



ULTRASPEC ANALYTICAL TESTING SERVICES

UltraSpec Analytical Services

CODE	DESCRIPTION	SAMPLE SIZE	ASTM METHOD
A-11	Corrosion, Copper Strip @ 100°C	2 oz.	D-130
A-12	Flash Point, Cleveland Open Cup (COC)	4 oz.	D-92
A-15	Neutralization Number: (Total Acid or Strong Base Number)	1 oz.	D-974
A-16	Millipore (5 micron)	5 oz.	
A-17	Precipitation No. of Lubricating Oils (% By Volume Reported)	1 oz.	D-91
A-18	Saponification Number	1 oz.	D-94
A-20	Viscosity CST @ 40°C	1 oz.	D-445
A-21	Viscosity CST @ 100°C	1 oz.	D-445
A-22	Viscosity Index (Incl. Viscosity @ 40°C & 100°C)	1 oz.	D-2270
A-23	Water by Distillation	1 pint	D-95
A-25	Rotary Pressure Vessel Oxidation Test (RPVOT)	4 oz.	D-2272
*A-26	G.M. Quenchometer Test	16 oz.	D-3520-76
A-27	Specific Gravity/Wt. per Gal. @ 60°F	4 oz.	D-1217
A-28	pH (Potentiometric Method)	4 oz.	
A-30	Cast Iron Chip Test (Includes 10, 20 and 30:1 dilutions)	4 oz.	D-4627-86
A-31	Soluble Oil - % Oil by Babcock Method	4 oz.	
A-32	Non-volatiles by evaporation at 100°C	4 oz.	
A-33	Alkaline Reserve for water glycol hydraulic fluids (includes pH)	4 oz.	
A-34	Particle Count (ISO Code & Distribution) / HIAC PODS ISO 4406-1999	6 oz.	
A-35	Pentane Insolubles (Includes Precipitation and Pentane Number)	2 oz.	
A-36	Cooling Curve using Drayton Quenchalyzer	1 gal.	D-6200

*Nickel Ball result reported. Test will not be run if water is present.
Sample can be dried and tested for an additional charge.



ULTRASPEC ANALYTICAL TESTING SERVICES

X-Ray Analysis for Elements

B – Qualitative Series (Solids & Liquids)

C – Quantitative Series (Petroleum-based liquids only)

CODE	TEST DESCRIPTION	SAMPLE SIZE
B-01	Testing of Elements (From Aluminum to Uranium) Individual by Request	1 oz.
C-01	% Chlorine	1 oz.
C-02	% Sulfur	1 oz.
C-03	% Sulfur: Total and Active	4 oz.
C-04	% Sulfur and Chlorine Combined	4 oz.
C-05	% Chlorine plus Sulfur (Total and Active)	1 oz.
C-06	Trace Metals and Standard Anti-Wear Additives for hydraulic oils (%P, %S, %Ca, %Fe, %Cu, %Zn)	1 oz.
C-07	Trace Metals and Standard EP (Extreme Pressure) Additives for Gear Oils	1 oz.
C-09	% Calcium	1 oz.

Testing of other Elements on request (depending on standards availability), prices on request.

COATING / RUST PREVENTATIVE

CODE	TEST DESCRIPTION	SAMPLE SIZE
D-01	Comparative test for effectiveness of oil type rust preventatives (Cleveland Condensing Humidity Cabinet)	4 oz.
G-01	Gas Chromatography PCB Determination EPA 8080 Method (Modified Single Scan)	1 oz.



ULTRASPEC ANALYTICAL TESTING SERVICES

Standard Maintenance Testing Packages

STANDARD HYDRAULIC / GEAR OIL MAINTENANCE TESTING		
CODE	TEST DESCRIPTION	
HM-PKG	Hydraulic/Gear Oil	Sample Size: 1 Quart
	A-20 Viscosity CST @ 40°C	
	A-15 Neutralization Number (Total Acid or Strong Base Number)	
	A-17 Precipitation Number	
	A-16 Millipore (5 micron)	
	A-11 Corrosion, Copper Strip @ 100°C	
	A-34 Particle Count (ISO Code & Distribution)*	
	C-06 Trace Metals & AW Additives	
	Moisture (by Hotcup)	

*This test will not be run if Millipore test fails.

STANDARD CUTTING OIL MAINTENANCE TESTING		
CODE	TEST DESCRIPTION	
CM-PKG	Cutting Oil	Sample Size: 1 Quart
	A-20 Viscosity CST @ 40°C	
	A-15 Neutralization Number (Total Acid or Strong Base Number)	
	A-17 Precipitation Number	
	A-18 Saponification Number	
	A-11 Corrosion, Copper Strip @ 100°C	
	C-01 % Chlorine	
	C-06 Trace Metals & Standard EP additives.	
	Moisture (by Hotcup)	

STANDARD QUENCH OIL MAINTENANCE TESTING		
CODE	TEST DESCRIPTION	
QM-PKG	Quench Oil	Sample Size: 1 Quart
	A-20 Viscosity CST @ 40°C	
	A-15 Neutralization Number (Total Acid or Strong Base Number)	
	A-35 Pentane Insolubles (Includes Precipitation & Pentane Number)	
	A-26 G.M. Quenchometer Test*	
	Moisture (by Hotcup); If moisture is present, (at an additional) cost request testing of "A-23 - Water by Distillation"; sample quantity permitting.	

*Nickel Ball result reported. Test will not be run if water is present. Sample can be dried and tested for an additional charge.