

OIL ANALYSIS REPORT

SAMPLE INFORMATION method





Area CRANE Machine Id

ABILITY Component Port Genset

Recommendation

Resample at the next service interval to monitor.

CHEVRON DELO 400 MULTIGRADE 15W40 (5 GAL)

Wear

Fluid

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

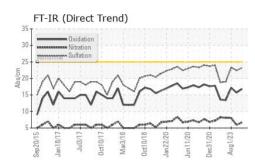
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

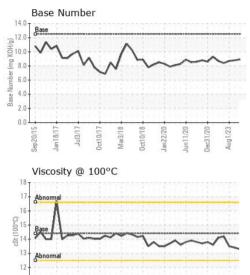
| Sample Number Sample Date Machine Age Oil Age | hrs hrs | Client Info Client Info Client Info Client Info | | WC0791880 22 Mar 2024 15341 260 | WC0791829 30 Aug 2023 13917 255 | WC0791825 01 Aug 2023 13663 376 |
|---|--|--|---|---|---|--|
| Oil Changed Sample Status | | Client Info | | Changed NORMAL | Changed NORMAL | Changed NORMAL |
| CONTAMINATION | N | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | | >50 | 7 | 7 | 12 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | _ | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >12 | 4 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >17 | 0 | <1 | 1 |
| Copper | ppm | ASTM D5185m | | 0 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 1 | <1 |
| Antimony | ppm | ASTM D5185m | | | | |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 151 | 394 | 361 | 268 |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | 151 0.4 | 394 0 | 361 0 | 268 0 |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | 151 | 394 0 138 | 361 0 128 | 268 0 135 |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 | 394 0 138 <1 | 361 0 128 1 | 268 0 135 <1 |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 | 394 0 138 <1 774 | 361 0 128 1 686 | 268 0 135 <1 753 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 | 394 0 138 <1 774 1774 | 361 0 128 1 686 1695 | 268 0 135 <1 753 1886 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 | 394 0 138 <1 774 1774 784 | 361 0 128 1 686 1695 720 | 268 0 135 <1 753 1886 769 |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 | 394 0 138 <1 774 1774 | 361 0 128 1 686 1695 | 268 0 135 <1 753 1886 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 | 394 0 138 <1 774 1774 784 938 | 361 0 128 1 686 1695 720 867 | 268 0 135 <1 753 1886 769 955 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 | 394 0 138 <1 774 1774 784 938 3093 | 361 0 128 1 686 1695 720 867 2993 | 268 0 135 <1 753 1886 769 955 3229 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 limit/base | 394 0 138 <1 774 1774 784 938 3093 current | 361 0 128 1 686 1695 720 867 2993 history1 | 268 0 135 <1 753 1886 769 955 3229 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 limit/base >25 | 394 0 138 <1 774 1774 1774 784 938 3093 current 6 | 361 0 128 1 686 1695 720 867 2993 history1 6 | 268 0 135 <1 753 1886 769 955 3229 history2 7 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 limit/base >25 | 394 0 138 <1 774 1774 784 938 3093 current 6 < | 361 0 128 1 686 1695 720 867 2993 history1 6 2 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 limit/base >25 | 394 0 138 <1 774 1774 1774 938 3093 current 6 <1 0 | 361 0 128 1 686 1695 720 867 2993 history1 6 2 2 4 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 1 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED | ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 Imit/base >25 >20 Imit/base | 394 0 138 <1 774 1774 784 938 3093 current 6 <1 0 | 361 0 128 1 686 1695 720 867 2993 history1 6 2 2 4 history1 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 1 1 history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 Imit/base >25 >20 Imit/base | 394 0 138 <1 774 1774 938 3093 <u>current</u> 6 <1 0 <u>current</u> | 361 0 128 1 686 1695 720 867 2993 history1 6 2 4 4 history1 0.2 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 1 1 history2 0.4 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 <i>limit/base</i> >25 20 <i>limit/base</i> | 394 0 138 <1 774 1774 938 3093 <i>current</i> 6 <1 0 <i>current</i> 0.2 6.7 | 361 0 128 1 686 1695 720 867 2993 history1 6 2 2 4 history1 0.2 5.9 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 2 1 history2 0.4 8.0 |
| 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 | ASTM D5185m ASTM D5185m | 151 0.4 250 0 2046 1043 943 5012 imit/base >25 imit/base >20 imit/base | 394 0 138 <1 774 1774 784 938 3093 <u>current</u> 6 <1 0 <u>current</u> 0.2 6.7 23.2 | 361 0 128 1 686 1695 720 867 2993 history1 6 2 2 4 history1 0.2 5.9 22.4 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 1 1 history2 0.4 8.0 23.3 |
| 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 | ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 | 151 0.4 250 0 2046 1043 943 5012 <i>imit/base</i> >25 20 <i>imit/base</i> >20 >30 | 394 0 138 <1 774 1774 938 3093 <i>current</i> 6 <1 0 <i>current</i> 0.2 6.7 23.2 <i>current</i> | 361 0 128 1 686 1695 720 867 2993 history1 6 2 2 4 history1 0.2 5.9 22.4 history1 | 268 0 135 <1 753 1886 769 955 3229 history2 7 2 2 1 history2 0.4 8.0 23.3 history2 |

Page 1 of 2



OIL ANALYSIS REPORT





CF10/17 Aar2/18 an22/20 un11/20 Dec31/20

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.3 | 13.4 | 13.5 |
| GRAPHS | | | | | | |

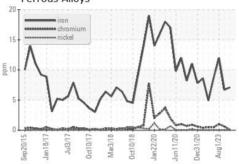
Ferrous Alloys

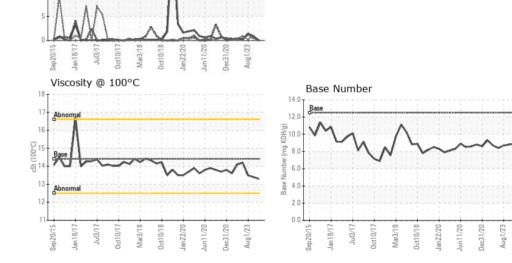
Non-ferrous Metals

Aug1/23

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: 15 Apr 2024

ASSOCIATED TERMINALS - CRANE

CONVENT, LA US 70723 Contact: GREG JOSEY gjosey@associatedterminals.com T:

11 Sep20/15 -Jan18/17

> Lab Number : 06149368 Tested : 16 Apr 2024 Unique Number : 10979446 Diagnosed : 16 Apr 2024 - Wes Davis Test Package : FLEET Certificate 12367 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) F: (225)562-3515

Received

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Report Id: STJCONKL [WUSCAR] 06149368 (Generated: 04/16/2024 16:19:36) Rev: 1

Laboratory

Sample No.

: WC0791880

Contact/Location: GREG JOSEY - STJCONKL