

OIL ANALYSIS REPORT

Area KEMP QUARRIES / KEMP STONE - FAIRLAND [66778] WL119 Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-1 changed filters and fluid)

Wear

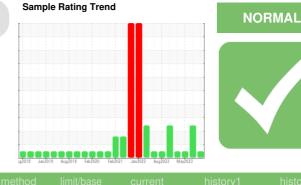
All component wear rates are normal.

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 suitable for further service.



SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0084808	PCA0086458	PCA0085740
Sample Date		Client Info		12 Oct 2023	09 Aug 2023	16 May 2023
Machine Age	hrs	Client Info		6656	6527	6375
Oil Age	hrs	Client Info		6656	6527	6375
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ABNORMAL	NORMAL
CONTAMINATIO	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	40	62	54
Chromium	ppm	ASTM D5185m	>20	1	2	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
	ppm	ASTM D5185m	>3	0	0	0
	ppm	ASTM D5185m	>20	8	1 3	11
	ppm	ASTM D5185m	>40	0	0	<1
	ppm	ASTM D5185m	>330	6	1	2
	ppm	ASTM D5185m	>15	0	0	<1
	ppm	ASTM D5185m		0	0	0
	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		2	18	8
Barium	ppm	ASTM D5185m		0	0	0
	ppm	ASTM D5185m		72	76	80
	ppm	ASTM D5185m		<1	<1	<1
	ppm	ASTM D5185m		1164	1250	1191
	ppm	ASTM D5185m		1316	1800	1564
	ppm	ASTM D5185m		1124	1285	1170
	ppm	ASTM D5185m		1405	1594	1481
	ppm	ASTM D5185m		3093	4186	3772
CONTAMINANT	S	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	16	<mark>▲</mark> 36	24
Sodium	ppm	ASTM D5185m		4	4	2
Potassium	ppm	ASTM D5185m	>20	4	2	3
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.9	8.4	9.3
	Abs/.1mm	*ASTM D7415	>30	20.0	20.8	20.0
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Ouidation	Ales/dame-	****	05	10.0	10.0	

16.3

9.7

16.9

10.3

Oxidation

Abs/.1mm *ASTM D7414 >25

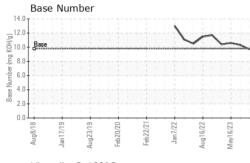
Base Number (BN) mg KOH/g ASTM D2896 9.8

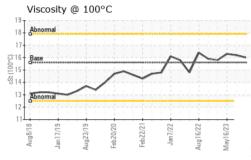
10.6

15.7



OIL ANALYSIS REPORT





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			100		$1 \wedge$	
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			Base			
3/19	2/21	3/22		8/18 7/19	0/20 - 2/21 -	6/22
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CA0084808 F 987155 E 1709817 E OB 1 (Additional T ct Customer Service	Received Diagnose Diagnost Fests: TE ce at 1-8	ad: :23 (ad: :25 (ician: Dor BN) 000-237-1368	Oct 2023 Oct 2023 n Baldridge 9.	8 Kemp Qu	18	tone - Fairland 1350 S 590 Rd Fairland, OK US 74343 Contact: empstone.com T:
	earCheck USA - 5 CA0084808 987155 Diversional Base Burrowned Burliner Burli	Copper (ppm) Severe Wommed But Copper (ppm) Severe But Copper (ppm) Severe But Copper (ppm) But Copper (ppm) Bu	Copper (ppm) Severe Annomal Base Abnormal Abnormal Base Abnormal Abn	Copper (ppm) Copper (ppm) Co	ei/L11er ei/L11	EVER USA - 501 Madison Ave., Cary, NC 27513 CAOBA84088 Received : 23 Oct 2023 18 200084808 Received : 23 Oct 2023 18 200084808 Received : 23 Oct 2023 18 200084808 Received : 23 Oct 2023 18 200084808 Received : 25 Oct 2023 18 2000817 Diagnosetician : Don Baldridge OB 1 (Additional Tests: TBN) ct Customer Service at 1-800-237-1369. tside of the ISO 17025 scope of accreditation.



Tes To discuss this san * - Denotes test me Statements of confo