

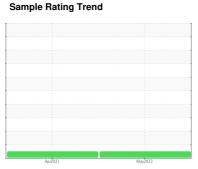
OIL ANALYSIS REPORT



Scoop 6 Yard LHD6102

Component **Front Differential**

PETRO CANADA TRAXON 80W90 (18 LTR)





DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

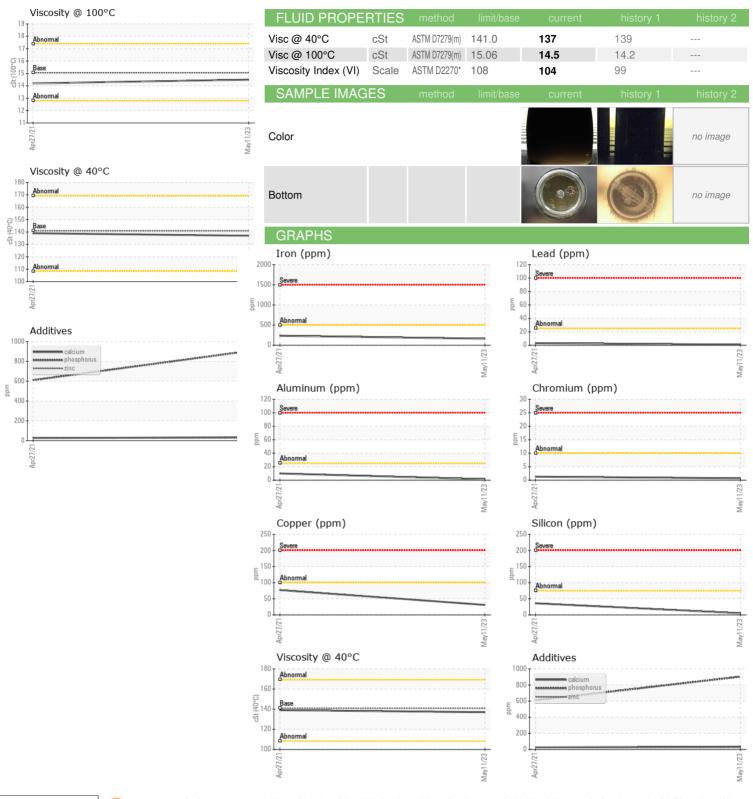
Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Oil Age Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	hrs hrs	Client Info ASTM D5185(m)	limit/base >500 >10 >10 >25 >25 >25 >100 >10 >10	current PC0066832 11 May 2023 2662 0 N/A NORMAL current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 current	history 1 PC0046614 27 Apr 2021 0 0 N/A NORMAL history 1 237 1 <1 <1 <1 10 3 77 3 0 <1 0 history 1	history 2
Sample Date Machine Age Oil Age Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info Client Info Client Info ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	11 May 2023 2662 0 N/A NORMAL	27 Apr 2021 0 0 N/A NORMAL history 1 237 1 <1 <1 <1 <1 <1 0 0 <1 0 0	history 2
Machine Age Oil Age Oil Age Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Client Info Client Info Client Info Client Info Method ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	2662 0 N/A NORMAL current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0	0 0 N/A NORMAL history 1 237 1 <1 <1 <1 <1 <1 10 3 77 3 0 <1	history 2
Machine Age Oil Age Oil Age Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Client Info Client Info Client Info Method ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	2662 0 N/A NORMAL current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0	0 N/A NORMAL history 1 237 1 <1 <1 <1 <1 10 3 77 3 0 <1 0 0	history 2
Oil Age Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Client Info method ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	N/A NORMAL current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0 0	N/A NORMAL history 1 237 1 <1 <1 <1 10 3 77 3 0 <1 0 0	history 2
Oil Changed Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	Client Info method ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	NORMAL current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0 0	NORMAL history 1 237 1 <1 <1 10 3 77 3 0 <1 0 0	history 2
Sample Status WEAR METALS Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	current 162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0 0 0 0	history 1 237 1 <1 <1 <1 <1 <1 0 0 0	history 2
Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>500 >10 >10 >10 >25 >25 >100 >10 >5	162 <1 <1 0 0 1 <1 31 <1 0 0 0 0 0 0 0 0 0 0 0 0	237 1 <1 <1 <1 10 3 77 3 0 <1 0 0	
Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>10 >10 >25 >25 >100 >10 >5	<1 <1 0 0 1 <1 31 <1 0 0	1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	
Nickel Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>10 >25 >25 >100 >10 >5	<1 0 0 1 <1 31 <1 0 0	<1 <1 <1 <1 10 3 77 3 0 <1 0 0 0	
Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>25 >25 >100 >10 >5	0 0 1 <1 31 <1 0 0	<1 <1 10 3 77 3 0 <1 0 0 0	
Titanium Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>25 >100 >10 >5	0 1 <1 31 <1 0 0 0	<1 <1 10 3 77 3 0 <1 0 0 0	
Silver Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>25 >100 >10 >5	0 1 <1 31 <1 0 0 0	10 3 77 3 0 <1 0	
Aluminum Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method	>25 >100 >10 >5	<1 31 <1 0 0 0	3 77 3 0 <1 0	
Lead Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method	>100 >10 >5	31 <1 0 0 0 0	77 3 0 <1 0	
Copper Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	>100 >10 >5	31 <1 0 0 0 0	77 3 0 <1 0	
Tin Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>10 >5	<1 0 0 0 0	3 0 <1 0	
Antimony Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	>5	0 0 0 0	0 <1 0	
Vanadium Beryllium Cadmium ADDITIVES Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method		0 0 0	<1 0 0	
Beryllium Cadmium ADDITIVES Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m) method	limit/base	0 0	0	
Cadmium ADDITIVES Boron Barium	ppm	ASTM D5185(m) method	limit/base	0	0	
Boron Barium	ppm		limit/base	ourront	history 1	la la La conside
Barium	ppm	AOTM DE40E()				history 2
		ASTM D5185(m)	243	40	35	
Molybdenum	ppm	ASTM D5185(m)	1	0	0	
,	ppm	ASTM D5185(m)		<1	<1	
	ppm	ASTM D5185(m)		2	4	
	ppm	ASTM D5185(m)	2	3	7	
-	ppm	ASTM D5185(m)	6	35	26	
	ppm	ASTM D5185(m)	987	903	610	
	ppm	ASTM D5185(m)	1	26	23	
	ppm	ASTM D5185(m)	21530	21330	19291	
	ppm	ASTM D5185(m)	21000	<1	<1	
CONTAMINANT		method	limit/base		history 1	history 2
				current		flistory 2
	ppm	ASTM D5185(m)	>/5	5	36	
	ppm	ASTM D5185(m)		<1	7	
	ppm	ASTM D5185(m)	>20	<1	4	
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	VLITE	VLITE	
ellow Metal	scalar	Visual*	NONE	NONE	NONE	
	scalar	Visual*	NONE	NONE	NONE	
Silt	scalar	Visual*	NONE	NONE	VLITE	
Debris	scalar	Visual*	NONE	NONE	VLITE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>.2	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	



OIL ANALYSIS REPORT





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number

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

: PC0066832

: 02567852 : 5604898

Received Diagnosed Diagnostician : Wes Davis

: 04 Jul 2023

: 04 Jul 2023

Test Package : MOB 1 (Additional Tests: KV100, VI) 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.

Lakeshore Gold Timmins West

Timmins, ON CA

Contact: Adam Koscielak adam.koscielak@HFSinclair.com

> T: F: