

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

CASE 7120 NOUNITPC0060066

Diesel Engine

Fluid

PETRO CANADA 15W40 (--- GAL)

SAMPLE INFORMATION method DIAGNOSIS PC0060066 Sample Number **Client Info** Recommendation Resample at the next service interval to monitor. 19 Dec 2023 Sample Date Client Info Machine Age 3017 Wear hrs **Client Info** All component wear rates are normal. Oil Age hrs Client Info 284 Oil Changed **Client Info** Changed Contamination NORMAL Sample Status There is no indication of any contamination in the oil CONTAMINATION Fluid Condition Fuel WC Method >5 <1.0 The condition of the oil is acceptable for the time in Water WC Method >0.2 NEG service. Glycol WC Method NEG WEAR METALS Iron >100 18 ppm ASTM D5185(m) ---Chromium ASTM D5185(m) >20 <1 ppm Nickel >4 ppm ASTM D5185(m) <1 Titanium ppm ASTM D5185(m) 0 Silver ASTM D5185(m) >3 0 ppm 2 Aluminum >20 ppm ASTM D5185(m) Lead ASTM D5185(m) >40 <1 ppm ASTM D5185(m) >330 3 Copper ppm Tin ppm ASTM D5185(m) >15 <1 Antimony ppm ASTM D5185(m) 0 0 Vanadium ASTM D5185(m) ppm 0 Bervllium ppm ASTM D5185(m) Cadmium ASTM D5185(m) 0 ppm ADDITIVES 1 Boron ppm ASTM D5185(m) Barium ASTM D5185(m) 0 ppm Molybdenum ASTM D5185(m) 62 ppm Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 1003 Calcium ppm ASTM D5185(m) 1086 Phosphorus ASTM D5185(m) 1013 ppm 1204 Zinc ppm ASTM D5185(m) Sulfur ASTM D5185(m) 2662 ppm Lithium ppm ASTM D5185(m) 1 CONTAMINANTS >25 4 Silicon ppm ASTM D5185(m) Sodium ppm ASTM D5185(m) 7 Potassium ASTM D5185(m) >20 2 ppm **INFRA-RED** Soot % % ASTM D7844* >3 0.6 Abs/cm 7.4 Nitration ASTM D7624* >20 Sulfation ASTM D7415* >30 20.1 Abs/.1mm



Abnormal 130-

140 T

(120-0) (40°C) ts 110-

100 Abnorm 90 Dec19/23

140 Abr rmal

130

-0120 St (40°C) 110

100 Abno 90 Dec19/23

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Viscosity @ 40°C	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Abnormal	Oxidation	Abs/.1mm	ASTM D7414*	>25	14.8		
D_	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	NONE		
0-	Yellow Metal	scalar	Visual*	NONE	NONE		
Abnormal	Precipitate		Visual*	NONE	NONE		
Dec19/23	Silt		Visual*	NONE	NONE		
Dec	Debris		Visual*	NONE	NONE		
Viscosity @ 40°C	Sand/Dirt Appearance		Visual* Visual*	NONE NORML	VLITE NORML		
At1	Odor		Visual*	NORML	NORML		
- denormal	Emulsified Water		Visual*	>0.2	NEG		
D	Free Water	scalar	Visual*		NEG		
	FLUID PROPEI	RTIES	method	limit/base	current	history1	history2
Abnormal	Visc @ 40°C	cSt	ASTM D7279(m)		105		
	Visc @ 100°C	cSt	ASTM D7279(m)		14.1		
Dec19/23 Dec19/23	Viscosity Index (VI)	Scale	ASTM D2270*		136		
	GRAPHS						
	Iron (ppm)			100	Lead (ppm)		
	300 Severe			100	Severe		
	200 Abnormal			틆 50	Abnormal		
	100 -						
				0 <u>73</u>			23
	Dec19/23			Dec19/23	Dec19/23		Dec19/23
	Aluminum (ppm)				Chromium (pp	om)	
	60			60			
	40 Severe			40 Ed			-
	20 - Abnormal			20	- Abnormal		
				1			23
	Dec19/23			Dec19/23	Dec19/23		Dec19/23
	Copper (ppm)				Silicon (ppm)		
	400 Severe			80	Severe		
	300			60 특 40			
1	100			음. ⁴⁰ 20			
	0						
	Dec1 9/23			Dec19/23	Dec19/23		Dec19/23
	∝ Viscosity @ 100°C			ā	ے Soot %		D
	20 T			6.0			
	Abnormal			_و ءِ 4.0			
	् 00 15 रह			2.0°°°)		
	10						
	Dec19/23			Dec19/23	Dec19/23		Dec19/23
	G			De	De		De
Laboratory Sample No. Lab Number Unique Number Calced Ited Laboratory Calced Ited Laboratory Calced Ited Laboratory Sample No. Lab Number Unique Number Test Package To discuss this sample report, Test denoted (*) outside scope	: 02605160 E : 5698245 E : MOB 1 (Additional T contact Customer Servic of accreditation, (m) me	Recieved Diagnose Diagnosti Fests: KV ce at 1-80 ethod mo	: 27 [ed : 27 [ician : Wes 40, VI, Visua 00-268-2131 dified, (e) te	Dec 2023 Dec 2023 s Davis al) '. sted at extern	nal lab.	FO. Contac	NDREW VOLK BOX 206 X VALLEY, SK CA SON 0V0 ct: Andrew Volk Ik@sasktel.net T:
Validity of results and interpreta	ation are based on the s	sample ar	nd informatio	on as supplie	d.		F: