

Area (89684X) Walgreens - Tractor [Walgreens - Tractor] 136A69105

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

A Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

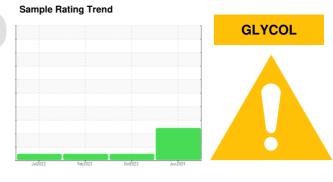
All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

Fluid Condition

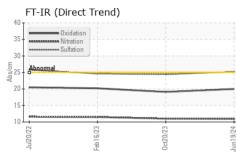
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

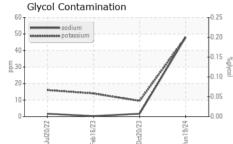


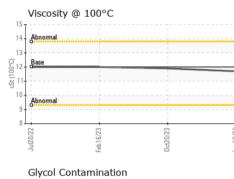
Sample Date Client Info 19 Jun 2024 20 Oct 2023 16 Feb 2023 Machine Age mis Client Info 728531 674026 629059 Oil Age mis Client Info 54505 48967 64798 Oil Changed Client Info Changed Changed Changed Changed Changed Changed Sample Status Client Info Changed Changed Changed Changed Changed CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5.2 <1.0	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age mis Client Info 728531 674026 629059 Oil Age mis Client Info 54505 48967 64798 Oil Changed Client Info ABNORMAL NORMAL NORMAL NORMAL Sample Status Imit/base current history1 history2 Fuel WC Method >5 <1.0	Sample Number		Client Info		PCA0128197	PCA0106162	PCA0090855
Oil Age mis Client Info 54505 48967 64798 Oil Changed Client Info Changed Changed Changed Changed Sample Status method limit/base current history1 history2 Fuel WC Method >5 <1.0	Sample Date		Client Info		19 Jun 2024	20 Oct 2023	16 Feb 2023
Dil Changed Client Info Changed Changed Changed Changed Changed Changed NORMAL Sample Status Image Image Current Nistory1 Normal. CONTAMINATION wethod >5.5 <1.0	Machine Age	mls	Client Info		728531	674026	629059
Sample Status ABNORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Age	mls	Client Info		54505	48967	64798
Sample Status ABNORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		Changed	Changed	Changed
Fuel WC Method >5 <1.0 <1.0 <1.0 Water WC Method >0.2 NEG NEG NEG Wear WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >5 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	Sample Status				-	NORMAL	
Water WC Method >0.2 NEG NEG NEG Wear METALS method limi/base current history1 history2 Iron ppm ASTM D5185m >50 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
Water WC Method >0.2 NEG NEG NEG WEAR METALS method limi/base current history1 history2 Iron ppm ASTM D5185m >50 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	Fuel		WC Method	>5	<1.0	<1.0	<1.0
Iron ppm ASTM D5185m >80 56 42 46 Chromium ppm ASTM D5185m >5 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	Water						
Iron ppm ASTM D5185m >80 56 42 46 Chromium ppm ASTM D5185m >5 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Dromium ppm ASTM D5185m >5 2 2 2 Nickel ppm ASTM D5185m >2 1 <1	Iron	nnm	ASTM D5185m	~80	56		
Nickel ppm ASTM D5185m >2 1 <1 <1 Titanium ppm ASTM D5185m >3 <1							
Titanium ppm ASTM D5185m <1 0 0 Silver ppm ASTM D5185m >3 <1							
Silver ppm ASTM D5185m >3 <1 0 0 Aluminum ppm ASTM D5185m >30 24 23 29 Lead ppm ASTM D5185m >30 0 <1				>2			
Aluminumpm pmASTM D5185m>30242329LeadppmASTM D5185m>300<1				. 0			
Lead ppm ASTM D5185m >30 0 <1 <1 Copper ppm ASTM D5185m >150 20 5 5 Tin ppm ASTM D5185m >5 2 <1							
Copper ppm ASTM D5185m >150 20 5 5 Tin ppm ASTM D5185m >5 2 <1							
Tin ppm ASTM D5185m >5 2 <1 <1 Vanadium ppm ASTM D5185m <1					-		
Vanadium ppm ASTM D5185m <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 8 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Magnese ppm ASTM D5185m 0 67 63 70 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 950 964 945 969 Calcium ppm ASTM D5185m 955 1029 997 1060 Zinc ppm ASTM D5185m 950 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >20 8	••	ppm	ASTM D5185m	>150	-		
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 8 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Maganese ppm ASTM D5185m 0 67 63 70 Magnesium ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 0 2 <1 <1 <1 Phosphorus ppm ASTM D5185m 0 2 <1 <1 <1315 Sulfur ppm ASTM D5185m 1050 1302 1072 2852 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >20 8 8 7 Solicicon ppm ASTM D5185m	Tin	ppm	ASTM D5185m	>5	2		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 8 4 3 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 67 63 70 Manganese ppm ASTM D5185m 0 2 <1	Vanadium	ppm	ASTM D5185m			0	0
