



#### Machine Id LIEBHERR PR776 24302

Component Splitter Box

# PETRO CANADA HYDREX AW 46 (--- GAL)

# RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

#### **WEAR**

All component wear rates are normal.

### CONTAMINATION

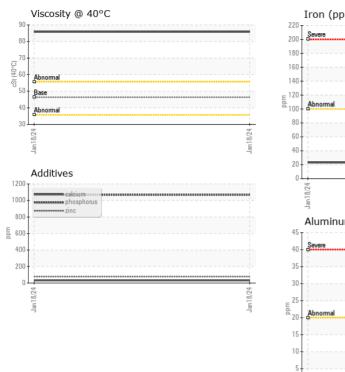
There is no indication of any contamination in the oil.

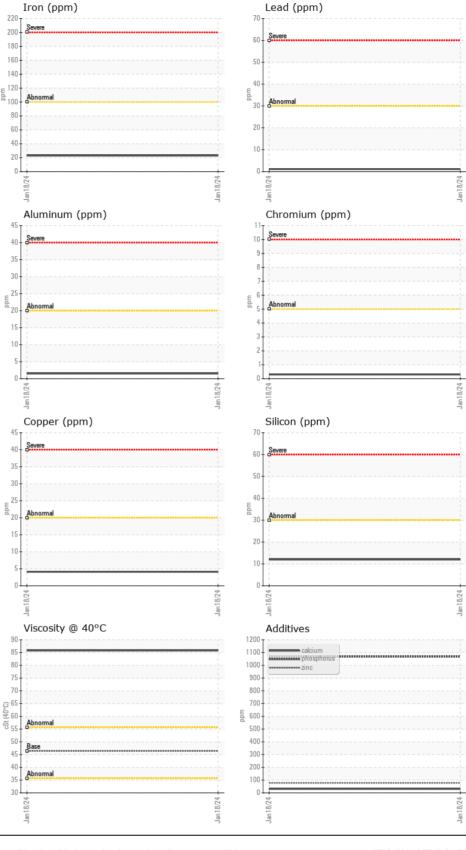
### FLUID CONDITION

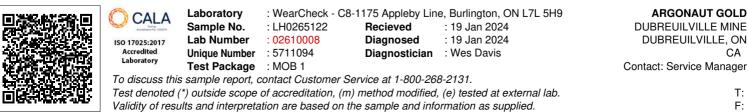
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number	00111	Client Info	Ennerton	LH0265122		
Sample Date		Client Info		18 Jan 2024		
Machine Age	hrs	Client Info		6158		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
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Iron	ppm	ASTM D5185(m)	>100	23		
Chromium	ppm	ASTM D5185(m)	>5	<1		
Nickel	ppm	ASTM D5185(m)	>5	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>30	1		
Copper	ppm	ASTM D5185(m)	>20	4		
Tin	ppm	ASTM D5185(m)	>10	0		
Vanadium	ppm	ASTM D5185(m)		0		
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
	Scalai	VISUAI	INOINE	NONL		
Silicon		ASTM D5185(m)	>30	12		
	ppm					
Silicon		ASTM D5185(m)	>30	12		
Silicon Potassium	ppm	ASTM D5185(m) ASTM D5185(m)	>30 >20	12 4		
Silicon Potassium Water	ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method	>30 >20 >0.1	12 4 NEG		
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual*	>30 >20 >0.1 NONE	12 4 NEG NONE		
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual*	>30 >20 >0.1 NONE NONE	12 4 NEG NONE NONE		
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE	12 4 NEG NONE NONE NONE		  
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NONE NORML	12 4 NEG NONE NONE NONE NORML	  	  
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NORML NORML >0.1	12 4 NEG NONE NONE NORE NORML NEG	  	  
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* Visual*	>30 >20 >0.1 NONE NONE NORML NORML >0.1	12 4 NEG NONE NONE NORML NORML NEG 2		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 0	12 4 NEG NONE NONE NORML NORML NEG 2 108		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 0 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 0 0 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar gpm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NORME NORML >0.1 >25 0 0 0 0 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML >0.1 >25 0 0 0 0 0 0 0 0 0 0 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 1		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>30 >20 >0.1 NONE NONE NORML NORML >0.1 >25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 1 31		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> </ul>	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 1 31 31		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> <li>430</li> </ul>	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 1 31 31 1068 78		
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	<ul> <li>&gt;30</li> <li>&gt;20</li> <li>&gt;0.1</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.1</li> <li>&gt;25</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>0</li> <li>50</li> <li>330</li> </ul>	12 4 NEG NONE NONE NORML NORML NEG 2 108 <1 0 0 1 31 31		

Contact/Location: Service Manager - ARGDUB







Contact/Location: Service Manager - ARGDUB

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