

## **PROBLEM SUMMARY**

## DIRT

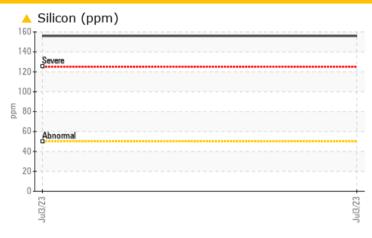


# FERRIC PUMP 14

Component Gearbox

GEAR OIL SAE 75W90 (--- GAL)

### **COMPONENT CONDITION SUMMARY**



### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 75W90. Please confirm.

PROBLEMATIC T	EST RE	SULTS			
Sample Status				ABNORMAL	 
Silicon	ppm	ASTM D5185(m)	>50	<b>156</b>	 

Sample Rating Trend

**Customer Id: CRDVIC Sample No.:** WC0738346 Lab Number: 02579512 Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

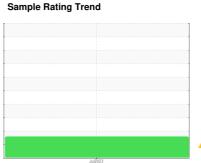
RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.		
Resample			?	We recommend an early resample to monitor this condition.		
Alert			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 75W90. Please confirm.		
Information Required			?	The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 75W90. Please confirm.		
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.		

### HISTORICAL DIAGNOSIS



## **OIL ANALYSIS REPORT**

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DIRT

## FERRIC PUMP 14

Component

Gearbox

GEAR OIL SAE 75W90 (--- GAL)

### DIAGNOSIS

### Recommendation

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 75W90. Please confirm.

#### Wear

All component wear rates are normal.

### Contamination

There is a moderate concentration of dirt present in the oil.

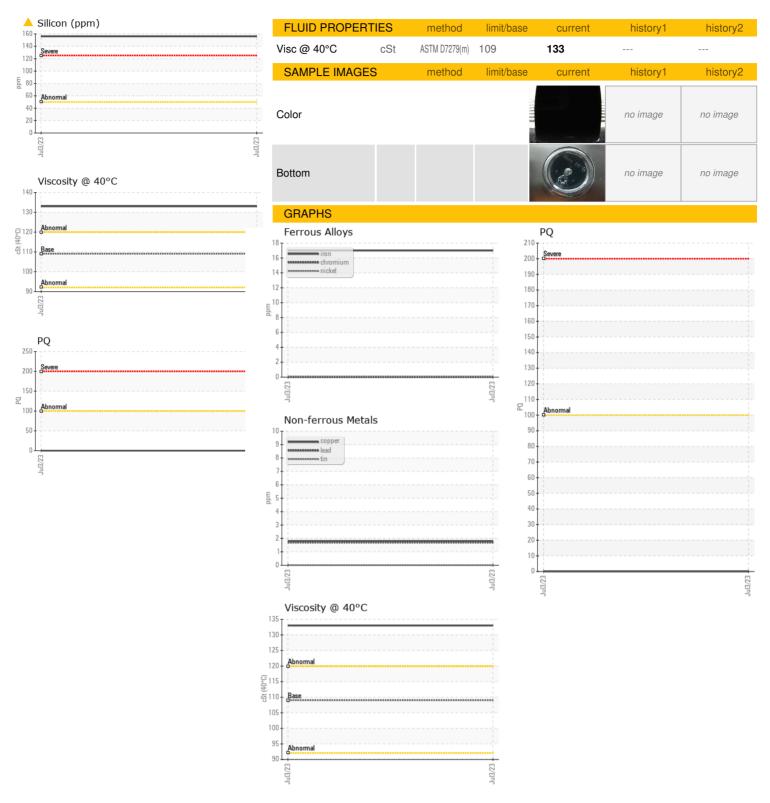
### **Fluid Condition**

The oil is no longer serviceable due to the presence of contaminants.

				Jul2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0738346		
Sample Date		Client Info		03 Jul 2023		
Machine Age	hrs	Client Info		2682		
Oil Age	hrs	Client Info		2682		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		0		
Iron	ppm	ASTM D5185(m)	>200	17		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>25	7		
Lead	ppm	ASTM D5185(m)	>50	2		
Copper	ppm	ASTM D5185(m)	>200	2		
Tin	ppm	ASTM D5185(m)	>10	0		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES		method	IIIIII basc	Current		THOUTY Z
_					,	
Boron	ppm	ASTM D5185(m)	400	226		
Barium	ppm	ASTM D5185(m)	200	0		
Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 <1		
Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200	0 <1 1		
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 12 12	0 <1 1 <1		  
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 12 12 150	0 <1 1 <1 10		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 12 12 150 1650	0 <1 1 <1 10 1193		  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125	0 <1 1 1 <1 10 1193 8		  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650	0 <1 1 <1 10 1193 8 20821		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125	0 <1 1 1 <1 10 1193 8		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125 22500	0 <1 1 1 <1 10 1193 8 20821 1 current		
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125 22500	0 <1 1 1 <1 0 1193 8 20821 1 current 156		    
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 12 12 150 1650 125 22500  limit/base >50	0 <1 1 1 <1 10 1193 8 20821 1 current ▲ 156 2	      history1	    
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125 22500  limit/base >50 >20	0 <1 1 1 <1 0 1193 8 20821 1 current 156	history1	history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 12 12 150 1650 125 22500  limit/base >50	0 <1 1 1 <1 10 1193 8 20821 1 current ▲ 156 2	history1	history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	200 12 12 150 1650 125 22500  limit/base >50     limit/base   NONE	0 <1 1 1	history1	history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  Method ASTM D5185(m) ASTM D5185(m)  ASTM D5185(m)  Wethod Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE	0 <1 1 1		history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  METHOD  METHOD  Wisual* Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE NONE	0 <1 1 1	history1 history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)  METHOD  METHOD  METHOD  WETHOD  WISUAL*  Visual*  Visual*	200 12 12 150 1650 125 22500  limit/base >50  limit/base NONE NONE NONE	0 <1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	history1 history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm	ASTM D5185(m)  METHOD  METHOD  METHOD  Wisual* Visual* Visual* Visual* Visual*	200 12 12 150 1650 125 22500  limit/base >50  substitution	0 <1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	history1 history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm	ASTM D5185(m)  METHOD  METHOD  METHOD  WETHOD  WISUAL*  Visual*  Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	0 <1 1 1	history1 history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm	ASTM D5185(m)  MASTM D5185(m)  Wisual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	0 <1 1 1	history1 history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium  VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm	ASTM D5185(m)  Method ASTM D5185(m)  Method Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	0 <1 1 1	history1	history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium  CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm	ASTM D5185(m)  MASTM D5185(m)  Wisual* Visual* Visual* Visual* Visual* Visual* Visual* Visual* Visual*	200 12 12 150 1650 125 22500  limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NON	0 <1 1 1	history1	history2



## **OIL ANALYSIS REPORT**





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : WC0738346

Received : 02579512 : 5632572

Diagnosed Diagnostician : Kevin Marson

: 30 Aug 2023

: 31 Aug 2023

Test Package : FLEET ( Additional Tests: PQ ) To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

**CRD**, Integrated Water Services

337 Victoria View Road Victoria, BC CA V9A 3Z3

Contact: Maintenance Planning maintenanceplanning@crd.bc.ca

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