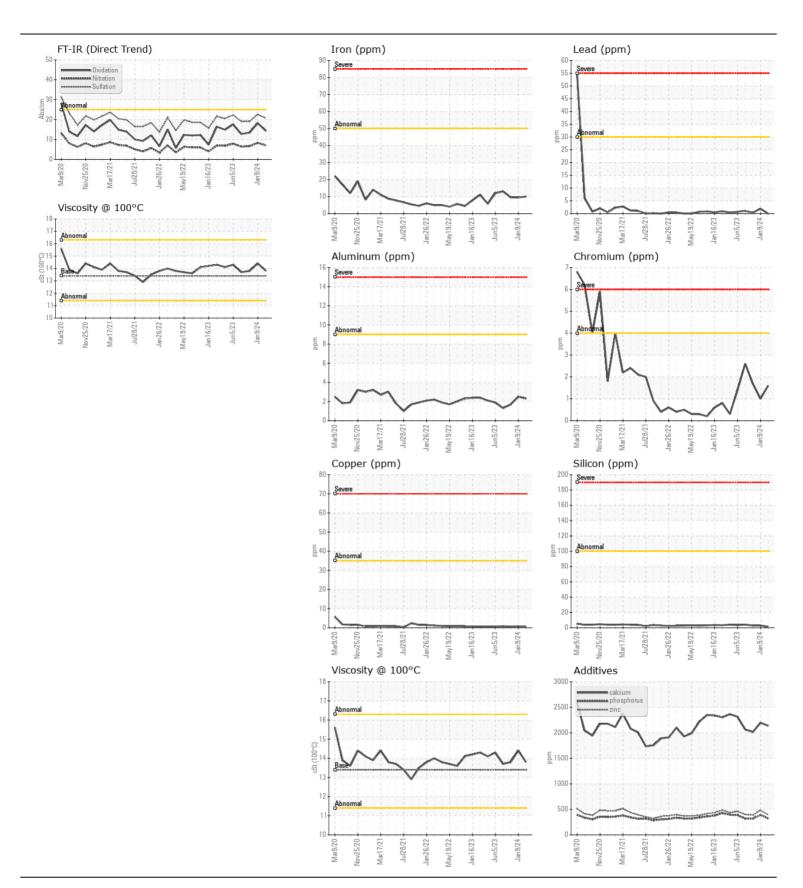
**WEAR** CONTAMINATION **FLUID CONDITION**  **NORMAL NORMAL NORMAL** 

Machine Id

## **MAN CREEKSIDENG1**

Natural Gas Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		WC0915622	PC0078882	PC007886
	Sample Date		Client Info		05 Apr 2024	09 Jan 2024	01 Dec 202
	Machine Age	hrs	Client Info		37514	35885	35023
	Oil Age	hrs	Client Info		785	862	753
	Filter Age	hrs	Client Info		785	862	753
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	Changed	Change
	Sample Status				NORMAL	ABNORMAL	NORMA
WEAR	Iron	ppm	ASTM D5185(m)	>50	10	9	10
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>4	2	1	2
	Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	0	0
	Silver	ppm	ASTM D5185(m)	>3	0	0	0
	Aluminum	ppm	ASTM D5185(m)	>9	2	2	2
	Lead	ppm	ASTM D5185(m)	>30	0	2	<1
	Copper	ppm	ASTM D5185(m)	>35	<1	<1	<1
	Tin	ppm	ASTM D5185(m)	>4	0	<1	0
	Vanadium	ppm	ASTM D5185(m)		0	0	0
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>+100	1	3	3
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
	Water		WC Method	>0.1	NEG	NEG	NEG
	Soot %	%	ASTM D7844*		0	0	0
	Nitration	Abs/cm	ASTM D7624*	>20	7.0	8.3	6.6
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	22.6	19.1
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		<1	<1	<1
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	2	2	<1	<1
	Barium	ppm	ASTM D5185(m)	3	0	0	0
	Molybdenum	ppm	ASTM D5185(m)	0	<1	6	1
	Manganese	ppm	ASTM D5185(m)	0	0	0	0
	Magnesium	ppm	ASTM D5185(m)	4	9	80	12
	Calcium	ppm	ASTM D5185(m)	1727	2137	2195	2015
	Phosphorus	ppm	ASTM D5185(m)	272	322	390	319
	Zinc	ppm	ASTM D5185(m)	333	394	481	387
	Sulfur	ppm	ASTM D5185(m)	3415	2776	2997	2976
	Oxidation	Abs/.1mm	ASTM D7414*	>25	14.3	18.2	13.4
	Visc @ 100°C	cSt	ASTM D7279(m)	13.4	13.8	14.4	13.8





ISO 17025:2017
Accredited
Laboratory

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

Sample No. : WC0915622 Received : 16 May 2024

Lab Number : 03236013

 Sample No.
 : WC0915622

 Lab Number
 : 02636013

 Unique Number
 : 5785175

 Test Package
 : MOB 1

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.

Martin Energy Group Canada

5531 Schummer Line Linwood, ON CA N0B 2A0

Contact: Allen Steiner asteiner@martinenergygroup.com
T: (226)545-0230

F: