MOB I

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[WO36033]
Machine Id
WESTERN STAR TRK 1116
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

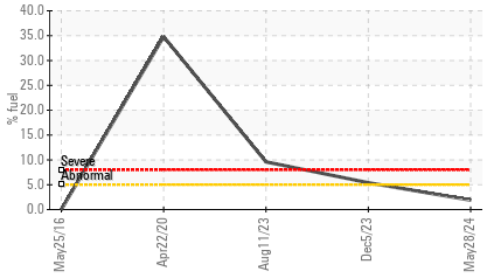
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

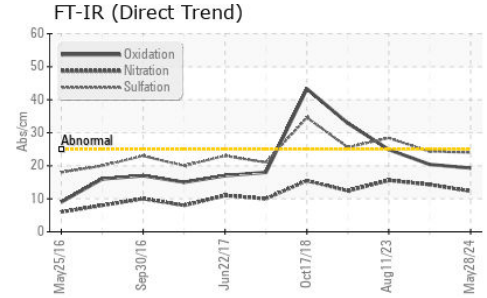
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0903649**	WC0822308	WC0822312
Sample Date		Client Info		**28 May 2024**	05 Dec 2023	11 Aug 2023
Machine Age	mls	Client Info		**501097**	476525	461536
Oil Age	mls	Client Info		**24572**	0	0
Filter Age	mls	Client Info		**24572**	0	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Filter Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**NORMAL**	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	**49**	33	39
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>4	**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>20	**3**	4	4
Lead	ppm	ASTM D5185m	>40	**0**	<1	1
Copper	ppm	ASTM D5185m	>330	**2**	2	2
Tin	ppm	ASTM D5185m	>15	**0**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**4**	7	7
Potassium	ppm	ASTM D5185m	>20	**50**	52	42
Fuel	%	ASTM D3524	>5	**1.9**	▲ 5.4	▲ 9.6
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol	%	*ASTM D2982		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**1.8**	2	2.3
Nitration	Abs/cm	*ASTM D7624	>20	**12.3**	14.3	15.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**24.0**	24.3	28.4
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185m		**14**	23	37
Boron	ppm	ASTM D5185m	0	**0**	2	12
Barium	ppm	ASTM D5185m	0	**0**	0	2
Molybdenum	ppm	ASTM D5185m	60	**59**	58	37
Manganese	ppm	ASTM D5185m	0	**<1**	0	<1
Magnesium	ppm	ASTM D5185m	1010	**1001**	1001	494
Calcium	ppm	ASTM D5185m	1070	**1158**	1254	1501
Phosphorus	ppm	ASTM D5185m	1150	**1111**	1128	931
Zinc	ppm	ASTM D5185m	1270	**1335**	1269	1113
Sulfur	ppm	ASTM D5185m	2060	**3646**	3113	2947
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.3**	20.4	24.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**9.3**	8.2	7.2
Visc @ 100°C	cSt	ASTM D445	15.4	**14.6**	13.1	12.6

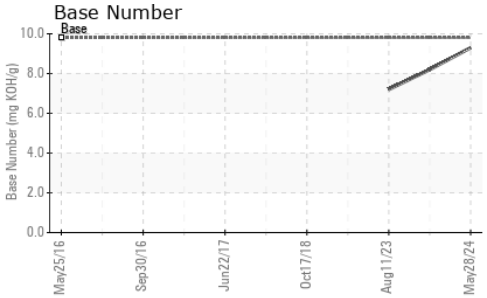
Fuel Dilution



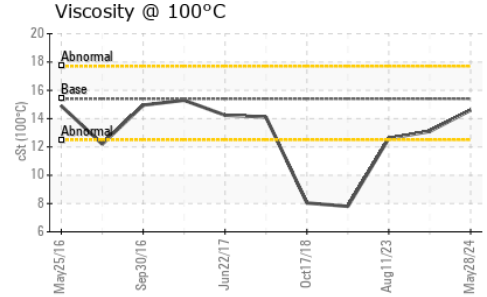
FT-IR (Direct Trend)