Boron ppm ASTM D5185m 2 8 4 3 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 50 67 63 70 Manganese ppm ASTM D5185m 0 2 <1	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 50 67 63 70 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 950 964 945 969 Calcium ppm ASTM D5185m 1050 1302 1072 1231 Phosphorus ppm ASTM D5185m 1050 1302 1072 1231 Sulfur ppm ASTM D5185m 1050 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D5185m	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 67 63 70 Manganese ppm ASTM D5185m 0 2 <1	Daran	0.0.00	ASTM D5185m	2	8	4	3
Maganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 950 964 945 969 Calcium ppm ASTM D5185m 1050 1302 1072 1231 Phosphorus ppm ASTM D5185m 995 1029 997 1060 Zinc ppm ASTM D5185m 918 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Solium ppm ASTM D5185m >20 8 8 7 Solium ppm ASTM D5185m >20 48 10 14 Potassium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/cm *ASTM D7624	DOIOII	ррпі	AOTIVI DOTODITI	<u>_</u>	0	-	÷
Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 950 964 945 969 Calcium ppm ASTM D5185m 1050 1302 1072 1231 Phosphorus ppm ASTM D5185m 995 1029 997 1060 Zinc ppm ASTM D5185m 995 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Potassium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D7844 >3 1.2 1.5 1.4 Ntration Abs/cm *ASTM D7624							
Magnesium ppm ASTM D5185m 950 964 945 969 Calcium ppm ASTM D5185m 1050 1302 1072 1231 Phosphorus ppm ASTM D5185m 995 1029 997 1060 Zinc ppm ASTM D5185m 9185 1029 997 1060 Zinc ppm ASTM D5185m 9102 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current	Barium	ppm	ASTM D5185m	0	0	0	0
Calcium ppm ASTM D5185m 1050 1302 1072 1231 Phosphorus ppm ASTM D5185m 995 1029 997 1060 Zinc ppm ASTM D5185m 1180 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2	Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 50	0 67	0 63	0 70
Phosphorus ppm ASTM D5185m 995 1029 997 1060 Zinc ppm ASTM D5185m 1180 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Potassium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/.1mm *ASTM D7415 >30 25	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0	0 67 2	0 63 <1	0 70 <1
Zinc ppm ASTM D5185m 1180 1337 1251 1315 Sulfur ppm ASTM D5185m 2600 3330 2575 2852 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 10 14 Potassium ppm ASTM D5185m >20 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/.1mm *ASTM D7414 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current	Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950	0 67 2 964	0 63 <1 945	0 70 <1 969
SulfurppmASTM D5185m2600333025752852CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20887SodiumppmASTM D5185m>20482<1	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050	0 67 2 964 1302	0 63 <1 945 1072	0 70 <1 969 1231
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20887SodiumppmASTM D5185m▲ 482<1	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995	0 67 2 964 1302 1029	0 63 <1 945 1072 997	0 70 <1 969 1231 1060
Silicon ppm ASTM D5185m >20 8 8 7 Sodium ppm ASTM D5185m >20 48 2 <1	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180	0 67 2 964 1302 1029 1337	0 63 <1 945 1072 997 1251	0 70 <1 969 1231 1060 1315
Sodium ppm ASTM D5185m ▲ 48 2 <1 Potassium ppm ASTM D5185m >20 ▲ 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/cm *ASTM D7624 >20 10.9 11.0 11.5 Sulfation Abs/.1mm *ASTM D7615 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600	0 67 2 964 1302 1029 1337 3330	0 63 <1 945 1072 997 1251 2575	0 70 <1 969 1231 1060 1315 2852
Potassium ppm ASTM D5185m >20 ▲ 48 10 14 Glycol % *ASTM D2982 NEG NEG NEG INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/cm *ASTM D7624 >20 10.9 11.0 11.5 Sulfation Abs/.1mm *ASTM D7615 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base	0 67 2 964 1302 1029 1337 3330 current	0 63 <1 945 1072 997 1251 2575 history1	0 70 <1 969 1231 1060 1315 2852 history2
