



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR L556 070863-1826**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX DT 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0257216</b>	LH0257205	LH0257172
Sample Date		Client Info		<b>16 Feb 2024</b>	15 Dec 2023	18 May 2023
Machine Age	hrs	Client Info		<b>5005</b>	4000	978
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>6</b>	12	9
Chromium	ppm	ASTM D5185(m)	>10	<b>3</b>	2	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>1</b>	2	2
Lead	ppm	ASTM D5185(m)	>10	<b>3</b>	4	2
Copper	ppm	ASTM D5185(m)	>75	<b>1</b>	2	2
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

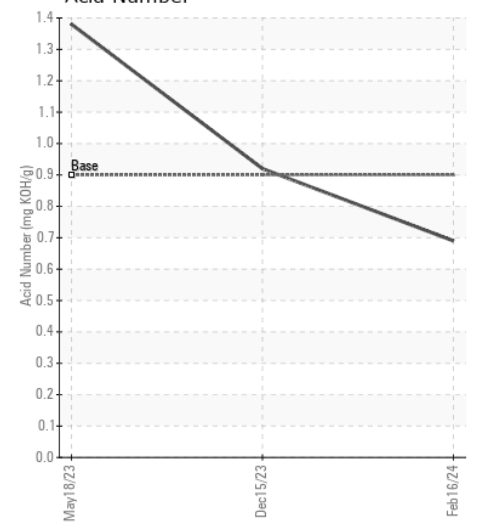
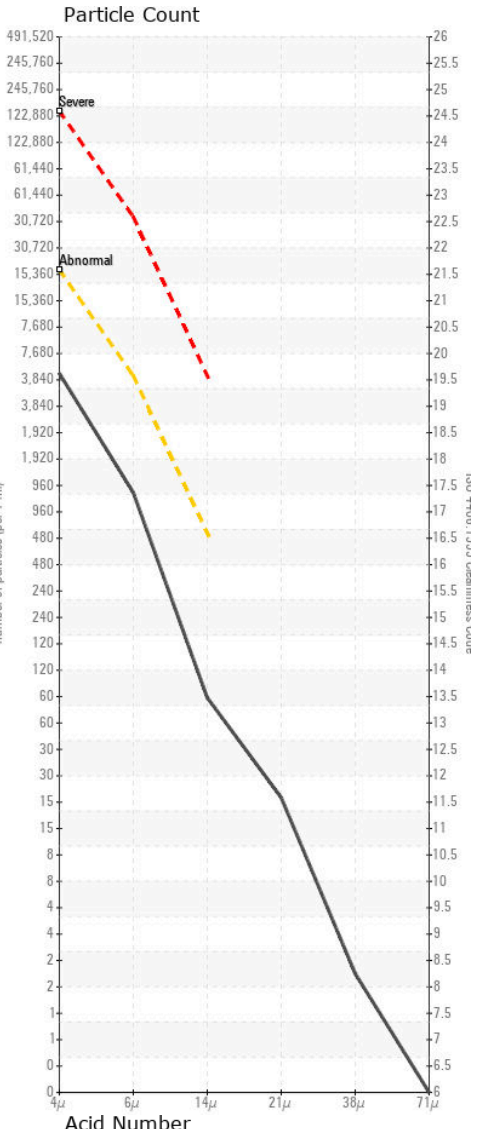
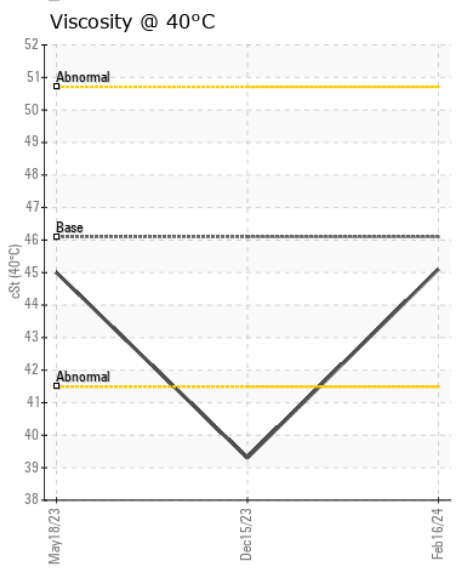
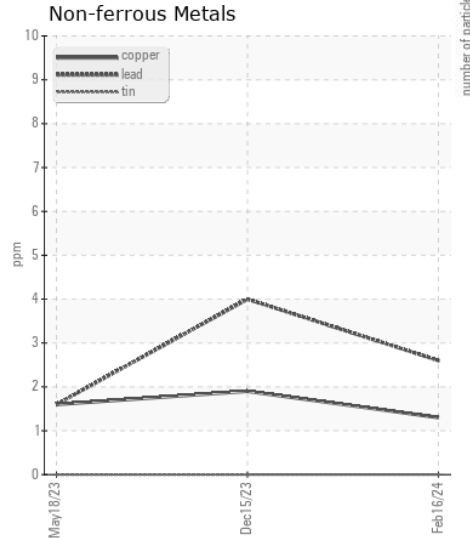
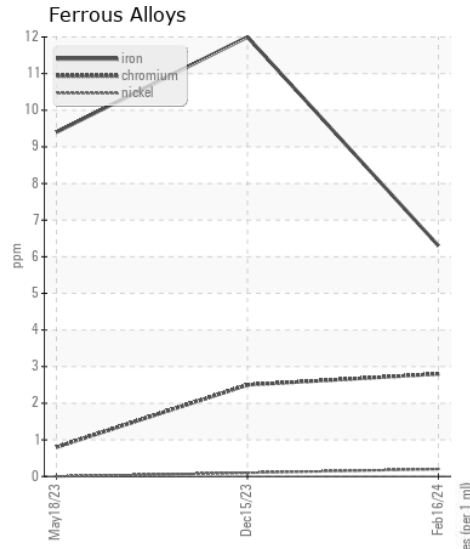
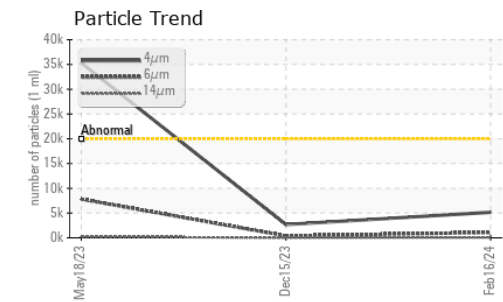
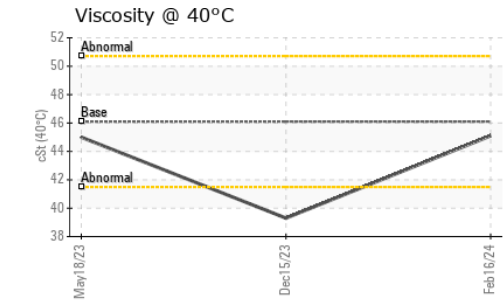
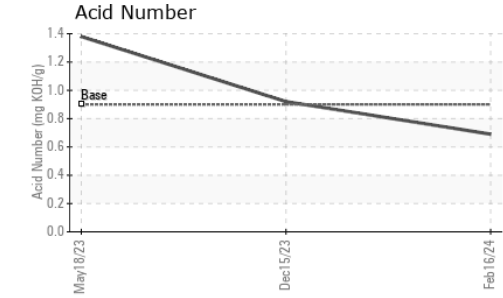
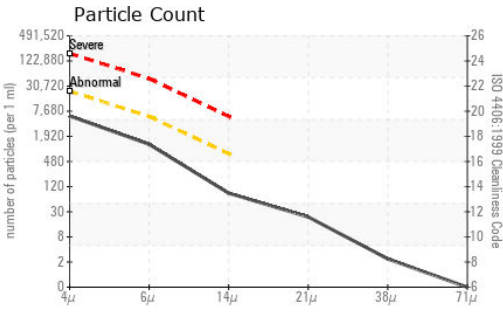
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>20	<b>2</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	4	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>5158</b>	2679	35315
