurbishment Modification on backwashable Micro filtration package	Backwashable microfiltration Package (ESCO BMF)
Water Injection Fine Filters Balal Field	Baker process	Singapore	2001	Supply of material Design	Instrumentation Electrical



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Iran				Installation	
				For electrical , instrument	
Water Flood Package	Vietnam / Indonesia		2003	Micro filtration package (BMF type)	Backwashable microfiltration skid
Jvpc Rang Dong				80,000 bwpd	Ultrafiltration skid
					Backwash air receiver skid
					Coarse filtration skid

TRACK RECORD - MAINTENANCE CONTRACT

White tiger central processing Platform	Baker process	Singapore	2001	Instrument specification	engineering design
Instrument and electrical Engineering for process				Requisition specification	
Production equipment				verification of vendors documents and calculation	Process packages are Produced water treatment
Vietsovetro, Vietnam				selection	Es coalescer + drum (2 sets)
				detailed engineering	Degassers (2 nos)
				instrument hook-up	Hydrocyclones (2 nos)
				cable schedule	
				safety analysis	
				Electrical heat trace	
Water flood package	Esco	Thailand	2001	Specification refurbishment	Backwashable microfiltration
Chevron Pogo Bechamas				Modification on backwashable	Package (ESCO BMF)
Water flood package				Micro filtration package	
JVPC Rang Dong water flood		Vietnam	2003	Specification refurbishment	Backwashable microfiltration
				Modification on backwashable	Package (ESCO BMF)
				Micro filtration package	
Luihua 11-1 dehydration (desalter) And degassing package	Sembawang Engineering	Singapore	1994	Supply of material	Instrumentation
Amoco, USA				Design	Electrical
				Installation	
Teleplatform crane and Interlocking aircraft	Shepard Niles, USA	Singapore	1994 to 1996	maintenance, minor repairs, including PLC	maintenance contract
Hanger crane					
Sasco, Singapore					
Fm200 fire suppression system	Fike, USA	Singapore	1994 to 1996	testing and maintenance	maintenance contract
Ministry of defence, Singapore					
Variable speed HVAC chiller	Newark	Singapore	1994 to 1995	testing and maintenance	Maintenance
Hewlett package, Singapore					

TRACK RECORD - SITE SERVICES

DCS maintenance	Bohai oil co.	china	1993	maintenance and parts replacement	Taylor mod 300
Bohai oil., china					
Waste treatment plant/flare	Mobil Oil Singapore	Singapore	1996	Plant maintenance	Maintenance routine
Mobil oil					
Ulu Pandan sewerage.	Ministry of Environment	Singapore	1999	Plant maintenance	Odour treatment facilities
Treatment works					
Ministry of the environment					
Kim Chuan sewerage	Ministry of Environment	Singapore	2000	Plant maintenance	Liquid stream treatment
Treatment works					
Ministry of the environment					
Chemical injection pumps	Nalco	Singapore	1992	Nema 4x control panel	Chemical injection
Nalco, Singapore					
CPTC (kerosene distillation unit)	CPTC	Singapore	2003		
CPTC, Singapore					
Waste water treatment plant	Eastman Singapore	Singapore	1997	Engineering consulting service	Filtration, settling, bio-treatment
Eastman chemical, Singapore				For control and electrical implementation	
Brunei Shell Petroleum glycol regen	NATCO Japan	Brunei	2003	Process troubleshooting of burner system	Burner
Air product nitrogen generation	Vietsovetro	Vietnam	2004	Startup and commissioning	Membrane nitrogen generator
Unocal West Seno	NATCO Japan	Indonesia	2003	Startup and commissioning	Glycol dehydration system

TRACK RECORD - PANEL FABRICATION

Glycol regeneration Agip/Chevron/Texaco, USA	NATCO	Singapore	1993	Regeneration control panel	Heater control panel
Cement terminal Nge, Singapore	Natsteel Engineering	Singapore	1993	Silo control panel Debugging control panel	Incorporating siemens PLC Motor control centres
Horizontal pump test bench Console Reda pump, Singapore	Reda pump	Singapore	1993	Pump test console with pc	Pump performance / qc Verification system Windows base data acquisition System
Edible oil refinery revamp PT KDRA edible oil refinery	PT KDRA	Singapore / Indonesia	1993	Control panels with hot back up PLCs In distr. I/O config	Control panel Siemens PLC (250 i/o) Mimic displays Fix dmacs mna machine interface
Air separation plant National Oxygen Singapore	National Oxygen Singapore	Singapore / Indonesia	1993	Control panels with PLC Anti-surge	Control panel Siemens PLC (250 i/o) Mimic displays
Thailand Unocal Unocal, Thailand	Unocal	Singapore	1993	Test separator shutdown panel	Pneumatic operated shutdown panel 20 sets
Minas field Caltex, Indonesia	Baker Hughes	Singapore	1993	Supply of 16 Nema 4x filter control Panel	Local controls
Induced static flotation unit Baker Hughes, USA	Baker Hughes	Singapore	1993	Air-purge enclosure type z for Transformer unit	Hazardous area application
Sludge dewatering panel Mobil oil, Singapore	baker Hughes	Singapore	1994	design, procurement & install including PLC in Nema 4x	Control panel Siemens PLC