Glycol%*ASTM D2982NEGNEGINFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>31.21.51.4NitrationAbs/cm*ASTM D7624>2010.911.011.5SulfationAbs/.1mm*ASTM D7115>3025.224.424.6FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2520.019.120.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base	0 67 2 964 1302 1029 1337 3330 current 8	0 63 <1 945 1072 997 1251 2575 history1 8	0 70 <1 969 1231 1060 1315 2852 history2 7
Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/cm *ASTM D7624 >20 10.9 11.0 11.5 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >20	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48	0 63 <1 945 1072 997 1251 2575 history1 8 2	0 70 <1 969 1231 1060 1315 2852 history2 7 <1
Soot % % *ASTM D7844 >3 1.2 1.5 1.4 Nitration Abs/cm *ASTM D7624 >20 10.9 11.0 11.5 Sulfation Abs/.1mm *ASTM D7415 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >20	0 67 2 964 1302 1029 1337 3330 <u>current</u> 8 ▲ 48 ▲ 48	0 63 <1 945 1072 997 1251 2575 history1 8 2 2 10	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14
Nitration Abs/cm *ASTM D7624 >20 10.9 11.0 11.5 Sulfation Abs/.1mm *ASTM D7615 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	0 50 0 950 1050 995 1180 2600 limit/base >20	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 ▲ 8 NEG	0 63 <1 945 1072 997 1251 2575 history1 8 2 2 10 NEG	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG
Sulfation Abs/.1mm *ASTM D7415 >30 25.2 24.4 24.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method	0 50 0 950 1050 995 1180 2600 limit/base >20 >20	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 NEG current	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG history1	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844	0 50 0 950 1050 995 1180 2600 limit/base >20 >20 limit/base >3	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 NEG current 1.2	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG history1 1.5	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2 1.4
Oxidation Abs/.1mm *ASTM D7414 >25 20.0 19.1 20.2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D2982 *ASTM D2982 *ASTM D7844	0 50 0 950 1050 995 1180 2600 limit/base >20 	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 ▲ 48 ► EG Current 1.2 10.9	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG NEG 1.5 11.0	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2 1.4 11.5
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844	0 50 950 1050 995 1180 2600 imit/base >20 >20 imit/base >3 >20 >3 >20	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 NEG current 1.2 10.9 25.2	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG history1 1.5 1.5 11.0 24.4	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2 1.4 11.5 24.6
Base Number (BN) mg KOH/g ASTM D2896 5.2 5.4 6.0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI	ppm ppm 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 *ASTM D2982 *ASTM D2982 *ASTM D7844 *ASTM D7624 *ASTM D7624	0 50 950 1050 995 1180 2600 imit/base >20 >20 imit/base >3 >20 >30 imit/base	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 ▲ 48 ▲ 48 ▲ 10.9 25.2 current	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG 10 NEG 1.5 11.0 24.4 history1	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2 1.4 11.5 24.6 history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRAI Oxidation	ppm ppm 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 *ASTM D2982 *ASTM D2982 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	0 50 950 1050 995 1180 2600 imit/base >20 >20 imit/base >3 >20 >30 imit/base	0 67 2 964 1302 1029 1337 3330 current 8 ▲ 48 ▲ 48 ▲ 48 ▲ 48 ▲ 48 ► Current 1.2 10.9 25.2 current 20.0	0 63 <1 945 1072 997 1251 2575 history1 8 2 10 NEG 10 NEG 11.5 11.0 24.4 history1 19.1	0 70 <1 969 1231 1060 1315 2852 history2 7 <1 14 NEG history2 1.4 11.5 24.6 history2 20.2

