MAR I WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
31117 PORT S.S. ENGINE (S/N 47B4885)
Component
Diesel Engine
Fluid
PETRO CANADA DURON HP 15W40 (55 LTR)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

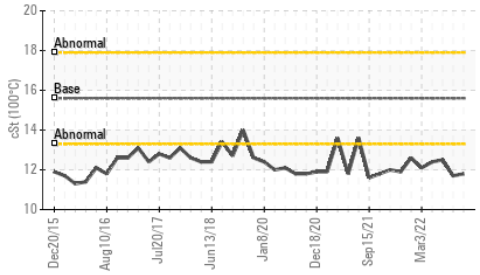
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

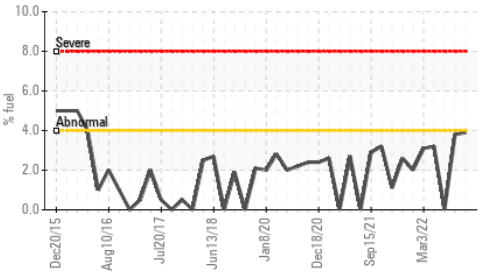
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0867275	WC0905534	WC0668735
Sample Date		Client Info		16 Apr 2024	13 Mar 2024	30 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		500	500	500
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>80	5	6	11
Chromium	ppm	ASTM D5185(m)	>6	0	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	1	3
Lead	ppm	ASTM D5185(m)	>95	0	<1	6
Copper	ppm	ASTM D5185(m)	>85	5	41	184
Tin	ppm	ASTM D5185(m)	>9	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>25	6	2	10
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
Fuel	%	ASTM D7593*	>4.0	▲ 3.9	▲ 3.8	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.4	6.9	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.1	18.5	19.1
Silt	scalar	Visual*	NONE	NONE	NONE	VLITE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		2	2	1
Boron	ppm	ASTM D5185(m)	0	5	9	50
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	33	32	3
Manganese	ppm	ASTM D5185(m)	0	0	0	6
Magnesium	ppm	ASTM D5185(m)	1010	628	599	55
Calcium	ppm	ASTM D5185(m)	1070	1345	1439	2089
Phosphorus	ppm	ASTM D5185(m)	1150	888	894	955
Zinc	ppm	ASTM D5185(m)	1270	1068	1107	1118
Sulfur	ppm	ASTM D5185(m)	2060	2460	2575	3118
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.6	14.4	15.5
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	▲ 11.8	▲ 11.7	12.5

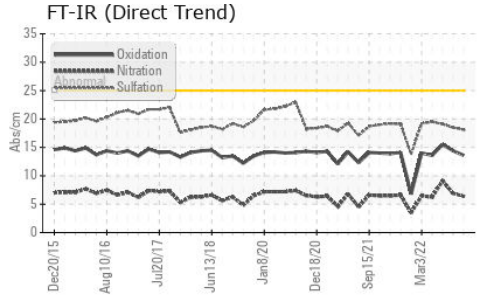
Viscosity @ 100°C



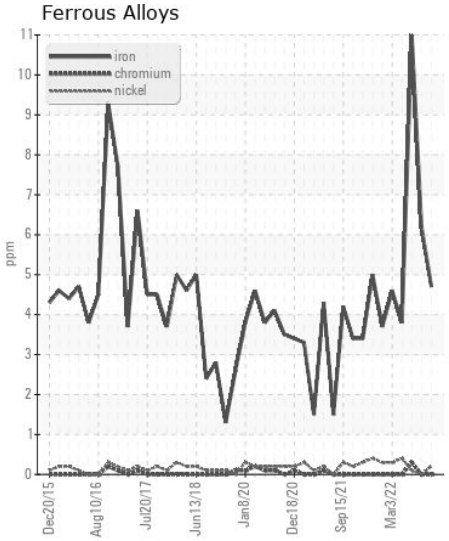
Fuel Dilution



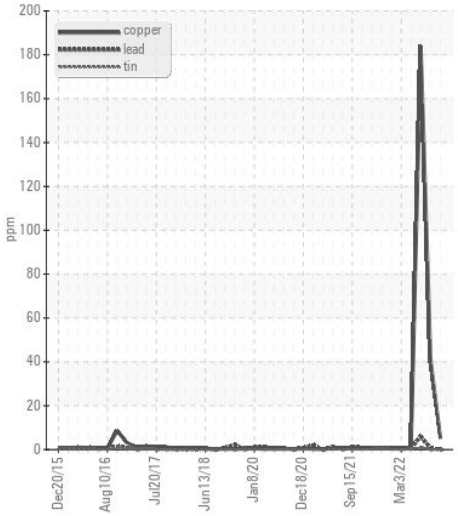
FT-IR (Direct Trend)



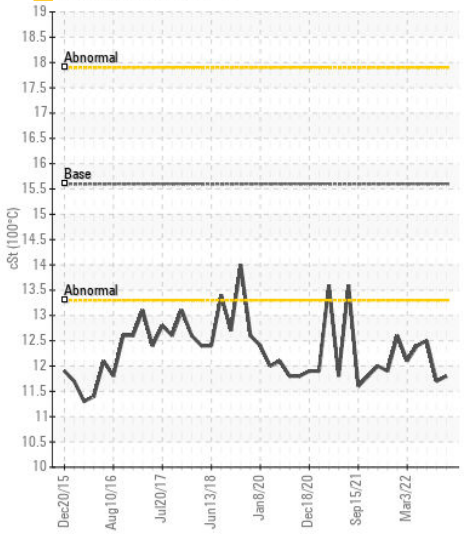
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: WC0867275	**Received**	: 22 Apr 2024
Lab Number	: 02630434	**Tested**	: 23 Apr 2024
Unique Number	: 5763566	**Diagnosed**	: 23 Apr 2024 - Kevin Marson
Test Package	: MAR 1 (Additional Tests: FUELDILUTION, PercentFuel)		

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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