



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 3512 ULB McClave compressor (S/N 7NJ00728)
Component
Natural Gas Engine
Fluid
LO-ASH ENGINE OIL SAE 40 (86 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data and diagnostic comment updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0013066	KL0013068	KL0013065
Sample Date		Client Info		05 Feb 2024	11 Jan 2024	05 Dec 2023
Machine Age	hrs	Client Info		85859	85274	84502
Oil Age	hrs	Client Info		3480	85274	84502
Filter Age	hrs	Client Info		1272	85274	84502
Oil Changed		Client Info		N/A	Filtered	Filtered
Filter Changed		Client Info		N/A	Changed	None
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	15	11	<1
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	1	2	<1
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>35	1	2	0
Tin	ppm	ASTM D5185m	>4	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

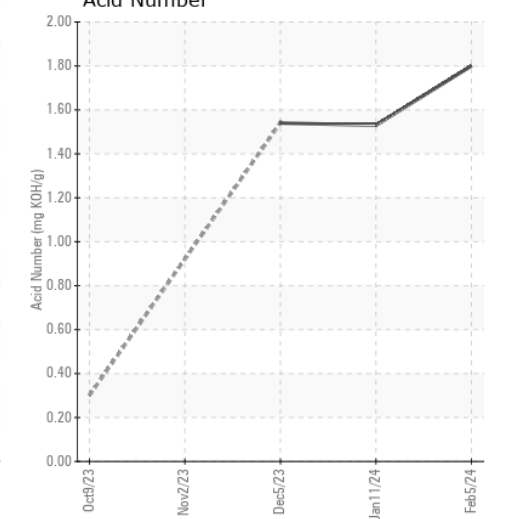
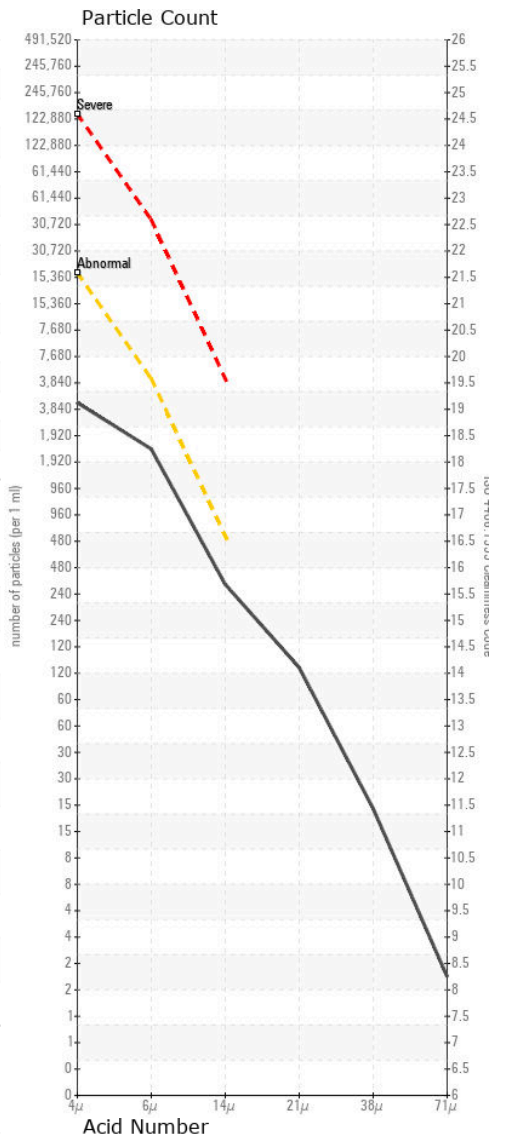
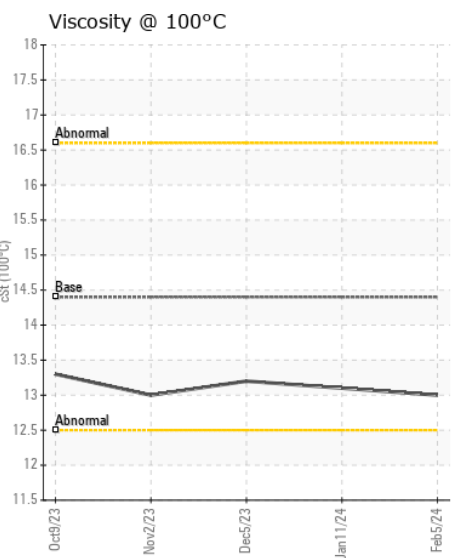
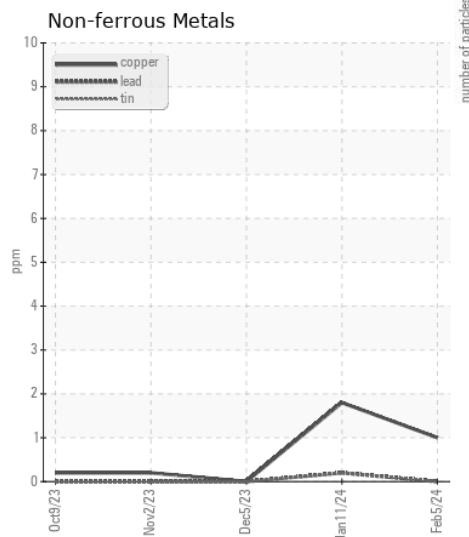
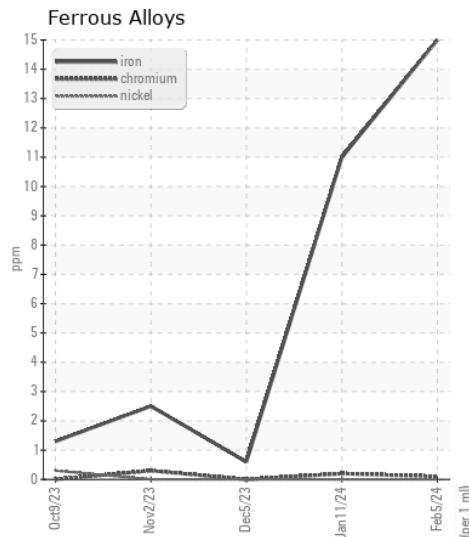
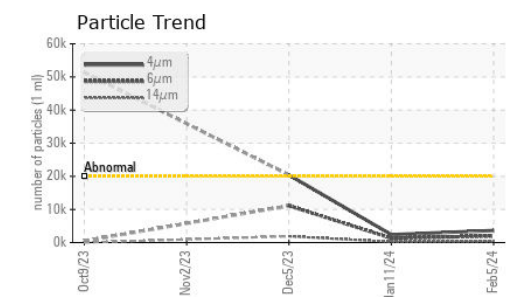
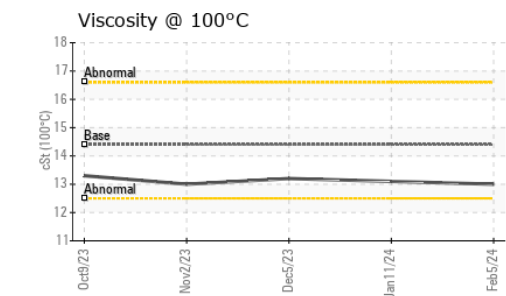
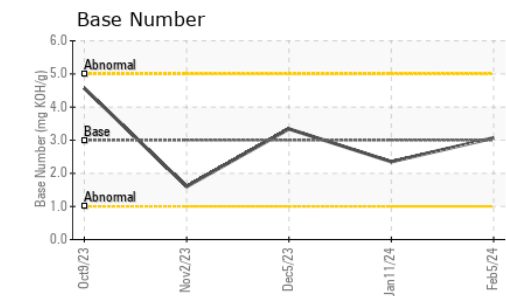
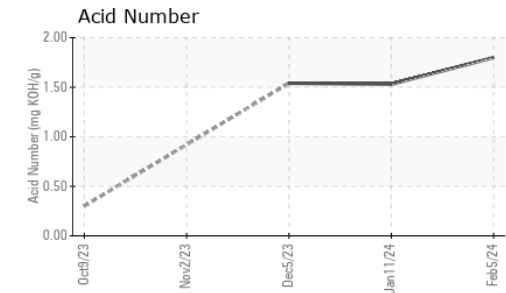
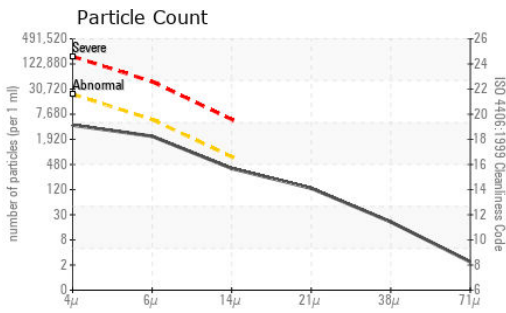
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>+100	4	4	2
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	5.1	5.1	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	19.8	18.5
