



Oil Analysis Report

CUSTOMER NAME
ADDRESS
CITY STATE ZIP

Equipment Information

Component	Differential	Sample Point		A - No Action	C
Make	CATERPILLAR	Model	793C	B - Monitor	
Unit Number	XXX	Serial Number	AXXX000	C - Action	
Meter	94,137	Component Meter	9488	X - Immediate Action	
Jobsite	Default Site	Sample Site		Lab No 000000000	

Fluid Information

Fluid Type	MOBIL MOBILTRANS HD	Fluid Grade	60 WT
Fluid Meter	1,297	Filter Changed	N
Fluid Changed	N	Test Package	

Analyst Comments

Sample Date 10/13/2014 Entered 10/15/2014 Analyzed 10/15/2014

Wear Rate Analysis is acceptable for the operating time on the oil. Total Ferrous Debris (ppL) index appears acceptable. Particle count indicates continued high particulate contamination. If applicable, inspect filter(s) for visual and microscopic metal debris as a precaution. Larger wear particles, if present, may be contained in the filter. Use ultra-high efficiency filter elements OR kidney loop filtration to reduce particulate contamination. Filter oil to ISO 20/18/15 or better cleanliness for maximum component life. Resample after 50 hours to monitor closely for increasing particulate contamination.

Element	UOM	E	Min/Max	Current	09/23/2014	09/01/2014	08/11/2014	07/28/2014	New Oil/Ref
SAMPLE DETAILS									
Lab No	-	-		0000000000	0000000000	0000000000	0000000000	0000000000	
Meter	-	-		94137	93801	93465	93085	92840	
Fluid Meter	-	-		1297	961	625	245	8191	
Comp Meter	-	-		9488	9152	8816	8436	8191	
Evaluation	-	-		C	C	C	A	A	
CRACKLE : Water Content by Crackle Test : In-House									
Water	-	Z		Neg	Neg	Neg	Neg	Neg	
V100 : Viscosity @ 100°C : ASTM D445									
V100	cSt	A		25.6	26.2	25.7	25.5	25.5	
ICP : Inductively Coupled Plasma : ASTM D5185									
Fe	ppm	A		26	20	19	12	34	
Cu	ppm	A		2	1	1	0	3	
Pb	ppm	A		0	0	0	0	0	
Sn	ppm	A		0	0	0	0	0	
Cr	ppm	A		0	0	0	0	0	
Ni	ppm	A		2	2	2	1	3	
Ti	ppm	A		0	0	0	0	0	
Al	ppm	B		2	1	2	1	1	
Si	ppm	A		4	4	6	3	4	
Na	ppm	A		1	2	6	4	0	
K	ppm	A		2	2	5	2	2	
B	ppm	A		0	0	0	0	0	

Element	UOM	E	Min/Max	Current	09/23/2014	09/01/2014	08/11/2014	07/28/2014	New Oil/Ref
Ca	ppm	A		2728	2735	3019	3134	2870	
Mg	ppm	A		9	9	11	11	8	
P	ppm	A		1022	991	1051	1089	1093	
Zn	ppm	A		1152	1173	1253	1329	1220	
Mo	ppm	A		0	0	0	0	0	
Li	ppm	A		0	0	0	0	0	
Sb	ppm	A		0	1	0	0	0	
Ba	ppm	A		0	0	0	0	0	
Cd	ppm	A		0	0	0	0	0	
Mn	ppm	A		0	0	0	0	0	
Ag	ppm	A		0	0	0	0	0	
V	ppm	A		0	0	0	0	0	
APC : Automatic Particle Count : ASTM D7596									
4u	Part/mL	A		93514	116354	145511	53658	48212	
6u	Part/mL	X		17623	44697	19980	8879	7743	
14u	Part/mL	C		1038	4363	987	223	279	
21u	Part/mL	Z		411	1530	424	54	42	
38u	Part/mL	Z		93	418	57	2	3	
70u	Part/mL	Z		6	61	7	0	0	
ISO	N/A	Z		24/21/17	24/23/19	24/21/17	23/20/15	23/20/15	
Cutting	Part/mL	A		145	376	206	13	4	
Sliding	Part/mL	A		85	150	192	42	37	
Fatigue	Part/mL	A		148	434	75	73	123	
Non Metallic	Part/mL	A		881	1663	848	102	85	
Fibers	Part/mL	A		175	16	306	8	0	
Total Part/ml	Part/mL	A		93514	116354	145511	53658	48212	
PQL : Particle Quantifier Index : In-House									
pqL Index	N/A	X		43	11	11	0	23	
FTIR : FT-IR Spectroscopy : ASTM E2412									
OXI	ABS/CM-1	A		5	5	4	3	5	
FT-IR Water	ABS/CM-1	A		14	15	14	14	14	



Understanding your Report

Comprehensive Condition Testing

This report contains a sequence of tests designed to evaluate the component or system for wear rate, contamination and lubricant condition. Standard Test Packages are recommended based on criteria such as the type and criticality level of the system or component being analysed. Custom test packages are also available as a value added service.

Report Format

The report is organized into easily identified sections.

The Equipment Information section displays all of the descriptive and identifying information applicable to the machine, system and/or component.

The Fluid Information section contains the descriptive and identifying information regarding the lubricant or fluid being analysed.

The Overall Evaluation section is to the immediate right of the machine and fluid information. After carefully evaluating the laboratory test data in conjunction with the equipment and fluid information, the analyst defines the Overall Evaluation as: A-No Action (Green), B-Monitor (Yellow Alert), C-Action (Orange Alert) or X-Immediate Action (Red Alert). The corresponding laboratory sample identification number is also displayed below the Overall Evaluation.

The Analyst Comments section contains descriptive statements the analyst has assigned which support the Overall Evaluation.

The Sample Details section contains the laboratory test data, organized into sub-sections and is identified by the applicable ASTM test method. This section is vertically oriented for easy comparison of the current test results to historical test results. The first column contains the names of the specific test analyte. The second column is the Unit of Measure (UOM) for the test, such as parts per million. The Evaluation Code (E) describes if and how much a test result exceeded a statistical limit, if applicable. A-Green indicates no limit was exceeded. B-Yellow indicates a first level limit was exceeded. C-Orange indicates a second level limit was exceeded. X-Red indicates a third and final level limit was exceeded. Z-Gray indicates that no limits exist for the test result. The Min/Max column shows the limit that was exceeded for the applicable Evaluation Code. The next (5) columns contain test results with the most current sample first followed by subsequent historical test results. The New Oil/Ref column contains reference oil test data for the lubricant (if provided).

Key to Elemental Test Analytes

Ag: Silver	Al: Aluminum	B: Boron	Ba: Barium	Ca: Calcium
Cd: Cadmium	Cr: Chrome	Cu: Copper	Fe: Iron	K: Potassium
Li: Lithium	Mg: Magnesium	Mn: Manganese	Mo: Molybdenum	Na: Sodium
Ni: Nickel	P: Phosphorus	Pb: Lead	Sb: Antimony	Si: Silicon
Sn: Tin	Ti: Titanium	V: Vanadium	Zn: Zinc	

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