

<b>DESCRIPTION:</b>	6 Monthly Zone 3 Lubrication Maintenance	<b>FREQUENCY:</b>	6 Months
<b>LOCATION:</b>	ST022 Oxley Creek STP	<b>STD JOB ID:</b>	LTS051

<b>Spare Parts List</b>	<b>Maintenance Group</b>
Castrol SP220 Gear Oil	THP Pulper Recirculation Pumps
Castrol AP3 Grease	THP Reactor Feed Pumps
Glycerine	THP Digester Feed Pumps
Castrol Alphasyn EP220	THP Foul Gas Ejector Pumps
Castrol Hyspin AWS68	Storage Digester 1 PDA Blower
Castrol Perfecto T68	Storage Digester 2 PDA Blower
Castrol White oil 15BP	Centrifuge Sludge Feed Pump Station
Castrol Mollub Alloy 936SF Open Gear Grease	Metal Salts Dosing System
	Odour Control Unit #1 (OCU#1)
	Sludge Recirculation Pumps
	Primary Digesters
	Storage Digesters
	WAS Interconnecting Pit
<b>References</b>	
CAMBI O&M Manual No. 25.1. Volume 1 (Appendix 1 to 4)	
Metal Salts Dosing System O&M Manual No.32	
Majortech Operation & Maintenance Manual. Book # 2 Equipment.	
<b>Procedural Steps</b>	
<b>Thermal Hydrolysis pumps are overhauled during the shutdown. These inspections are visual.</b>	
<b>Removal of oil level plugs will be necessary for oil level inspection.</b>	
<b>Pulper Recirculation Pumps (2 off)</b>	
Check pumps for leaks around flanges, joints and mechanical seal.	
Check pipework and valving for leaks, defects.	
Grease exposed knife gate valve spindles with Mollub Alloy grease.	
<b>Reactor Feed Pumps (2 off)</b>	
Check gearboxes for oil leaks and check oil level.	
Check pumps for leaks around flanges, joints and mechanical seal.	
Check pipework and valving for leaks, defects.	
Grease exposed knife gate valve spindles with Mollub Alloy grease.	
<b>Digester Feed Pumps (3 off)</b>	
Check gearboxes for oil leaks and check oil level.	
Check pumps for leaks around flanges, joints and mechanical seal.	
Check pipework and valving for leaks, defects.	
Grease exposed knife gate valve spindles with Mollub Alloy grease.	

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<b>Foul Gas Ejector Pumps</b>
Check pump and mechanical seal for leakage.
Check pipework and valving for leaks, defects.
Grease exposed knife gate valve spindles with Mollub Alloy grease.
<b>Storage Digester 1 PDA Blower</b>
Check PDA Blower #1 oil level and top up if necessary with Alphasyn EP220.
Check PDA Blower #2 oil level and top up if necessary with Alphasyn EP220.
<b>Centrifuge Sludge Feed Pump Station</b>
Check Sludge Feed Pump No.1 gearbox oil for level. Top up with SP220 if required.
Check Sludge Feed Pump No.2 gearbox oil for level. Top up with SP220 if required
Check Sludge Feed Pump No.3 gearbox oil for level. Top up with SP220 if required
Lubricate all knife gate valve spindles with Mollub Alloy grease (5 off)
<b>Metal Salts Dosing System</b>
Check Low Rate Dosing Pump #1 oil level. Top up with Hyspin AWS68 if required.
Check Low Rate Dosing Pump #2 oil level. Top up with Hyspin AWS68 if required.
Check High Rate Dosing Pump #1 oil level. Top up with Hyspin AWS68 if required.
Check High Rate Dosing Pump #2 oil level. Top up with Hyspin AWS68 if required.
<b>Odour Control Unit #1 (OCU#1)</b>
<b>Sulphuric Acid Dosing Pumps</b>
Check Sulphuric Dosing Pump #1 oil for level. Top up with Hyspin AWS68 if required.
Check Sulphuric Dosing Pump #2 oil for level. Top up with Hyspin AWS68 if required.
<b>Sodium Hydroxide Dosing Pumps</b>
Check Hydroxide Dosing Pump #1 oil for level. Top up with Hyspin AWS68 if required.
Check Hydroxide Dosing Pump #2 oil for level. Top up with Hyspin AWS68 if required.
Check Hydroxide Dosing Pump #3 oil for level. Top up with Hyspin AWS68 if required.
Check Hydroxide Dosing Pump #4 oil for level. Top up with Hyspin AWS68 if required.
<b>Sodium Hypochlorite Dosing Pumps</b>
Check Hypo Dosing Pump #1 oil for level. Top up with Hyspin AWS68 if required.
Check Hypo Dosing Pump #2 oil for level. Top up with Hyspin AWS68 if required.
<b>Primary Scrubber Recirculation Pumps</b>
Check Pump #1 oil for level. Top up with Perfecto T68 if required.
Check Pump #2 oil for level. Top up with Perfecto T68 if required.

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<b>Secondary Scrubber Recirculation Pumps 1 &amp; 2</b>			
Check Pump #1 oil for level. Top up with Perfecto T68 if required.			
Check Pump #2 oil for level. Top up with Perfecto T68 if required.			
<b>Extraction Fan 1 and 2</b>			
Grease Fan #1 bearings with 4 shots of AP3 grease.			
Grease Fan #2 bearings with 4 shots of AP3 grease.			
<b>Digester 3&amp;4 Sludge Recirculation Pumps</b>			
Check Sludge Recirculation pumps for noise, leaks, vibration.			
Lubricate all knife gate valve spindles with Mollub Alloy 936SF grease. (11 valves)			
Check all sludge pipework and valving for leaks, defects.			
<b>Hot Water Bypass Valves</b>			
Lubricate spindles on Bypass Valves 3 and 4 with Mollub Alloy 936SF grease.			
Check all hot water pipework and valving for leaks, defects.			
<b>Digester No.1</b>			
Grease telescopic draw off valve pedestal bearing with 4 shots of AP3.			
Lubricate Digester 1 to Storage 1 isolation knife gate valve spindle with Mollub Alloy 936SF grease.			
<b>Digester No.2</b>			
Grease telescopic draw off valve pedestal bearing with 4 shots of AP3.			
Lubricate Digester 2 to Storage 1 isolation knife gate valve spindle with Mollub Alloy 936SF grease.			
<b>Digester No.3</b>			
Grease dome guide wheels with 10 shots of AP3. (5 guide units, 2 wheels per unit, 2 grease points per wheel)			
Checker plate covers will have to be removed to access all grease nipples.			
Grease telescopic draw off valve pedestal bearing with 4 shots of AP3.			
Lubricate Digester 3 to Storage 2 isolation knife gate valve spindle with Mollub Alloy 936SF grease.			
Lubricate Storage 1&2 interconnecting isolation knife gate valve spindle with Mollub Alloy 936SF grease.			
<b>Digester No.4</b>			
Grease dome guide wheels with 10 shots of AP3. (5 guide units, 2 wheels per unit, 2 grease points per wheel)			
Checker plate covers will have to be removed to access all grease nipples.			
Grease telescopic draw off valve pedestal bearing with 4 shots of AP3.			
Lubricate Digester 4 to Storage 2 isolation knife gate valve spindle with Mollub Alloy 936SF grease.			

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