



OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
SEVERE
ABNORMAL



Area
OKLAHOMA/102/EG - DOZER
Machine Id
35.102L [OKLAHOMA^102^EG - DOZER]
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0873938	WC0821838	WC0792507
Sample Date		Client Info		07 Nov 2023	05 Jul 2023	02 May 2023
Machine Age	hrs	Client Info		7971	7590	7406
Oil Age	hrs	Client Info		263	130	255
Filter Age	hrs	Client Info		263	130	255
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	75	12	24
Chromium	ppm	ASTM D5185m	>20	10	<1	2
Nickel	ppm	ASTM D5185m	>2	2	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	16	4	9
Lead	ppm	ASTM D5185m	>40	1	<1	0
Copper	ppm	ASTM D5185m	>330	38	15	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

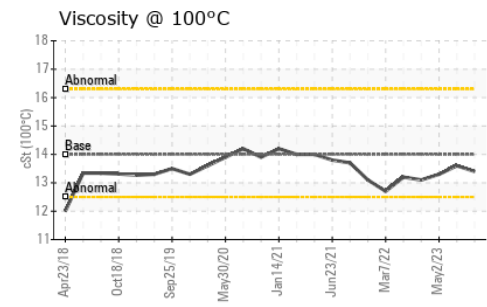
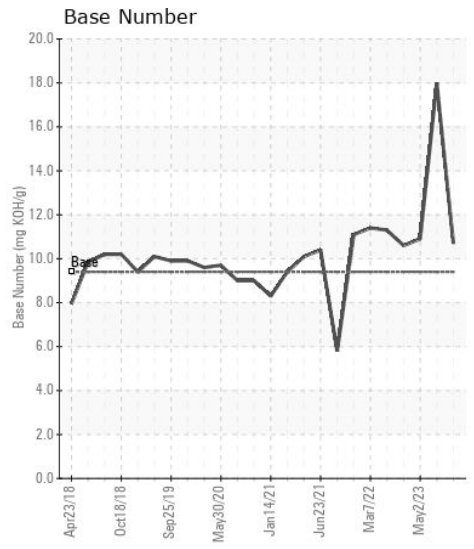
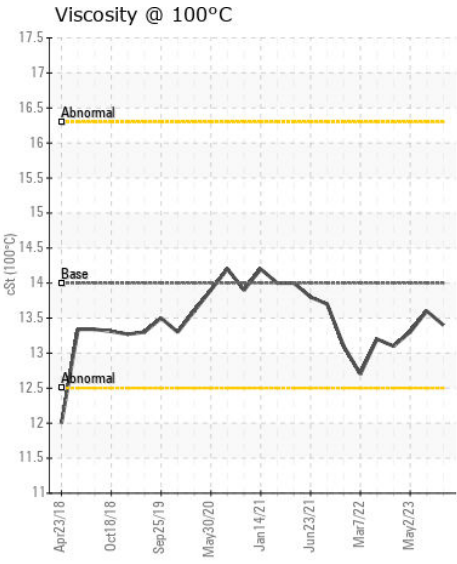
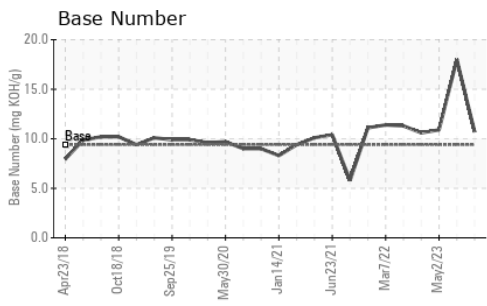
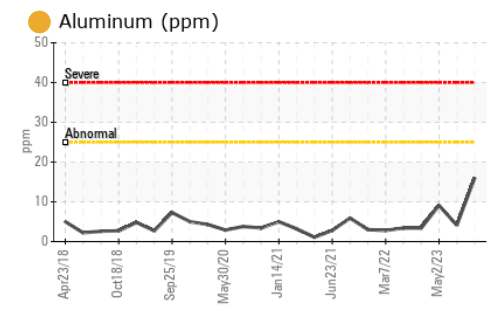
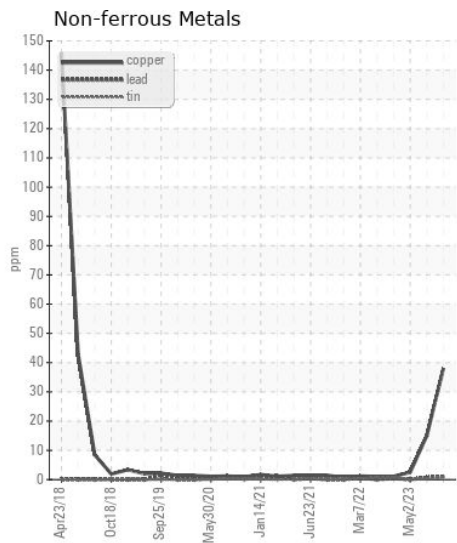
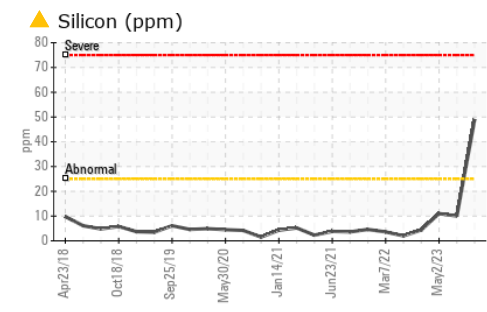
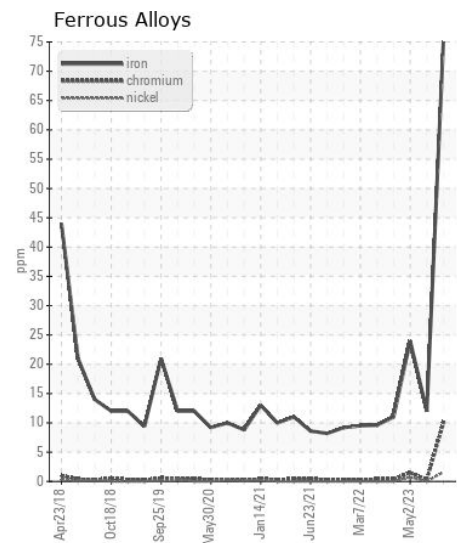
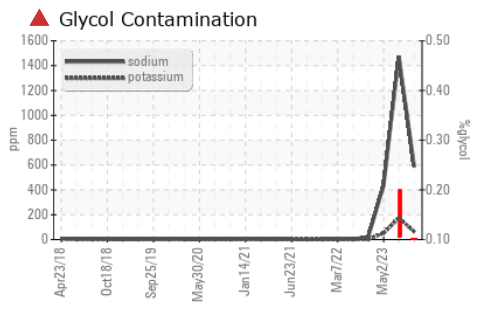
Sodium and/or potassium levels are high. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	49	10	11
Potassium	ppm	ASTM D5185m	>20	62	175	52
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	0.20	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.7	10.0	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.9	23.8	23.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		585	1476	434
Boron	ppm	ASTM D5185m	0	33	41	44
Barium	ppm	ASTM D5185m	0	<1	0	3
Molybdenum	ppm	ASTM D5185m	0	151	277	112
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m	0	538	459	496
Calcium	ppm	ASTM D5185m		1798	1575	1717
Phosphorus	ppm	ASTM D5185m		800	723	760
Zinc	ppm	ASTM D5185m		1002	844	913
Sulfur	ppm	ASTM D5185m		2706	2981	2736
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.9	20.4	21.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	10.7	18.0	10.9
Visc @ 100°C	cSt	ASTM D445	14	13.4	13.6	13.3



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0873938 **Received** : 20 Nov 2023
Lab Number : 06013078 **Tested** : 29 Nov 2023
Unique Number : 10752222 **Diagnosed** : 29 Nov 2023 - Jonathan Hester
Test Package : CONST (Additional Tests: KV40, TBN)
 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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