

### **OIL ANALYSIS REPORT**

Sample Rating Trend

DIRT

Machine Id

# TOYOTA LANDCRUISER FMC028

Diesel Engine

PETRO CANADA DURON HP 15W40 (--- GAL

#### DIAGNOSIS

#### Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

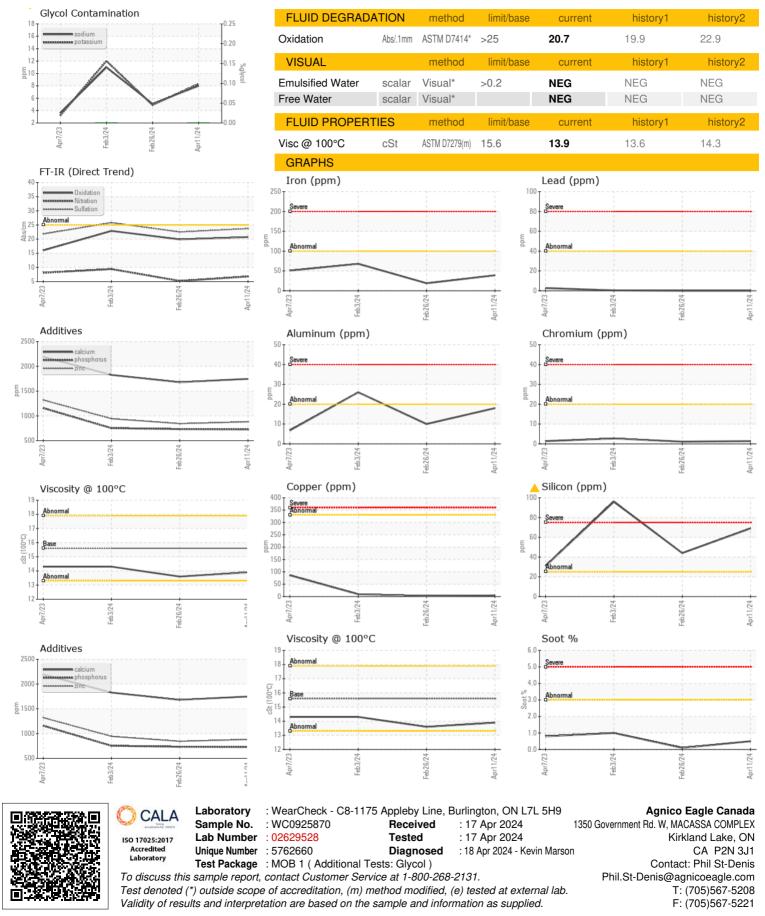
#### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

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L)		Apr202	3 Feb2024	Feb2024 A	pr2024	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0925870	WC0879721	WC0892390
Sample Date		Client Info		11 Apr 2024	26 Feb 2024	03 Feb 2024
Machine Age	hrs	Client Info		2116	1951	1877
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	39	19	68
Chromium	ppm	ASTM D5185(m)		1	1	3
Nickel	ppm	ASTM D5185(m)	>4	0	0	<1
Titanium	ppm	ASTM D5185(m)	0	1	0	<1
Silver Aluminum	ppm	ASTM D5185(m)	>3	0	0	0
	ppm	ASTM D5185(m)		18	10	26
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)		4	2	9
Tin	ppm	ASTM D5185(m)	>15	<1	<1	2
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	39	51	25
Barium	ppm	ASTM D5185(m)	0	1	<1	1
Molybdenum	ppm	ASTM D5185(m)	60	40	38	45
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	517	487	581
Calcium	ppm	ASTM D5185(m)	1070	1747	1679	1826
Phosphorus	ppm	ASTM D5185(m)	1150	724	733	752
Zinc	ppm	ASTM D5185(m)	1270	880	843	943
Sulfur	ppm	ASTM D5185(m)	2060	2009	2196	2091
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<u> </u>	44	▲ 96
Sodium	ppm	ASTM D5185(m)		8	5	11
Potassium	ppm	ASTM D5185(m)	>20	8	5	12
Glycol	%	ASTM D7922*		0.0	NEG	0.0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.5	0.1	1
	% Abs/cm	ASTM D7844* ASTM D7624*	>3 >20	0.5 6.8	0.1 5.2	1 9.4



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Report Id: KIR370KIR [WCAMIS] 02629528 (Generated: 04/18/2024 09:04:34) Rev: 1

Contact/Location: Phil St-Denis - KIR370KIR