

OIL ANALYSIS REPORT

SAMPLE INFORMATION method

Sample Rating Trend



Machine Id

ISUZU 160658

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (12 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

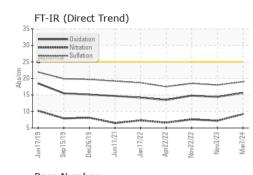
Fluid Condition

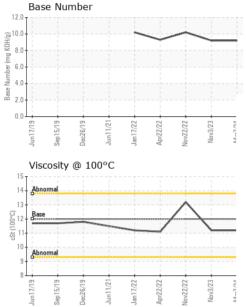
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

		methoa	IIIII/Dase	current	TIIStOLA	TIIStoryz
Sample Number		Client Info		PCA0110682	PCA0097375	PCA0071745
Sample Date		Client Info		07 Mar 2024	03 Nov 2023	22 Nov 2022
Machine Age	mls	Client Info		93028	78985	72058
Oil Age	mls	Client Info		14043	3218	3397
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
•			11 1.0			
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	44	47	30
Chromium	ppm	ASTM D5185m		1	<1	<1
Nickel	ppm	ASTM D5185m	>20	، <1	0	<1
Titanium	ppm	ASTM D5185m	~	2	4	11
Silver	ppm	ASTM D5185m	~3	0	4	0
Aluminum	ppm	ASTM D5185m		4	3	2
Lead		ASTM D5185m	>20	4	<1	<1
	ppm	ASTM D5185m		3	2	2
Copper Tin	ppm		>330	3 1	<1	<1
Vanadium	ppm ppm	ASTM D5185m	210	। <1	< 1	<1
Cadmium		ASTM D5185m		<1	0	0
	ppm	ASTIVI DOTODIII		<1		-
ADDITIVES						
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	current 4	history1 8	nistory∠ 17
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	2	4	8	17
Boron Barium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0	4 0	8	17 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	4 0 61	8 0 60	17 0 53
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	4 0 61 <1	8 0 60 <1	17 0 53 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 0 61 <1 956	8 0 60 <1 972	17 0 53 <1 971
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	4 0 61 <1 956 1129	8 0 60 <1 972 1164	17 0 53 <1 971 1325
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	4 0 61 <1 956 1129 1056	8 0 60 <1 972 1164 1169	17 0 53 <1 971 1325 1085
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	4 0 61 <1 956 1129 1056 1275	8 0 60 <1 972 1164 1169 1309	17 0 53 <1 971 1325 1085 1324
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 61 <1 956 1129 1056 1275 3291 current	8 0 60 <1 972 1164 1169 1309 3455 history1	17 0 53 <1 971 1325 1085 1324 3851 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600	4 0 61 <1 956 1129 1056 1275 3291 current 6	8 0 60 <1 972 1164 1169 1309 3455 history1 4	17 0 53 <1 971 1325 1085 1324 3851 history2 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 61 <1 956 1129 1056 1275 3291 current	8 0 60 <1 972 1164 1169 1309 3455 history1	17 0 53 <1 971 1325 1085 1324 3851 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >25	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 2 history1	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 <u>history1</u> 0.5	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8 9.2	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 history1 0.5 7.2	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 history2 0.5 7.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 <u>history1</u> 0.5	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8 9.2	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 history1 0.5 7.2	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 history2 0.5 7.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 imit/base >3 >20 >30	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8 9.2 19.0	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 <u>history1</u> 0.5 7.2 18.0	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 0 history2 0.5 7.6 18.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 20 >20 >30 >30 imit/base	4 0 61 <1 956 1129 1056 1275 3291 current 6 4 2 2 current 0.8 9.2 19.0 current	8 0 60 <1 972 1164 1169 1309 3455 history1 4 1 2 <u>history1</u> 0.5 7.2 18.0 history1	17 0 53 <1 971 1325 1085 1324 3851 history2 5 2 0 0 history2 0.5 7.6 18.5 history2



