



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**JOHN DEERE 4850 4850**

Component  
**Diesel Engine**

Fluid  
**TRC MOLY XL PRO-SPEC IV XP 15W40 (5 GAL)**

**RECOMMENDATION**

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR06031825</b>	TR05957157	TR05887541
Sample Date		Client Info		<b>04 Dec 2023</b>	13 Sep 2023	23 Jun 2023
Machine Age	hrs	Client Info		<b>12250</b>	12700	11950
Oil Age	hrs	Client Info		<b>600</b>	1100	300
Filter Age	hrs	Client Info		<b>600</b>	1100	300
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>SEVERE</b>	NORMAL	NORMAL

**WEAR**

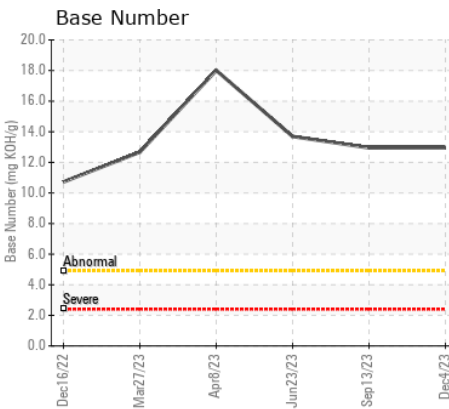
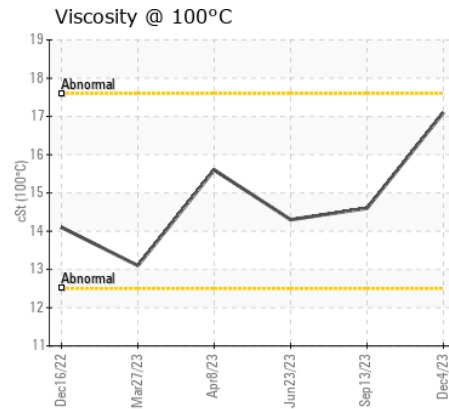
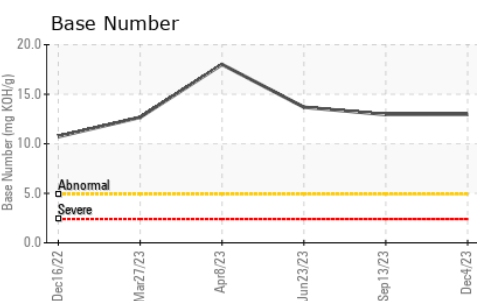
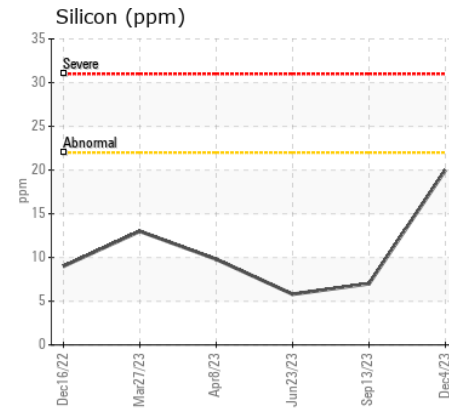
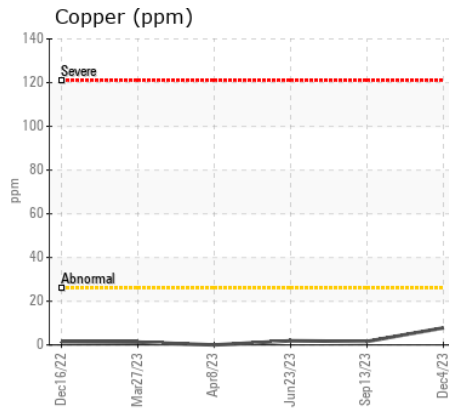
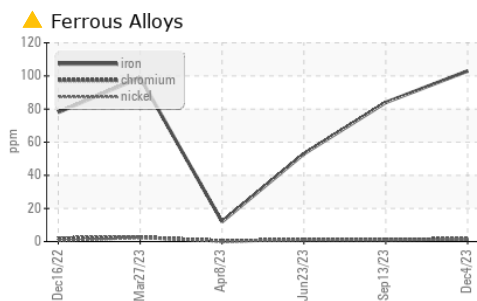
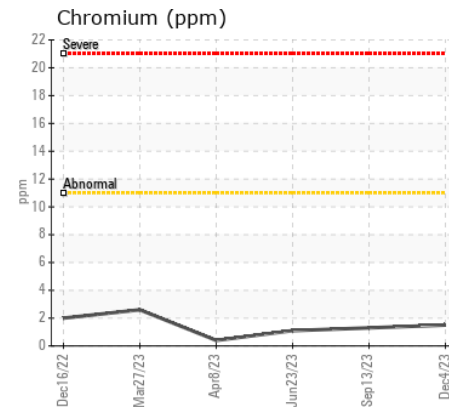
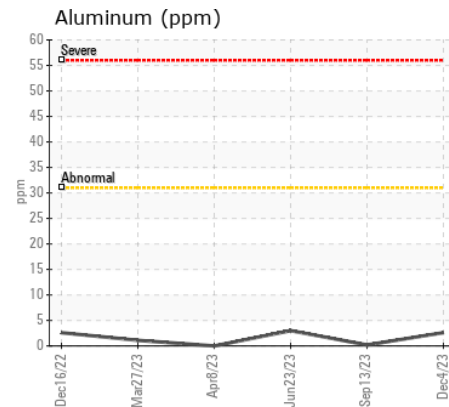
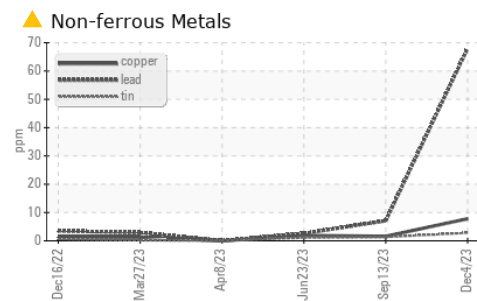
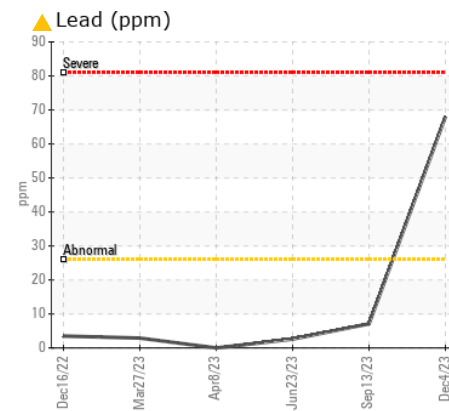
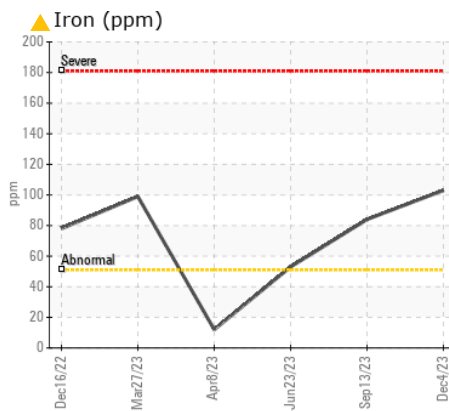
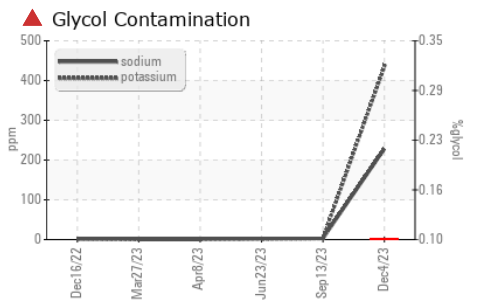
Iron	ppm	ASTM D5185m	>51	<b>▲ 103</b>	84	53
Chromium	ppm	ASTM D5185m	>11	<b>2</b>	1	1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>3</b>	<1	3
Lead	ppm	ASTM D5185m	>26	<b>▲ 68</b>	7	3
Copper	ppm	ASTM D5185m	>26	<b>8</b>	2	2
Tin	ppm	ASTM D5185m	>4	<b>3</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