				Enclosure	
Edible oil refinery PT Sinar Mas edible oil refinery	PT Sinar Mas	Singapore/ Indonesia	1994	Control panels with hot back up PLCs In distr. I/o config.	Control panel Siemens PLC (220 i/0) Mimic displays
Edible oil refinery PT Asa Abadi edible oil refinery	PT Asa Abadi	Singapore/ Indonesia	1994	Control panels with hot back up PLCs In distr. I/o config.	Control panel Siemens PLC (220 i/0) Mimic displays Fix dmacs mna machine interface
Return activated sludge Mobil oil, Singapore	Baker Hughes	Singapore	1994	Design, procurement & install	Pump seq. Control panel Siemens PLC Field instrument (do)/level
Pre-evaporation complex Saigon petrol, Vietnam	Sembawang Engineering	Singapore	1994	Alarm panel	Crude distillation alarm panel
Power barge East power, Phillipines	Van der horst	Singapore	1994	Electrical heat trace control panel	Temperature monitoring panel
Belt filter press Mobil oil, Singapore	Baker Hughes	Singapore	1994	Design, procurement & install Including PLC in Nema 4x Enclosure	Control panel Allen Bradley PLC
Edible oil refinery PT Sinar Mas edible oil refinery	PT Sinar Mas	Singapore/ Indonesia	1995	Control panels with hot back up PLCs In distr. I/o config.	Control panel Siemens PLC (140 i/0) Mimic displays
Islandwide telemetry phase 1 National Oxygen Singapore	National Oxygen Singapore	Singapore/ Indonesia	1995	SCADA, MMI, panels, VDU's Dial up modem Hot backup PLC	Control panel Siemens PLC (250 i/0) Mimic displays Fix DMACS MNA machine interface

Irrigation project	Parks & recreation dept	Singapore	1995	PLC panels and MMI	Control panel
Public works department				In distr. I/o config.	Siemens PLC (300 i/0)
Parks & recreation dept.					Mimic displays
Crude debottlenecking	Baker Hughes	Singapore	1995	Design, procurement & install	Heater panel
Exp-300				Type z air purge	
Mobil oil, Singapore				Enclosure	
Lube base plant project	Toyo Engineering	Singapore	1996	Design, procurement & install	Heater panel (4nos)
				Type z air purge enclosure	Compressor panels (6)
Mobil oil, Singapore					
Woodlands grease treatment	Sembawang Engineering	Singapore	1997	Design, procurement, fabricate, test	Instrumentation control panel
Jurong town corp., Singapore					
Woodlands grease treatment	Sembawang Engineering	Singapore	1997	Design, procurement, fabricate, test	Electrical panel
Jurong town corp.					
Tachibana wan project	FMC Corporation	Singapore	1998	Design, supply, fabricate	Control panel
Electric power dev corp.,				And shop test	Travelling water screen (8sets)
Japan					Ancillary
					Touchscreen mimic
Tachibana wan project	Us filter	Singapore	1999	Design, supply, fabricate	Control panel
Electric power dev corp.,				And shop test	Travelling water screen (8sets)
Japan					Ancillary
					Touchscreen mimic
Geothermal steam transmission	Pertamina	Indonesia	1999	Design, supply, fabricate	Control panel
Pertamina, Indonesia				And shop test	Geothermal steam / brine separation
Soxal hydrogen plant	Soxal, Singapore	Singapore	2000	Design, procurement, fabricate	Hydrogen compressor panel
Singapore				And test	Ex-proof



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LaTourette Singapore	LaTourette Singapore	Singapore	2001	Design, procurement, fabricate And test	Bulk handling & mixing panel Siemens PLC with MMI
Singapore					
LaTourette shanghai	Laticrete shanghai	Singapore	2002	Design, procurement, fabricate And test	Bulk handling & mixing panel Siemens PLC with MMI Motor controls

STARTUP SERVICES

Unocal, West Seno		Indonesia	2003	Gas dehydration package	Glycol regeneration and Contactor
CPTC KDU		Singapore	2003	Utilities, hot oil heating Kerosene distillation Flare and waste water	Fired heater, BMS, kerosene Distillation, storage
Pertamina lahendong, Sulawesi		Indonesia	2001	Geothermal process	Muffling, silencing, Separators, pipeline Brine handling Steam conditioning
Bechamas,		Thailand	2001	Water flood package	Water flood package
Mobil oil Singapore		Singapore	1999	Waste water treatment plant	Settling, aerators, clarifiers, pumps, belt press, polymer feed
Mobil oil Singapore		Singapore	1998	CDU debottlenecking	Crude distillation system Fired heaters, vessels
Ministry of the environment		Singapore	1997	Flue gas cleaning system	Id fans Electrostatic precipitators Chemical dosing DCS



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Agip Chevron & Texaco, act 21-1		China	1991	Production platform	Utilities & facilities
					LQ & HVAC
					PF crane
					Compressor
					Gensets
					Precom process test, prod
					Separator, gas dehydrators,
					Wellheads, drill rig