

Sample Rating Trend

VISUAL METAL

Machine Id

PETERBILT 28 - RD688SX2788

Diesel Engine Fluid

PETRO CANADA DURON HP 15W40 (36 QTS)

DIAGNOSIS

A Recommendation

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

📥 Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

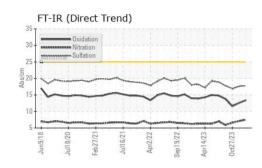
Fluid Condition

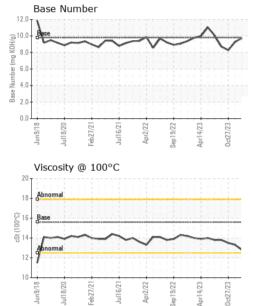
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

S)		n2018 Jul20	120 Feb2021 Jul2021	Apr2022 Sep2022 Apr2023	Oct2023	
SAMPLE INFORM	/IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0104389	PCA0104385	PCA0098375
Sample Date		Client Info		07 Mar 2024	29 Jan 2024	27 Oct 2023
Aachine Age	mls	Client Info		782000	777589	773589
Dil Age	mls	Client Info		4411	4000	5333
Dil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Vater		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>110	10	2	5
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Fitanium	ppm	ASTM D5185m		1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	<1	<1
ead	ppm	ASTM D5185m	>45	0	2	0
Copper	ppm	ASTM D5185m	>85	2	2	<1
Γin	ppm	ASTM D5185m	>4	<1	<1	0
/anadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		25	19	14
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		42	38	28
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		667	528	425
Calcium	ppm	ASTM D5185m		1314	1354	1688
Phosphorus	ppm	ASTM D5185m		958	863	918
Zinc	ppm	ASTM D5185m		1116	1037	1119
Sulfur	ppm	ASTM D5185m		3684	2996	3304
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	3	0	3
Sodium	ppm	ASTM D5185m		2	1	<1
D = 4 = 1 = 1 = 1 = 1	ppm	ASTM D5185m	>20	1	<1	<1
Potassium			limit/base	current	history1	history2
INFRA-RED		method	iiiiii/base		,	,
INFRA-RED	%	*ASTM D7844	>3	0.2	0.2	0.2
INFRA-RED	% Abs/cm					
INFRA-RED Soot % Nitration		*ASTM D7844	>3	0.2	0.2	0.2
INFRA-RED Soot % Nitration	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>3 >20	0.2 7.5	0.2 7.1	0.2
Soot % Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7844 *ASTM D7624 *ASTM D7415	>3 >20 >30	0.2 7.5 17.8	0.2 7.1 17.6	0.2 6.6 16.9



OIL ANALYSIS REPORT





VISUAL			me	ethod	limit/ba	ase	С	urren	t	hi	story1		his	tory2	
White Metal		scalar			NONE			DER							
Yellow Metal					NONE NONE				NONE		NONE				
Precipitate		scalar			_		-	NE		NON					
Silt		scalar									ONE		NONE		
Debris		scalar			NONE NONE				NONE			NONE			
Sand/Dirt		scalar											NONE		
			-		-				NONE			NONE			
Appearance			calar *Visual		NORML NORM					NORML			NORML		
Odor	atar		scalar *Visual		NORML NORM				NORML			NORML			
Free Water				*Visual >0.2 *Visual			NEG			NEG			NEG		
		scalar						-		NE					
FLUID PF Visc @ 100°C		CSt		ethod M D445	limit/ba	ase	с 12.	ourren	t	13.	story1		13.5	tory2	
GRAPHS		CSI	A91	IVI D445	10.0		12.	.0		13.	3		13.5		
Iron (ppm)							Leac	d (ppr	n)						
Severe						80-	Severe		,				1-1-1-1-		
•						60-									
Abnormal						튭 40 -	Abnor	mal							
						20-									
		2	2			0.			12	12	2	2	5		
Jun9/18	-eb27/21 Jul16/21	Apr2/22	Sep 19/22	Apr1 4/23	0ct27/23		Jun9/18	Jul18/20	Feb27/21	Jul16/21	Apr2/22	Sep 19/22	4pr14/23	0ct27/23	
	_	4	Se	Ap	Ő		-	2			4	Sel	Ap	õ	
Aluminum ((ppm)					10-	Chro	omiun	n (pp	m)					
Severe							Severe		i li				1111		
						c									
Abnormal						udd 4.	Abnon	mal							
						2	T i i								
	_				_	0.					~		\sim	\sim	
Jun9/18	-eb27/21- Jul16/21-	Apr2/22	Sep19/22	Apr14/23 .	0ct27/23		- 81/6-nnf	Jul18/20	Feb27/21-	Jul16/21-	Apr2/22 .	Sep19/22.	Apr14/23.	0ct27/23	
Juli Juli	Jul1	Apr	Sep1	Apr1	0ct2		ղոր	Jul	Feb2	Jult	Apr	Sep 1	Apr1	0ct2	
Copper (pp	m)						Silico	on (pj	om)						
0						50-	Severe								
Severe						40-	Abnon								
Abnormal						ط ³⁰	Abhon	mai	1						
			1 1 1			⁻ 20 -									
						10-	1	\sim							
20	21	22	22	23	23	0.	10	20	21	21	22	22	23	23	
/2018/18	Feb27/21 Jul16/21	Apr2/22	Sep 19/22	4pr14/23	0ct27/23		Jun9/18	Jul18/20	Feb27/2	Jul16/21	Apr2/22	Sep 19/22	Apr14/23	0ct27/23	
Viscosity @			60	4	_			e Nun		-		0	4	0	
Table set and a set of the	100 0			innphone		12.0	Dase	- Null	ibel				100100		
Abnormal					-	Base Number (mg KOH/g) 0.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0	Base	-	~	~	-~	~	~	17	
Abnormal	L	arriet in				y Bul)-								~	
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14 13 13 14 1	STI 13	2	2			۰0.0 ⁶			+_+	1	2				
<u> </u>	per per	2/2	Sep 19/22	Apr14/23.	0ct27/23		Jun9/18	Jul18/20	Feb27/21	Jul16/21	Apr2/22	Sep 19/22	Apr14/23	0ct27/23	
- 118/201	116/21	010			0		JL	In	CD.	1	A	deb	d	DC	
- 02/81/uL	Feb27/21- Jul16/21-	Apr2/22	Sep	Ap	0				LL.	,		0,	A	0	
earCheck US		1 Madiso	on Ave			513			L.					PRICE	
earCheck US CA0104389		1 Madiso Rece i	on Ave i ved	e., Cary : 0	v, NC 275 5 Apr 202	24			F			511 PL	J F _EASA	PRICE	
earCheck US CA0104389 5140692		1 Madiso Recei Teste	on Ave ived	e., Cary : 05 : 08	v, NC 275 5 Apr 202 3 Apr 202	24 24			F			511 PL	J F LEASA	PRICE ANT ST TH, MA	
		1 Madiso Rece i	on Ave ived	e., Cary : 05 : 08	v, NC 275 5 Apr 202	24 24	Baldric		F		E	11 PL WEY	JF EASA MOUT US		

* - 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)

Certificate L2367

Laboratory

Sample No. Lab Number **Unique Number Test Package**

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