Silicon	ppm	ASTM D5185m	>22	<b>20</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>▲ 435</b>	3	2
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>▲ 0.10</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.1	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>15.8</b>	14.5	12.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>32.3</b>	27.8	23.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Sodium	ppm	ASTM D5185m	>31	<b>▲ 228</b>	3	2
Boron	ppm	ASTM D5185m		<b>60</b>	0	3
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>88</b>	118	110
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>45</b>	22	21
Calcium	ppm	ASTM D5185m		<b>3462</b>	4705	4619
Phosphorus	ppm	ASTM D5185m		<b>1001</b>	971	937
Zinc	ppm	ASTM D5185m		<b>1005</b>	1160	1122
Sulfur	ppm	ASTM D5185m		<b>3931</b>	5076	5379
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.1</b>	21.5	18.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>12.96</b>	12.95	13.69
Visc @ 100°C	cSt	ASTM D445		<b>17.1</b>	14.6	14.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06031825 **Received** : 11 Dec 2023  
**Lab Number** : 06031825 **Tested** : 15 Dec 2023  
**Unique Number** : 10781616 **Diagnosed** : 15 Dec 2023 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: Glycol )

**SPRAGUE RANCH**  
 6907 ROUTE 14  
 BROOKFIELD, VT  
 US 05036  
 Contact: SCOTT BURRELL

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-827-0711.  
 \* - 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)

T:  
F: