

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id KENWORTH T800 3WKDD40X1GF109090

Diesel Engine

Fluid MOBIL DELVAC 1300 SUPER15W40 (10 GAL)

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.

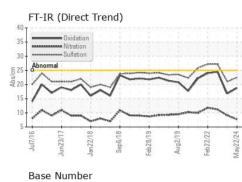
Fluid Condition

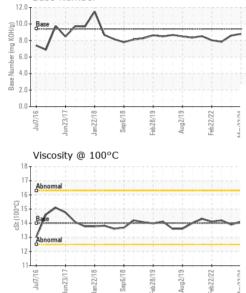
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RW0004910	RW0004913	RW0003005
Sample Date		Client Info		22 May 2024	26 Jan 2024	03 Jun 2022
Machine Age	hrs	Client Info		10917	10541	0
Oil Age	hrs	Client Info		376	386	503
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	18	15	23
Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	2	4
Lead	ppm	ASTM D5185m	>150	2	<1	4
Copper	ppm	ASTM D5185m	>90	1	0	<1
Tin	ppm	ASTM D5185m	>5	1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
	le le	No III Borooiii		<1	0	0
ADDITIVES	h h	method	limit/base	current	history1	history2
	ppm		limit/base		-	-
ADDITIVES		method ASTM D5185m		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m ASTM D5185m	0	current 52	history1 47	history2 59
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	0	current 52 2	history1 47 0	history2 59 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43	history1 47 0 30	history2 59 0 45
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43 <1	history1 47 0 30 <1	history2 59 0 45 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43 <1 561	history1 47 0 30 <1 714	history2 59 0 45 <1 531
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43 <1 561 1797	history1 47 0 30 <1 714 1778	history2 59 0 45 <1 531 1783
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43 <1 561 1797 871	history1 47 0 30 <1 714 1778 879	history2 59 0 45 <1 531 1783 742
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 52 2 43 <1 561 1797 871 1008	history1 47 0 30 <1 714 1778 879 1057	history2 59 0 45 <1 531 1783 742 919
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 Imit/base	Current 52 2 43 <1 561 1797 871 1008 2862	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8	history2 59 0 45 <1 531 1783 742 919 2760 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 Imit/base	current 52 2 43 <1 561 1797 871 1008 2862 current	history1 47 0 30 <1 714 1778 879 1057 3650 history1	history2 59 0 45 <1 531 1783 742 919 2760 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 	current 52 2 43 <1 561 1797 871 1008 2862 current 10	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8	history2 59 0 45 <1 531 1783 742 919 2760 history2 6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 	current 52 2 43 <1 561 1797 871 1008 2862 current 10 2	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 <u>limit/base</u> >35	current 52 2 43 <1 561 1797 871 1008 2862 current 10 2 10 2 10 2 10 2 10 2 10 10 2 10	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2 5	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3 6 3 6 1.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	current 52 2 43 <1 561 1797 871 1008 2862 0 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2 5 history1	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3 6 3 6 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	method ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	current 52 2 43 <1 561 1797 871 1008 2862 0urrent 10 2 10 2 10 2 0.6	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2 5 history1 0.9	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3 6 3 6 1.6
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 52 2 43 <1 561 1797 871 1008 2862 current 10 2 10 2 10 2 0.6 7.7	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2 5 history1 0.9 9.1	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3 6 history2 1.6 11.2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	current 52 2 43 <1 561 1797 871 1008 2862 current 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 2 10	history1 47 0 30 <1 714 1778 879 1057 3650 history1 8 2 5 history1 0.9 9.1 21.0	history2 59 0 45 <1 531 1783 742 919 2760 history2 6 3 6 history2 1.6 11.2 27.2



OIL ANALYSIS REPORT





	VISUAL		method	limit/base	current	history1	history2					
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE					
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE					
A	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE					
ノビ	Silt	scalar	*Visual	NONE	NONE	NONE	NONE					
1	Debris	scalar	*Visual	NONE	NONE	NONE	NONE					
Barris Contraction	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE					
2/22	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML					
Feb22/22 May22/24	Odor	scalar	*Visual	NORML	NORML	NORML	NORML					
-	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG					
	Free Water	scalar	*Visual		NEG	NEG	NEG					
\sim	FLUID PROPER	TIES	method	limit/base	current	history1	history2					
	Visc @ 100°C	cSt	ASTM D445	14	14.1	13.9	14.2					
	GRAPHS											
	Iron (ppm)	Lead (ppn ³⁰⁰ T Severe										
2/22	250			25								
Feb22/22	200 Abnormal			20 								
	100			10)							
	50											
	Jul7/16 Jun 23/17	Sep6/18 Feb28/19	Aug2/19	May22/24	Jul7/16 Jun23/17	Sep6/18	Aug2/19 - Feb22/22 - May22/24 -					
	ج ج Aluminum (ppm)	ι, π	Y ł	Ň	ت ت Chromium (p	, "	W ¹					
	40 Severe			1								
	30			1			*****					
	E 20 - Abnormal			E	Abnormal							
Feb22/22				dd	Abnormal							
Feb22	10				\sim							
	0 - 91	- 61	19				22 24					
	Jul7/16 Jun23/17 Jan22/18	Sep 6/18 -	Aug2/19 . Feb22/22 .	May22/24	Jul7/16 Jun23/17	Sep6/18 Feb28/19	Aug2/19 - Feb22/22 - May22/24 -					
	Copper (ppm)			_	Silicon (ppm))	_					
	200 Severe			8								
	150 -			6) - Severe							
	a 100 - Abnormal			E 4	- Abnormal							
	50-			2	T							
							~~~					
		18-	719			19	719-					
	Jul7/16 Jun23/17 Jun23/17	Sep6/18 .	Aug2/19 . Feb22/22 .	May22/24	Jul7/16 Jun23/17	Sep6/18	Aug2/19 Feb22/22 May22/24					
	Viscosity @ 100°C	2			Base Numbe	r	2					
	Abnormal			12. () 岩10.1	Base							
				(0)H0) Bull 10.1 Bull 10.1	1		~~~~					
	Base Abnormal			13 6.	0-							
	12-			N 98 2	1							
	10			0.1	)							
	Jul7/16 Jun23/17 Jan22/18	Sep6/18 .	Aug2/19 Feb22/22	May22/24	Jul7/16 Jun23/17	Sep6/18 Feb28/19	Aug2/19 - Feb22/22 - May22/24 -					
	Jun Jan	Sr Feb	Au Feb	May	L nub	Se Feb	Au Feb May					
aboratory	: WearCheck USA - 50	HOMER CONCRETE 205 S CEDAR ST										
ample No. ab Number		: RW0004910 Received : 31 May 2024 : 06196862 Tested : 03 Jun 2024										
ab Number nique Number		Diagr		3 Jun 2024 3 Jun 2024 - W	les Davis		IMLAY CITY, M US 48444					
est Package		Diagi			ee Barlo	Contact: DEI						
		: MOB 2 Contact: DENNIS ONDRAJ										

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)

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Certificate L2367

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