Hands-On Control Valve Hydraulics, Operations, Maintenance - Time Outline –

- Time	- Section	Presenter
8:00- 8:15	- Introduction	Patrick
	 About Us 	
	-	
8:15- 8:30	 Basic Hydraulics 	Trevor
-	 Why Control Valves 	-
-	 Hydraulics 101 	-
-	-	-
8:30- 9:45	 Main Valve – Hytrol 	Patrick
-	 Basic Principles of Control Valves 	-
-	 Control Valve Main Body 	-
-	 Main Control Valve Components 	-
-	 Hands-On Disassembly/Assembly 	-
-	 Control valve Main Body Maintenance 	-
-	 Main valve Troubleshooting & Start-up 	-
-	-	-
9:45- 10:00	 Break (Rough time, may be combined with Hands-On with Valves) 	
-	-	-
10:00-11:00	 Pressure Reducing Valves – Series 90 	Trevor
-	 Intro to Pilot Systems 	-
-	 Pressure Reducing Valves 	-
-	 Hands-On with CRD 	•

-	 Troubleshooting Pressure Reducing Valves 	-
-	Pressure Reducing Bypass Design	-
-	 Common Variations (Check, 92-01, 9301) 	-

-	- Flow Lab 90-01	-
11:00- 12:00	 Pressure Relief Valves – Series 50 	Patrick
-	 Pressure Sustaining Valves 	-
-	 Hands-on with CRL 	-
-	 Troubleshooting Relief/Sustaining Valves 	-
-	 Surge Anticipation 	-
-	 Flow Lab 50-01 (Time allowed) 	Trevor
12:00- 1:00	- Lunch	-
-	-	-
1:00- 1:15	Hydraulic Flow Control	Patrick
-	-	-
1:15- 1:45	 Altitude Valves – Series 210 	Trevor
-	 Non-Modulating Valves 	-
-	 Float level Control Valves 	-
-	Altitude Level Control Valves	-
-	 Non-Modulating Solenoid Control Valves 	-
-	-	-
1:45- 2:15	 Hydraulic Training Lab Exercises (Start up and shutdown) 	-
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2:15- 3:15	Pump Control Valves	Patrick
-	 Powertrol Body 	-
-		-
-	Deep Well Pump Control Valve	-
-	 Booster Pump Control Valves 	-
-	-	-
3:15- 3:30	Electronic Control Valves	Trevor
-	 Why Electronic Control Valves 	-
-	 Single and Multi-Solenoid Valves 	-
-	 Valve Accessories and Options 	-