OIL ANALYSIS REPORT





White Merial scalar Visual NONE NONE NONE NONE NONE NONE Precipitate scalar Visual NONE NONE NONE NONE NONE NONE Site scalar Visual NONE NONE NONE NONE NONE SandDirt scalar Visual NONE NONE NONE NONE NONE SandDirt scalar Visual NONE NONE NONE NONE NONE ENDERS Scalar Visual NONE NONE NONE NONE Free Water scalar Visual NONE NONE NONE NONE Free Water scalar Visual NONE NONE NONE NONE Free Water scalar Visual NONE NONE NONE NONE NONE Free Water scalar Visual NORE NONE NORE NONE Free Water scalar Visual NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE NORE NORE Free Water scalar Visual NORE NORE NORE NORE NORE NORE NORE NORE		VISUAL		method	limit/base	current	history1	history2
Precipitate scalar Visual NONE NONE NONE NONE NONE NONE NONE Site scalar Visual NONE NONE NONE NONE NONE Sand/Diri scalar Visual NORML NORML NORML NORML NORML NORML Odor scalar Visual NORML		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Sint scalar Visual NONE NONE NONE NONE NONE NONE NONE NON		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
bebris scalar Visual NONE NONE NONE NONE NONE NONE NONE NON		Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MILLER TRUCK LEASING #129 Sample No.		Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar Visual NORML		Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Laboratory Sample No. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ARCONSCIENCES AND ADDRESS OF THE OWNER	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Laboratory Sample No. 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22/22 v3/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar Visual NEG NEG NEG FLUID PROPERTIES method imdbase ourrent history in	Nov No	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIES method imit/base ourcent history1 history2 Visc @ 100°C osi ASTM D445 12.00 11.2 11.2 13.2 GRAPHS Too (ppm) Ion		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Visc @ 100°C CSI ASTM D45 12.00 11.2 11.2 13.2 GRAPHS Tron (ppm) 4 Juninum (ppm) 4 Juni		Free Water	scalar	*Visual		NEG	NEG	NEG
Laboratory :: WearCheck USA -501 Madison Ave., Cary, NC 27513 Sample No. :: PCAD10682: Received :: 08 Apr 2024				method				
Laboratory :: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. :: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. :: MearCheck USA -			cSt	ASTM D445	12.00	11.2	11.2	13.2
Laboratory :: WearCheck USA - 501 Madison Ave., Cary, NC 2751 Sample No. :: PCA110622 :: Received :: 08 Apr 2024 :: Caracter p. PA								
Edeboratory: "Wardbeek USA - 501 Madison Ave., Cary, NC 27513 Sample No. Edeboration: "Wardbeek USA - 501 Madison Ave., Cary, NC 27513 Sample No.								
Laboratory: :Wearcheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : PCA0110682 Received : 08 Apr 2024 : ::Easter 1:	2/22 - 3/23 -	200 - Severe				80 - Severe		
Aluminum (ppm) Aluminum (ppm)	Nov2 Nov	E ¹⁵⁰			E			
Laboratory: Sample No. Eaboratory: Sample No.		all 100 - Abnormal			id	40 - Abnormal		
Support Sup		50				20 -		
Aluminum (ppm) Aluminum (ppm)			22 +	22 + 23 + 23 + 23 + 23 + 23 + 23 + 23 +	24		22	23
Aluminum (ppm) Aluminum (ppm)	\wedge	un17/ ep15/ lec26/	an17/	Aprzz/ lov22/ Nov3/	Mar7/	un17/ ep15/	lun11, an17/	lov22/ Nov3/ Mar7/
Laboratory :: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. :: PCA0110682 Received :: 08 Apr 2024		, , ,		~ 2				2
Laboratory Sample No. Sample No.		50 T				⁵⁰ T ;;;;	· · · · · · · · · · · · · · · · · · ·	
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Mond Mon	× 3 5	5. ³⁰			E	30		
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : PCA0110682 Sample No. : PCA	.c. r	a 20 - Abnormal			d	20 - Abnormal		-
 Humping in the second se	No No							
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Lab Number : :06140890 : Reserved : :08 Apr 2024			1/22	2/22	1/24	61/2	1/21	2/22
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Laboratory Sample No. Lab Number : 06140890 Lab Number : 06140890 Lab Number : 06140890 Lab Number : 06140890		400)	
Laboratory Sample No. Laboratory Edd10082 Laboratory Exercised Laboratory Lab		Abnormal		++				
Laboratory Sample No. Lab Number : 06140890 Lab Number : 06140890 Lab Number : 06140890 Lab Number : 06140890 Lab Number Laboratory Lab Number Lab Number : 06140890 Lab Number Lab Number								
Laboratory Sample No. Lab Number : 06140890 Lab Number : 06140890		흡 ²⁰⁰ -			bbr	40 Abnormal		
$Laboratory \\ Laboratory \\ Lab$		100-				20		
Viscosity @ 100°C Uiscosity @ 1				22 - 23 - 23 - 23 - 23	24		22	22
Viscosity @ 100°C Uiscosity @ 1		Jun17/ Sep15/ Jun11.	Jan 17/	Aprzz/ Vov22/ Nov3/	Mar7/	Jun 17/ Sep 15/ Dec 26/	Jun11, Jan17/ Apr22/	Vov22/ Nov3/
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : PCA0110682 Lab Number : :06140890 Exercised : :08 Apr 2024 Exercised : :08 Apr 2024							r	-
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. <td: pca0110682<="" td=""> Lab Number <td: 06140890<="" td=""></td:></td:>					12 P 10	2.0 1		
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. <td: pca0110682<="" td=""> Lab Number <td: 06140890<="" td=""></td:></td:>				~	B B	3.0 -		
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Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. <td: pca0110682<="" td=""> Lab Number <td: 06140890<="" td=""></td:></td:>		10			un 4	H.O		
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MILLER TRUCK LEASING #123 Sample No. : PCA0110682 Received : 08 Apr 2024 66 KELLER AVENUE Lab Number : 06140890 Tested : 08 Apr 2024 LANCASTER, PA		8).0 + + - + + + + + + + + + + + + + + + +		
Laboratory: WearCheck USA - 501 Madison Ave., Cary, NC 27513MILLER TRUCK LEASING #123Sample No.: PCA0110682Received: 08 Apr 202466 KELLER AVENUELab Number: 06140890Tested: 08 Apr 2024LANCASTER, PA		17/19 15/19 26/19	17/22	22/22		17/19	17/21	22/22 v3/23 r7/24
Sample No. : PCA0110682 Received : 08 Apr 2024 66 KELLER AVENUE Lab Number : 06140890 Tested : 08 Apr 2024 LANCASTER, PA		Sep	Jan	Apr Novi	Ma	Sep	Jun Jan Apr	Nov: No
Sample No. : PCA0110682 Received : 08 Apr 2024 66 KELLER AVENUE Lab Number : 06140890 Tested : 08 Apr 2024 LANCASTER, PA								
Lab Number : 06140890Tested: 08 Apr 2024LANCASTER, PA						N		
Tost Backage MOR 1 (Additional Taste: TRN)	Unique Number	: 10965698	Diagr	nosed : 08		Nes Davis		US 17601



Unique Number : 10 Test Package : MOB 1 (Additional Tests: TBN) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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)

Contact: RON ROBERTS rroberts@millertransgroup.com T: (717)945-6205 F: (717)945-5818

Report Id: MILLAN [WUSCAR] 06140890 (Generated: 04/08/2024 18:39:36) Rev: 1

Contact/Location: RON ROBERTS - MILLAN

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