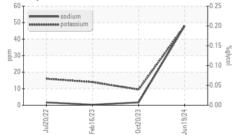


OIL ANALYSIS REPORT

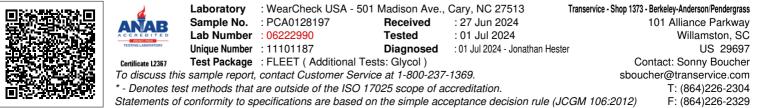








VISUAL		method	limit/base	current	history1	history
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar	*Visual	NONE	NONE	NONE	NONE
	scalar	*Visual	NORML	NORML	NORML	NORML
	scalar	*Visual	NORML	NORML	NORML	NORML
	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPER	RTIES	method	limit/base	current	history1	history
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.9	12.0
GRAPHS						
Ferrous Alloys						
60 iron 1			-			
50- chromium						
40-						
30 -						
20 -						
10-						
0						
0		20/23	19/24			
		0ct20/23	Jun19/24			
Jul20/22		0ct20/23	Jun19/24			
0		0ct20/23	Jun19/24			
Non-ferrous Metals		0ct20/23	Jun19/24			
Non-ferrous Metals		0420/23	Jun 19/24			
Non-ferrous Metals		0420/23	Jun 19/24			
Non-ferrous Metals		0420/23	Juni 924			
Non-ferrous Metals		0420/23	Junt9/24			
Non-ferrous Metals		0e2023	Jun19/24			
Non-ferrous Metals		0420/23	Jun19/24			
Non-ferrous Metals		0420/23	Jun19/24			
Non-ferrous Metals		0et20723	Jun19/24			
Non-ferrous Metals						
Non-ferrous Metals						
Non-ferrous Metals		0ct20/23	Jun19/24 Jun19/24			
Non-ferrous Metals				Base Number	r	
Non-ferrous Metals				Base Number	r	
Non-ferrous Metals			42/61/un		r	
Non-ferrous Metals			42661unr 7.0 6.0		r	
Non-ferrous Metals			42661unr 7.0 6.0		r	
Non-ferrous Metals			42661unr 7.0 6.0			
Non-ferrous Metals			42661unr 7.0 6.0			
Non-ferrous Metals			42/6junn 7.0 6.0		r	
Non-ferrous Metals			42/6junn 7.0 6.0			
Non-ferrous Metals			42/61/un		r	
Non-ferrous Metals			7.0 6.0 (b)HOX 00) 4.0 900 4.0 900 900 900 900 900 900 900 900 900 90		r	
Non-ferrous Metals		Oct2023	7.0 6.0 (b)HOO Bub Jack 40 9898 1.0 0.0			
Non-ferrous Metals			7.0 6.0 (b)HOX 00) 4.0 900 4.0 900 900 900 900 900 900 900 900 900 90			



Report Id: TSV1373 [WUSCAR] 06222990 (Generated: 07/02/2024 04:33:55) Rev: 1

Submitted By: Sonny Boucher