Particles >4µm		ASTM D7647	>20000	3654	2401	▲ 20409
Particles >6µm		ASTM D7647	>5000	1990	1308	▲ 11118
Particles >14µm		ASTM D7647	>640	339	223	▲ 1892
Particles >21µm		ASTM D7647	>160	114	75	▲ 637
Particles >38µm		ASTM D7647	>40	18	12	▲ 98
Particles >71µm		ASTM D7647	>10	2	1	10
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/18/16	18/18/15	▲ 22/21/18
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	<1	0
Boron	ppm	ASTM D5185m	37	3	3	3
Barium	ppm	ASTM D5185m	12	0	1	0
Molybdenum	ppm	ASTM D5185m	200	12	17	19
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	5	20	19	20
Calcium	ppm	ASTM D5185m	1600	1365	1271	1481
Phosphorus	ppm	ASTM D5185m	300	307	351	324
Zinc	ppm	ASTM D5185m	400	363	361	407
Sulfur	ppm	ASTM D5185m	2600	3605	3674	3450
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	13.4	12.9
Acid Number (AN)	mg KOH/g	ASTM D8045		1.80	1.53	1.54
Base Number (BN)	mg KOH/g	ASTM D2896	3.0	3.07	2.35	3.34
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	13.1	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KL0013066 **Received** : 08 Feb 2024
Lab Number : 06084335 **Tested** : 12 Feb 2024
Unique Number : 10871780 **Diagnosed** : 13 Feb 2024 - Doug Bogart
Test Package : MOB 2 (Additional Tests: PrtCount)

STRACHAN EXPLORATION
 992 S 4TH AVENUE
 BRIGHTON, CT
 US 80601
 Contact: DENNIS JACKSON

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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