Particles >6µm		ASTM D7647	>5000	<b>1083</b>	377	7812
Particles >14µm		ASTM D7647	>640	<b>74</b>	16	224
Particles >21µm		ASTM D7647	>160	<b>20</b>	4	33
Particles >38µm		ASTM D7647	>40	<b>2</b>	1	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>20/17/13</b>	19/16/11	22/20/15
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>2</b>	<1	1
Boron	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	0	<b>3</b>	6	8
Calcium	ppm	ASTM D5185(m)	790	<b>843</b>	937	1027
Phosphorus	ppm	ASTM D5185(m)	350	<b>435</b>	526	660
Zinc	ppm	ASTM D5185(m)	450	<b>496</b>	617	709
Sulfur	ppm	ASTM D5185(m)	980	<b>1629</b>	2127	2521
Acid Number (AN)	mg KOH/g	ASTM D974*	0.9	<b>0.69</b>	0.92	1.38
Visc @ 40°C	cSt	ASTM D7279(m)	46.1	<b>45.1</b>	39.3	45.0



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0257216  
**Lab Number** : 02618963  
**Unique Number** : 5736073  
**Test Package** : MOBCE  
**Received** : 29 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**PRODUITS FORESTIERS D.G. LTEE**  
 313 RANG ST-JOSEPH  
 STE-AURELIE, QC  
 CA G0M 1M0  
 Contact: Roger .

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.

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