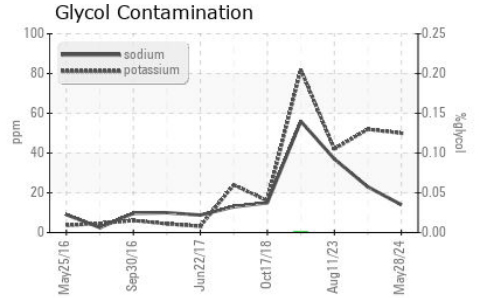
Base Number



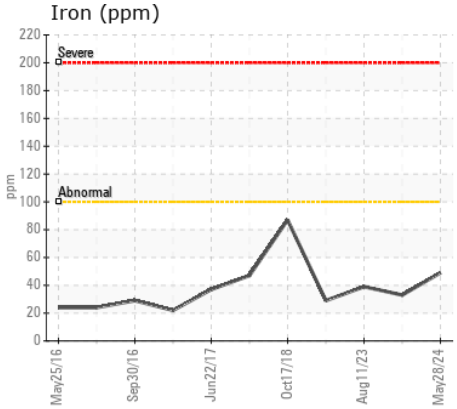
Viscosity @ 100°C



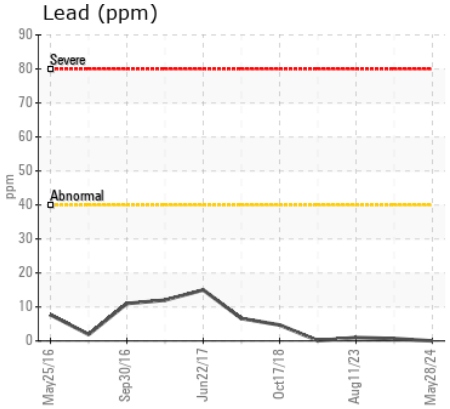
Glycol Contamination



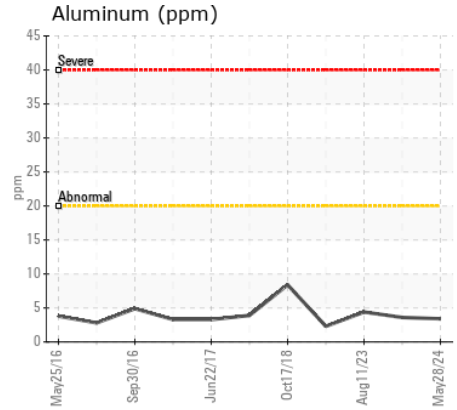
Iron (ppm)



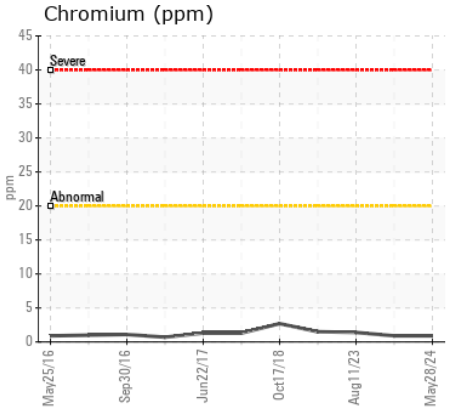
Lead (ppm)



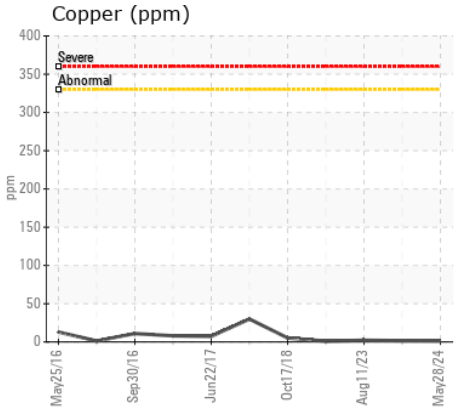
Aluminum (ppm)



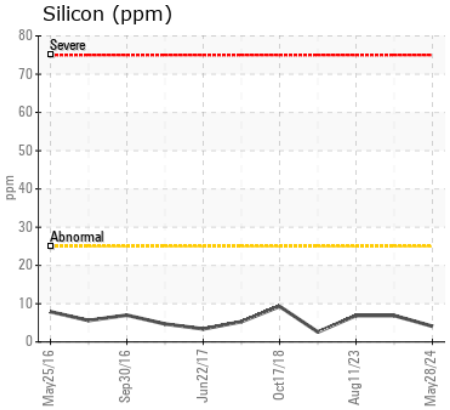
Chromium (ppm)



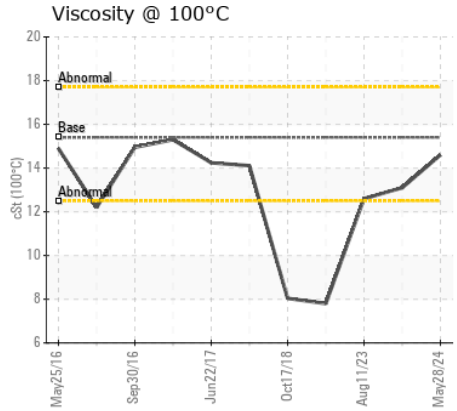
Copper (ppm)



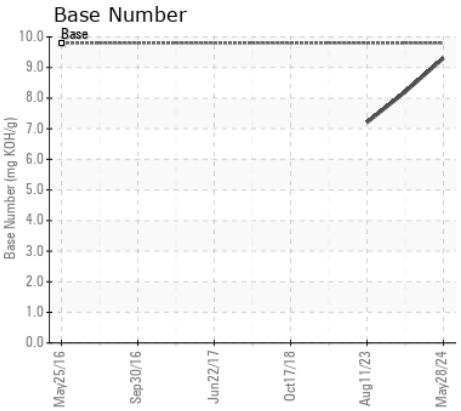
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0903649 **Received** : 19 Jun 2024
Lab Number : 06214289 **Tested** : 21 Jun 2024
Unique Number : 11087153 **Diagnosed** : 21 Jun 2024 - Don Baldridge
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.
** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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