

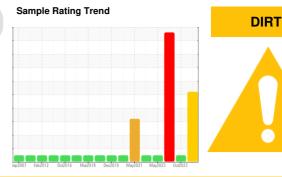
GREASE ANALYSIS

Cranes

Crane - Mid Ship Slew Brg Grease (S/N Sample Tag MA-04002)

Aft Grease

PETRO CANADA PRECISION XL EP2 (--- LTR)



DIAGNOSIS

Recommendation

We recommend that you re-grease the component if this has not already been done. Confirm the source of the grease being utilized for re-greasing. We recommend an early resample to monitor this condition.

Wear

Tin ppm levels are abnormal. Aluminum and antimony ppm levels are noted.

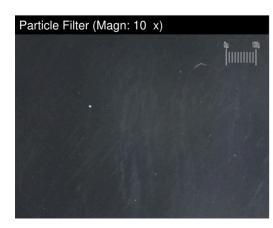
Grease Condition

Additive levels indicate the addition of a different brand, or type of grease. The grease is no longer serviceable as a result of the abnormal and/or severe wear.

Contaminants

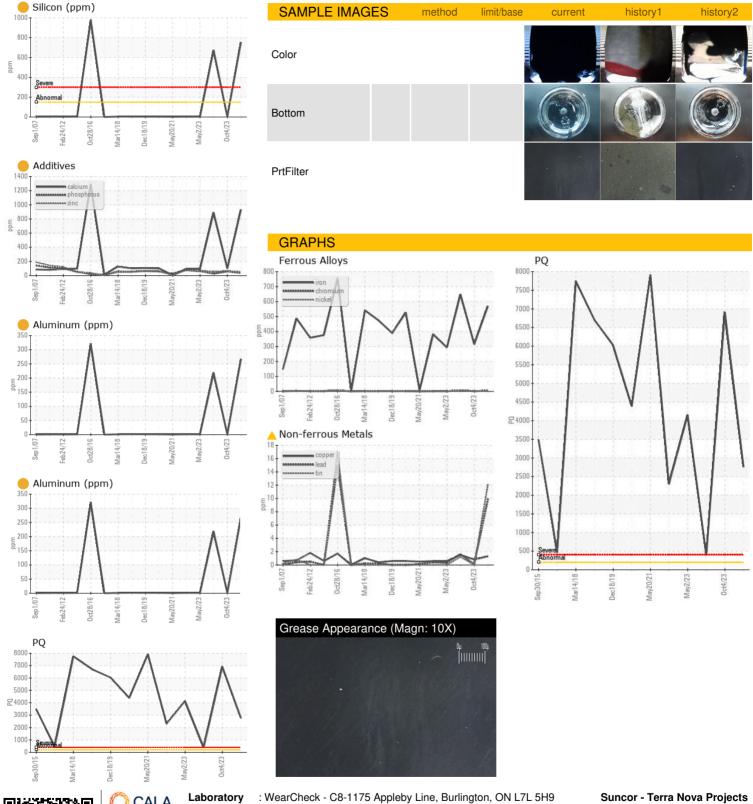
Elemental levels of silicon (Si) and aluminum (Al) indicate this is an aluminum-based grease.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC	PC	PC0061563
Sample Date		Client Info		20 Mar 2024	04 Oct 2023	12 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Grease Age	hrs	Client Info		0	0	0
Grease Serviced		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	SEVERE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*	>200	2760	6910	390
Iron	ppm	ASTM D5185(m)	>250	569	315	△ 648
Chromium	ppm	ASTM D5185(m)	>10	5	1	<u>^</u> 7
Nickel	ppm	ASTM D5185(m)	>5	2	<1	<u>^</u> 2
Cadmium	ppm	ASTM D5185(m)		0	0	0
Titanium	ppm	ASTM D5185(m)		3	0	4
Vanadium	ppm	ASTM D5185(m)		0	0	<1
Lead	ppm	ASTM D5185(m)	>25	10	<1	2
Copper	ppm	ASTM D5185(m)	>75	1	<1	2
Tin	ppm	ASTM D5185(m)	>5	<u>12</u>	0	1
Silver	ppm	ASTM D5185(m)	>5	0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		2	2	2
Magnesium	ppm	ASTM D5185(m)		43	3	42
Manganese	ppm	ASTM D5185(m)		4	4	5
Molybdenum	ppm	ASTM D5185(m)		269	43	122
Phosphorus	ppm	ASTM D5185(m)		37	58	27
Zinc	ppm	ASTM D5185(m)		52	66	54
Antimony	ppm	ASTM D5185(m)		<u> </u>	6	9
THICKENER/S	OAP	method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185(m)		266	<1	218
Barium	ppm	ASTM D5185(m)		2	3	6
Calcium	ppm	ASTM D5185(m)		929	99	889
Sodium	ppm	ASTM D5185(m)		27	19	21
Lithium	ppm	ASTM D5185(m)		113	172	45
Sulfur	ppm	ASTM D5185(m)		850	646	664
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>150	753	3	▲ 675
Potassium	ppm	ASTM D5185(m)		5	<1	5
GREASE CON	DITION	method	limit/base	current	history1	history2
Grease Color		Visual*	Brown	Black	Brown	Black
Texture		In-house*	Stringy	Stringy	Long fiber	Stringy
NLGI Consistency	NLGI Scale	SKF Method*	2	2-3	1-2	2





GREASE ANALYSIS





CALA ISO 17025:2017 Accredited Laboratory

Sample No.

: PC Lab Number : 02626282 Unique Number : 5759414

Received : 02 Apr 2024 **Tested** : 04 Apr 2024

Diagnosed : 04 Apr 2024 - Bill Quesnel Test Package : GRS 1 (Additional Tests: BottomAnalysis, PrtCount, PrtFilter)

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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